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S. HRG. 106–238

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2000

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED SIXTH CONGRESS

FIRST SESSION

ON

H.R. 2561/S. 1122

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF DEFENSE FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2000, AND FOR OTHER PURPOSES

Department of Defense
Nondepartmental witnesses

Printed for the use of the Committee on Appropriations

Available via the World Wide Web: http://www.access.gpo.gov/congress/senate

U.S. GOVERNMENT PRINTING OFFICE

54–230 cc WASHINGTON : 1999

For sale by the U.S. Government Printing Office
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402
ISBN 0–16–059779–X

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2000

WEDNESDAY, MARCH 3, 1999

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:58 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Shelby, Inouye, and Dorgan.

DEPARTMENT OF DEFENSE

DEPUTY SECRETARY OF DEFENSE

STATEMENT OF HON. JOHN J. HAMRE, DEPUTY SECRETARY OF DEFENSE

ACCOMPANIED BY WILLIAM J. LYNN, UNDER SECRETARY OF DEFENSE (COMPTROLLER)

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning, Dr. Hamre.

Dr. HAMRE. Good morning, sir.

Senator STEVENS. An old friend of mine used to say that if trains started on time, they would get there on time. So we will start this hearing on time.

We do welcome you back for this presentation of the last budget in this millennium.

Dr. HAMRE. Thank you.

Senator STEVENS. I think you have good news for us this morning. Our initial review indicates that, while the budget has many challenges, we probably can work together to insure adequate funding for the national security next year.

I think others will also commend the department on real progress made in this budget to address the compensation needs of men and women who serve in the armed forces. We will have some questions about that for you, obviously.

The budget continues to make progress that the committee has sought to accelerate the modernization of the armed forces. We are full of commendations this morning. Your personal efforts to work with our committee to address the needs of the National Guard and Reserve components are really very much appreciated.

This budget requests more funding for the National Guard than was appropriated for the current year. I think that is the first time

in the history of my presence on this committee that this has happened.

I think we absolutely have to recognize that the Guard and Reserve must be full partners and adequately funded if the Total Force concept is going to work to meet our national security requirements, and it is a concept that we fully support.

I wish that all that money was actually here, Dr. Hamre, in the budget that is before us. Unfortunately, there are some new spending "concepts"—and I will use that word again; I don't like to use the other word—that will make it nearly impossible for us to meet the needs that I have just discussed.

To incrementally fund $3.1 billion of military construction in my judgment will increase program costs, not decrease them. And the assumptions of a $1.6 billion unspecified rescission I think goes without saying. We cannot really deal with that; $2.9 billion in real estate tax credits and the reselling of excess naval vessels that we thought were sold last year, as well as changes in Social Security credits cloud these numbers before us, Dr. Hamre.

Last month, Senator Warner, the Majority Leader and I wrote the Chairman of the Budget Committee to express our concerns about the potential shortfalls in the administration's defense budget plan based upon those things I have just mentioned.

I am certain we are going to discuss those with you today. Knowing you, Dr. Hamre, as we know you, I know that you are not the author of some of those—perhaps one, but not all of them.

Let me note the addition to our committee of Senator Durbin. I hope he will be here. He took Senator Bumpers' place on our committee, and we do welcome him as a new member at this first meeting of our subcommittee.

Now I will call upon someone who has been Ranking Member, Deputy Chairman, Co-Chairman.

Senator INOUYE. Just keep on going. [Laughter.]

Senator STEVENS. I think in Chicago, Mayor Daley's father was known as "The Mayor." Now the second Mayor Daley is known as "Da Mayor."

So this is "Da Chairman." [Laughter.]

STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. I thank you very much, Mr. Chairman. I join you in welcoming Secretary Hamre.

Today is our first hearing to review the fiscal year 2000 budget for the Department of Defense. I want to congratulate the administration and your department and our witness here for requesting a budget which increases funding for the Department of Defense. It has been a long time coming, I believe.

Your budget request has $4.6 million more purchasing power than you had expected at this time last year. While many of us might argue that even a larger increase is required, I, for one, am pleased that the administration has stepped up to increasing spending for our Nation's security requirements.

Mr. Secretary, I am certain you know that the chairman and the committee have visited troops in the field, and it is clear to all of us that there is a growing concern with the three R's—recruiting, retention and readiness.

More of our men and women in uniform are being called upon to serve overseas, away from their families and for a longer duration each year. The stresses that this brings to their families are increasing.

There have been many stories about spare parts shortfalls and cannibalized equipment, and military departments are considering lowering their standards for military recruits.

We have all heard about the increasing number of our troops who are voting with their feet and getting out of the military.

We know that this budget attempts to rectify some of these problems with a much needed pay raise and some restored benefits, and we applaud you for that.

My concern is that pay might not be the answer. Clearly, we cannot compete on a wage basis with the private sector. The private citizen is not called upon to serve away from his or her family. Private citizens are not required to live under a code of conduct that is highly restrictive. And they are not forced to move their families every 2 or 3 years.

We don't have enough money to pay salaries sufficient to compensate for these hardships.

I believe we need to focus, instead, on improving the living and working conditions of our men and women in uniform. Our families are worried about health care, but little is being done to achieve meaningful improvements in that area. Our soldiers are worried about the prospects of having a career in an institution that is professionally talking about downsizing, and it is not good for the morale. Our families are worried about being relocated in the middle of a school year and trying to sell a house when the real estate market is falling.

Every day our soldiers look toward the infrastructure for reassurance, but what they see is an infrastructure that is crumbling, an indication that we are not doing enough to repair and modernize it.

This budget makes some significant improvements for pay and retirement. But these changes seem to have come at the expense of improving the conditions that some of us believe are the real root of our problems.

As we begin our hearings this year, it is important to note that these are a few of the concerns that some of us here in the Congress have.

Dr. Hamre, yours is a difficult challenge, as noted by Chairman Stevens, to help manage this immense agency. We are grateful for all you do. You know you have our pledge to work with you to help in improving these areas.

So I welcome you and we are ready to work with you.

Thank you very much, sir.

Dr. HAMRE. Thank you, sir.

Senator STEVENS. Senator, thank you very much.

Senator Shelby.

STATEMENT OF HON. RICHARD C. SHELBY

Senator SHELBY. Mr. Chairman, I ask that any opening statement I may have would be made a part of the record, any written statement.

I would just like to welcome Dr. Hamre. We are old friends getting together. But we worked together a lot on the Armed Services Committee, we travelled together, and we are looking forward to your presentation, as always, and to a lot of your candor for which you are known.

Dr. HAMRE. I will try to live up to the billing, sir.

Senator SHELBY. Thank you, Mr. Chairman.

[The statement follows:]

PREPARED STATEMENT OF RICHARD C. SHELBY

Good morning Dr. Hamre. It is good to see you before this committee again today. I would like to take this opportunity to make a brief statement on the Defense Budget and what I believe should be our priorities. First, we must improve readiness, recruiting and retention in the ranks of our uniformed services. This requires an investment. That investment should include top notch military hardware, a pay raise and improved benefits for our personnel, and most important a renewed respect for those who choose to wear the uniform of this country.

Second, we must continue our efforts to deploy a ballistic missile defense. The missile threat from rouge nations and others is real and growing. This effort must also include the continuing development of supporting technology; technology that will ensure that such a defensive system remains effective against future unknown threats.

Dr. Hamre, I look forward to discussing these and other important defense issues with you and your staff as our hearing process continues. Again, welcome sir.

PREPARED STATEMENT OF SENATOR BOND

Senator STEVENS. The subcommittee has also received a statement from Senator Bond which will be placed in the record at this point.

[The statement follows:]

PREPARED STATEMENT OF SENATOR CHRISTOPHER S. BOND

Thank you Mr. Chairman. Thank you sir for coming before us to explain the fiscal year 2000 Defense budget as proposed by the President.

As you have noticed of late, though the world is technically at peace, it is not a peaceful place. Ethnic strife, religious intolerance, and an insatiable hunger for political expansion by some, have all exploded into armed conflicts. Our forces are now deployed in a more wide ranging series of operations than during the Cold War. Our naval forces are deploying in undermanned units, we have tactical air force units reporting less than optimal conditions material with shortages in engines, test stands and spares for deployment, there are reports of the U.S. Army accepting recruits at standards lower than before (High School drop outs), and for the first time that I am aware of, our strategic reserve forces are now being included in the make-up of our traditionally active-duty operational deployment schedules.

On top of this, we now face a real concern for weapons of mass destruction, their proliferation and our vulnerability to their use. I note with pride the primary role of the National Guard in this arena and the speed with which you have implemented the RAID teams (Rapid Assessment and Identification Teams), one home based in Missouri. I hope to see even more done in research and development activities designed to overcome these terrible weapons.

The tasks which lay before you are not easy. The problems you face cannot be solved with stiff upper lips. Real advances must be made in terms of equipping, training, and manning the force as well as taking care of our military families. This cannot be done "on the cheap".

Every year that I have been a member of this committee, I have stood on my soapbox and said: Sir, you are not being realistic in your presentation. You are not presenting us with a budget which reflects the reality of the situation we face. Every year I have been told that though we are nearing an untenable situation, the proposed budget would meet the requirement. Every year, the Congress has added funding, being chastised along the way for funding things the "Pentagon didn't even ask for". Every year we are told "Thank you" for the previous year's plus up. And even with those additional un-asked for funds, we are presented with a mid-year emergency supplemental request.

Principally we are told that these funds are needed to offset unanticipated costs of emerging contingency operations. Some of these contingencies are several years old, making their "emergency" or "contingency" status suspect.

I am more than willing to insure that our forces are funded to whatever level they need to be in order to permit them to safely and effectively carry out the missions to which you assign them. I am afraid that this year's budget will once again miss that mark.

We are currently expending large amounts of ordnance of all types, long range missiles, mid-range missiles, and LGB's (laser guided bombs) in contingency operations in the Persian Gulf region. I suspect that your proposal does not account for a large portion of these weapons. You operate in a dynamic environment. So, I expect you are already preparing your next supplemental. We want to work with you to cover those and other expenditures.

It is no sin to say I do not have the assets, and then explain your needs—we will listen. What I believe is a sin is to stretch our equipment and personnel so thinly, that we unnecessarily increase the risk our young men and women must face in order to carry out our national policies.

I look forward to hearing your comments on where you think we are in terms of our ability to carry out our broad range of missions, where we are going, and how you expect to continue this breakneck pace of operational commitments with even fewer personnel, equipment, and a significant funding shortage; your proposed additions included.

Thank you, Mr. Chairman, I have a few questions which I will address later in the hearing.

SUPPORTING OUR MILITARY PEOPLE

Senator STEVENS. The floor is yours, Dr. Hamre.

Dr. HAMRE. Mr. Chairman, thank you so much. I do have a presentation that I would like to give.

But first, as a matter of personal privilege, may I respond to Senator Inouye's statement about our people?

Senator STEVENS. Of course.

Dr. HAMRE. I strongly agree with that. I look at the talent that is in the Department of Defense, the senior officer corps, the non commissioned officers (NCO's), right down to the privates and the corporals.

Pound for pound, person for person, I would put them up against any corporation in the world. It is absolutely remarkable what these people do. And we cannot come close to paying them for this quality.

I don't think they join this military to be paid well. I think when they go home at night, it is not can they put another suit in the closet, can they buy a nicer car. I think when they get home at night after a long day they say well, at least today I defended the United States of America. That is what moves them.

And you are right. We need to do right by these people. It is not going to be just in pay. It is in being right by them all along the way. They have given themselves to work with us and we owe, I think, exactly what you have said. I thank you for making your statement because it very much speaks to the way I know the Secretary feels and the way I feel. I thank you for that.

Senator INOUYE. Thank you, sir.

Senator STEVENS. Before continuing, Doctor, let me ask if the people in the back room can hear Dr. Hamre?

Dr. HAMRE. I will pull up the microphone and speak more loudly.

Senator STEVENS. I think perhaps the mikes may have to be turned up a bit.

Ms. Foote, do you have a copy of this chart? I see you are sitting behind the screen. I hope you are all right.

INTRODUCTION

Dr. HAMRE. Mr. Chairman, I do have a number of slides. I will try to go through them very quickly. I think we have given you a good budget, but we also gave you a hot-foot at the same time in the way we pay for it. I think that that is a very awkward situation. I will explain why it happened that way and what we want to do to try to work with you as we try to bring this about. I know that you are just as committed, more committed, than we are to try to make sure that this country is protected and defended and that we can finance what we need to do. And we have made it hard this year. I think we need to go through that and explain what it is that we have done and what we need to try to work through.

If I could, let's go to the next chart.

DOD AT THE PIVOT OF THE CENTURY

What shape are we in at the end of the century?
Are we ready for the challenges of the next century?

Mr. Chairman, you in your opening statement said this is the last year of this millennium, and we are at the edge of the next one. We are submitting a budget for the next century. So the question that we pose, as we really are at that pivot point, not just of the millennium but of the century, is in what shape are we as a military. What condition are we in and are we ready for what is lying ahead for us.

Let me go to the next chart and talk about each of these.

WHAT SHAPE ARE WE IN AT THE END OF THE CENTURY?

Flawless execution of military operations (Desert Viper, Desert Fox, Hurricane Mitch relief)
U.S. remains the glue that binds NATO
No peer competitor on the world scene
Warfighting professionalism undiminished 10 years after end of Cold War
America's military is welcomed around the world

WHAT SHAPE ARE WE IN?

First, in terms of what shape are we in, I think there is reason to be genuinely proud for what we have seen. I watched the operation that our forces went through in December, when we were exercising the U.N. authorities in the Middle East against Iraq.

It was flawless. I know of only one operational sortie where we had a mechanical failure. If you look at the performance, the damage evaluations and that sort of thing, it was spectacular. They did a tremendous job. They minimized collateral damage, they minimized damage to civilians, and they really did a tremendous job.

So I think we can take great pride that 10 years into this drawdown, after 15 years of consecutive budget declines, the troops are doing very well. Now this has been because of your commitment all along to make sure we had what we needed.

The U.S. remains the glue that holds together the international security order. We are the glue that holds NATO together.

I know that there are friction points that come with that as, right now, we are experiencing in Kosovo. These are very tough questions. It is very clear that the Kosovo peace operation is not going to work if we are not a participant to it. We are trying to be a small participant to it for we are the glue that holds NATO together. And it still is a centerpiece of our security posture in the world.

There is no peer competitor around the world to match the United States. This is not to say that one will not emerge. One could very well emerge. But right now we are unparalleled in what we can do, and we do have global security interests and global responsibilities. We are up to that. But it is stressful, and I will go through that in a moment.

I am probably most impressed by item number 4, that is, there is a level of professionalism and innovation in our military that is breathtaking. People are thinking more creatively about how to do our business efficiently now than I think at any time I have seen in the years that I have worked in the department. Congress has contributed to that. You pushed us last year to joint experimentation. We think that is an important dimension to this.

What is happening in these forces is very impressive and I know we will hear that during the year with the hearings. And I think you will see, as Hurricane Mitch demonstrated, the villagers were out cheering when the United States military came into town. Now that is not the case for many militaries around the world. But it was and they were when we showed up down in Central America. I think that is typical of the very thoughtful and sophisticated way that our forces try to work when they are overseas.

Let's go to the next chart, please.

ARE WE PREPARED FOR THE NEXT CENTURY?

Sustaining spectrum of capabilities for likely contingencies
Major initiatives to counter proliferation of WMD
Organizing to deal with cyber threats
Funding National Missile Defense program
Systematic climate of innovation
—Service warfighting labs and joint experimentation
Strong theater engagement plans to shape security environment

ARE WE PREPARED FOR THE NEXT CENTURY?

Are we getting ready for the next century? In many ways I think we are.

We are still maintaining the capability to respond to the broad spectrum of conflicts. Yesterday, at a hearing in front of the Senate Budget Committee, I was challenged: why do we still have a two major regional conflict (MRC) strategy? Why are we doing that?

Well, the fact is that three times in the last 5 years we have had two nearly simultaneous contingencies in different theaters. We had to get ready. We had to be able to maintain that.

We are dealing with the biggest challenge, trying to deal with the biggest challenge we face, which is the proliferation of weapons of mass destruction and the horrible idea that these things, as terrorist devices, might be coming to the homeland. This is a big prob-

lem and it is one that I know this committee has pushed us on more than anybody has.

We will talk about some of the things we are doing, especially working with the National Guard, to be ready for that.

We have been experiencing during the last 18 months some very significant challenges in the cyberspace. I will tell you that it is a very complex problem. We would like probably to talk about it with you in a closed session to give you some examples of things that we are working with right now. This is a challenge that we are facing.

It is not just DOD. Frankly, America's infrastructure now is largely in the private sector, and an attack on America is going to be an attack on the private sector infrastructure in America. We need to start thinking about that and worrying about that problem.

Senator STEVENS. I would like to see you give us a date very early in the morning, and we will just take our committee over to the department. I think that those things require some demonstration to understand.

Dr. HAMRE. Yes, sir.

Senator STEVENS. I think the committee ought to be interested and we would like to come over and visit in a sort of briefing room over there.

Dr. HAMRE. We would be pleased to do that. There are some very important things underway right now that we do need to tell you about.

Senator STEVENS. We will have Steve and Charlie check with you and we will figure out that time. I hope it will be a full committee briefing, though, and not just the subcommittee.

Dr. HAMRE. Yes, sir. OK.

Sir, as you know, we have finally produced a funded National Missile Defense Program. The administration advertised a National Missile Defense Program over the last several years, but we only funded the first three of our 3+3 strategy. We did not fund the second plus-three. I think that always undercuts the credibility of our overall program. We have tried to correct that.

Now I know there is going to be discussion and argument about that program this year and I fully expect that. I think the central argument, point of contention, is what does it mean for the Anti-Ballistic Missile (ABM) Treaty.

Now we strongly believe that the ABM Treaty is relevant and important for our security in the future. I know that there are strong disagreements with that here, and that ought to be a focal point of our debate.

But, finally, I think we are advancing such that we have a funded program to put in front of you.

As I mentioned, we have a systematic climate of innovation. At some point I would invite you to get brief presentations from the services on what they are doing in their war fighting laboratories. It really is tremendous.

You know, in the Civil War, we suffered so many casualties there because the technology of fire power had moved ahead so much further than the technology of communication. Back then, soldiers had to be so close that they could still hear a verbal command from a

commanding officer. They had to be so close that they were just mowed down with firepower.

We are now able with technology to reverse that, where our troops do not even have to be able to see each other and they can bring concentrated fire on an opponent. There are very exciting things that are happening to make us powerful and innovative into the future. It really is important work for you to be aware of, what the department and the services are doing.

Finally, we have worked very hard to try to have positive, constructive operations around the world through our theater engagement programs. But we are also at this pivot point in history with some definite problems and some concerns that we present to you.

May we go to the next chart, please.

WHAT CONCERNS DO I HAVE?

Harder to recruit and retain quality force in such a strong economy
Frequent operations have strained forces
Threadbare bases after 14 years of budget cuts
Equipment aging at unacceptable pace

WHAT CONCERNS DO I HAVE?

As you said, Mr. Chairman, and as Senator Inouye said, we are having trouble recruiting. It is tough in this environment. The economy is so strong. It is not like the old days where we were competing with the drop-outs. We are not competing to get the drop-outs. We are competing to get the college-bound. It is tough to recruit in this environment. It is a small pool, a pool that has opportunities, and we are finding it very difficult to recruit in this environment.

This is why we have to ask for stronger resources to fund it. Last week, of course, the Senate took the step to provide greater resources for our personnel. We think that was an important endorsement for the most important resource we have in the military, which is our people.

But we are having trouble. I will be honest to say that. Right now, the Army is falling about 2,000 short in recruiting in the first quarter. We are nervous about that. We can obviously talk about that.

The frequent operations that we have frankly are straining the force. I know people say what is 4,000 more people in Kosovo. Well, it is 4,000 more people on top of extensive, ongoing operations all around the world. We have talked a lot about what we may have to do to scale back elsewhere because we are really working hard.

The operations tempo for the services, the Army and the Air Force, is three times higher than it used to be, and we have 40 percent fewer forces. People are really working hard.

This is the main reason why it is so hard to retain people right now. We are having a tough time retaining our pilots, as you know. So this is a real challenge.

After 14 years of a drawdown, we have very threadbare bases.

Senator Inouye, you mentioned this in your statement, especially about the quality of life. We have about 300,000 housing units, and

the average age is 35 years old for our housing units. We are replacing them. We are only replacing about 5,000 or 6,000 housing units a year.

You can tell from that that we are slipping behind. We are slipping behind significantly.

So we have real challenges with our infrastructure. That is something, too, that we need to discuss.

Also, our equipment is aging, as you know. You have been looking at this for years. We have taken the bulk of the downsizing over the last 10 years. It started before we came, but we have been taking it by largely cutting back on our modernization programs.

Now we are working our way back. You will see in the subsequent charts that we have turned the corner. We are getting up the curve. We fell $1 billion short from our goal this year. But where 2 years ago we were at $42 billion when we submitted it to you, this year we are at $53 billion. We are starting to get back on the curve. But we are really in the hole because we have deferred modernization for quite a while.

This is a real challenge and we will go through that.

May I have the next chart, please.

MAJOR FEATURES OF FISCAL YEAR 2000 BUDGET

$112 billion increase in resources over next 6 years
Major boosts in personnel compensation
—4.4 percent pay raise (higher than COLA)
—Reinstate 50 percent retirement benefits
—Reform pay tables to reward talent
Readiness remains highest priority
—Funded all ongoing operations
National Military Defense funding more than doubled
Sustain increases in procurement budget
Continue priority on streamlining and business reform
—Expand A–76 Public-Private Competitions
—Renewed request for base closures

MAJOR FEATURES OF FISCAL YEAR 2000 BUDGET

These are the major features, the bumper stickers, as it were, for this budget. There is $112 billion—and I will talk about that in a subsequent chart—and I know there are a lot of questions about the dollars themselves. The compensation package, what we call the new triad, is to have a significant pay raise, higher than the cost of living adjustment, for a change, to reinstate the retirement benefit back up to 50 percent, which is a big deal in the field. I know you hear that when you talk to troops. There are a lot of people who question it here in Washington, but it is a big deal to the troops. We have heard that and it has really made a huge difference in people's attitudes.

Also, most important, I am very gratified that the Senate endorsed the pay tables reform. That is the big innovation that we are bringing to you. We need to start rewarding the talent for performance, not just longevity.

If there is anybody who is underpaid in our armed forces—though everybody in one sense is underpaid—the people who are really underpaid are the NCO's. When you get above an E–5, they

are underpaid. When you get to the mid-field grade officers, they are underpaid for as hard as those folks are working.

That is what we are trying to address with the pay table reform, and I thank you for dealing with that last week and for approving that.

Readiness is another matter, and we will talk very briefly about readiness. About half of the funds that we received from the White House, the $112 billion, we have put into readiness. It is at really historically high rates. It has to be because of how hard we are working, frankly.

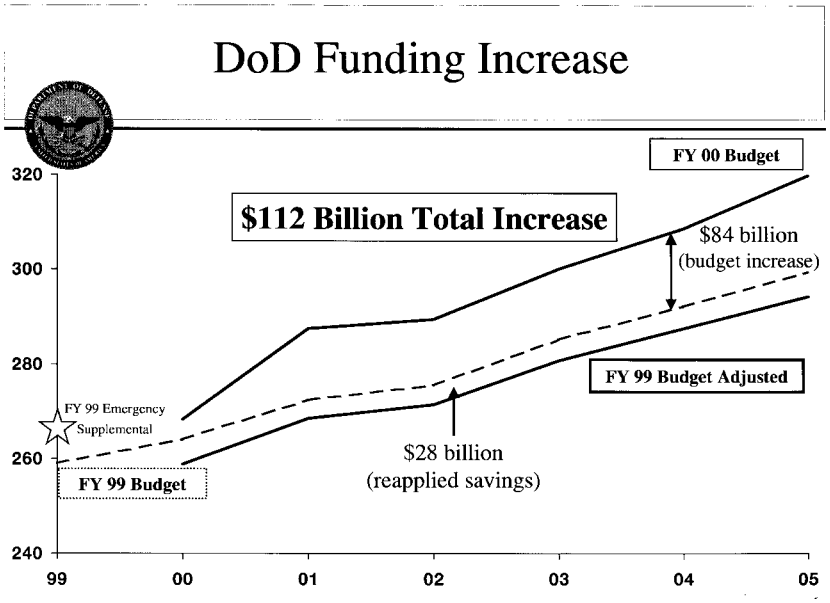
We will talk about National Missile Defense. As you can see, we have added significantly to it.

The Secretary bought the high priced option. When we looked at three different alternatives on what to fund, he actually chose the high priced option.

I know there is some criticism that it is not essentially on the 2000–03 deployment, that it is 2000–05, with an option to bring it back to 2000–03. But that is because we wanted to have a program where we test adequately and we are not rushing to failure and rushing to have problems like we had on THAAD missiles. We are going to make that work, I am convinced. We cannot repeat those mistakes, and that is how we designed this National Missile Defense System.

We will continue on with our streamlining efforts. I will talk very briefly about that.

Let's go to the next chart, please.



DOD FUNDING INCREASE

I am showing you here a graphic representation of our budget. Of course, the top line is the budget that we have submitted to you.

The dashed line is last year's budget. But that is last year's budget at a higher rate of inflation. So the purchasing power of last year's budget is the lowest line.

We were given all of the dollars between the lowest line and the top line, and that is the $112 billion increase.

Now of that $112 billion, $84 billion of it is new budget authority. The rest of it, the $28 billion, was dollars that were in last year's budget that could have been taken away from us because it was lower inflation, but were not, and we were allowed to buy other things with it.

So our purchasing power is up $112 billion, even though only $84 billion of it is additional budget authority.

Now those dollars are made available, of course, only with a budget resolution. I mean, we do have to have this unlocked, and I know you are working on this right now. But that is the only way we can get at that, and the President submitted a program hopefully in the context of solving the other big problems that are in front of the Congress—Social Security, Medicare, and that sort of thing. That is how those dollars get loose.

Otherwise, we still would have to program against lower totals. So we are programming against the higher numbers.

May we go to the next chart, please.

FINANCING THE DOD INCREASE

(Discretionary Budget Authority in Billions)

	Fiscal year—						
	2000	2001	2002	2003	2004	2005	2000–05
Fiscal Year 1999 Budget	264.1	272.3	275.5	285.2	292.1	299.4	1,688.7
Fiscal Year 2000 Budget	268.2	287.4	289.3	299.7	308.5	319.8	1,773.0
Additional Topline	4.1	15.1	13.8	14.5	16.3	20.5	84.3
Economic Changes	3.8	3.9	4.1	4.5	4.7	5.1	26.1
MilCon Advance Appn	3.1	−3.1	.....	.....	.....	.....	.....
Rescissions	1.6	.....	.....	.....	.....	.....	1.6
Total	12.6	15.9	17.9	19.0	21.0	25.6	112.0

FINANCING THE DOD INCREASE

This is just the year by year plot points for the previous chart. But I would like to spend some time talking about the 2000 column, the first column, fiscal year 2000.

There are the additional dollars in the top line, the $4.1 billion.

Mr. Chairman, you highlighted in your statement that some of those involve legislative change that has to come from this reinvestment thing—I forget what the formal title is. It was in some other account and was given to us. But it does take an Act of Congress, I think, to make it available. So, clearly, that is going to be a problem.

The economic changes that I mentioned are the inflation savings, fuel and inflation savings.

The MilCon advance appropriation looks a lot like incremental funding, but we are calling it advance appropriations. This is the first year of the expenditures for a program.

We did not cut back any projects. It is all the same projects. But it's that we only paid for the first year of those projects in 2000 and we asked to pay for the rest in 2001.

Now you can do that. It is not a gimmick. This is the way other MilCon projects are done. It really is asking you to appropriate dollars in 2000 for both 2000 and 2001, and you can pull it off.

It is not our preferred way of doing business, to be honest. I mean, we would rather have had additional dollars, but it was the only way we could do it and stay under the caps.

I have talked to a Ms. Ashworth about it. It is a very tough problem for the MilCon subcommittee. This is very difficult. It is asking you to do business in a very different way for 1 year.

The only reason we did it is because it was the only way we could submit a budget—and we have submitted such a budget—that stayed consistent with the caps and still provide the additional $12.6 billion for DOD.

So just to be very up front, this is a tough problem that we have to work through.

Sir, the $1.6 billion rescissions—and I know rescissions are about as welcome as an undertaker at a 50th anniversary high school reunion. We are not happy to bring them to you and we are now expecting that you are probably going to gladly endorse them. We will have to work with you through the year here to try to figure out how we are going to take care of that problem.

I do not have anything more to say on it than that, to be honest. I know this is, again, not exactly the way we would like to do it. We have done it in the past and it was not gladly received then, either. But it is the way that we put the program together this year to get to $12.6 billion.

In essence, we have a good program and we just gave you a heck of a problem on how to fund it.

Sir, let's go to the next chart, please.

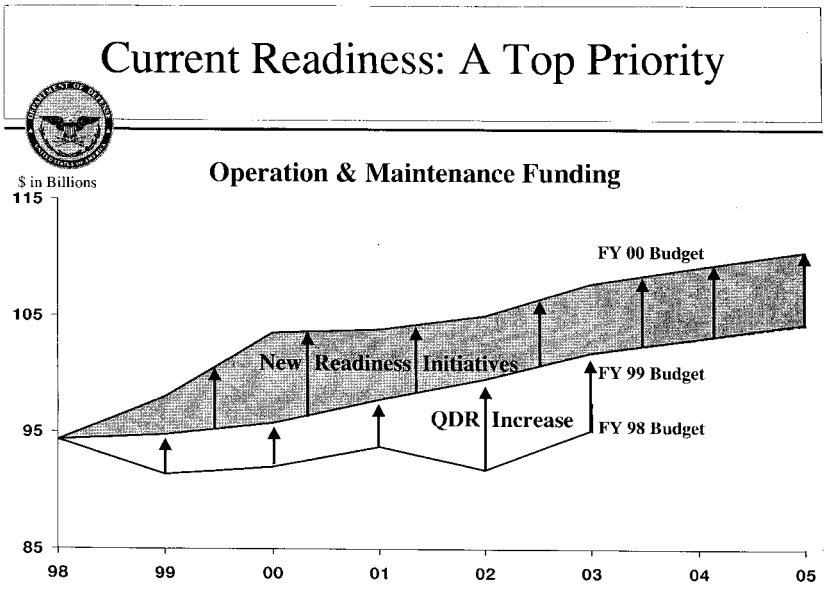
PEOPLE COME FIRST

Restore 50 percent retirement benefits
Provide largest pay raise since 1982
—Fiscal year 1999 = 3.6 percent; fiscal year 2000 = 4.4 percent; fiscal year 2001–05 = 3.9 percent
Reform military pay table to reward performance
Increase specially pays and bonuses to address retention issues

PEOPLE COME FIRST

This is simply a summary of what we have done for people. As we mentioned, it is the retirement. I don't need to go through this because you did this last week. You went beyond it, but you did do all of this last week. So we don't need to linger on it other than for me to say thank you, thank you for endorsing the troops. It meant an awful lot to us and it meant a lot to people in the field.

Let's go to the next chart.



PROTECTING READINESS

This is a graphic representation of what we did on readiness and on O&M funding. As I mentioned, of the $112 billion, about $49 billion of it went into direct readiness spending. So what we did a year ago is this.

The very bottom line that you see was the 1998 budget. That was a year in which we were having some real stress points for readiness. So last year we increased funding, and that is what brought us up to that middle line, before we get to the shaded area. It's called the fiscal year 1999 budget. Then we added the additional dollars, the $49 billion that is in that shaded area.

So you can see that we are at relatively high rates, high historic rates, for this force structure. If we were to normalize it on the basis of personnel, it is at an all-time high.

But, again, it takes that to go into the field as regularly as we are doing and to keep the warfighting edge the way we have to.

Next chart, please.

CONTINGENCY FUNDING

[In billions]

	Fiscal year 1999	Fiscal year 2000
Bosnia	$1.8	$1.8
Southwest Asia	1.0	1.1

Fiscal year 1999 does not include cost of Kosovo verification mission, storm damage relief efforts or recent action against Iraq.

Fiscal year 2000 budget fully funds support operations in Bosnia and Southwest Asia.

CONTINGENCY FUNDING

This budget does include our budget request to fund operations in Bosnia and fully fund the operations in Southwest Asia. Now that is for the planned operations in Southwest Asia. We don't know how many times Saddam Hussein is going to continue to violate the No-Fly Zone and we are going to have to respond. I cannot forecast that. So that is not included in the budget.

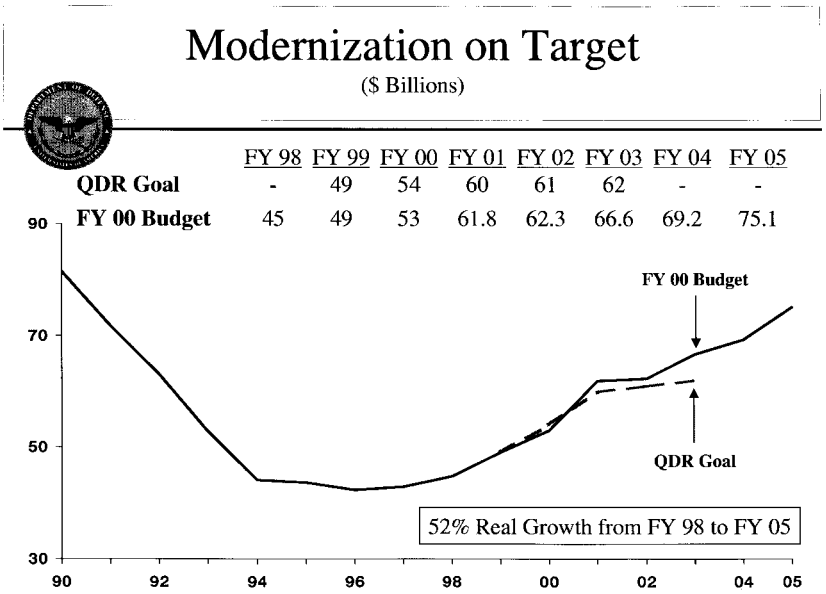
But we do have the $1.8 billion in to pay for ongoing operations in Bosnia and the $1.1 billion for Southwest Asia.

Now this does not have any money in it for any operation in Kosovo if we have to do Kosovo.

I was asked yesterday what would Kosovo potentially cost if we had to do Kosovo. Again, let me just say that we will not be going into Kosovo unless there is a peace agreement that both the Serbs and the Kosovars sign. If we go in and the Secretary said we will participate, that he will recommend we will participate with a small percentage of an overall NATO operation, we think that to get in and to support for about a year we would need between $1.5 billion and $2 billion.

Now I have to tell you that we cannot pay for that inside of our accounts. That would cause serious readiness problems if we had to finance that ourselves. So we will have to come back to you with a supplemental for that. Just to be very up-front about it, that is in our future if this thing unfolds. We think it is an important dimension. We think there has been good progress in the last week. We obviously have some big problems in front of us as we are trying to win both parties to a final agreement.

Let's go to the next chart, please.



MODERNIZATION ON TARGET

This is a graphic representation of our modernization program. As you can see, a year ago we were hoping—this year we wanted to be at $54 billion. As you see, the Quadrennial Defense Review (QDR) goal—the top line of numbers—is what we said 2 years ago as what we wanted to do for modernization. We wanted to get up to $60 billion next year. This year we wanted to be at $54 billion.

You can see right below it, it says the fiscal year 2000 budget. That is where we were compared to what we wanted to do.

As you can see, we fell short here in 2000. Even though we got the additional $12.6 billion, we were not able to get to our final target. That is, because, frankly, the readiness goals and the personnel goals were higher. We wanted to pay them first.

So we fell a little bit short. We are going to be over the targets beyond that.

Now I also have to tell you that I don't think $60 billion is going to be enough in the long run for recapitalization of the force. As you can see, we get up to about $75 billion in our planning. We would like to be able to hold it at that.

It is going to take that if we are going to start buying replacement ships, aircraft, and combat vehicles. We have not been buying very much equipment over the last 10 years and we are going to need to start doing that again.

OK, next chart, please.

REVITALIZE DOD FACILITIES

10 percent increase in military construction over FYDP
Implementation of privatization projects to increase new housing construction
Significant increases in real properly maintenance to arrest maintenance backlogs

REVITALIZING DOD FACILITIES

Regarding our facilities, we do have an increase in our budget this year over the fiscal year defense plan (FYDP) for facilities.

This is also controversial, I know, but a major approach that we have taken here—it's not a departure, but we have strengthened it—is to try to use privatization procedures more for especially family housing.

We know from analytic studies that we probably pay 30 percent more for housing than the private sector does on a comparable square footage basis. We would like to be able to unlock the power that is in the private sector to help us buy better housing for the troops, and faster.

This is very definitely a change in the way we do business with the Congress. We are used to the old oversight mechanisms, you know, where we submit very detailed plans, blueprints, lay-outs, et cetera. When you start going the route of using private sector innovation, you have to accept the kind of streamlined procedures that the private sector routinely uses. But it cuts against the grain as to the way we traditionally have done business on military construction.

I think we need to develop a new method of oversight because the old method would simply drag us back into the detailed blueprints, and most of the private sector would say to heck with that, we just don't want to do it that way.

I think we have to find a new way instead. We are not trying to avoid the oversight. Frankly, I think having the oversight makes it a national commitment. Trying to slide by without oversight makes it a brittle, hollow initiative that will not sustain itself over time. So we welcome the oversight, and I think we need to find ways to have the professional staff of the committees come and work with us earlier in the process and see what we are doing. They can warn us ahead of time that this is not a good idea, or they don't think there would be support for it, or they really think that we need to adjust it in this or that way.

But somehow we must think of a different way of developing an oversight mechanism with the Congress so that we can try to push ahead with these privatization initiatives.

They are going to be controversial, and we are not going to try to do anything that has opposition in the Congress, of course. So we would like to find a way to work closely with you, more closely with you, earlier in the process so that we can revise it, refine it, and not give you bad ideas at the time when you then have to confront them publicly and say we have to turn this down because it does not make sense.

We would much rather know if it makes sense or does not make sense earlier in the process when we can do something about it.

OK, next chart, please.

DEFENSE REFORM INITIATIVE

Streamline organizations
—Headquarters reductions and agency consolidations
Reengineer business practices
—Paperless contracting
Compete to improve and save
—229,000 positions opened to competition
Eliminate unnecessary infrastructure
—2 new BRAC rounds

Excess overhead threatens readiness and force structure

DEFENSE REFORM INITIATIVE

I won't spend a long time on this one. The Secretary has made this a very high priority. We have done an awful lot.

For example, on the streamlining of the headquarters, the Secretary made an announcement a year ago that he would cut a third out of his own organization, and we have done that. We are 95 percent done.

The last ones are, of course, the hardest ones, the most painful. But we will get that done this year.

As for business practices, I am very pleased at what we have done in the business practices area. Two years ago, for example, we were using the credit card to buy most of our small purchases. Our small purchases are anything less than $2,500. We do about 10 million contract actions a year. Seventy-five percent of them were less than $2,500. And yet, we were only using the credit card for about a fourth of them.

We now have that up so that this year about 90 percent of all small purchases will be with a commercial credit card. So we won't have to go through a contract office, a payment office, and all the expense and complexity that government-unique purchasing was requiring when we can use just a modern business tool.

That is an example of things that we are doing in this area.

The third bullet is where we talk about competition of jobs that are currently in government, being undertaken by government employees. There was a real push earlier in the 1990's for us to privatize everything. We ran into a real buzz saw with that.

Part of it was substantive, and part of it was political. It was very hard to just tell government employees who had been working hard and thought they were doing a good job that we are just going to get rid of you. So we said we were not going to do that.

Then, 2 years ago, our approach was we are going to open it up for competition, we are going to try to compete many more jobs using the A–76 process. It is cumbersome. It takes 2 years to conduct a competition under the A–76 process. And most people in the private sector say we are crazy to do it this way.

But this is a process that has been worked out over the years, and it is considered to be a fair meeting ground between the pri-

vate sector and the public sector. So government employees are not unfairly punished by our just throwing their jobs away and the private sector has a chance to explicitly know how to compete and to compete fairly.

Historically, we have done about 2,000 A–76 competitions. Roughly half the time the government employees win; the other half the time the private sector wins. In every case, the taxpayer has won.

We have averaged savings of 30 percent on the average, across the board, when we have done these competitions. We want to expand that.

Last year, we did about 26,000 A–76 competitions. That was more than the last 13 years combined. We want to go beyond that. We want to compete up to 229,000 jobs.

Now I have to say that this is causing some back pressure. You are all hearing it, I am sure, from back home.

A lot of the constituents that are talking to you are probably saying that this is just pre-staging base realignment and closure (BRAC), that they are just setting us up so that they can close our base.

Our view is that it is exactly the other way around. That base is going to be a lot more competitive if it becomes efficient in how it is working. As I said, half the time government employees win and become much more efficient in the process. This is a good process and probably one of the best ways to save a base.

It is not pre-staging the closure of bases. But I know you are hearing lots of opposition. I would ask you to please let us know. We will amend the process in any fair way we can without making it less efficient. And it is already pretty inefficient. As I said, it takes us about 2 years to do it.

DEPOT CLOSURES

Senator STEVENS. Will you close the depots first?

Dr. HAMRE. Sir, on the two depots that were controversial because of the last base closure round, what we did on those is this. I know there was a lot of opposition to this. But when the President said that we ought to privatize in place, what we said on our end was this: Mr. President, what we will do is open them for competition. We will keep the jobs there if they can win a competition.

So we held three competitions—actually four. One was for the C–5 work that was down in San Antonio. Then there was basically all the work at McClellan Air Force Base, which was out in California. Excuse me, it's three competitions. Then there was the engine work that was at San Antonio.

In each three we held competitions. For the first one where we held a competition, we, frankly, did not do it very well. Warner-Robbins won the competition, but there were a lot of things we learned in that process that I wish I had known earlier. They could have made a difference. But we did not go back and try to change that.

The next two competitions, at McClellan, in each case what we said was that McClellan, which was going to be privatized, had to find a private sector partner. They did. The Air Force depot, in this

case Hill Air Force Base, had to find a private sector partner to compete as a team-mate.

They did that, and it turned out Hill won and Sacramento, California, lost. So the depot will close in Sacramento.

We just held a competition about 2 weeks ago at Kelly Air Force Base. This was for the engine work. There was a very tough competition.

But Texas and Oklahoma, both the depots, had private sector partners. And in this case, it was a heck of a competition, but Oklahoma won. They won with a private sector partner.

Now it turns out some of the jobs are actually going to stay in Texas, but entirely under private sector hands.

So, sir, we are closing those two depots.

Senator STEVENS. But it is 3 years, almost 4, years later.

Dr. HAMRE. Sir, it definitely did take us a longer period of time. But I honestly think we have saved enormous sums of money that we would not have saved otherwise. This is because what we would have done under the old BRAC formula is to take every one of those jobs and basically reproduce exactly the same way of doing business at one of the other depots. And we would have paid huge facilitization bills and we would not have gotten the efficiencies from the competition.

We saved several billion dollars through this, even though it did take us longer.

Believe me, it was painful. I would have loved to have avoided the pain of this. But it actually, I think, worked out better for everybody when all is said and done.

Senator STEVENS. Thank you.

Dr. HAMRE. Sir, I have to do this next thing or my boss would "whup" me. I have to say that we need two more rounds of BRAC. I know that is not a happy message to bring up here. But we have excess facilities.

We much would prefer to be able to finance the forces we need, to do so and not have to finance bases we don't need. I know it is controversial. I know it is not a happy message to bring. And I know from talking to all of you privately that you have been as helpful as anybody has to try to work out these problems.

But we really would like to be able to go along here. We think this is the fairest way of doing business, and we hope that we have demonstrated our bona fides to you by the way we handled the privatization competitions at Texas and California such that we can earn your confidence to manage this process.

Let me wrap it up there. I have a closing chart, but I won't show it because I think we have covered everything and you have been very kind to let me go on for so long. Let me now take any questions that you might have.

Senator STEVENS. Let me first ask Senator Cochran, who has joined us, if he has any opening comments.

Senator COCHRAN. No, Mr. Chairman. I will await my turn.

Thank you.

BUDGET CAPS AND BUDGET RESOLUTION

Senator STEVENS. You had a list up there. I mentioned it in the beginning. We believe we need about $8.3 billion in more budget authority to pay for the year 2000 budget.

What is the administration's position on that? How are we going to get over the cap?

Dr. HAMRE. Well, sir, the administration's budget, the budget we sent you had all of these different things in it because we had to stay under the cap. I think this is the tough problem we are presenting to you.

Everything we have presented to you, you could do. Whether you want to do it is another matter. Whether it is a good thing to do is another matter. But all of it is executable.

We did not submit to you a budget that was not executable.

Senator STEVENS. Some of them are here for the third time, Mr. Secretary.

Dr. HAMRE. Yes, sir, like the rescissions. I mean, I really don't expect you to do that. I mean, I really don't expect you to do that, even though we have proposed it to you. So we are just going to have to sit and work with you somehow this year.

Frankly, we would like to see a budget resolution that settles the big picture and that opens up the 2000 to whatever resolution we need for 2000.

Senator STEVENS. I want to ask you this, just from your accounting management background. If we yielded to the budget's request for the military construction and just paid the first year, am I right that it would cost more money in the long run?

Dr. HAMRE. Sir, I think it has the potential for costing more in the long run. This is why I think we would have to really manage this much more intensively than we otherwise would.

What we would have to do is to watch very closely for every one of these projects that we don't have contractors who are hedging their bets that the dollars won't appear the second year and, therefore, they price the first year in an aggressive manner. I think there are lots of challenges that come with that.

Senator STEVENS. I would like to explore this. We might set up criteria so that you would put a cap on progress payments per year. If that saves money, we ought to know.

I think that just putting up a portion of the money is going to lead to questions from contractors as to whether the second year is going to be there in time and whether, if they can make better progress, they could obtain monies to complete the project sooner at a lower cost.

I really think you lose basic management to contain costs unless it is totally funded at the beginning.

I wish you would really get some people to study it. I think the committee would be willing to examine military construction from the point of view of a new approach. But it would have to be one that is permanent, not just for 1 year.

This is just 1 year, for that first year of a series of projects that are already on the priority list, right?

Dr. HAMRE. Yes, sir. And it is 1 year and then we back right out of it.

Our preference is to do full funding. That would be our preference to do. We only did it because we had the cap that we had to slip under.

I'm sorry, but I'm committing to the truth here. [Laughter.]

Senator STEVENS. It's like that old game where you used to try to sneak under the pole. We played it when we were young. What's that game?

Senator COCHRAN. Limbo.

Senator STEVENS. Yes, limbo. This is a "limbo budget." You had to sneak under the lowest position on the stick. I don't think you made it.

Dr. HAMRE. Sir, I was a lot younger when I did limbo, and I usually fell down. [Laughter.]

LIMITING PROGRESS PAYMENTS

Senator STEVENS. You have a series of adjustments, too, that I think we ought to talk about. There are really credits that you have taken. There's $500 million by limiting progress payments to contracts above $2 million. That just harms the little guy. Why would we do that?

Dr. HAMRE. Sir, I think there has really been no adjustment to the progress payment caps for I don't know how many years.

Bill came up with this idea. I think Bill ought to sit up here and defend it. [Laughter.]

Of course I am ultimately responsible.

Senator STEVENS. You know, it's nice at least to have genius recognized, Bill. [Laughter.]

Why is just for amounts, contracts, above $2 million? It would seem that the people who need progress payments are the people in the bracket below $2 million. Why don't you limit the progress payments to the area where there is sort of an ability to fund concept?

I am just asking the question. What is that limit for?

Mr. LYNN. The limit is just the administration and the expense of going through the steps of progress payments we have had since the 1950's, that we would not do progress payments on contracts with a value of less than $1 million.

This is adjusted essentially for inflation. In fact, it is quite a bit less than the inflation adjustment since the 1950's, and it would bring it up to $2 million.

Senator STEVENS. Isn't the effect of it, though, to take small business out of progress payments?

Mr. LYNN. It would take small contracts, and to the extent that those small contracts are with small businesses, that is correct, Mr. Chairman.

Where I think we would like to go in the long run, frankly, is to move away from progress payments entirely and move to a milestone billing where, instead of just paying for financing, to finance contracts over the length of them, to where we establish milestones. When a piece of the contract is delivered, we would pay a part of the price. That would take us entirely away from the old method.

Senator STEVENS. I would like to discuss with you the alternative of a departmental loan guarantee approach and get away from that altogether.

But I have used up my time.

Senator Inouye.

RECRUITING CHALLENGES

Senator INOUYE. Mr. Secretary, I would like just to touch upon three areas—recruiting, retention, readiness.

We have learned that the Navy has reduced its recruit requirements. For example, they are taking in a higher percentage of dropouts, non-high school graduates. The Air Force has not been able to meet 2 of the first 3 months' recruiting goals in fiscal year 1999. And we note that the propensity to enlist used to be about 18 to 19 percent, and now it is 12 percent.

Are you really concerned because I am?

Dr. HAMRE. Yes, we are very concerned. It is very hard to recruit now.

Senator INOUYE. Would the new retirement reform and pay raises make a difference?

Dr. HAMRE. Sir, our data does not show that young recruits are motivated so much by pay raises. More than anything, it is our getting to them. It is hard to get at young men and women these days.

Guidance counselors do not know the military as well. We have trouble getting into a lot of schools in some regions. Parents do not have the associations with the military that lead them to encourage their kids to think about the military.

It is a big, big, comprehensive problem that we have to work through. And we are really competing for very different talent.

You know, 25 years ago, we were competing for kids that might try to get a job at the local machine shop. Now we are competing for kids who have computer skills, who are going to go to junior college and to college. We are really after a much tougher market.

So it takes a combination of things. It takes recruiting, that is, enlistment incentives, education incentives. As you can see, we have really boosted our education incentives.

We have to put a lot more recruiters out there. We have to start working the high schools again and not the bus stations.

When you get short, you start getting desperate. Recruiters start getting worried and they start working the bus stations, where people do not have as many options. We really need to start working high schools again.

Senator INOUYE. I notice that the Air Force is going to start advertising. Does advertising make that much of a difference?

ADVERTISING FOR RECRUITS

Dr. HAMRE. Yes, sir, it does.

This is the first time in history the Air Force has ever had paid advertising. They have had public spots where broadcasters would just air them, but that is at 2:00 in the morning and that sort of thing.

What we find is a lot of young people do not know that we are still open for business, that we are still hiring, and we are hiring lots of people. We are going to hire 220,000 people, and young peo-

ple do not necessarily know. Advertising opens things up. It makes them aware that there are options that otherwise they may not be hearing.

It also opens the doors for our recruiters. So we think advertising is important.

I think the question is how effective our advertising is. I think that is a fair question. And where should we be advertising?

Here I think the services are really working at this. I mean, you want to advertise on things that kids watch, ESPN type channels and programs where young, athletically oriented kids are frequent viewers. That is where we ought to be doing our advertising.

You and I may not see it because we are watching Public Broadcasting or Masterpiece Theater or something similar. But that is not where the kids are. So we do not necessarily see where our advertising dollars are spent.

But I think it is important to do it so that they are aware of us.

IMPACT OF RETIREMENT REFORM

Senator INOUYE. Recently, RAND came out with an analysis that suggested that the retirement reforms would have very little impact on retention. Is that your view?

Dr. HAMRE. Sir, I think what the RAND analysis showed is this. They are looking at where do you put marginal dollars to get the biggest return. From their analysis, far and away the largest return for the marginal investment would be with pay raises for midgrade NCO's, field officers, and more senior NCO's. That is where you really would get your biggest return.

Those are the people who are most underpaid and that is where you have retention questions. It would be bigger cash in the pocketbook right now.

I think that analysis was right. But I think the retirement issue became a much larger symbol to our men and women in uniform. It became a symbol of do you really understand what I am doing for you and do you respect what I am trying to do.

I don't ask for much but to be treated fairly. Had we not increased the retirement, gone back from 40 percent to 50 percent, it would have been a damaging development and signal to our NCO's and to our officers.

I think we had to do that. In a pure and analytic sense, there probably is a higher payoff for the pay table reform. But this was something we had to do. There was just no question about that and I think the Congress was right to do it and to endorse it.

DOWNSIZING AND RECRUITING STANDARDS

Senator INOUYE. We have Bosnia, we have Iraq, possibly Kosovo and other places. Do you believe that we have down-sized too much? Every time there is a budgetary crunch, the first word that comes out is "downsize."

Dr. HAMRE. Sir, there is no question that we are doing more with fewer people and it is stressful.

As I mentioned to you, our analysis shows that our operating tempo (OPTEMPO), our deployment days, are running 300 percent higher, 3 times higher than they were back in 1989. And yet, we have 40 percent fewer folks. It is very tough.

But I also look at how hard it is to recruit. Right now, we would not be able to recruit a larger force structure. We are having a hard time recruiting to this force structure.

I think we are going to make it this year. But we want to make it in a way that does not lower the quality standards.

You mentioned in your introductory observation that the Navy has lowered its threshold.

We were very careful in working this through with the Navy. It is not getting lower quality people because the people that we are after are those that, while they may have dropped out of high school, they have demonstrated in other ways that they have the innovation and the energy to compensate for that. And they have demonstrated on test scores, they have demonstrated in other words, in working on getting a general equivalency degree (GED) or things of that nature.

So we really don't think we are accepting lower quality, although we are changing the measure, the yardstick by which we measure that quality to see if it works.

This may not be a permanent change.

Senator INOUYE. Today's military requires the most skilled people.

RETENTION CHALLENGES

Dr. HAMRE. Sir, I tell you that you see that on the retention side.

Almost to the day, 2 months before an NCO is ready for reenlistment, if he is in the computer business, he gets job offers, big job offers from the private sector. I mean, they will buy anybody that we can produce who has computer skills because there is such a shortage there. We have a heck of a time retaining those folks. It is a lot harder for us to retain people who are smart on computers than it is to retain pilots. And they are getting job offers that are 2 and 3 times what they are making as an E–4, E–5, or E–6. It is really shocking.

That is where you see the real challenge. We are not recruiting to compete against the guy whose only option is to flip hamburgers at the local McDonald's. We are competing to get real talent, the higher part of the talent spectrum.

It's tough.

Senator INOUYE. I notice that I have gone beyond the red light. I am sorry, Mr. Chairman.

Senator STEVENS. Senator Shelby.

Senator SHELBY. Thank you.

TECHNOLOGY DEVELOPMENT FOR MISSILE DEFENSE

Secretary Hamre, I have supported for a long time the efforts of this country to deploy and to operate ballistic missile defense systems. Success of these efforts I believe hinges on continued development of advanced technologies and research.

Do you share my concern that we may be short-changing the advanced technology side of the ballistic missile defense (BMD) budget?

Dr. HAMRE. Boy, I don't know. We have to do it.

Senator SHELBY. Do you agree, basically, that our success depends on the continued research and development of technologies to deal with this?

Dr. HAMRE. Yes, sir. But what I do not have is a sense from building a budget that we had short-changed it this year. So I am going to have to go back and find out, or talk with you to find out what your concerns are.

Senator SHELBY. Some of my real concerns are there.

Dr. HAMRE. Yes, sir. I would be happy to sit down with you on that.

Senator SHELBY. We cannot just go with one technology, can we in BMD?

Dr. HAMRE. I think it is very clear that there is high risk in this area and we do have to have lots of options. At least we have to analyze options here. Yes, sir.

Senator SHELBY. Doctor, hasn't there been an obvious high rate of change in the arena of defense technology and would you agree that a healthy research and development in technology is very important—not only in this area, but in all the areas, but especially in the area of ballistic missile defense?

Dr. HAMRE. Yes, sir.

But I also have to say that it is more complex in the sense that there is an awful lot of innovation going on in the private sector that we, frankly, ought to be buying from them, rather than trying to develop in our own in-house labs, sometimes.

Sometimes our labs, frankly, protect old ideas, not develop new ideas. So it is working interactively that is important, and only the real experts can sort that out.

Senator SHELBY. But the best thing there is the cross-fertilization, would that not be so——

Dr. HAMRE. Yes, yes, sir.

Senator SHELBY (continuing). With our labs and with the marketplace——

Dr. HAMRE. Yes, the private sector.

Senator SHELBY (continuing). Because there has been an explosion in this area?

Dr. HAMRE. And the universities, too.

Senator SHELBY. Oh, yes. It is just a connection that is so obvious and on which we have built over the years. It should be nurtured.

Dr. HAMRE. Yes, sir. It still is why we are so strong today.

Senator SHELBY. It is obvious to all of us that there has not been that breakthrough yet to field a ballistic missile defense. In other words, as of today, at 11 o'clock, as far as I know, we don't have a defense against ballistic missiles incoming to anywhere in America, do we?

Dr. HAMRE. Not for a national sense. The PAC II is good against slower velocity ballistic missiles. But not in a national sense.

Senator SHELBY. Not against intercontinental ballistic missiles.

Dr. HAMRE. No, sir. We don't have that.

Senator SHELBY. Not against any kind of fast missiles.

Dr. HAMRE. That's right. Yes, that's right.

Senator SHELBY. So that has to be not only one of your greatest challenges but one of ours, sitting on this committee. Should it be?

Dr. HAMRE. Yes, sir. I think the administration has at least given you a much stronger program this year in the sense that we fund it. There are still some big, technical challenges out there, and we have to make sure that we do not create an environment where we rush in without doing disciplined testing.

Senator SHELBY. Oh, I totally agree. That is why the technology and the continued research and development is so important, is it not?

Dr. HAMRE. Yes, sir, and the disciplined research and development. Yes, sir.

Senator SHELBY. And the cross-fertilization, as I say, from all of that, from our universities, from the private sector, and from our own national labs.

Dr. HAMRE. Yes.

Senator SHELBY. Thank you, Mr. Chairman.

Senator STEVENS. Yes, sir.

Senator Cochran.

ADDITIONAL BRAC ROUNDS

Senator COCHRAN. Thank you, Mr. Chairman.

Dr. Hamre, you mentioned the request for two additional BRAC rounds. Let me ask you this question.

Does the budget assume any savings from new BRAC rounds? If so, how much?

Dr. HAMRE. Sir, there are some assumed savings in 2005, but there are much higher costs in 2001 through 2004. So the budget actually has several billion dollars of net costs associated with BRAC rounds, not savings.

MAINTAINING 300-SHIP NAVY

Senator COCHRAN. Is the Future Years Defense Plan which is submitted with this budget sufficient to maintain a 300 ship Navy? If not, how many ships will it maintain?"

Dr. HAMRE. Sir, it will maintain a 300 ship—may I reformulate your question? This is not to avoid it but because the Future Years Defense Budget only goes 5 or 6 years. Obviously, we are able to keep 300 ships for 5 or 6 years.

The real issue is can you maintain 300 ships if you are only buying 7 new ships every year. I think that is the real problem.

I think the answer to that is no if we are going to hold on to the old retirement schedules. So we would either have to buy more ships or get ships that can live longer, and probably some combination of both.

We clearly need to get a stronger ship-building program.

Senator COCHRAN. Is there a mean lifespan now that you consider?

Dr. HAMRE. Sir, I think we talk in the average across all ship classes that the average is about 35 years. I remember when it used to be 30 years. So you used to be able to divide fairly easily and you needed to be buying at least 10 ships a year. We now think we can get buy with buying 8 ships a year.

But we are really just barely at the right number.

Senator COCHRAN. But the Navy put the U.S.S. *Mississippi* in mothballs after 17 years, or some short period of time it sounded like to me.

Dr. HAMRE. Sir, I'm going to commit a cardinal sin and admit to you I don't know what the U.S.S. *Mississippi* was.

Senator COCHRAN. It was a nuclear powered frigate.

Dr. HAMRE. Oh, the cruiser.

Senator COCHRAN. Yes. The cost of refueling it ended up being so expensive, as a comparative matter, that they decided to mothball it.

Dr. HAMRE. Right. That was one of those where we made a strategic investment in what we thought made sense and it turns out that nuclear power is not very cost effective in smaller combatants. So the recoring, redoing the core, was just excessive, and we would rather put it onto a brand new ship, so that we can keep it modern, up to state of the art electronics and fire control systems.

RELEASE OF APPROPRIATED FUNDS

Senator COCHRAN. Let me ask another question.

It has come to my attention that the Comptroller's Office at the department has refused to release appropriated funds for several programs that have been requested by the services. The programs are spread throughout all categories—operations and maintenance, procurement, research, development, testing and evaluation, military construction and family housing—in effect, all services, including the Reserves and National Guard.

For example, over 30 Navy research, development, test and evaluation (RDT&E) programs have been on hold since December under the order of the Office of the Secretary of Defense (OSD).

What is OSD's policy on releasing appropriated funds? Have there been any recent changes in OSD policy concerning release of funds?

Dr. HAMRE. Senator, I am shocked at all the problems we are having with this new Comptroller. I mean, it is just amazing. [Laughter.]

I'm kidding, of course.

Sir, there has been no change in policy.

Senator COCHRAN. I think we ought to identify the fellow with you for the record. He has had such an important part to play here this morning.

Dr. HAMRE. The reason I joke about that is he always talks about how much better things are now compared to the old Comptroller. [Laughter.]

Sir, there has been no change in policy.

I think what happened this year is the following. Normally, when budgets, when the Appropriations Bill is done, there is a process that we have to go through of apportionment and other things. The services then give us requests to release the dollars, and then we do that on the basis of the requests.

When we do it, we consider is there an obligation plan, et cetera.

Senator COCHRAN. Well, the services have requested these funds.

Dr. HAMRE. They just started to, sir.

What has really happened is, because we were so late in getting our budget together this year—we really did not wrap up our budg-

et until January of this year and the services were working on it—all the people who normally would have been working in November to prepare budget release documents really were not doing that. They have just started coming in to Mr. Lynn here in the last month.

There is no policy of holding anything up. We are not building rescission lists, even though we have proposed a rescission to you. We will work everything through in normal order to try to have a sensible execution. There has been absolutely no change in policy, sir. I would be glad to sit down and go through any of it with you. And I apologize for my rude remark about the Comptroller. He is a good friend and he is doing very well. [Laughter.]

Senator COCHRAN. Oh, he doesn't mind, I'm sure. [Laughter.]

NATIONAL MISSILE DEFENSE ACT

The National Missile Defense Act will be before the Senate very soon. It provides, and I quote, "It is the policy of the United States to deploy as soon as technologically possible an effective National Missile Defense System capable of defending the territory of the United States against limited ballistic missile attack, whether accidental, unauthorized, or deliberate."

That is the entire bill.

Is there anything in this bill that you would interpret to mean that the Defense Department should disregard measures of operational effectiveness or sound developmental testing practices in determining whether the National Missile Defense System is technologically ready to provide an effective defense against limited ballistic missile attack?

Dr. HAMRE. No, sir. I believe your adding that to the legislative record would be an important dimension to us understanding how to implement it. But I don't think that is the core of the opposition that the administration has to it.

I think they are opposed not on that. I think it is really on the implications it has for arms control and things of that nature.

Senator COCHRAN. Well, we continue to hear as an excuse for not supporting it that there is no assurance that the system would be tested, for example, enough to justify its reliability to then justify the appropriation of dollars to deploy the system. That is why it has in here "effective," the word "effective." That contemplates testing. It contemplates that it works.

Dr. HAMRE. Yes.

Senator COCHRAN. And then also there is the phrase "technologically possible." That means the technology is sound, and it is effective, and it is reliable.

So I am suggesting that a fair reading of the words of the bill put to rest some of the concerns that are being raised and used in the loudest criticism of the legislation.

I was just curious about your personal reaction to the language of the bill.

Dr. HAMRE. Sir, my personal reaction is as you have said. I read the language and it says that you would still expect us to be good program managers. You would still expect us to do testing, disciplined, rigorous testing—not slowing us up, just to test for the

sake of testing, but to do disciplined testing to know that it really would be effective and that it really would work.

Senator COCHRAN. And that Congress would have to authorize the deployment——

Dr. HAMRE. Yes.

Senator COCHRAN (continuing). And fund it through the authorization and appropriations process.

Dr. HAMRE. Yes, sir. But just so I don't get myself terribly in trouble with those with whom I work, I, again, don't think that is the centerpiece of the administration's opposition to the bill.

I think it really rests more on the arms control issues and things of that nature.

Senator COCHRAN. Thank you very much, Mr. Chairman.

Senator STEVENS. Thank you.

KOSOVO OBSERVER COSTS

Dr. Hamre, you made a point that there is no money in this budget for Kosovo. Yet, we have indications that there have been substantial costs for the diplomatic observer mission there. We have not seen any accounting for that—communications, vehicles, force protection, transportation costs. How extensive has that Kosovo expense been so far?

Dr. HAMRE. Not much.

Bill?

Mr. LYNN. It's been, I think, in the neighborhood of $50 million or $60 million so far.

Senator STEVENS. It's at that level? It's not above that?

Mr. LYNN. Let me double check for the record, but that is what my memory says.

[The information follows:]

The Department's total cost for KDOM and E–KDOM (Expanded Kosovo Diplomatic Observer Mission) was approximately $18 million ($15 million for the Army and $3 million for the Navy). E–KDOM was a rapid expansion of the initial KDOM mission to increase the ability to verify compliance with UNSCR 1199 and negotiated agreements. Included in the above estimate are start-up costs associated with American observers, medical team support, purchase of communications equipment, establishment of communications infrastructure, security upgrades, and provision of vehicles used by the observers.

Senator STEVENS. We had a briefing that indicated that we had contingency plans at a substantial level for extraction of those people and that we had equipment in place in case anything broke down there; and that the United States was designated to be sort of the protection force in the event they had to come out. Is that not right?

Dr. HAMRE. I believe that we definitely were not doing that. I believe that that was being done led by, I think the French took the lead in doing that or the British took the lead in doing that.

We have forces in the area, of course, that, if there was an extremis situation, could be helpful. But those are like the Marines that are already on location.

We did not designate any specific forces and we are not planning for any.

Senator STEVENS. You're not taking any specific forces for protection?

Dr. HAMRE. No, sir. We are supporting logistically the Kosovo verification mission (KVM). We have some hummvees on the ground and things of that nature. But it really is a fairly modest composition.

Senator STEVENS. Just for the record, would you give us an explanation of the efforts and how they were funded?

Dr. HAMRE. Yes, sir. Sure will.

Senator STEVENS. Also, include whether we are going to be seeing any kind of reprogramming on that.

[The information follows:]

The Department has contributed to the NATO air reconnaissance and surveillance mission in order to assess compliance by all parties with the provisions of U.N. Security Council Resolution 1199 in Kosovo. DOD assets include U–2, P–3, and UAV Predator aircraft and associated personnel support. Thus far, the Navy has incurred costs in excess of $10 million and the Air Force over $15 million. These costs are not reflected in the current budget, and therefore will likely be included in a larger emergency supplemental funding request for unplanned contingency operations in Kosovo and Southwest Asia.

RELEASE OF FISCAL YEAR 1999 APPROPRIATIONS

Senator STEVENS. Senator Cochran mentioned a portion of the items. But we are starting to get calls that indicate that the 1999 funds have not been released yet. That raises some substantial concerns about whether they will be obligated in this fiscal year and whether we are facing some attempt to carry over portions of 1999 into year 2000 to soften the blow of the budget. Is there such advice or plan?

Dr. HAMRE. There is no such plan, sir. We are proceeding under the normal order. I think we are, frankly, about 2½ months behind schedule because it took us 2½ months longer to build a budget this year. So there has been no change in any of that direction.

Believe me, I talked with Bill on the way up. We will work that to make sure that we don't have any problems.

CONCERNS ABOUT A HOLLOW FORCE

Senator STEVENS. I have had several personal conversations with some of the uniformed people about our approaching signs of a hollow force. Are you really keeping track of hollow force signs?

Dr. HAMRE. Sir, we meet on a monthly basis, the Senior Readiness Oversight Council. It is where we sit down and survey where we are on readiness.

I must confess to say I think that has been, the granularity of that as an oversight mechanism I don't think was giving us early warning of the recruiting and retention problems that we were having, for example.

We have doubled the effort. The Secretary now meets much more regularly with the senior enlisted advisors. He goes out in the field every month. We have hired a new guy who goes out to look at readiness issues. He gives monthly reports to the Secretary. So we are trying to get a better handle on it.

Each of the service chiefs knows that this is their responsibility.

Senator STEVENS. We were in Kuwait, Saudi Arabia, and Bosnia about 18 months ago—I think it was 18. No, it was 9 months ago.

We had substantial indications from the enlisted and middle grade, or lower grade, officers of an intention not to reenlist. We

also had some rather cryptic comments about the availability of parts and replacement systems.

I remember one who told me personally that he found it nice to be where he was in Kuwait because he got what he needed when he needed it. The unit he had just left had been put on a long delay in order to make those parts and systems available to people in either the Persian Gulf or Bosnia.

Dr. HAMRE. I believe that.

Senator STEVENS. To me, that is a sign of a hollow force. If your Reserves are not adequately serviced in terms of parts and replacements, that means they cannot do much to assist anybody who is already deployed.

That is what happened before. It was not that we could not maintain the ships that were deployed. It was that we could not get them away from the dock in Norfolk because they did not have parts, supplies, and personnel.

I think we ought to have a watchdog force to tell us about the signs of a hollow force. That, to me, at this time would just be catastrophic, to see us return to the days of a hollow force.

Dr. HAMRE. Sir, if I may, what you have described I think we actually see all the time, that we absolutely do resource our forward deployed forces richly, by comparison, and then we take it out of the nondeployed forces that are back home. We are allocating scarcity. That is the nature of where we are right now.

It is part of the reason why—and we laid this out to the President—we allocated $49 billion of the $112 billion for readiness items. We basically fully funded the readiness items that the Chiefs identified in their lists when they submitted them.

Senator STEVENS. The Chiefs identified $154 billion and you have it at $112 billion, and we really think you have about $12 billion. I don't really see that money out there beyond this year.

My time is up.

Senator Inouye.

MISSILE DEFENSE AND THE ABM TREATY

Senator INOUYE. Mr. Chairman, if I may follow up on Senator Cochran, when the Department of Defense (DOD) announced that they would be requesting $6.6 billion over the next 5 years for the production of a National Missile Defense System, it was noted that this may violate treaty arrangements but that the administration would negotiate changes in the treaty.

With that sort of assurance in mind, Senator Cochran and I reintroduced our bill. Then we were told that the President might veto that bill and that no decision on deployment would be made until June of the year 2000.

They also argued that the Cochran bill would jeopardize treaty negotiations.

Has the administration made up its mind as to its position on missile defense?

Dr. HAMRE. Yes, sir, I think it has.

Senator INOUYE. It is a bit confusing to me.

Dr. HAMRE. If I may, I will try to do better, although I am not as capable as most people who are really the day to day experts in this area.

We believe that we are at the top. We have always said that there were two criteria for a National Missile Defense. We had to have a threat and we had to have something that was technologically feasible. We feel that we are at that point, where we should press ahead.

But there is another dimension to it. We are at a point where a National Missile Defense System does, indeed, come up against the restrictions that are in the ABM Treaty.

Now where I think we have a disagreement—not necessarily between you and me, sir, but between the administration and members of Congress—is, is the ABM Treaty still an important dimension of our security posture? Does it contribute to a stronger defense of America, the ABM Treaty?

We think it actually does. We think it continues to do so. But we know, then, that we have to find a way to amend the treaty if we do, indeed, want to deploy a National Missile Defense System.

This is a process that we would like to do collaboratively with the treaty partner, you know, sitting down with Russia. We would like to talk it through with them and to make adjustments that are mutually acceptable.

We honestly believe that this treaty, that amending the treaty to accommodate a limited National Missile Defense is going to help them as well. It really is not going to undermine their deterrent force.

This is designed against relatively small numbers, you know, measured in two digits. They still have the capacity to launch thousands.

So we do not believe this in any way threatens their deterrent force, and we think it actually strengthens and provides more stability in the world against rogue actors. So we feel that there is a basis to go and sit down with Russia and to say that an amendment of the ABM Treaty is in our mutual best interests, one that would accommodate the National Missile Defense System that we need.

Senator INOUYE. Is it your belief that the Cochran bill will put into jeopardy this negotiation?

Dr. HAMRE. I think, as people read the Cochran bill, sir, that they read it to suggest that the only criterion now is technical feasibility. That is where the administration says you are prejudging any outcome of the discussion that we need to have with Russia about amending the ABM Treaty. Therefore, because of that we cannot support it.

That is the basis, the primary basis.

Senator INOUYE. Even with that statement, is it not true that if deployment is to be accomplished, it would need authorization from the Congress?

Dr. HAMRE. Sir, it would, along with the funding that would go with it.

Senator INOUYE. So it is not automatic that, if it technologically feasible, a system would be established?

Dr. HAMRE. Sir, I understand that point and I think it is a compelling point to be making in a debate.

However, what our Russian treaty partners are saying is look at where this is going. Look at what you now state is the law of the

land. You are going to do this. It is not an issue to negotiate. You are just simply fooling around with us, just spending time talking. But you have already committed to this thing irrespective of the treaty.

We do not want to be in a position where our only option is simply to use the Supreme National Interest Clause and to drop the treaty because we honestly believe that the treaty, in an amended form, will continue to be really a strong dimension to our program. And we would like to continue it and contain it, modify it so that we can retain it.

But that does take negotiations. That does take discussions with them. And I think the senior advisors to the President feel that the Cochran bill in its current form prejudices that. So that is why I think that they are suggesting their opposition to it.

THREATS TO U.S. COMPUTERS AND COMMUNICATIONS

Senator INOUYE. Recently you made a speech before the House or in your testimony you suggested that we were engaged in a cyber-war at this moment. On Monday, the South China Seas News Agency reported that hackers had already captured a British military satellite.

Are we in a position where we can protect our satellites?

Dr. HAMRE. First, the answer to that is yes.

I would like, however, to find an opportunity to talk with you in a more appropriate setting for the comments that I made in front of the House. The observations I made there were in a classified session. Everyone in the room understood that they were classified, that they should not have been discussed. I was a little surprised that some members held a press conference.

So I would like to talk with you about it, frankly, in a different setting. I would be happy to do that.

Senator INOUYE. Do you believe that there is a problem that would justify meeting with us on the other conditions?

Dr. HAMRE. Yes, sir. I do.

Senator STEVENS. We shall arrange that, Senator.

I am surprised that you are surprised, though. [Laughter.]

Y2K PROBLEMS

Senator INOUYE. As you know, we are presently involved very deeply, not knowing where we are headed, on the Y2K computer problems.

Dr. HAMRE. Yes, sir.

Senator INOUYE. Are you satisfied that we are on the right track?

Dr. HAMRE. I have had three hearings this week on Y2K. Somebody said that we had all these systems at the department that were big and bulky and little memory. I thought they were talking about me. Instead, it was the computers. [Laughter.]

We have been working very hard at trying to get on top of the Year 2000 program. Absolutely, nothing is more important. Rarely does a military organization know exactly the time and the place when the enemy will attack. Most of the time we are just in some uncertainty about where the threat is and when the attack will occur. But we know the time, the date, the location of where this

attack will take place. There is going to be no excuse for a military organization to have a failure because we were not ready for this.

That was the message the Secretary gave to everybody in the department.

Now to put some discipline in it, he turned to the Chairman of the Joint Chiefs, and he turned to each of the Chiefs, and he turned to each of the CINCs, and he said, "You are the war fighters. This is about your ability to go to war. I am holding you responsible and I am putting you in charge of testing."

So I am not going to take the word of the computer guys that this thing is fixed. I want the war fighter to tell me that it is fixed.

Senator STEVENS. My information is that we have $1.1 billion in emergency money that is available and that you have not released it.

Dr. HAMRE. No, sir. It has been released.

Senator STEVENS. Totally?

Dr. HAMRE. No, sir. There is 15 percent withheld that was directed that we do back and forth. It is really to reserve for contingencies that might come up here this summer in the testing program.

Senator STEVENS. Has it gotten down to the service chiefs?

Dr. HAMRE. Yes, sir. It sure has.

Mr. LYNN. It is being apportioned today.

Dr. HAMRE. Oh?

I stand corrected. I thought that was done. It is being apportioned today and it will be there, then. I apologize.

Senator STEVENS. That's what I had heard. It isn't there yet.

Dr. HAMRE. I'm embarrassed for that. I mean, it should be that we told anybody—unless I was asked, and some people said I can't do this unless you get me the money. I'd say that would be a very interesting point to bring up at your court martial.

I mean, they are not going to let anybody use as an excuse that they could not be ready.

Now I'll tell you that the money is enormously helpful and it is going to make all the difference. It is the way we are going to finance the testing and to finance the fixes.

Senator STEVENS. We've seriously considered giving a whistle blower bonus in an amendment to this bill that is out there because I think we ought to know if anybody thinks that there is not enough being done. If he or she is right, if that person is right, they ought to get some incentive award for bringing it out into the light.

It is a very serious thing.

Dr. HAMRE. Yes, sir.

Senator STEVENS. I think anybody who does not have the money and would use that as an excuse and didn't say anything about it to Congress or somebody really has no defense.

Dr. HAMRE. Sir, you are absolutely right. But I have also told them that you don't have a defense. We have a $10 billion I-T budget, information technology budget. We spend $10 billion a year. They have the flexibility to divert other projects in order to finance corrections on Y2K.

This is not to say that this is not helpful. Your addition in the supplemental was enormously helpful. But we are not going to take an excuse from somebody that oh, I'm sorry, I could not defend the

country with my part of the mission because you didn't give me money. I said that is a good excuse, but we will use it at your court martial.

We are not going to take no for an answer. It will be fixed.

Right now, 81 percent of our systems are fixed.

Y2K PROBLEMS OVERSEAS

Senator STEVENS. I was told last night that the members of the Y2K Committee are going to Russia and other places soon to discuss the issue with those with whom we might have some problems.

Does the department have sufficient liaison with those people who have problems?

Dr. HAMRE. Sir, if I may, I think regarding problems, there are three broad areas where we have been talking with them and where we have some concerns.

First, we are not worried about their Y2K problem that would affect their command and control of nuclear weapons. They have designed so many redundant systems for control that we see no case where missiles will launch by accident in year 2000. It would not happen here and we are confident that it won't happen there.

On their early warning systems, frankly, we are worried for them. Their early warning systems are older. They are very computer based, as are ours. There is already a somewhat fragile early warning environment that they have.

We do not believe that year 2000 will all of a sudden generate missile tracks on computer screens. We don't think that will happen.

But we do think that there could, indeed, be disruptions, screens could go blank, there could be garbled information that would be confusing.

So, to deal with that we have proposed to them, and at very senior levels—this is the Secretary talking to Minister Sergeyev, and we had follow-up technical discussions just last week—to establish a shared center for the Y2K, what we call the Y2K Stability Center, where they would have observers that would be watching our terminals and we would have observers at the same place. We would invite them to bring their early warning terminals as well. We could work together.

We modeled it after the shared air traffic control center that all four parties had in Berlin for 25 years. For 25 years, we had a single, shared air traffic control center. Russian air traffic controllers were right beside American air traffic controllers. So if something went down, if somebody's radar went down, they could look at another screen.

We think that would be useful here in this environment. We propose to do that. We will be ready to go operational this fall with that capability.

I would not say we have their signature on the dotted line and a date when they are coming. But I think we have had very senior discussions and fairly good, encouraging discussions.

The area about which we are probably the most apprehensive really is not so much in the defense area, but it is the safety of the

nuclear reactors. Are their backup systems adequate to this problem?

With nuclear reactors, if all of a sudden the electricity goes out, you still have to continue to cool the reactor for several days so that you do not have problems. So what are the backup controls associated with the system so that they can continue to provide power to the coolant pumps and things of that nature?

I think we have greater concerns in that area, and I think that is one where, if there is an international support effort, that would be a first place we ought to look.

IMPEDANCE OF MISSILE DEFENSE BY ABM TREATY

Senator STEVENS. I want to thank you. I am a little disturbed about your comment about the ABM. You know, back in 1985, Senator Dole asked me to chair the Arms Control Observer Group of the Senate.

We spent a great deal of time studying the ABM Treaty. We have met almost annually with other Nations since that time.

I do not think the Nations of the world view the ABM Treaty as anything other than a treaty that dealt primarily—that dealt, period—with ICBMs. Our threat is ballistic missiles, not ICBMs. I do think that it is a great problem.

We come from the part of the country where a ballistic missile could, in fact, be an ICBM. We all know that it was the distance between Murmansk and Maine that made a missile an ICBM, and there are much shorter distances between us and potential adversaries on the Pacific Rim.

But I do think to hold up the proceeding with the development and with the preparation of the site for a ballistic missile system, a National Ballistic Missile System, until we get an agreement from the Soviets—I mean now the Russians—an agreement from the Russians as to the agreement we made with the Soviets on ICBMs, is foolhardy.

I have to tell you that we see things differently. I think you ought to come up and just visit my state. Just walk down the street with me and hear the subject that people talk to me about. The first one would be impeachment. The next one would be National Missile Defense. Without any question, it is at the same level of visibility in our State because of the activities in North Korea and now that we know China is cooperating with North Korea. It is out in the street over there. It is classified there, but it is not classified up there.

Dr. HAMRE. I didn't know I had been impeached. I will go up with you any time.

Senator STEVENS. Oh, you haven't been. But some of us were. The President wasn't, but some of us were.

Dr. HAMRE. Yes, sir. I understand.

Sir, if I could, I am not sure there is so much difference between us on this issue.

We have explicit instructions to the developers of the National Missile Defense not to be constrained by the ABM Treaty in their design. Nothing has happened that I know of——

Senator STEVENS. That's still the design. You're supposed to start with the site starting in 2000. It was for deployment in the year

2003. No matter what you say, I mean, there have been broad statements from the administration, but no matter what you say, you have rescheduled it and it has been delayed. It is not going to go out on a 3 plus 3, as Dr. Perry committed to this committee when he sat in that chair (indicating).

You know that. It cannot be 2003 now. What you are saying is it might not even be in 2004 or 2005 because of the delays that might come out of the ABM. I think that is unacceptable to the Senate. I hope it is on a bipartisan basis. It is sure not acceptable to those of us who come from offshore states.

Dr. HAMRE. Sir, I have heard the President say personally that we are not going to let problems with negotiations ever keep us from making a decision to deploy this system, in deploying it.

Senator STEVENS. But you have already.

Dr. HAMRE. No, sir. I honestly don't think we have. But I would like to sit down and talk with you, go through it, to make sure I understand the concern that we have and what we have indeed done.

I know of nothing we have done that has been impeded or inhibited by the ABM Treaty to date, and I do not believe anything we are proposing to you is going to suggest that our program is impeded, our going ahead with it.

Senator STEVENS. Well, we put up $1 billion—this committee did it, requested Congress to do it, and they agreed with us—$1 billion emergency money to try to accelerate the deployment date for the National Missile Defense System. It is going to be used, but it is not directed toward accelerating the deployment date. It is being used toward—what—I would say perhaps accelerating the pace of review of the existing developments, the existing research.

TECHNOLOGY DEVELOPMENT RISKS

Dr. HAMRE. Sir, I actually think, to go back to what Senator Cochran raised, that we are pressing as fast as we can, consistent with prudent management of this technology. This is tough stuff, and we are moving ahead. Right now, the program that the Secretary recommended to the President and that the President submitted has, I think, really only one end to end test with production representative hardware before we deploy. And this is unbelievable development risk.

Senator STEVENS. If I am correctly informed, we do not have a technological problem. What we have is a systems development problem. The technology exists. It is the integration that is the problem that has to be solved.

Now that could be accelerated, in my judgment, and it is not being accelerated. And, as a matter of fact, I think it is being delayed.

An end to end test is one thing. But I don't even think we are getting simulated tests now by 2003.

Dr. HAMRE. No, sir. I think we are doing that.

Again, what I need to do is to bring up the experts with me. I retail at a pretty little markup when it comes to this, to your pleasure.

Senator STEVENS. I think we ought to have a hearing here and as soon as possible.

Dr. HAMRE. Yes, we would be happy to do so.

Senator STEVENS. Well, I am afraid our hearing is after the fact because the bill is going to be up on the floor before then.

Dr. HAMRE. We would be glad to have our experts come up and talk while you are still working on this, before the bill comes on the floor, to go through it. I honestly believe we are not that far apart from you on this.

Senator STEVENS. I think the worst thing that could happen to the Nation would be to have a veto of the National Missile Defense Bill because of a basic misunderstanding about the ABM. It looks to me like that is where we are going.

My friend, I think—and I share the same opinion—we are of a different generation. Our generation believes that if you see a head, hit it. If someone is going to raise their head over that—what was that name out in the Pacific—if you raise your head above the fence line, you take it down if it is a danger to the United States. That is all there is to it.

We are not doing that now. We are tip-toeing toward the future as far as National Missile Defense, and that is not acceptable. I hope this bill goes forward. Man, I tell you that I think it would be the worst mistake that could be made, to have a veto of that bill because of the ABM considerations.

Enough said. It's nice to see you all.

Senator INOUYE. Let us sit down together.

ADDITIONAL COMMITTEE QUESTIONS

Senator STEVENS. Yes. We would be happy to sit down with you anytime.

Dr. HAMRE. OK. Thank you so much.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTION SUBMITTED BY SENATOR ARLEN SPECTER

FUNDING FOR V–22 AND COMANCHE

Question. In testimony before Congress earlier this year (February 2, 1999—House Armed Services Committee), Secretary of Defense Cohen and Joint Chiefs of Staff Chairman, General Shelton mentioned the V–22 "Osprey" and RAH "Comanche" as programs that still have unfunded requirements in terms of modernization. Secretary Cohen spoke of accelerating the production rate of the V–22 for the Marine Corps from 30 to 36 in order to get more aircraft to the field sooner. General Shelton mentioned more funding for Comanche so the helicopters can be purchased more efficiently or at a faster rate. Would you please comment on the requirement and benefits of additional funds for both these programs, as supported by both the Secretary of Defense and the Joint Chiefs of Staff?

Answer. Clearly the Department has many unmet needs, even with the $112 billion added by the President. I am aware that the Services have provided you with their priorities for additional funds, and they are not out of line with what we could execute effectively.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

PRIORITIES DECREASES IN RDT&E AND SCIENCE AND TECHNOLOGY BUDGETS

Question. Given the long-lead time to develop new weapons and information systems, how does the administration propose to maintain U.S. technological supremacy while reducing defense-wide RDT&E budgets? Do you believe that you can

maintain the scientists and infrastructure required for success with dwindling resources?

Answer. While the total defense-wide RDT&E budget request for fiscal year 2000 is slightly less than the fiscal year 1999 RDT&E budget request, selected Budget Activities within RDT&E have actually experienced an increase in requested funding. Specifically the summation of Budget Activities 1, 2, and 3 has increased from $7.2 billion in fiscal year 1999 to $7.4 billion in fiscal year 2000. This is the science and technology portion of our RDT&E budget and it is the foundation of our modernization program. As technology matures and is evaluated in Advance Concept Technology Demonstrations and U.S. Atlantic Command's joint experimentation efforts, we will have a better idea of which technologies offer high payoff and will pursue their integration into operational systems in the remainder of our RDT&E activities. I believe we will be able to maintain the scientists and infrastructure required to ensure the technological superiority currently enjoyed by our armed forces if we have the flexibility to hire the right people and choose the right facilities. The BRAC authority requested by the Secretary would improve the flexibility in decisions regarding infrastructure. The personnel legislation we are working on with the Office of Management and Budget and Office of Personnel Management, and the Commercial Personnel Transfer Program for Science and Engineering will help by increasing the Department's access to talent found in the private sector. Further, the department is committed to RDT&E infrastructure streamlining as part of the section 912(c) studies and plans continuous monitoring of infrastructure cost reductions to increase the efficiency of RDT&E organizations.

Question. The Air Force has announced their intention to reduce Air Force Research Laboratory personnel. Is Air Force science and technology a lower priority than in the past? Given the importance of air operations in our deployment and military dominance objections, how can these reductions be justified? Is this a wise choice?

Answer. Air Force Science and Technology (S&T) is not a lower priority than in the past. Air Force S&T continues to be critically important to our national defense, and the Air Force has maintained its overall S&T investment at last year's level. In fiscal year 2000, the Air Force's S&T Program has been restructured to provide the research essential to the Air Force vision of an Expeditionary Aerospace Force (EAF). Achieving this EAF vision requires increased emphasis on space technologies and the integration of air and space technologies. Unfortunately, restructuring in a tight budget environment requires the termination of certain programs with attendant reductions of personnel. While portions of the S&T Program will be redirected, the overall program remains focused on the most critical technologies needed to perform our national security mission in the future.

AEROSPACE EXPEDITIONARY FORCES

Question. The Air Force is revamping their structure to be an Expeditionary Aerospace Force comprised of 10 Aerospace Expeditionary Forces. They are currently in the process of making decisions as to what assets and personnel will be drawn from which bases to make up these ten forces. When will the Air Force conclude drafting its plans? With three Air Force bases in my state, I would like to know what changes to anticipate from this restructuring process.

Answer. We designed our EAF organizational structure to help manage our forces under national tasking levels we defined as "Steady State" (i.e. on-going operations in Southwest Asia, Bosnia, Panama, Iceland, etc.). We feel that 2 AEFs and an on-call Aerospace Expeditionary Wing (AEW) is the structure that we can sustain over the long term. The structure also provides initial forces and a systematic process to meet national crises such as Humanitarian Relief and combat operations.

The latest crisis in Kosovo represents a major surge across the board and requires a far greater number of forces than our AEF on-call structure makes available. This requires our Airmen to operate at surge TEMPO levels above and beyond those we defined as sustainable over the long term. America's Airmen are answering the nation's latest call with superb skill, dedication and personal sacrifice, and this surge operations TEMPO comes at a cost to the long-term health and readiness of our force.

Once the TEMPO of Kosovo operations subsides, we will re-apply the AEF structure to manage our forces' commitment levels. Our staff is presently assessing the impact of Kosovo operations and developing transition plans to meet the world-wide "post-Kosovo" Steady State taskings that have yet to be defined. Our EAF concept is inclusive in nature and, as such, consist of weapon systems and personnel from all three bases in New Mexico.

In the fiscal year 2000 PB Force Structure announcement, we announced the designation of the 27th Fighter Wing at Cannon AFB as an AEF lead wing. In fiscal year 2000, the wing will receive 84 military positions as part of implementing the concept. Additionally, the 49th Fighter Wing at Holloman AFB received 66 military positions and the 377th Air Base Wing at Kirtland AFB received 2 military positions. These authorizations ensure that our wings have the necessary personnel required to handle increasing deployment taskings without placing undue burden on the home base.

MILITARY CONSTRUCTION FUNDING

Question. If the Administration is willing to increase salaries and pensions in order to try to address retention, why are they set on undercutting military construction support as it also directly relates to quality of life at our military installations?

Answer. We are committed to the quality of life on our military installations and the fiscal year 2000 military construction program reflects that commitment. Our facility investment program value of $8,653,492,000 for fiscal year 2000 represents an 11 percent increase over our fiscal year 1999 request of $7,778,074,000 and a 2 percent increase over the fiscal year 1999 appropriation of $8,443,742,000. The growth in the military construction and family housing programs continues over the future years defense plan (FYDP) for a five to ten percent increase overall. This affirms our continuing commitment to invest in our infrastructure and quality of life. The only difference this fiscal year is the manner of financing our fiscal year 2000 program requirements (over two fiscal years). We believe this one-time use of advance appropriations will not impede our ability to execute the fiscal year 2000 MilCon program in a timely manner.

WHITE SANDS MISSILE RANGE

Question. I have been informed that White Sands Missile Range will be transferred from Army Materiel Command (AMC) to Army Test and Evaluations Command (ATEC) as of fiscal year 2000. What implications does this change in structure have for WSMR? What changes can we anticipate in terms of personnel, equipment modernization, and maintenance funding under this new command structure?

Answer. There will be no change to White Sands Missile Range (WSMR) as part of the establishment of the new Army Test and Evaluation Command (ATEC). Downsizing at WSMR that is already in progress will continue until 2001. The planned downsizing is due to the Quadrennial Defense Review of 1998 and other budget measures, but there will be no downsizing due to the establishment of ATEC. In regards to modernization and maintenance, we will continue funding at levels consistent with current and planned WSMR resources. The new ATEC command will consolidate all of the current Operational Test and Evaluation Command and most of the current Army Test and Evaluation Command. The approved ATEC reorganization does not include any changes in the number, grades, or types of personnel at WSMR.

DEFENSE REFORM INITIATIVE AND DOD'S ELECTRONIC COMMERCE RESOURCE CENTERS

Question. According to recent reports about the Defense Reform initiatives, Electronic Commerce at the Department of Defense is reducing overhead and providing a better interface for private enterprises, especially small businesses, interested in DOD business. So far, the geographic distribution of the existing 17 Electronic Commerce Resource Centers appears to heavily favor coastal states. (There are four Centers in Texas but none in any of the 4 Corner states, OK, NV, KS, WY, etc.) How does DOD make decisions regarding locations for the ECRCs? Would it be beneficial to have Resource Centers that could serve locations in the Midwest and Southwest?

Answer. DOD followed the recommendations of congressional committees for the locations for sixteen of seventeen ECRC sites. DOD made the most recent decision regarding the location of the seventeenth ECRC by convening a Committee composed of senior DOD officials to identify the site most in need. The criteria used by the ECRC Site Selection Committee were based on the level of existing coverage and the density of the "manufacturing cluster." The Committee recommended the Southern California regional area as the site for establishment of an ECRC because it had less coverage but more manufacturing enterprises than the other proposed sites. Under this criteria, the Midwest and Southwest were more adequately covered than Southern California. With the exponential growth of electronic commerce, especially on the Internet, the need for an ECRC outreach and training program within DOD is being reassessed. A senior-level panel is being formed to review the entire program and determine how to proceed with ECRCs in the future.

F–117 STEALTH FIGHTER

Question. I have been told that we have an F–117 Stealth Fighter plane grounded in California that needs about $6 million in landing gear repairs before it can return safely to Holloman Air Force Base. It will remain in California until these repairs can be made. Because this specific incident has not been handled quickly, I am wondering whether this is another example of shortfalls in spare parts. We have a multi-million dollar asset grounded and awaiting repairs, and we seem to either lack the extra money to repair it or the spare parts for our Stealth Fighters cannot be located. Could you please enlighten me regarding this situation?

Answer. On June 4, 1997, an F–117 (Tail #825) was damaged during landing. Initial on-site inspection revealed major damage to all wheel wells, adjacent structure, equipment bay, and internal racks & equipment. The initial repair estimate was $5,700,000. In August 1997, Lockheed Martin Skunk Works (LMSW) submitted a NTE proposal for $6,100,000 to both assess and repair the aircraft. Air Combat Command requested more detailed information to better define/refine the repair estimate, and LMSW, in response, submitted a proposal (February 5, 1999, $389,000) to generate the detailed assessment.

Several attempts have been made to procure repair funds for Tail #825. However, Air Combat Command has been able to fully meet all F–117 wartime taskings and training obligations with existing air frames.

Earlier this year, Air Combat Command funded the $389,000 damage assessment. Tear down activity is underway, and a detailed repair estimate will be available in July 1999. Air Combat Command will then have until August 10, 1999 to put the requirement on contract.

QUESTIONS SUBMITTED BY SENATOR CHRISTOPHER S. BOND

F/A–18E/F PROCUREMENT STRATEGY

Question. Mr. Secretary, coming from a state with a large stake in the nation's aviation assets, I have been a proponent of multi-year procurements of aircraft such as the C–17 for the Air Force and the AV–SB for the Marine Corps; when we know that there will be a significant procurement for an extended period in order to capture any economies that the program managers, comptrollers and industry can squeeze from the programs. In that light, I believe that the critical nature and progress of the F/A–18E/F program might lend itself to such a procurement strategy in the very near term. Would you support such a strategy and when would you like to implement it?

Answer. The Department of Defense has requested multiyear approval for the F/A–18E/F in the fiscal year 2000 President's Budget. The F/A–18E/F program has consistently been on cost and schedule, and has met or exceeded all Key Performance Parameters, making it an excellent candidate for multiyear procurement. The program meets the requirements for a multiyear procurement by providing substantial savings (estimated to be more than $700 million), a stable requirement, funding stability, and a stable design.

Question. Mr. Secretary, though I applaud the idea of smoothing deployment schedules for reservists and active duty personnel, I am concerned that you are now relying upon strategic reserves to fulfill roles traditionally covered by active duty forces, especially when we are in a peacetime mode of activity. The modernization plan as I see it, works on a sort of trickle-down theory. Will you guarantee that reserve and guard units folding into the deployment schedules have equipment which is compatible and adequate training to effectively employ those assets, and how do you intend to do it?

Answer. The Department of Defense always strives to ensure that our forces are fully trained and ready before deployment. National Guard and Reserve forces are provided equipment and training to ensure the successful accomplishment of the missions they are tasked to accomplish. The key to providing new equipment and appropriate mission essential task training is early identification of the mission, the capability required, and the specific unit to be employed. Early identification allows the necessary training resources for participating Reserve Component (RC) units to ensure their readiness for deployment. For example, the 49th Armored Division (Texas Army National Guard) is programmed to replace the 10th MTN DIV as the command and control element of Task Force Eagle (Bosnia) on or about March 2000. Prompt identification of that division has allowed the development and execution of a focused, properly resourced training and equipping program in preparation for this mission.

The services have the responsibility to equip and train the RC. Given adequate resources, they would equip their Reserve components to the same standards as their active counterparts. The Total Force modernization budget, however, is not sufficient to provide state of the art equipment for all. The RC must modernize through a combination of new equipment procurement and the use of equipment cascaded from the Active component. The services distribute equipment according to the "first-to-fight" approach, but have the latitude to vary equipment distribution to accommodate special missions.

Once units are identified for an operational mission, the services ensure these units have sufficient equipment and training to meet mission requirements. If required, new and redistributed equipment flows to these units out of sequence to meet deployment timelines. Thus, lower priority units may be brought to a higher readiness level more quickly than normal, enhancing the ability of such augmented units to deploy more rapidly.

QUESTIONS SUBMITTED BY SENATOR MITCH MCCONNELL

ARMY BUDGET AND PRIORITIES

Question. Over the past several years the portion of the defense budget devoted to the Army has steadily declined. Over the same period of time the optempo for the Army has increased dramatically. This has resulted in fewer soldiers with greatly increased responsibilities, and therefore has hindered the Army's ability to meet mission and retain soldiers. Does the DOD foresee a time when this trend will be reversed and the Army's share of defense spending will increase?

Answer. All services have encountered problems because of increase optempo. DOD has various initiatives to alleviate these problems, plus the added resources added in the President's fiscal year 2000 budget will help as well. Solutions are not expected to rest on increased troop strengths, but rather better management of optempo burdens.

The Army's spending share is projected to increase. By fiscal year 2005, Army outlays are planned to increase to 25.7 percent of the DOD total—up from 24.4 percent in fiscal year 1999.

Question. Does the DOD have a plan to train soldiers (/Marines) on urban terrain? What role will simulated training have in this plan? What is the proposed funding for this type of training and where will it take place?

Answer. Yes. "Military Operations on Urbanized Terrain" (MOUT) is not a new warfare environment, but it is receiving a great deal of attention, largely due to lessons learned in Chechnya, Somalia, and Haiti. The Department has compiled extensive documentation on tactics, techniques, and procedures (TTPs) for MOUT. The Army and Marine Corps, our principal MOUT Services, routinely use those TTPs as part of their training programs. In addition, to deal with the challenges of today's threat environments, the Department is conducting significant research, in the form of studies, demonstrations, and experiments, to identify new doctrine, weapons, TTPs, and training tools that will improve warfighting skills and effectiveness, while reducing the potential for casualties.

Simulated training will be an integral part of the training. Part of the current experimentation and demonstration programs is investigating new training aids. These include simulation as well as facilities and instrumentation. As the specific lessons are "learned," and programs for dealing with them are developed, they will be assessed and incorporated into training and training investment programs.

Training for operations in urban terrain is an integral part of unit training for operations in general. It is not funded separately. The funding is not tracked through any central account, and the exact amount is not known.

Most combat units train to conduct operations in all terrain, including "urban" terrain. Such training, therefore, is conducted in a wide variety of locations throughout the Army and Marine Corps. Specific training for MOUT, such as "force on force" or "live fire" training, is conducted at the following locations:

Army Locations (Current)

Fort Benning, Fort Polk (JRTC), Camp Ripley, Fort Drum, Camp Gruber, Camp San Louis Obispo, Hohenfels (CMTC), Fort McClellan, Camp Williams, Fort Hood, Schofield Barracks, and Camp Blanding.

Army Locations (Planned)

Fort Bragg, Fort Wainwright, Fort Lewis, Fort Campbell, Fort Stewart, Fort Riley, Fort McCoy, and Fort Carson.

USMC Locations (Current)

Okinawa, Twenty Nine Palms, Camp Lejeune, San Diego, Camp Pendleton, Quantico, and Parris Island.

USMC Locations (Planned)

MCAS Yuma.

Question. Does the DOD consider the failure of the military to meet recruiting goals serious? What does the Department plan to do to address these shortfalls? Specifically, does the Department plan to increase funding for Army recruiting?

Answer. The robust economy, with the lowest unemployment rate experienced during the history of the All-Volunteer Force, coupled with ever-increasing youth college attendance, makes recruiting especially challenging. We will closely monitor recruiting during this challenging year to ensure that sufficient resources and recruiters are being applied to ensure success.

In light of these fiscal year 1999 challenges, the Army increased recruiting resources by more than $100 million above its planned fiscal year 1999 investment, including a hike in the enlistment bonus (EB) ceiling for 3-year enlistments from $4,000 to $6,000. Both the Army and Navy have implemented a new $3,000 EB for those agreeing to attend boot camp during the historically low-flow spring months. In addition, the Navy and Marine Corps increased advertising resources by $35 million and $9 million, respectively. The Air Force plans to begin using paid TV advertising—the first time ever that Air Force will pay for prime-time television exposure. The Air Force also has increased its fiscal year 1999 advertising budget by $23 million (from $16 million to $39 million) and front-loaded $37 million for fiscal year 2000 advertising. The Army, Navy, and Marine Corps have added to their College Fund "kickers" (which are additions to Montgomery GI Bill benefits) so that the total money-for-college incentive is now set at $50,000 for the traditionally difficult-to-fill skills. Finally, the Navy is increasing recruiter strength by 10 percent, up to 4,500 by March 1999, and the Air Force is working to fill an 18-percent deficit in recruiter manning.

The Army has boosted its recruitment budget in fiscal year 2000 by $17 million (2 percent) over the fiscal year 1999 level. However, we monitor recruiting outcomes on a monthly basis and, should we find that the Army or another Service is in danger of missing its objectives, we will quickly work the problem within the context of the Department's Planning, Programming, and Budgeting System.

Question. Can the JROTC program be expanded, and what impact might that have on recruiting?

Answer. Under title 10, section 2031, the Junior ROTC program is authorized a total of 3,500 units. Currently, approximately 2,600 units are in place for the Army, Navy, Air Force, and Marine Corps. If additional Service funding for the program were available, 900 more units could be established without a change to law. Currently, there are approximately 450 schools on Service waiting lists for new units. Assuming a 4-year phased expansion of 900 units, from 2,600 to 3,500, the estimated expansion cost would be approximately $27 million the first year, $41 million the second, $54 million the third, and $68 million the fourth. However, such expansion within the current Defense budget would come at the expense of other imperatives. The difficult task of prioritizing programs led the Department to conclude it could not pursue JROTC expansion in fiscal year 2000.

We know from surveys of graduating cadets that, historically, about 40 percent of high school graduates with more than two years' participation in the program end up with some military affiliation (active enlistment, reserve or guard enlistment, or officer pre-commissioning program). In addition, military recruits who are graduates of Junior ROTC may qualify for higher enlisted grades upon entry into active duty. In summary, Junior ROTC is offered to school districts as a DOD citizenship and leadership program for secondary school students, and while it may provide students with greater awareness of the role of the military, it is not a recruiting program.

CHEMICAL WEAPONS DEMILITARIZATION AND ACWA PROGRAM

Question. Why has the DOD chosen to ignore clear Congressional intent and not reprogrammed funds to complete necessary testing within the Assembled Chemical Weapons (ACWA) program?

Answer. Public Law 104–208 requires the DOD to identify and demonstrate not less than two alternative technologies for the destruction of assembled chemical weapons. The Program Manager, ACWA selected three technology providers that met the demonstration criteria to proceed with demonstration activities. Public Law 105–262 permits the Army to reprogram up to $25 million for the ACWA Program

to complete the demonstration of alternatives to baseline incineration for the destruction of assembled chemical weapons; however, no additional funds were appropriated. The Army is reprogramming $15 million to complete the demonstration testing of three technologies and other tasks Congressionally mandated in Public Law 105–261.

Question. Can the DOD assure Congress that the technology with the greatest potential to be the safest, most effective and best alternative to incineration, is being demonstrated?

Answer. Thirteen technology proposals were submitted to a multi-step evaluation process. Seven proposals were approved at the screening step and six proposals at the demonstration step. All six technologies that passed the Demonstration Criteria potentially could be the safest, most efficient, and least likely to adversely affect both human health and the environment. A best value determination was then used to rank order the proposals and determine within limitation of funds which technologies would be demonstrated. Within the limitations of funding and information available at the point of decision for demonstration, the three best technologies are being demonstrated. The Congress mandated by Public Law 104–208 that DOD identify and demonstrate not less than two technologies.

Question. Is it true that three of the four highest rated technologies, according to technical merit, are not being demonstrated by the ACWA program?

Answer. The technologies rated acceptable for demonstration were neutralization followed by super critical water oxidation, solvated electron technology, Silver II electrochemical oxidation, plasma arc, and neutralization followed by biotreatment. The two highest rated technology providers submitted similar technologies and one technology provider was selected to demonstrate this technology. The remaining four technologies were determined equivalent in their technical merits and a best value process was used to determine, within the limitations of funds, two additional technologies for demonstration. This process and finding was supported by the March 8, 1999 General Accounting Office (GAO) decision denying the Teledyne-Commodore protest of the demonstration selections.

Question. Is "cost of demonstration" relevant to the larger question of how expensive the technology will be to operate in the actual destruction of chemical weapons?

Answer. The cost of demonstration is related to the maturity and complexity of a technology. Therefore, cost to demonstrate does provide insight into the life cycle cost, i.e. maturation, pilot and operation of a technology. The demonstration focuses on critical unit processes and the interface and effluent streams between unit processes. Complex, difficult to control technologies and technologies utilizing highly hazardous chemicals will cost more to demonstrate and will likely cost more to operate in a routine production environment.

Question. Is it true that projected "cost of demonstration" of the competing technologies could have been significantly impacted by the Army's assignment of different technologies to different demonstration sites? Could these costs have been impacted by the degree to which each technology utilized the Army's baseline disassembly and caustic neutralization process? Doesn't this factor penalize the most innovative technologies?

Answer. The cost of demonstration was most significantly dictated by the nature of the technology itself. If a technology required a significant portion of its process to be demonstrated because of an inadequate database for the validation of the process, the cost for demonstrating the technology would be higher. If the unit process(es) selected by the technology providers were a complicated one requiring many steps and controls involving very hazardous chemicals, and requiring a high level of analytical characterization, the costs would be higher. All of the demonstrations are being conducted at Government-operated facilities to which the technology providers must bring their equipment for testing. There may be some costs differences associated with testing different critical process units at different sites, but this is insignificant compared to the other direct costs for demonstration.

All of the technologies being demonstrated offer variations on baseline disassembly/neutralization which require demonstration and have a cost associated with the demonstration. For example, fluid jet cutting/hydromining, cyrofracture and chemical neutralization of both chemical agent and explosives differ from the baseline disassembly/chemical agent neutralization and are being demonstrated at the unit process level and the ability to interface with down stream processes. These portions of the demonstration were costed-out and considered in the best value determination.

All of the technology offerings and those selected for demonstration are innovative, varying in degree. Therefore the more critical point is the nature of the innovative technology and how that drives costs. An immature, complex technology that requires a high level of control that utilizes very hazardous chemicals will cost more

to demonstrate than an equally innovative technology that is operated with low hazardous potential and relatively simple effluent streams. These points were considered in the technical and cost evaluation and the ultimate best value determination.

Question. The Program Manager for Chemical Demilitarization has stated publicly that the levels of chemical agents routinely emitted from incineration facilities under optimum conditions would be an acceptable exposure level for workers and civilians.

How does the DOD reconcile this claim with the September 1998 GAO report (GAINSAID–98–228) entitled "Chemical Weapons: DOD Does Not Have A Strategy To Address Low-Level Explosives?"

Answer. The current operational and monitoring practices at the operating chemical agent disposal facilities provide the maximum protection to both the workers and general population from destruction activities.

The U.S. Army in coordination with the Department of Health and Human Services (DH&HS) developed low level airborne exposure limits for the occupational worker and the general population. These airborne exposure limits were published in the 1988 Federal Register prior to implementation. The worker airborne exposure limit is an 8-hour time weighted average for unprotected workers who may be repeatedly exposed for 8 hours per day, 40 hours per week, for a working lifetime with no adverse health effects. The general population airborne exposure limit is expressed as a 72-hour time weighted average which is an atmospheric concentration level allowable for the general population (including sensitive subpopulations) for indefinite, unprotected lifetime exposure with no adverse health effects.

The chemical agent disposal facilities have a sampling network that uses both low level near-real time and historical monitors at the facility as point source monitors and historical monitors as perimeter monitors. The monitors at the chemical agent disposal facility are configured to monitor work areas where workers perform their job wearing no protective clothing at the worker airborne exposure limit. In addition, a perimeter monitoring network is established around the chemical agent disposal facility to monitor for chemical agent at the general population limit. This monitoring system is designed to provide maximum protection to the worker and the general population, it is overseen by the DH&HS to ensure that it is managed to a high standard.

The GAO report (GAINSAID–98–228) is focused on low level monitoring for battlefield scenarios. It does not apply to domestic low level monitoring for chemical weapon storage or destruction activities. The report states that there is already DOD doctrine for domestic low level monitoring.

The Program Manager for Chemical Demilitarization has a zero chemical agent release policy. During the twelve operating years at both Johnston Atoll Chemical Agent Disposal System (JACADS) and Tooele Chemical Agent Disposal System, there has never been a chemical agent release during facility operations. There were two minor releases to the environment at JACADS during maintenance activities. Neither of these minor releases, however, posed a health threat to the JACADS workforce or to the Johnston Island population due to protective measures in place. In addition to the monitoring and operating practices that are in place to ensure protection of workers and the general population, health risk assessments are also performed at each of the facilities to ensure conservative results. These health risk assessments assume that chemical agents are emitted from the stacks at or below the airborne exposure limits published in the 1988 Federal Register, even though chemical agent has not been detected in emissions from any of the operating facilities. All the health risk assessments performed to date show, if agent were to be released at limits described in the health risk assessments, that workers and the general population would be exposed to levels of chemical agents that would not adversely impact their health.

QUESTION SUBMITTED BY SENATOR RICHARD C. SHELBY

BUDGETARY CONTINGENCY PLANS—POTENTIAL U.S. GROUND FORCE IN KOSOVO

Question. Dr. Hamre, I am sure you share my hope for a peaceful solution to the civil strife which has plagued Kosovo. While I am hopeful for peace, I am concerned with the wisdom of securing that peace utilizing some 4,000 of our Marines, as part of a NATO force, in an open-ended peacekeeping venture. If these forces are indeed landed in Kosovo, for what would seem to be an extended period, what are the implications for the fiscal year 2000 defense Budget? Are there contingency plans for such an operation?

Answer. The cost for U.S. involvement in a NATO peacekeeping force in Kosovo would depend on a variety of factors, including the exact size and composition of the final U.S. contribution, the intensity of the operations, and the condition of the local infrastructure. Since these have not been decided, the budget impact cannot be determined. This potential cost is not reflected in the current budget since the prospect of Kosovo operations emerged only after the fiscal year 2000 Defense Budget went to print. Therefore, the Department would ask the Office of Management and Budget to submit a nonoffset emergency supplemental funding request to cover the cost of these operations.

QUESTIONS SUBMITTED BY SENATOR ERNEST F. HOLLINGS

Question. What has your office done to reassure the families of men and women who received the Anthrax vaccine during Desert Shield and Desert Storm?

Answer. Since the Gulf War, at least four different panels have evaluated the premise that the anthrax vaccine, used alone or in combination with other vaccines and medications, contributed to Gulf War Illnesses. These four panels, the Institute of Medicine, Presidential Advisory Committee, Department of Veterans Affairs, and the National Institutes of Health, have investigated the cause of Gulf War Illnesses and concluded that the anthrax vaccine does not explain the long-term, chronic effects associated with Gulf War Illnesses.

The Department's Office of the Special Assistant for Gulf War Illnesses makes every effort to address all the concerns of Gulf War veterans and their families. One of those concerns is that vaccines received during the Gulf War might be the cause of illnesses some of our veterans have been experiencing.

In response to these and other concerns, the Special Assistant has developed and implemented an extensive outreach effort to the military member and his or her family. The Total Force Outreach is designed around visits to military installations where the highest concentrations of Gulf War veterans are expected to live and be assigned. It includes detailed briefings to active duty members, retirees, separated veterans, and their family members. The briefings include all the major medical concerns to include anthrax vaccines.

The medical members on the Special Assistant's staff also make every effort to talk to military medical personnel to sensitize them to the concerns of the veterans as well as ensure they are providing complete information to their patients. Special Assistant Dr. Rostker and his deputy, retired Lt. Gen. Dale Vesser, also speak frankly with senior military leadership to increase their awareness of the concerns of military members and enhance the communication process—a lesson learned from the Gulf War.

Dr Rostker has conducted seven Total Force Outreaches and is planning approximately one each month through fiscal year 2000. He also conducted 13 Town Hall meetings in major metropolitan areas prior to focusing on the Total Force.

Question. We are aware that your office (DOD) is working closely with DHHS to respond to the increased threat posed by biological weapons and bio-terrorism to citizens of the United States. How can we in Congress be of assistance to you and the rest of the country in addressing this concern?

Answer. Under the Federal Response Plan, the DHHS has been assigned as the primary agency responsible to provide coordinated federal response to public health and medical care needs following a major disaster or emergency, including those resulting from a terrorist incident involving the use of weapons of mass destruction (WMD). The Department of Defense supports HHS in this emergency support function.

DOD and DHHS have always enjoyed a strong and cooperative relationship. Since the signing of PDD 39, we have been working even more closely together to develop and leverage areas of mutual interest so our collaborative efforts result in both efficiencies and economies in our programs. Many of these efforts are addressing the very difficult issues associated with medical counter-measures for both chemical and biological agents. In fact, we are currently engaged with DHHS in the critical issue of vaccines to ensure our efforts are synchronized and to develop even greater sharing of information to leverage our collective strengths. To that end, support of the President's Program for domestic preparedness will significantly advance the capabilities necessary to prevent and manage the consequences of a WMD incident. Further, your continued support of DOD's initiatives and programs needed to assure the availability of effective and practical medical counter-measures will pay a collective dividend for the citizens of the United States.

QUESTIONS SUBMITTED BY SENATOR PATRICK J. LEAHY

SEARCHING FOR ALTERNATIVES TO ANTI-PERSONNEL LANDMINES

Question. In September 1997, the President announced the objective of eliminating U.S. use of anti-personnel mines by 2006, and the Pentagon has pledged to "search aggressively" for alternatives to anti-personnel mines. I heard recently that the Pentagon officials who are responsible for the search for alternatives are already saying that they are not going to make the 2006 deadline. Besides reiterating that you are going to do your best to meet the deadline, what can you tell me about the search for alternatives that causes you to doubt your ability to meet the deadline?

Answer. The Department of Defense is firmly committed to implementing the President's anti-personnel landmine (APL) policy. In June 1998, the President expanded and strengthened his September 1997 policy announcements and directed the Department to end U.S. APL use outside Korea by 2003, and to aggressively pursue the objective of having APL alternatives ready for Korea by 2006, to seek alternatives to mixed anti-tank munitions that contain APL submunitions and to investigate innovative maneuver denial concepts that may eliminate the need for mines entirely. Having APL alternatives ready for Korea by 2006 was set as an objective rather than a deadline because viable alternatives have yet to be identified, and the President recognized that there are significant risks and costs to build and deploy alternatives. There can be no guarantee that the search for suitable alternatives will be successful. Given congressional support, I am confident in meeting the President's 2003 deadline to end use of APL outside Korea and have guarded optimism for meeting his 2006 objective for fielding APL alternatives for Korea, but it is important to recognize the magnitude and difficulty of this challenge. At this date, we have not found suitable alternatives to our APL and mixed anti-tank systems, but our search is an aggressive, good faith effort not only to find, but also to field alternatives.

Meeting the President's 2003 deadline.—To end the use of APLs outside Korea by 2003, we are developing a mixed anti-tank system, the Remote Area Denial Artillery Munition (RADAM) and have destroyed all stocks of Non-Self Destructing (NSD) APLs not needed for Korea or for training, leaving only our mixed anti-tank systems for use outside of Korea. RADAM combines the already fielded Remote Anti-Armor Mine (RAAM) and Area Denial Artillery Munition (ADAM) to preserve an artillery delivered anti-tank capability essential to protect the lives of U.S. forces. The RADAM program is on track and a production decision on this system will be made in fiscal year 2001.

Meeting the President's 2006 objective.—In pursuing the objective of having APL alternatives ready for Korea by 2006, an aggressive effort is underway to provide effective defense for our forces and our South Korean allies that will eliminate the type of long lasting mines currently required. This program is called the Non Self-Destruct Alternative, (NSD-A). Two contracts have been awarded to develop three prototype "Man-in-the-Loop" systems adapting existing technologies to enable command detonation of weapons designed to halt an attack on South Korea. These prototypes will be assessed in fiscal year 1999 and the best concept will be selected for further development. Additionally, we are exploring technologies beyond Man-in-the-Loop that may offer both enhanced protection of U.S. forces and minimized risk to civilians.

Searching for alternatives to mixed systems.—In order to meet the President's additional direction with regard to mixed systems, the Department will aggressively and fully explore a wide range of operational concepts and potential materiel solutions as alternatives for all U.S. mixed systems and the existing anti-personnel submunitions within the mixed systems. This concept exploration phase will be robust and include an examination of doctrine, tactics, force structure options, use of systems currently in development, materiel and non-materiel solutions recommended by the combatant commands, and other materiel concepts from various independent and government-funded laboratories and industry.

Challenges of the search.—We have yet to find suitable alternatives to replace all APLs worldwide. However, the Department has planned to invest nearly $1 billion to meet the President's direction on alternatives and this estimate does not include costs to develop and field alternatives to mixed systems. We will not be able to accurately determine this potential cost until the concept exploration effort is complete. As an additional challenge, the current concept exploration effort has been hindered by funding limitations placed on it by Section 248, H. R. 3616–39, Public Law 105–261. Accordingly, the Department still does not hesitate to admit that the task of completely eliminating the use of landmines worldwide is a difficult one. U.S. landmines currently protect U.S. combatant and non-combatants alike and have been

employed by our combatant commanders in a manner that have always protected human life and have never been used to create the human tragedy that exists around the globe. In order to replace these systems, we must find an alternative that is militarily advantageous, cost-effective, and that does not threaten the protective role offered by our current systems. The Department is moving as rapidly as possible to find and field alternatives to our APL and mixed anti-tank systems in accordance the President's policy to ensure that as the U.S. pursues its humanitarian goals, we will take whatever steps are necessary to protect the lives of U.S. forces and those civilians they may be sent to defend.

QUESTIONS SUBMITTED BY SENATOR FRANK R. LAUTENBERG

Question. Last week, the Senate passed legislation repealing much of the 1986 Military Retirement Reform Act, commonly known as REDUX, with the goal of improving retention. The Congressional Budget Office has estimated that this policy will increase outlays by 11 percent over the long run, or $3.6 billion per year in today's terms. CBO stated in testimony last week that according to the hard data, "being under REDUX had no discernible effect on the midcareer retention decisions of people who began active duty after 1987 (the law's effective date)." Does the Department have analyses beyond anecdotal evidence on this point? If so, would you please submit them?

Answer. The Services routinely employ exit and quality of life surveys to guide their decisions regarding personnel policies. Since 1992, results of these surveys indicate that compensation and retirement benefits are clearly at the forefront in the minds of those members who are weighing the decision whether or not they should stay in the military. Across the Services, survey data show both officers and enlisted members cite pay and retirement benefits among the top reasons for leaving (or thinking of leaving) the Service. In addition, since 1992, the percentage of military members citing compensation and retirement benefits as among the most important reasons for leaving the Service has been steadily moving up in ranking.

The November-December 1998 Air Force Computer-Assisted Telephone Interview on Compensation surveyed 254 officers and 379 enlisted personnel. Of those, 58 percent of the enlisted members identified REDUX as the number one reason for separating, while 42 percent of the officers rated REDUX third in their reasons for separating. Both groups (officers—87 percent; enlisted—86 percent) felt that REDUX does not provide a good incentive to serve 20 or more years, and they did not believe this was a fair and equitable retirement system (officers—79 percent; enlisted 81 percent).

The 1998 Army Research Institute Survey on Officer Careers quantified responses from over 10,000 officers, stratified by commissioning year group and source of commission. This survey indicated that officers were more likely in 1998 than in 1992 to perceive that their pay and retirement benefits would be better in the civilian sector.

The 1998 Navy Retention/Separation Survey polled a random sample of second term enlisted sailors facing a reenlistment decision—all under REDUX. Retirements as the most important reason for leaving the Navy has increased from 15th in fiscal year 1995, to 5th in fiscal year 1998.

In addition to this direct survey data, current trends for retention of mid-career enlisted Service members are troubling. Navy retention is declining across the board—1st term retention is about 8 percent below goal; 2nd and 3rd term retention is approximately 5 to 7 percent below goal.

Air Force retention is below goal for all categories for the first time since 1990. The aviator bonus take rate is down 50 percent in the last three years. The Army's retention of captains (O–3s) has been declining since 1996. The Marine Corps is meeting retention goals but it is getting tougher. Additionally, both the Army and the Navy missed their quantity recruiting goals in fiscal year 1998, the Navy by 12 percent.

20-YEAR SERVICE LIFE EXTENSION PROGRAMS

Question. How much would it cost for the Defense Department to do 20-year Service Life Extension Programs on the F–15 and F–16? How does that compare to the cost of the F–22 and the Joint Strike Fighter?

Answer. Concerning an F–15 service life extension program (SLEP), no significant structural modifications are anticipated to extend the airframe life of the F–15. $5,200,000,000 (TY$) is required to upgrade aircraft systems to fix known, critical obsolescence, maintainability and capability problems. However, a SLEP for the F–15 will not meet operational air superiority requirements. From ACC Operational

Requirements Document: "No current United States (U.S.) aircraft, or derivative, can succeed at this mission in the next century."

For the F–22, the cost to complete the program is $42,000,000,000 ($3,200,000,000 in EMD and $38,800,000,000 in production—TY$). The total cost of the F–22 program, to include Demonstration and Validation, Engineering and Manufacturing Development (EMD), and Production, is $62,500,000,000 (TY$).

Current U.S. fighters cannot be upgraded to guarantee Air Superiority. Low intensity conflicts are not low technology. Without an extensive supporting electronic warfare force, survivability of existing fighters is doubtful. When developed in the mid-70's, the F–15 was designed to maintain air superiority at least through the 1980's. It has performed admirably, but it is unable to dominate the emerging threats. The F–15 will be 30 years old when replaced by the F–22. When compared to the F–22, the F–15 requires more than twice as much airlift to deploy to a crisis area; will produce fewer sorties; requires more maintenance effort; and costs one-third more to operate.

The need for a new air superiority fighter is driven by the threat the U.S. will face early in the next century. That threat includes not only advanced fighter aircraft but also increasingly lethal Surface-to-Air Missiles (SAMs).

Advanced fighters are being developed by several countries and are available for export. These advanced fighters, which will equal or surpass the performance of current U.S. air superiority fighters, include the French Rafale, the Eurofighter 2000, and the Russian Su–35. The F–22 is expected to remain in service to the year 2030 and beyond, pitting it against threats with more advanced capabilities than even these known systems.

The sophistication of SAM systems continues to advance with longer range radar, anti-jamming protection, and higher capability missiles. Advanced SAM systems, due to their relatively low cost and their demonstrated effectiveness, are a quick way for countries to improve their air defense systems. The number of countries possessing the most advanced SAMs—SA–10/12 class—is expected to increase from 14 today to 21 in 2005. As a result, these lethal SAMs will challenge our ability to gain air superiority.

Concerning the F–16's SLEP, Structural upgrades can not be accomplished to keep the F–16 fleet airworthy an additional 20 years. The F–16 C/D, Block 25–52, airframes were designed to last 8,000 flight hours. The maximum life extension that could be accomplished is 2,000 flight hours; total 10,000 flight hours (est 7 years). Contractor structural experts have estimated that required repairs and modifications would be too extensive to make conducting a SLEP on the F–16 C/D past 10,000 flight hours economically feasible. New aircraft would be less expensive than a SLEP past 10,000 hours. In addition, because of higher operations tempo and heavier aircraft loading, the USAF is performing structural modification and repair programs to ensure current F–16 C/Ds reach their 8,000 flight hour design life. Even if a SLEP was performed at a cost of $7,900,000,000 (TY$), additional aircraft purchases, at a cost of $73,300,000,000 (TY$), would be required since the 10,000 hour airframes will not extend out a full 20 years. If a SLEP was not done on the F–16 fleet, new aircraft would be required to replace the aging aircraft as they reach their 8,000 hr airframe service life: cost would be $63,400,000,000 (TY$). No matter which course of action is taken it would also require an additional estimated $11,500,000,000 (TY$) to fix known, critical obsolescence, maintainability and capability problems, and upgrade aircraft systems to maintain rough parity with existing threat aircraft and anti-aircraft systems. However, this upgrade to parity with current threats ensures inferiority against future threats expected over the 20 year life extension.

The Joint Strike Fighter (JSF) total development cost is projected at approximately $20,000,000,000 ($FY 1994), the USAF share of which is approximately $9,000,000,000 ($FY 1994). The JSF procurement cost baseline will not be established until Milestone II in 2001. The Services have established Unit Recurring Flyaway (URF) cost goals, the major component of procurement cost, in their interim requirements document. The URF goal for the USAF variant is $28,000,000 ($FY 1994) for the projected USAF buy of 1,763 aircraft. The Program Office and prime contractors are focusing on defining the support concept and associated estimates for the support elements of procurement cost prior to establishing the procurement cost baseline at Milestone II.

Question. Many have cited today's high operating tempo as a basis for increasing the Defense Department's topline. Perhaps this is more of an organizational and management issue than a budget issue. The Air Force and Marine Corps have adapted their force structures to reflect the "expeditionary" character of missions today and ease the stress placed on them by contingency operations. Is the Army

planning to adopt this same management principle? Are there other force management measures the Department is considering?

Answer. The Army is also considering ways to improve its force projection capability to meet the "expeditionary" character of today's missions. For example, the Army's "Strike Force" concept employs small, self-contained, brigade-size units as the basic building blocks of a deployable force. Likewise, the Army's "Force XXI" effort is exploring a number of improvements to the Army's war fighting units to make them a more lethal, survivable, and mobile force.

The Department is also actively managing our forces to meet the demands of today's expeditionary environment. For example, through our Global Military Force Policy (GMFP), we carefully monitor those units that are in high demand for contingency operations. When necessary, we make substitutions or force structure adjustments to accommodate the increased demand for these units.

We will continue to explore new and innovative ways to ensure we have the right force structure and operational concepts to meet the demands of today's expeditionary environment.

NATIONAL MISSILE DEFENSE

Question. In 1996, DOD estimated that deploying a single-site, 100 interceptor national missile defense would cost $9 billion to procure. Last November, the BMDO Joint Program Office estimated it would cost $15 billion, or 67 percent more. What is the cause of this dramatic increase?

Answer. The 1996 acquisition cost estimate presented by then Deputy of Defense John White was based on a Grand Forks deployment and was generated prior to the availability of an updated System Requirements Document (SRD). It represented the best information available at that time. However, since then, the Lead System Integrator (LSI) has been selected, and the technology has matured, as has our understanding of what it will take to deploy a National Missile Defense system. As such, our estimates have matured as well.

In November 1997, we estimated $15 billion (acquisition costs) for an Alaska based 100 interceptor system, which was just one of several alternative excursions being considered at that time.

QUESTIONS SUBMITTED BY SENATOR BYRON L. DORGAN

ABILITY TO MEET NATIONAL SECURITY OBJECTIVES

Question. During recent testimony before the Budget Committee, Lawrence Korb asserted that defense spending could actually be decreased by $100 billion. I'd like to ask your opinion on this assertion, and how our ability to meet national security objectives would be affected by such a shift in strategy.

Answer. Reducing defense spending by $100 billion would greatly detract from our ability to meet core national security objectives. Even at present levels of funding, the Department is experiencing challenges in combat readiness and in recruiting and retention. As a result, an additional $112 billion has been requested for fiscal year 2000–2005. Actually reducing defense spending by $100 billion would not only make it difficult to sustain combat readiness, recruiting and retention rates, and critical modernization programs, it would also require us to scale back or terminate long-standing commitments and would severely hamper our ability to respond quickly to challenges to our interests, with a corresponding reduction in our influence in those regions where we chose to abandon a major leadership role.

U.S. ALLIED COST SHARING

Question. Congress has mandated cost sharing goals between the United States and its allies. The 1998 Defense Department report on cost sharing expressed concerns about negative trends in direct cost sharing for U.S. troops stationed or deployed in Europe. What is your current assessment of that trend? Which of our allies are meeting the targets? Which are not? Likewise, what is the current status of burden sharing contributions by Japan and South Korea for mutual defense costs?

Answer. The Department does not foresee negative trends in direct cost-sharing for our troops stationed in Europe, and does not believe it conveyed such trends in the 1998 Report on Allied Contributions to the Common Defense. That report stated that "European host nation support remains essentially level and focused on indirect contributions." It went on to note: "* * * although our European allies do not offset the same percentage of U.S. stationing costs as do Japan and the Republic of Korea, they contribute significantly more toward sharing the military roles, as

well as the overall political and economic costs, of protecting shared interests." Our most recent report (March 1999) highlights that in 1997, the Europeans offset nearly one-third of U.S. stationing costs, a slight increase from 1996.

The March 1999 report states that during 1997, Saudi Arabia and Japan are the only countries to meet the Congressional cost sharing target (an offset of 75 percent of U.S. stationing costs by September 30, 2000). However, relative to GDP, several additional countries also made substantial cost sharing contributions, including Oman, the Republic of Korea, Kuwait, Luxembourg, Italy, and Bahrain.

The March 1999 report provides additional details on Japan and the Republic of Korea. Regarding Japan, the report states: "Its host nation support is the most generous of any U.S. ally. Department estimates of Japan's cost sharing in support of any U.S. ally. Department estimates of Japan's cost sharing in support of U.S. forces for 1997 ranged form $3.7 to $4.3 billion ($4.9 billion according to State Department sources), covering 75 percent of U.S. basing costs." As for the Republic of Korea, the report says: "In December 1998, U.S. Forces Korea (USFK), the U.S. Embassy, and the ROK Ministry of National Defense reached a new multi-year Special Measures Agreement (SMA) continuing from 1999–2001. The SMA calls for a ROK contribution of $333 million for 1999 with increases in 2000 and 2001 based on growth in ROK GNP and inflation."

MILITARY HOUSING PRIVATIZATION INITIATIVE

Question. DOD is in the process of privatizing its military housing. Initial indications are that the Department is getting substantially more housing for its military members under this approach. However, with the possibility of another round of Base Closures, I'm concerned about the risk to privatize contractors who would be required to enter into long term housing agreements with the DOD under this proposal. What contract mechanisms is the DOD using to address this risk to local contractors? Who would bear the risk and contractual liability under these agreements if a base is closed?

Answer. In the event of a base closure, in communities that have a viable housing market, the developer may rent the project's housing unit to civilians, including military retirees, as the military population draws down. The likelihood of default is negligible. However, there is an additional potential protection for developers two have projects in communities that do not have a viable housing market.

One of the Military Housing Privatization Initiative authorities contained in the 1996 National Defense Authorization Act allows (but does not require) DOD to provide a loan guarantee to cover the risk of base closure as well as deployment, and downsizing. If included in the agreement, in the event of a default, which is proved, to be caused by base closure, the government will be obligated to pay off the balance of the loan.

B–52

Question. The Air Force is releasing its bomber study this week and I'm looking forward to reviewing the report. Of particular interest is the proposal concerning B–52 bombers. As shown in operation Desert Fox (where B–52s delivered 90 of the approximately 200 cruise missiles used) the B–52 is reemerging in its role as the mainstay of the Air Force bomber force. For example, eight of these bombers can deliver the same number of missiles (160) and twice the fire power of an entire carrier battle group's cruise missile compliment. Unfortunately, the B–52 aircraft retention issue is an example of how a cost effective proven platform is being retired at time where no replacement program is in place. What is the wisdom of deactivating more bombers at time when we have no bomber procurement effort in progress.

Answer. The U.S. Air Force White Paper on Long-Range Bombers identified a requirement for a bomber force structure of 190 bombers. From the total number of 190 bombers, 130 will be combat coded aircraft. Using current operating procedures, attrition models, and service lives, the Air Force determined that five of the 23 B–52s identified as excess-to-need would be retained to insure the bomber force structure does not fall below the requirement prior to fielding a replacement capability in 2037.

Question. I understand that retaining more B–52's would impact the nuclear force structure, and that this is a valid consideration in the retention issue. What would be the impact on the strategic force structure if the entire fleet of 94 B–52's was retained? How would other strategic forces be reduced to meet START II limits?

Answer. Retaining all 94 B–52Hs under START I rules would not impact the strategic force structure. All 94 B–52Hs could also be retained with minimal impact on the strategic force structure to meet START II limits of 3,000 to 3,500 warheads,

but some B–52Hs would probably require reductions in warhead attribution from 20 to 8 warheads to meet START II warhead levels. Additionally, for the U.S. to meet START II limits, Peacekeeper ICBMs must be deactivated and their silos eliminated, Minuteman III ICBMs must be reconfigured with only one warhead, deployed B–1 bombers would be declared IAW START II guidelines as conventional bombers (thus would not count against START II warhead ceilings), and some reductions in SLBM warhead attribution would have to occur.

However, if the START II treaty is ratified by the Russians, and if the U.S. enters a START III agreement, START II limits would not be a consideration since the 1997 Helsinki Agreement further reduces nuclear warheads to meet START III limits of 2,000 to 2,500 warheads. This drawdown would run concurrent with the START II proposed timeline extension of December 2007 so START II warhead limits would be met on the way down to START III warhead limits (the START II timeline extension agreed to in Helsinki has not been ratified by Congress).

Retaining all 94 B–52Hs under a START III scenario would be problematic. Reductions to our nuclear forces would have to be made to meet the 2,000–2,500 START III limit. Possible options to meet START III limits include; reducing warhead attribution on B–52Hs (e.g. 20 to 8) and B–2s (e.g. 16 to 8), eliminating ICBM wing(s), removing some launch tubes on SSBNs, or reducing warheads on SLBMs. Reducing warhead attribution on B–52Hs must be carefully considered since the Advanced Cruise Missile (ACM) is currently only carried externally on the B–52H. B–52Hs with a START II/III attribution of 8 warheads would not carry ACMs externally.

Question. The Air National Guard and Reserve forces are becoming more important in meeting the mission requirements of Active Duty forces. It is my understanding, that the Air Guard and the Reserve will be vital to the successful implementation of the Air Expeditionary Force concept. However, many of these units operate the oldest aircraft in the inventory, some relying on allies for spare parts. What is the department doing to ensure that Air National Guard and Reserve forces have the proper equipment and training needed when these men and women are put into harm's way. In particular, what are the prospects for outfitting Guard units with new aircraft instead of perpetuating the current process of handing down older planes?

Answer. It is in the Nation's best interest to reduce OPTEMPO, and thus help improve retention, by assigning the new aircraft to Active Duty units and cascade PGM/smart weapons capable F–16 Block 30s to the Guard.

The purchase of new Block 50 aircraft, along with Active Duty force structure consolidations, will enable us to retire our aging ANG F–16As and replace them with F–16C Block 30s. We are currently procuring targeting pods for our ANG units, giving them precision guided munitions capability. Furthermore, our modernization roadmap for the F–16C Block 30 includes smart munitions capability (Joint Direct Attack Munitions, Joint Stand-Off Weapon, Wind Corrected Munitions Dispenser, etc.) in the very near future.

The F–16C Block 50 Suppress Enemy Air Defense (SEAD) mission presently has the highest OPTEMPO within the F–16 community. The ANG would need an additional five SEAD units (not including McEntire, SC) to meet current OPTEMPO requirements and not adversely impact unit retention. This would require a total buy of 95 aircraft within a 2–3 year period

ICBMS AND THE FUTURE U.S. DETERRENT

Question. It is my hope that we will soon be able to agree to further reductions in deployed nuclear weapons beyond the START II levels with the Russians. I think we can all concede at this moment however, that nuclear forces will remain in our arsenals. I'd be interested in your views on what the strategic force structure should look like beyond START II?

Are ICBMs as [sic] more stabilizing than submarine launched missiles since they present a known quantity to other nuclear powers?

Answer. Both ICBMs and SLBMs present known quantities to other nuclear powers. Because SSBNs are so large and take so many years to construct, the numbers possessed by the U.S. and Russia are well known to both sides. In addition, under the START I Treaty, both sides provide periodic declarations detailing the numbers and locations of these treaty-accountable missile systems. This information can be validated during on-site inspections permitted by START and through the use of national technical means.

Question. Is the ICBM force more cost-effective than the submarine launched missile force?

Answer. Each leg of the triad brings different advantages to our deterrent force. The ICBM force brings a high alert rate and an ability to respond rapidly once directed to execute. The SSBN force brings survivability even without any warning. The bombers bring the ability to be recalled once ordered to take off. The combination of all three legs of the triad also makes defending against our deterrent force extremely complicated for any would-be aggressor. Thus, even as we have reduced our strategic deterrent forces, we have done so in a manner that would maintain the characteristics and advantages of the triad. Moreover, because we have different types of systems in the force, a failure of one type of system (due to malfunction) would not leave us without a deterrent force.

Question. Do you perceive a future missile force structure that is predominantly land or sea based? Have we carefully weighed all the advantages to retaining 500, rather than 300 ICBMs?

Answer. Under the 3,000–3,500 accountable strategic weapons allowed by the START II Treaty, we would maintain a strategic deterrent force that included 14 Trident II SSBNs and an ICBM force of 500 Minuteman missiles. The Department has not yet decided upon the composition of a deterrent force under a 2,000–2,500 accountable warhead limit under a future START III agreement.

Question. If the majority of our strategic forces were land based, is the current ICBM modernization program adequately funded to support that decision?

Answer. Under START II the major portion of our strategic, accountable warheads will be in our SSBN force. No force structure decisions have been made should we achieve agreement on subsequent, deeper reductions.

Question. Is adequate consideration being given in arms control discussions to address how dual-purpose bombers, like the B–52, could be maintained at higher levels?

Answer. The B–52 serves primarily as a standoff platform for the delivery of conventional and nuclear weapons. The number of B–52s is derived from requirements for their use in two nearly simultaneous major theater wars and their role in nuclear deterrence. This number of B–52 bombers is sufficient to meet our current and projected strategic deterrent requirements. In addition, START II allows the U.S. to exempt B–1 bombers from the treaty's 3,000–3,500 warhead limits by reorienting them to a conventional role. START II also allows each side to change the number of nuclear weapons attributed to heavy bombers, thus allowing the U.S. to retain a larger number of aircraft than would be the case if all were accountable at the original attribution number.

QUESTION SUBMITTED BY SENATOR RICHARD J. DURBIN

DEFENSE WORKING CAPITAL FUNDS

Question. What is the Defense Department doing to work with facilities such as the Rock Island Arsenal to offset the effects that low utilization have on their overhead rate charges? Does DOD have a plan to increase both government and private utilization, which could control overhead costs?

Answer. There are two specific things that DOD has done to help facilities offset low utilization. First, we budget direct funding for underutilized plant capacity (UPC). This UPC funding is provided to offset the cost of facilities and equipment which is needed for surge operations but are not being used during peacetime. In fiscal year 1999 the Army Ordnance Activity Group, of which Rock Island Arsenal is a part, received $23.3 million in UPC funding.

Secondly, the Army has reorganized the Ordnance Facilities and transferred munitions storage facilities (previously part of Army Depot Maintenance) into Ordnance in fiscal year 2000. This provided an additional $212.6 million in work load in fiscal year 2000 and allows the Ordnance Activity Group to lower their stabilized rate. There are some projects being considered for public-private partnering which could also help shore up diminishing work load. However, in the final analysis, the cost associated with maintaining the industrial capability to defend this country cannot be avoided, whether public or private interests accomplish that function. The Department will continue its efforts to obtain the required capability in the most economical fashion.

SUBCOMMITTEE RECESS

Senator STEVENS. If there is nothing further, the hearing is recessed.

[Whereupon, at 11:33 a.m., Wednesday, March 3, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2000

WEDNESDAY, MARCH 10, 1999

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Specter, Domenici, Bond, Hutchison, Inouye, Harkin, Dorgan, and Durbin.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE NAVY

SECRETARY OF THE NAVY

STATEMENT OF HON. RICHARD DANZIG, SECRETARY OF THE NAVY

ACCOMPANIED BY:

ADM. J.L. JOHNSON, CHIEF OF NAVAL OPERATIONS, DEPARTMENT OF THE NAVY

GEN. C.C. KRULAK, COMMANDANT OF THE MARINE CORPS, U.S. MARINE CORPS

OPENING REMARKS

Senator STEVENS. My apologies for being late. I was at another committee hearing, and I am pleased to see that I had two stalwarts ready to go forward with the hearing. You might have been better off if I had stayed over there before we are through here this morning, gentlemen.

But it is nice to see you, Secretary Danzig, Admiral Johnson and General Krulak. I look forward to these hearings with you.

General Krulak, my staff tells me that this is going to be your last appearance before this committee as our Commandant of Marines.

General KRULAK. Yes, sir.

Senator STEVENS. I don't know how these years go by so fast, General. He should go reenlist, he is so young.

But you had a distinguished career. We have all enjoyed working with you and traveling with you and getting to know you and the way that you believe in the Marines, your outfit. The whole committee wishes you well as you finish your tour. We will miss your informative and forward looking approach, and we believe that the Marines are really better off for the changes that you have made.

So we know that—Steve Cortese reminds me of the Sea Dragon and the things that we are working on to better the manner in which the Marines can contribute to our defense. We all look forward to seeing you as the years go by and wish you very well.

General KRULAK. Thank you very much, sir.

Senator STEVENS. Gentlemen, it is nice to have you here. I am glad you do not all depart at the same time.

This year's Navy and Marine budget suggests that your team has built a solid budget. It lives within the funds available. But there are going to be some challenges along the line, I think.

I talked to Admiral Johnson about this yesterday, Mr. Secretary. People are really at the heart of our Armed Forces. We passed S. 4. I was with our leader last night when he was recognized by the USO for his action in making that the first action of the Senate in this new Congress. All of us welcome that and voted for it. But I have got to tell you, it is going to be an awful difficult job to fund that bill.

We look forward to trying to work with you to make certain that we can carry that out in the areas of your responsibility. The operation and maintenance account is basically flat for 2000 as compared to 1999. And we, I think, are going to have some serious questions as to whether that is sufficient to maintain the readiness of the forces under your commands.

You have the F/A–18, the DD–21, the new aircraft carrier and the Virginia class submarine moving along in phases of development, and that means advanced funding, and it means commitment of future budgets to carry out that procurement.

I have to tell you, you have all seen it in the paper, I hope, this morning. All of us concerned with appropriations are worried about the decisions we have to make under the ceiling that exists now. It is a most welcome challenge, but it is a very difficult one. But we look forward to working with you.

Senator Inouye, do you have any comments?

STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. Just a few words, Mr. Chairman, thank you. And I join you in welcoming the Secretary on his first appearance before us.

Secretary DANZIG. Thank you.

Senator INOUYE. Welcome back, Admiral Johnson. I hate to say good-bye to you, General but we never actually say good-bye to a Krulak. The Krulaks have been with us as far as I can remember.

If I may add to my chairman's statement, if it were not for you, General, the V–22 Osprey would be a picture on a wall. It is a reality now. And if it were not for you, the AAAV, I think, would also be a picture on the wall. But it is going to become a reality.

And because of your innovative ideas, such as the war fighting lab, we can look upon the Marines as ready for anything. I wish to commend you and thank you, as a citizen of the United States, for all you have done for us. We appreciate it very much.

General KRULAK. Thank you very much, sir.

Senator INOUYE. I have much more, but I would like to carry on my discussions during the questioning period. But, like all of us, I am concerned about readiness. I am concerned about recruiting

and I am very pleased we had a meeting, Admiral. It gave me a better idea on why the lowering of the standard, for example, will not hurt your efforts.

So, if I may, Mr. Chairman, may I have my full statement made part of the record.

Senator STEVENS. It will be placed in the record and I'll put my full statement in the record, also.

[The statement follows:]

PREPARED STATEMENT OF SENATOR DANIEL K. INOUYE

Good morning, I want to join my chairman in welcoming our witnesses today. A welcome back to Admiral Johnson and General Krulak, and a welcome for his first appearance as the Secretary of the Navy to Mr. Richard Danzig.

I am pleased that we will have the opportunity to hear from our sea services today. For those of us whose states border on, or, as in my case, are surrounded by ocean, the Navy and Marines play an instrumental role in our defense.

For the past several months we have been hearing disturbing things about the status of our military services. We hear that retention is down. Readiness is teetering on a precipice, and recruiting is difficult because we have a small and generally less willing group of young people eager to enter the military.

Our marines, I would note, seem to be less affected by these problems, but I am aware, General Krulak, that you have your concerns as well.

Mr. Secretary, we are pleasantly surprised that the administration increased funding for the Department of the Navy.

But, we recognize that even with the increase we are buying too few ships to sustain a 300 ship Navy over the long term, and the nagging readiness and personnel matters I noted portend continued problems for the future.

Moreover, I note that we increasingly assume we will gain substantial future benefits from privatization and other cost reduction measures which have yet to demonstrate many real savings.

These plans, which at best are highly optimistic, are the underpinnings of our future budgets.

It is how we plan to have sufficient funds to restore readiness and re-energize our investment budget.

Again, I for one am glad that the administration has increased your budget, but I question whether we have tackled the underlying problems which are the root of the discontent of the troops. It is here that I have my concerns for the future of our nation's security.

With that, I am most pleased that you are here today, and I look forward to hearing how you address these concerns and other matters.

PREPARED STATEMENT OF SENATOR TED STEVENS

Secretary Danzig, Admiral Johnson and General Krulak, we are pleased to have all of you here today before the committee.

Secretary Danzig, I would like to welcome you this morning for you first appearance before our committee as Secretary.

I would also note that today will be General Krulak's last appearance before our committee as Commandant of the Marine Corps.

General Krulak, you have had a very distinguished career and I know I speak for the entire committee when I say that we have enjoyed working with you and wish you the best as you retire from the Marine Corps on June 30th.

General Krulak, your innovative and forward looking outlook as Commandant manifested by the Sea Dragon Lab and the Chemical Biological Incident Response Force are an important legacy for the Marine Corps and the Nation.

Gentlemen, the committee's initial look at the Navy/Marine Corps fiscal year 2000 budget suggests that the Navy and Marine Corps team has built a solid budget which lives within the funds available. However, this does not mean there will not be challenges.

We all recognize that people are the heart of our Armed Forces. The Navy and Marine Corps has seen negative trends in retention. While S. 4 will go a long way in reversing these trends, S. 4 makes more difficult an already difficult budget situation.

The operation and maintenance account is basically flat compared to fiscal year 1999. We will all want to be certain that the Navy and Marine Corps can maintain readiness within the budget request.

The Navy and Marine Corps also face a number of near and far term acquisition challenges. The F–A18, the DD–21, the future aircraft carrier, LPD–17, and the Virginia class submarine are all moving to more costly phases of development and procurement.

In a very uncertain budget environment, these many competing demands will present the Navy, Marine Corps and the Congress with difficult decisions on allocating limited dollars.

We look forward to working with you on the fiscal year 2000 budget as well as planning for the future of our Navy and Marine Corps.

We will make your full statements a part of the committee's record.

Before you proceed, I would like to ask my colleague from Hawaii if he has any opening remarks.

STATEMENT OF HON. CHRISTOPHER S. BOND

Senator STEVENS. Senator Bond.

Senator BOND. Thank you, Mr. Chairman. You see how democracy works. The palace coup was effective for about three minutes and, fortunately, it was bloodless and I am still here. I thank the chairman for allowing me to say just a few words.

Mr. Secretary, Admiral Johnson and General Krulak, we welcome you today.

I share the concerns that our leaders on this committee do; that your team is being asked to carry a major burden while at the same time, it is inadequately resourced. We hear in the news that the Pentagon is having difficulty trying to realign its forces to cover both the Arabian Gulf presence and the reemerging threats to peace and security in the Balkan region, and these are not close to being two major regional conflicts (MRC's).

We hear of ships, carriers deploying with less than full manning. They are still doing the job, but at what cost? Current OPTEMPO is as high as we have ever seen it, and the ability to sustain such efforts puts a really serious strain on the crew and their families, especially when only 80, 85 percent or even 90 percent of the required work force is available.

It was a great pleasure for me to be on a carrier, and at the time I believe it was fully manned. But even then the young men and women there were doing the work of at least one and a half, if not two individuals, and there certainly was no slack that I ever saw.

And I know that many of our colleagues join in voicing concern over the services' abilities to meet effectively their mission requirements without making deep and risky cuts in the critical supply stocks and accelerating the depreciation of major equipment, specifically aircraft, not to mention the additional strain which has been put on personnel because of increased deployments and decreased manning.

People join the service not to get rich. They do it to make a significant contribution, to lead and be part of a superlative group of young men and women, to explore their professional limits and to provide adequately for their families.

But, of course, financial considerations must be made. And I am concerned about your ability to recruit and retain the talents you need, and that clearly is the strength of the services.

High quality training opportunities while deployed, a general increase in the number of flight hours per air crew or a reduction in

the number of administrative reports and inspections, restoration of dependent and retiree health care availability/quality are examples of incentives, I believe, can go a long way.

I, also, believe there is a seemingly forgotten tradition of intangibles which made you, Admiral Johnson and General Krulak, when you were an ensign or a second lieutenant look up to your commanders.

Mr. Secretary, we are very pleased with what you are doing, and I hope you are listening to the junior officers (JO's) as we recognize the awesome burden facing you and our Armed Forces both in terms of increase in mission requirements and the concurrent decrease in the funding available.

This committee, under the leadership of the current chairman and the ranking member, has long warned the Department of Defense about low balling funding requirements which only exacerbates the fiscal problems facing all the services' abilities to conduct the many operations required.

PREPARED STATEMENT

I have a much longer statement, Mr. Chairman. We will express and discuss some of those items like concern—you might be interested to know—in the F/A–18E/F. We will address that later, but I would like to have the full statement made a part of the record.

Senator STEVENS. Yes, sir, it will be placed in the record.

[The statement follows:]

PREPARED STATEMENT OF SENATOR CHRISTOPHER S. BOND

Mr. Secretary, Admiral Johnson, General Krulak, I join with my colleagues in welcoming you before the committee today to address the President's budget request and the very serious issues facing the Navy Marine Corps team.

Today, I am concerned that this team is being asked to carry a major burden while at the same time it is being inadequately resourced. We hear in the news that the Pentagon is having difficulty trying to realign its forces to cover both the Arabian Gulf presence and the re-emerging threats to peace and security in the Balkan region, and these are not close to being 2 MRC's. We hear of ships, carriers, deploying with less than full manning. They are still doing the job, but at what cost? Current Ops tempo is as high as I have ever seen it; and the ability to sustain such an effort puts a serious strain on the crew and their families, especially when only 80, 85, or 90 percent of the required work force is available. I have been on a carrier and let me say even at full manning, these young men and women do the work of one and a half individuals—there is no slack on the flight decks. I know that many of my colleagues join me in voicing concern over the service's ability to effectively meet their mission requirements without making deep and risky cuts into critical supply stocks and accelerating the depreciation of major equipment specifically aircraft, not to mention that additional strain which has been put on personnel because of increased deployment schedules and decreased manning.

In particular, we have all seen the data concerning the abysmal retention rates of all of the services' pilots. We, here, are all sympathetic to your efforts to find an answer to this serious readiness problem. I submit to you however, that throwing money at these individuals is not the only answer. As I have stated before, most who join the service do not do it for avaricious reasons—they do it to make a significant contribution to the country, to lead and be a part of a superlative group of young men and women, to explore their professional limits, and to provide adequately for their families. Of course financial considerations must be made, but it is not the be-all, end-all.

The exodus of individuals now spans the rank structure and I am concerned about your ability to recruit new talent. Over the years, individual tactical flight time has been dramatically curtailed. I venture to say that a Lieutenant today has a lot more blank space in his log book than those of days past. Now I know that the Navy is trying to get "more" out of every flight, but I also submit that much of the flight

time dedicated to these other than war contingencies do nothing to hone the skills of our aviators and in fact, require the pilots to spend hours flying at their aircrafts' most conservative power settings drilling holes in the sky while "monitoring" one peacekeeping mission after another—Iraq, notwithstanding. High quality training opportunities while deployed, a general increase in the number of flight hours for aircrew, a reduction in the number of administrative reports and inspections, restoration of dependent and retiree health care availability and quality are examples of incentives I believe can go along way. I also believe that there is a seemingly forgotten tradition of intangibles which made you Admiral Johnson and General Krulak when you were an Ensign or 2nd Lieutenant, look up to your unit commanders—and then once you were one of those commanders, gave you the authority and the accountability to stand up for your J.O.'s (junior officers) and actually lead the Sailors and Marines under your command rather than merely manage personnel resources.

Mr. Secretary, don't wait for your future to desert you and then ask why I hope you are listening to the J.O.'s.

That said, we recognize the awesome burden facing you and our armed forces both in terms of its increase in mission requirements and concurrent decrease in the funding available to meet those missions.

For many years, this committee has warned the Department of Defense about the policy of low balling funding requirements which only exacerbates the fiscal problems facing all of the services' ability to conduct the myriad of operations required of you. As I understand it from Mr. Hamre's comments last week, that in this year's request, you were unable to account for the vast amount of weapons which you have expended so far in covering our No-Fly contingency operation which is what—8 years old?

Over the past seven years, this Congress has increased the Defense budget by billions of dollars; some critics have attacked us for those increases but the Department and the Administration have routinely come back to us pleading for more, through "Emergency Supplementals" primarily because of the burgeoning Contingency Operations costs. Some of these operations have extended way beyond any "Contingency" status and we have contested DOD financial planning for them. I note some improvement in this year's budget submission but I expect we will see another supplemental to cover all of the contingencies in which the President has us embroiled.

Mr. Secretary, last year, we commissioned the newest of the nation's capital ships, the U.S.S. *Harry S Truman*, CVN–75. I proudly provided a congratulatory letter to the crew for their commissioning book. We have also made a commitment to yet another carrier, and we are also in the midst of CVX development. However, I am concerned that we need to accelerate the operational evaluations of the F–18E/F, not to skip any testing but to work as hard as we can to wring out any anomalies and begin a robust and multi-year procurement to get any additional savings as soon as possible. I understand that as we speak, the Superhornet is, as you say, "bagging traps and cats" a few hundred miles Southeast of here. I am committed to providing the men and women who fly from those carriers with the finest and most advanced aircraft to give them the edge so critical in today's high-tech, high speed, highly dangerous air-combat arena. I will be asking you to make that same commitment in direct questioning specifically in relation to a multi-year funding plan for Superhornet procurement.

Thank you Mr. Chairman.

Senator STEVENS. Gentlemen, we would like to have you proceed.

Mr. Secretary, we call on you first and then, Admiral Johnson, I think in deference to the General's leaving, we will call on him first this time.

STATEMENT OF RICHARD DANZIG

Secretary DANZIG. Thank you, Mr. Chairman. If I can say at the outset, we always take your suggestions very seriously and as a result I will immediately after this hearing talk with General Krulak about reenlisting. It is an excellent idea. [Laughter.]

I would add, seriously, my own personal note. You and Senator Inouye and Senator Bond have emphasized General Krulak's contributions to the Marine Corps, and I think by extension to the Nation as a whole. I would just note that for me, personally, General

Krulak was really the first Marine general I came to know when I arrived as Under Secretary in 1993. And these almost six years have been, for me, immensely rewarding.

When you speak, Senator Bond, of the great burdens that a Secretary has to carry, I can tell you that with people like Chuck Krulak and Jay Johnson, those burdens become much more achievable and bearable than they would otherwise be. And I just want to personally register my regret at General Krulak's impending retirement and my delight that you have been here all these years.

Mr. Chairman, I have a formal statement for the record which, with your permission, I will simply submit and just make a comment for a moment.

You see in the newspaper this morning evidence of the Marine Corps' very good work accompanied by the Navy and the other services in Central America—in this case building a bridge in Honduras. Really anywhere you look around the globe, you find these kinds of contributions, contributions relevant to war fighting, contributions relevant to shaping our environment, to deterring aggressors, to doing humanitarian kinds of things.

The Navy and the Marine Corps are always there for America. I see them, of course, in very close detail. I see them, for example, a Navy Battle Group and a Marine Corps Amphibious Ready Group in the Mediterranean available for any contingencies in Bosnia, or for the possibility we will be needed in Kosovo.

I see that same battle group having performed the first night of Desert Fox and along with other naval forces and Marine Corps aviation contributing as well, providing all of the first night's strike capacity in Desert Fox and continuing with the majority of the fire power that was used to protect our interests in the Persian Gulf.

I see Navy and Marine Corps ships and sailors and marines throughout Southeast Asia, maintaining stability off the coast of Korea, achieving a measure of deterrence there. I see us as a capable force everywhere.

PREPARED STATEMENT

With that said, I see this committee as consistently supportive of this kind of effort. If the Navy and Marine Corps are always there for America—and they are—this committee has always been there for the Navy and the Marine Corps, and I am very grateful for that support, and I simply want to signal my appreciation for it and for the opportunity that this hearing presents. And I look forward to a more detailed discussion in the minutes ahead. Thank you.

[The statement follows:]

PREPARED STATEMENT OF RICHARD DANZIG

A major focus of these hearings will, of course, be the budget we have submitted. As it is my first appearance before the committee since being confirmed, I thought it might be most useful to say something about my personal priorities.

I have an urgent near term priority and two particularly important longer term priorities. The urgent priority is to improve the morale and well-being of our sailors and marines. The longer-term priorities are: First, to reduce the cost of doing business for the Navy and Marine Corps, so as to free up more money for procurement, modernization and research and development; Second, to bring new technologies and new doctrines to bear so that the Navy and Marine Corps are better able to serve this nation in the first decades of the 21st century.

As to the first goal, there has been much discussion recently about pay and benefits, particularly retirement benefits. I think the budget before you makes attractive, helpful and sensible proposals in this regard. There will be debates about yardsticks, comparability, inflation indicators, etc. My view of the matter is simpler. We can never pay Sailors and Marines enough for what they do. The sacrifices inherent in the risks of combat and the discomforts of deployment away from families are too great to be fully compensated in dollars. But we can pay too little. Worries about families, retirement and day-to-day bills are compelling Sailors and Marines to leave the Navy and Marine Corps for civilian occupations—even those that are plainly of less value to them and the Nation.

For me it is not a subtle question when we are paying too little. Our Sailors and Marines (and for that matter, our Soldiers and Airmen) tell us: they tell us in words and they tell us by leaving. Of course, people would always like to be paid more. But my judgment, with some experience in these matters, is that we are losing too many good people, at too fast a rate, to be tolerable, and I take seriously the statements of many that with better pay and better retirement they would be staying with us. The cost of that better pay and better retirement is small as compared with the cost of losing these trained people. For these reasons, it has been, and will remain, a priority of mine—and, I know, of this committee—to see substantial improvement in this regard. I believe that the President's budget takes a significant step toward meeting the needs of our Sailors and Marines.

But money is not the be-all and end-all. To the contrary, I think we misunderstand our problems and mismanage them if we simply throw money at our problems. Sailors and Marines are suffering now not simply from a deficiency in pay but from overwork as well. This overwork manifests itself in a pattern of sixty-hour weeks, of excessive demands between, as well as during deployments, and of frustration because there is too little time and too little equipment to do a good job even while working strenuously. I have been in office less than ninety days, but the budget before you includes a program for "Smart Work" that reflects some of my priorities in this regard. We need to give Sailors and Marines the tools and equipment that will enhance the quality of their work place while reducing the number of hours they have to work. Illustrative investments include: money to procure a new type of water tight door that will replace the high maintenance, antiquated type that now burdens us; acquisition funds for basic equipment that will make scraping and painting less cumbersome; and resources to install a central freshwater cooling system for reduction gears to reduce ship's depot maintenance costs.

A further priority of mine, reflected in some measure in the budget, but also in non-budgetary management initiatives, has been to develop a program to reduce the manpower mismatches and shortfalls that have resulted in 22,000 unfilled billets in the Navy. The CNO and I have now developed a plan to reduce this number by 4,000 this year, 7,000 next year, and 4,000 the year after. Elements of this program include: planning extensive use of civilians rather than sailors on shipyard work for carriers in overhaul; reissuing existing policy to encourage high year tenure waivers for good performing E–4's if they are willing to accept orders to sea/overseas duty; temporarily assigning students awaiting instruction to their ultimate duty station (but for no more than 20 weeks); and sending GENDET's to the Fleet for 15–21 months with guaranteed follow-on "A" School. In parallel with these measures, I have also taken a number of steps to raise the prospects of meeting the Navy's recruiting goals, correcting for a shortfall last year.

More broadly, I have spoken out with respect to what I perceive as the remnants of a pervasive "psychology of conscription" throughout the Armed Services. We all know that we no longer use the draft to coerce military service. We know, and are committed to the notion, that military work demands decent pay and not conscripted wages. But our personnel and budgetary systems still too often treat people as though they were essentially a free good. Too often, weeks and months are wasted while service members wait for schools and assignments. Too often, men and women are misassigned to jobs that don't use the skills we've provided them and don't treat them as professionals. This affects morale, and therefore concerns me with respect to my first priority. But, were this not enough, it also is wasteful. To alter this, I will be trying to make substantial management changes. I will be asking this Committee's help in this work.

Moving to the longer term, my hope and intent is to bring these two services, with this committee's support, to a position where we can operate and maintain ourselves at a lower on-going cost of doing business. The smart ship innovations delineated in the program before you are representative of this emphasis and were particularly accelerated by me in the brief period I had to affect this budget after coming to office. The program before you accelerates smart ship procurements and installations on AEGIS Destroyers and Cruisers; reduces ship operating costs through installa-

tion of automated command and control equipment in LSD 41/49 classes; and procures and installs smart ship equipment on aircraft carriers across the FYDP. I continue to search for promising labor saving technologies available today for backfit or projected in the future for forward fit. This will free significant manpower and permit a greater percentage of ship crews to focus on warfighting.

Finally, I think there is important work to be done in adapting the Navy and Marine Corps to the security challenges of the next century. For the last several years, leaders of the Navy and Marine Corps have, in my opinion, grasped the correct central idea about our mission in the time ahead. While doing other important things—including control of the seas, maintenance of our primary overseas transportation and supply capabilities, and assurance of our primary nuclear strategic deterrent—the biggest challenge for the Navy and Marine Corps will be to bring power to bear "from the Sea" to the littoral. Littorals are coastal areas. They provide homes to over three-quarters of the world's population, sites for over 80 percent of the world's capital cities, and nearly all of the marketplaces for international trade. Because of this, littorals are also the place where most of the world's important conflicts are likely to occur.

To completely embrace and fully execute this mission, the Navy and Marine Corps need a different kind of equipment and personnel priorities than they had in the past. In aviation, for example, the F/A–18E/F, Joint Strike Fighter and the V–22 all point in the right direction. In days gone by we might have designed airplanes like these with a greater priority on their aerial maneuver ("dog-fight") capabilities. The first two of these multi-capability aircraft have fighter characteristics, but they correctly assign primacy in their improvement over their predecessors to growth in their strike abilities. The F/A–18E/F is designed to execute the missions of the first quarter of the 21st century with greatly improved range and payload, room for avionics growth, and increased capability to conduct night strike warfare and close air support for ground forces. Its flexibility, reliability and survivability make it the right aircraft to fulfill the majority of missions associated with regional and littoral conflicts. The V–22 is capable of carrying 24 combat-equipped Marines or a 10,000-pound external load; it can fly up to a maximum of 397 miles per hour; and it has a strategic self-deployment capability of 2,100 nautical miles with a single aerial refueling. This VSTOL aircraft presents a revolutionary change in aircraft capability to meet expeditionary mobility needs for the 21st century.

In designing the ships of the future, I place a similar priority on our abilities to deliver manpower and firepower to the littoral. The LPD–17, for example, has a capacity of 25,000 square feet of vehicle stowage and 36,000 cubic feet of cargo, can carry 720 troops and two LCAC's, and can land four CH–46 helicopters or accommodate a mix of AH–1/UH–1, CH–46 and H–53E helicopters and MV–22 aircraft. Major improvements in command-and-control and ship self-defense systems will increase its ability to operate independently of the amphibious ready groups when required. Because 12 LPD's will replace 39 other ships, it also contributes significantly to my goal of reducing our cost of doing business.

The DD–21 is being designed not only to minimize costs, consistent with the second priority I have articulated, but also to greatly expand strike capability. It is being designed from the keel up to provide support for forces ashore. Leap ahead capabilities include advanced major caliber guns, precision weapons, signature reduction, seamless joint interoperability and enhanced survivability, reduced manning, and, very possibly, even an all-electric drive propulsion system. Its emphasis on sensor to shooter connectivity will provide a naval or Joint Task Force commander with the mission flexibility to counter any maritime threat and to destroy a variety of land targets.

In its VIRGINIA class SSN's, and operations in support of the fleet and national tasking, our attack submarine force is making the transition from a blue water activity designed to combat Soviet submarines, to a powerful influence on events in the littoral. Submarines routinely provide about 20 percent of a typical carrier battle group Tomahawk land attack firepower. A submarine is often the platform of choice for the covert insertion and retrieval of special operating forces (SOF). Today's submarines and VIRGINIA class SSN's have significantly improved anti-submarine warfare, mine reconnaissance and offensive mining capabilities. Finally, submarines provide crucial intelligence gathering capability in the littorals. In fact, even as our SSN force has decreased by nearly 50 percent since 1989, the amount of intelligence, surveillance and reconnaissance operations undertaken by submarines have doubled due to the national need for unique intelligence in troubled areas around the globe.

I should conclude by saying that while pursuing these transforming priorities, I am acutely aware, as I know this committee is, of the great day-to-day responsibilities your Navy and Marine Corps assume for this country. The Navy and Marine Corps are, and must be, always there for America.

In 1998 this meant naval operations across the globe, demonstrating the multi-mission capabilities of a maritime force. To disrupt the flow of illegal drugs into the United States, the Navy deployed substantial assets to the Caribbean and eastern Pacific, culminating in several large drug seizures. From the Indian Ocean and Mediterranean Sea, the Navy came to the aid of victims of natural disasters in both Kenya and Italy, assisting in those countries after severe rain and mudslides ravaged several areas. Again, the volatile Southwest Asia region continued to require the Navy's vigilance, flexibility and firepower, as our naval forces anchored ongoing operations in and around Iraq, keeping the pressure on a state that remains defiant in the face of international pressure.

Globally deployed, the Marine Corps responded to 16 contingencies during 1998. Whether transporting highly enriched uranium out of Georgia, providing humanitarian assistance to a flood-ravaged Kenya, or demonstrating resolve against Iraqi aggression, our Marines were on the scene in support of our National Military Strategy.

I cannot say—no one can say—where the Navy and Marine Corps will be especially called upon to meet the demands of this nation in 1999. I can say, however, that with this committee's support we will be ready. The budget before you will make us ready and able in the year 2000. For longer than the life of this Republic—for almost two and a quarter centuries—these great seafaring services have always been there for America. Like you—with you—I am dedicated to assuring that they will be there in the century soon to come.

Thank you.

DEPARTMENT OF THE NAVY 1999 POSTURE STATEMENT

A century ago, the United States Navy defeated the Spanish fleet in the Caribbean Sea and the Pacific Ocean. Nine years later, the Great White Fleet sailed around the world and dramatically demonstrated America's will and means to assert its influence worldwide. "Speak softly and carry a big stick" became the prevailing American philosophy as the Navy-Marine Corps team emerged as the nation's most visible symbol of international power.

Throughout the 20th Century, our naval services adapted to new geo-strategic circumstances and major technological and operational changes. Our 100-year record of success played a major role in America's emergence as the only superpower at century's end. And just as our Navy and Marine Corps embraced the changes in warfare brought about by the turbulent era of the early 1900s, today we are again undergoing a Department-wide transformation that addresses tomorrow's significant challenges.

The overarching objectives for the Navy and Marine Corps—to shape the international security environment, to respond to the full range of crises, and to prepare now for the challenges of a new century—have not changed markedly through the years. In this past century, we were concerned with building a force that could protect this nation's citizens, rights, and interests, a force that could enforce America's will across the oceans. Today, the objectives remain the same, but the security environment is much more complex, characterized by rapid globalization, economic inequality, and political uncertainty.

At the same time, lightning-quick communications, space-based systems, precision weapons, and global reach are making warfare capabilities more lethal than ever before. Sustaining our ability to quickly implement new technologies and adapt to new requirements and missions will require an increasingly sophisticated array of forces and talented people. This is essential to our preeminence as a forward deployed, operationally proficient, and technologically advanced force—capable of responding anytime, anywhere from the sea.

This Posture Statement portrays the Navy-Marine Corps Team of the 21st Century. It describes the Department of the Navy's mission, our direction for the future, and the priorities that must guide our decision-making. We invite you to read on. You will see—as events in 1998 so vividly demonstrated—that the Navy and Marine Corps are leaning forward, adapting to change, and are always there for America.

THE NAVY-MARINE CORPS TEAM: AMERICA'S 21ST CENTURY FORCE

On the eve of the 21st Century, the international environment is more complex than at any other time in America's history. The number and diverse nature of nations, organizations, and other entities vying for international influence continue to grow. At the same time, the global economy is increasingly interdependent. Although this offers the promise of greater prosperity for the United States, it also further ties the security and well being of Americans to events beyond our borders.

Incidents and crises once considered peripheral to U.S. security—the spread of ethnic and religious conflict, the breakdown of law and order abroad, or the disruption of trade in distant regions—now threaten our citizens and our interests. On the other hand, a fundamental restructuring of global economies, governments, and beliefs present new opportunities for a globally engaged United States, in concert with other like-minded nations, to advance long-term interests and promote stability in critical areas.

Throughout the 20th Century, the Navy and Marine Corps have played key roles in protecting U.S. interests worldwide—supporting America's strategies of world leadership and engagement as an alternative to inward-looking isolationism. Today, the United States is the world's sole superpower. Although the Department of the Navy's 1999 Posture Statement appears at the end of the 20th Century, a period that witnessed the emergence of the United States as a world power so clearly that some have called it "The American Century," it marks the beginning of a new era in which naval power will become an even more critical element of U.S. national security. This Posture Statement provides a template for how the Navy and Marine Corps are preparing for the 21st Century.

A Global Strategy Demands a Global Naval Presence

Since the earliest days of the Republic, the United States has been a seafaring nation relying on the oceans for food, commerce, and defense, as well as exerting influence wherever and whenever U.S. citizens, interests, and friends have been at risk. Today, America stands without peer in military and economic strength, freedom of expression, cultural appeal, and moral authority—all key indices by which global power and influence are measured. This standing has been earned by generations of Americans whose work ethic fueled unparalleled growth, who upheld the precepts of democracy, and who fought wars to win and preserve freedom at home and abroad.

The geopolitical and economic world has changed greatly during the decade since the fall of the Berlin Wall in November 1989. The disintegration of the Soviet Union led to international relations free from competitive superpower tensions, but lacking the relatively stable Cold War frame of reference. Our victory in the Cold War has not, however, brought about a time of tranquillity. Today's observers find neither an era of peace and international harmony, nor an era of clearly defined confrontation. Rather, in the closing months of the 20th Century, our world presents a complex and lethal mixture of trends, dynamics, and challenges. As a result, we find today's smaller naval force—significantly reduced from the Cold War force of the mid-1980s—facing broad and frequent dangers.

Events during 1998 make it clear that the world is still a violent place. Last year, terrorist bombs destroyed two U.S. embassies. Factional and small-scale conflicts raged in at least 25 countries. Economic crises plagued regional and global economies, while growing economic and social inequities fueled long-standing as well as nascent animosities. Threats to U.S. lives, property, and interests are increasing worldwide, and emerging threats to the U.S. homeland are likely to become an uncomfortable reality. The next century's international security environment will assuredly place an even higher premium on the mobility, global access, self-sufficiency, sustainability, and competence of the Navy and Marine Corps. Naval forces remain the most agile and flexible tools of our national security policy—able to move unfettered on the high seas, unencumbered by regional or local political constraints. Our ability to maintain this mobility depends upon our ability to move unimpeded across the world's oceans. In this regard, United States accession to the 1982 Convention on the Law of the Sea is essential to preserving navigational freedoms that underpin our forward deployed strategy. The United States must join the more than 130 nations, including the United Kingdom, Russia, France, China, and Japan that have already become Parties to the Convention.

U.S. leadership in global affairs, a function of American economic and military power, has long been a key ingredient in promoting peace and stability, facilitating free enterprise, and fostering democracy worldwide. The continued vitality of this leadership during the next century will depend in large part upon our willingness to remain visibly engaged in regions of importance to U.S. interests. On any given day, over one quarter of our naval forces with more than 50,000 Sailors and Marines are embarked abroad. These forces carry out numerous national taskings, conduct multilateral exercises, and monitor and influence developments around the world. During times of crisis, Navy and Marine Corps units are often already on the scene, or are the first U.S. assets to arrive in force.

This ubiquitous presence, which makes Navy and Marine Corps forces uniquely invaluable, has an additional potential benefit—positively influencing and shaping the global economy. As the U.S. increases its reliance on global trade, the Nation's

economic vitality is becoming more and more dependent on the stability and growth of the global economy. Thus, as the 21st Century moves into an era of the global economy, the Nation's fundamental interests increasingly are linked to two objectives: the promotion of peace and stability and the growth of democracies and market economies. Forward presence naval forces, especially when enhanced by multi-agency, joint or allied operations, have a fundamental capacity to accomplish both of these 21st Century objectives.

Strategic Concepts of U.S. Naval Forces

Title 10, U.S. Code requires the Department of the Navy to be prepared to conduct prompt and sustained combat operations in support of U.S. national interests. Although this core role remains paramount, the complicated security landscape of today—marked by challenge and uncertainty—demands naval forces do much more than make ready for battle. Naval forces remain a critical component of the National Military Strategy's imperative to "Shape, Respond, and Prepare" for the future. This blueprint for security dictates that America's armed forces remain globally engaged to address emerging crises and conflicts far from our shores.

Naval forces implement this strategy through four enduring concepts: forward presence; deterrence; sea and area control; and power projection. These are the critical strategic concepts that naval forces provide in direct support of the nation's security and military strategies.

Forward Presence.—Maintaining forward presence capitalizes on the expeditionary nature of naval forces; it is the Department of the Navy's primary peacetime task. Routine forward presence allows the timely arrival of naval forces at virtually any crisis throughout the world. We maintain naval forces forward deployed to essential regions around the world, covertly if needed and overtly if desired. And when necessary, we deploy and sustain additional sea, land, and air forces to meet emerging needs.

Forward presence constitutes a subtle, yet visible, demonstration of security and commitment. In times of crisis, these forces embody the prompt and sustained response our nation, our friends, and our allies expect. The sustained responsiveness of forward deployed naval forces is irreplaceable. There is no substitute for being on the scene with the full range of capabilities which carrier battle groups and amphibious ready groups possess. This visible guarantee that the United States will respond to provocation and support its friends, significantly influences any would-be aggressor's calculations of risk and reward.

Deterrence.—Throughout the 45 years of Cold War punctuated by regional crisis and conflict, the strategic concept of nuclear deterrence defined the primary U.S.-Soviet relationship. Yet, deterrence of crises and conventional conflicts is also attainable by creating the threat of unacceptable consequences to would-be aggressors. Forward deployed, combat-credible naval forces serve notice to potential aggressors that there will be a high price to pay for any hostile action.

Of continuing concern to U.S. national security are the remaining large numbers of nuclear warheads and the worldwide proliferation of other Weapons of Mass Destruction (WMD). The U.S. must maintain credible deterrence against such devastating weapons for the foreseeable future. Although conventional strike weapons can assume increasingly strategic roles, today the Navy's nuclear-powered ballistic missile submarines remain the most stealthy and survivable element of the U.S. nuclear triad to deter the use of WMD.

Sea and Area Control.—Sea and area control requires the ability to defeat coastal defenses and dominate a foe in the littoral battlespace—at sea, on the ground, and in the airspace—extending from hundreds of miles offshore to hundreds of miles inland. Unless command of the seas and the airspace is attained, deployed and follow-on forces will be at risk. Naval forces must control the sea lanes leading to a region because most of the troops, equipment, and supplies travel to the region by sea. Once in theater, naval forces provide a powerful forcible-entry capability and are capable of conducting this mission anywhere in the world.

Power Projection.—The projection of naval power ashore—beyond the reach of naval gunfire along coasts—was forged as a strategic concept in the World War II Pacific Theater and remains an essential naval capability today. Whether in the form of carrier-based strike-fighter aircraft armed with precision-guided munitions, a Marine Air-Ground Task Force (MAGTF) of combined air and ground forces, sea-launched cruise missiles, or clandestine special warfare forces, naval forces offer combat options tailored for the situation at hand. In a larger conflict, naval forces can seize and defend advance bases—ports and airfields—to facilitate the arrival of follow-on land-based air and ground forces. They simultaneously provide the necessary command and control capabilities for joint and allied forces. Major ground and air elements ashore depend upon the delivery of heavy equipment and the

sustainment provided by the Navy's strategic sealift assets. Protection of these critical sea- and land-based elements will be provided in the near future by Navy Theater Missile Defense systems. All of these capabilities help to underwrite deterrence.

In addition, with increasing overflight limitations and continuing reductions in overseas basing rights, only naval forces can maintain assured access to most regions of the world. Naval forces are powerful instruments of national policy because of their self-sufficiency and freedom from host-nation political constraints. Likewise, these forces may either be highly visible, for an enhanced deterrent effect, or operate from stealthy and secure postures—above, on, or below the surface of the sea—ready to strike with maximum surprise.

These four strategic concepts—forward presence, deterrence, sea and area control, and power projection—provide the cornerstone of U.S. naval strategy and complement each other in ways that enhance their contribution to the security of the nation. Forward presence supports both conventional deterrence and deterrence against the threat and actual use of WMD. Deterrence, in turn, requires power projection to be credible. The ability to gain and maintain sea and area control makes power projection possible and sustainable. If deterrence should fail, the ability to control critical sea lanes and other areas provides the foundation for projection of both naval and follow-on, land-based forces. Only the nation's naval forces have the capabilities to implement these strategic concepts to their fullest potential.

Challenges and Solutions for the 21st Century

As indicated late last year, budgets continue to be constrained, making it is difficult to balance the need to sustain day-to-day operational readiness and the modernization necessary to ensure U.S. naval forces are properly poised and ready to meet future requirements and threats. Although deployed readiness remains satisfactory, the key readiness indices of our non-deployed forces are worsening, thus posing risks for the future. Non-deployed readiness is currently funded at levels which minimize flexibility and hamper our ability of these assets to surge quickly in the event of a major theater war. The higher level of funding requested in the proposed President's fiscal year 2000 budget, along with savings realized by efficiencies in the way the Department operates, will begin to address some of these concerns.

Long-term readiness is also of concern. Investments in modernization of existing equipment and acquisition of new systems are based on a comprehensive assessment of future threats. Current threats can be dealt with by today's highly capable naval forces., However but investments in future capabilities to defeat tomorrow's threats are often deferred to fund today's readiness. A higher level of overall Department of Defense funding as initiated by the fiscal year 2000 budget and the savings realized by efficiencies in the way the we operate are required to provide the resources critical for the Navy and Marine Corps to sustain global presence and power.

Throughout America's history, a modern and capable fleet has been the linchpin for protecting important U.S. interests wherever and whenever they might be in jeopardy. Since the end of the Cold War, several comprehensive analyses and assessments have addressed the force structures needed to ensure that U.S. forces can carry out the operations and taskings that underwrite America's security and military strategies. Today, the stated requirement is for a Marine Corps of three Active Marine Expeditionary Forces (MEFs) and one Reserve division air wing and force service support group and a Navy of at least 300 ships, including as core assets: 12 aircraft carriers; 10 Active and one Reserve carrier air wings (CVWs); 12 amphibious ready groups (ARGs); 50 nuclear-powered attack submarines (SSNs) with enhanced stealth features and strike capabilities; 14 strategic ballistic missile submarines (SSBNs) armed with Trident II/D5 ballistic missiles and operated in two ocean areas and 116 surface combatants (108 Active and eight Naval Reserve Force ships)

In order to sustain these force levels beyond the FYDP, the Navy must achieve a building rate of eight to ten ships per year. Our current and projected building rate of six-to-eight ships per year will not sustain minimum essential force levels for a 300-ship Navy in the future. Therefore, shipbuilding rates must improve early in the next decade.

Similarly, to maintain our ability to carry out all missions implicit in . . . From the Sea (1992), Forward . . . from the Sea (1994), and Operational Maneuver from the Sea (1997), the Department of the Navy is pursuing several keystone programs, including the F/A–18E/F Super Hornet strike aircraft, the future CVNX aircraft carrier, the MV–22 Osprey aircraft, and the Advanced Amphibious Assault Vehicle (AAAV).

Refining their respective Service's collaborative efforts to meet the Nation's naval and maritime security requirements, the Chief of Naval Operations and the Commandant of the U.S. Coast Guard in September 1998 signed a joint Navy/Coast Guard policy statement on the National Fleet. This policy re-emphasizes the way the two sea services will serve the nation while recognizing the broad contributions that the Coast Guard makes to America's maritime security. It commits the Navy and the Coast Guard "to shared purpose and common effort focused on tailored operational integration of our multi-mission platforms." This complementary partnership calls for the Navy and the Coast Guard to work together to build a National Fleet of multi-mission surface warships and maritime security cutters to maximize our joint effectiveness across all naval and maritime roles, missions, functions, and tasks. The National Fleet concept offers enhanced effectiveness in the way both Sea Services approach the challenges of meeting tomorrow's needs in a most cost-effective manner.

Several other initiatives are being pursued and implemented in the Department to more efficiently utilize the resources we have, while instituting a new paradigm for the way we work. Programs such as the Secretary of the Navy's Smart Work program, Information Technology for the 21st Century (IT–21), the Revolution in Business Affairs (RBA) and Strategic Business Plan (SBP) are but a few examples that will help sustain our efficacy for tomorrow while making the most of the resources we have today. Additionally, the Department of the Navy must continue to capitalize on cost reduction initiatives and chart a vision for global security and economic prosperity into the 21st Century.

This 1999 Department of the Navy Posture Statement continues with discussions of the need for operational primacy and how we do our day-to-day mission; the Sailors, Marines, and civilians at the heart of America's naval forces; the means by which we will gain efficiencies and flexibility for the total force; and key technologies in support of current operational concepts and future naval forces.

SHAPE—RESPOND—PREPARE: ENSURING OPERATIONAL PRIMACY

The presence of credible naval forces in critical world regions is both a key means of furthering U.S. interests and essential to the ability of the U.S. to deal with crises. In recent years, the demand for U.S. forces has been increasingly high, yet limited manpower and other constrained resources have challenged the Department of the Navy's ability to satisfy all requirements without over-burdening our people and wearing out our ships and aircraft.

We expect this situation to continue well into the next century. Thus, the peacetime challenge to the Department of Navy is to prioritize its operational activities to ensure that our efforts concentrate where they will do the most good without sacrificing crisis-response and warfighting capabilities. These priorities vary by region and situation according to the national security interests engaged.

The National Security Strategy identifies engagement as the best means of furthering security interests worldwide. Engagement occurs at many levels, but its most visible element is the U.S. Armed Forces whose mission is to encourage peace, promote stability, and, when necessary, defeat adversaries. It is not enough to be supremely competent in waging war; our Armed Forces must be equally capable of maintaining the peace.

The three fundamental elements of U.S. National Military Strategy are to shape the international environment, to respond to the full range of crises, and to prepare for an uncertain future. America's naval forces execute this strategy by deploying ships and aircraft around the globe. The closing of many foreign bases makes self-contained and self-sustained naval forces the most recognizable component of U.S. forward presence, demonstrating our nation's commitment to a peaceful and more prosperous future. A forward presence—one that visibly reassures allies and deters adversaries—must be sustained and enhanced, since the alternatives of isolationism and passivity historically proved far more costly. When crisis and conflict erupt, we must be there with the ability to effectively respond.

Shaping the International Environment

Forward presence remains the cornerstone of the nation's strategic shaping effort. Forward deployed naval forces are tailor-made for promoting regional stability and deterring aggression by operating in forward stations with credible power and the means to deliver it. In addition, forward deployed naval forces are likely to be much more cost-effective alternatives to surging forces from the continental United States. For example, a Joint Task Force established in 1997 to conduct a full non-combatant evacuation from Zaire cost $236 million. A similarly sized Marine Air-Ground Task Force would have cost just over three million dollars to accomplish the same mission.

The Sea Services' most important shaping element is their forward deployed posture. Through exercises and port visits, the Navy and Marine Corps strengthen U.S. ties with allies and work toward establishing new relationships and partnerships that will foster regional stability and enhance the world economy.

U.S. naval forces also train and exercise with countries that have limited infrastructure and a minimal ability to support large-scale military deployments. These exercises offer other nations unique opportunities to develop a relationship with U.S. forces. Forward deployed naval forces also provide theater commanders with flexible, responsive task organizations that can be positioned in trouble spots for extended periods as a visible demonstration of U.S. resolve and commitment. Highly mobile, combat-ready naval forces are not as burdened by political constraints that often delay or disrupt the deployment of ground-based military forces. This flexibility is invaluable to the nation, as it allows the National Command Authorities—the President and his national security and military decision-makers—to act when necessary.

Summary of Naval Exercises

The Navy and Marine Corps team significantly enhanced interoperability with allies and forged new relationships with other nations in 1998. From Cape Horn to the Sea of Japan, the Navy-Marine Corps team directly supported the U.S. international shaping strategy by engaging allies and friends, and extending the hand of friendship around the world—while demonstrating the awesome capabilities of the Navy and Marine Corps. Live-fire exercises with surface combatants, submarines, and aircraft, as well as extensive amphibious assaults, mine warfare, and sophisticated special operations, enable the Navy-Marine Corps team to train with our allies the way future coalitions will fight.

Responding to the Nation's Tasking

On average, the Navy-Marine Corps team responded to national tasking once every three weeks in 1998. This is a five-fold increase from that experienced during the Cold War. They were called upon to demonstrate multipurpose capabilities in wide-ranging assignments: deep strike missions against Iraq, evacuations from Eritrea, humanitarian assistance in Indonesia, disaster relief in New Guinea and Central America, and maritime interception operations (MIO) in the Arabian Gulf. Repeatedly, forward deployed naval forces were ready to answer the nation's call—sometimes alone, sometimes in concert with the other Services and those of our allies and friends.

Summary of Naval Operations

U.S. naval operations in 1998 stretched across the globe and demonstrated fully the multimission capabilities of a full-spectrum maritime force. The volatile Southwest Asia region demanded vigilance, flexibility, and ready firepower during 1998 as our naval forces shouldered the brunt of continuing operations focused on Iraq, implementing United Nations policy against a state that remains defiant in the face of international sanctions. Navy and Marine Corps aircraft and Tomahawk cruise missiles launched from Navy combatants were essential instruments of national resolve in response to continued Iraqi violations of United Nations sanctions during Operation Desert Fox.

In the embattled Balkan region, naval forces continued to execute operations designed to uphold the fragile peace. Navy cruise missile strikes were launched against terrorist targets in the Sudan and Afghanistan in response to the bombings of American embassies in Kenya and Tanzania.

In a continuing effort to disrupt the flow of illegal drugs into the United States, the Navy deployed active and reserve forces to the Caribbean and Eastern Pacific. Working with Coast Guard and civilian law-enforcement agencies, the Navy's ships, submarines, and aircraft contributed to several large drug seizures. Furthermore, Sailors and Marines served with law enforcement and military forces in drug-source countries as tactical planners, analysts, and members of mobile training teams. In all, Navy assets logged more than 18,000 flight hours and some 2,300 ship steaming days in support of drug interdiction operations.

From the Mediterranean Sea and Indian Ocean, Sailors and Marines came to the aid of victims of natural disasters in both Kenya and Italy, assisting in those countries after severe rain and mudslides ravaged several areas. Closer to home, Navy and Marine Reservists coordinated disaster relief efforts for Hurricane Georges in Puerto Rico and Hurricane Mitch in Central America. In addition, the Navy-Marine Corps team answered the call for assistance after wild fires in Florida, severe floods in Georgia, and devastating tornadoes in Pennsylvania left thousands of American citizens in distress.

Preparing Now for an Uncertain Future: Instituting a Transformation

The emerging security environment presents a diverse set of challenges and threats to U.S. interests. Naval forces must be prepared to confront threats to the nation, U.S. citizens, and America's worldwide interests. These challenges demand an integrated approach to security issues, involving close cooperation among military, other government, non-government, and international organizations.

Similarly, funding contraints have focused the military's need to use technology and improve its tactics and business practices to become more efficient and effective. Naval forces of the future may look decidedly different from those of today, and a period of transformation has already begun. Rapid advances in technology require the Navy-Marine Corps team to institute a continuous review of force structure, operational concepts, and acquisition and maintenance of its forces and systems.

The Department of the Navy is establishing a comprehensive process to innovatively improve its ability to execute both traditional and non-traditional missions. The Navy and Marine Corps staffs, Naval War College, Strategic Studies Group, and the Marine Corps University are conceiving forward-looking concepts on how our naval forces can meet tomorrow's challenges. The newly created Navy Warfare Development Command and the Marine Corps Combat Development Command further develop future warfare doctrine and concepts. A series of Navy Fleet Battle Experiments (FBEs) and Marine Corps Advanced Warfighting Experiments (AWEs) are used to test new doctrine, gain insights into the utility of new technologies, explore new operational capabilities, and test ideas for future application.

The first forward area FBE, FBE Delta, was conducted in conjunction with Foal Eagle 1998, a joint and combined theater exercise. Its experiments included the most futuristic test yet of theater combined-arms coordination. Using E–2C Hawkeye airborne early warning aircraft, nuclear submarines, surface combatants, Special Operations Forces (SOF), and Air Force F–16 fighters, these experiments addressed specific theater concerns including counter-SOF, counter-fire, and Joint Theater Air and Missile Defense.

FBE Echo, scheduled for March-April 1999, will be coordinated with the Marine Corps' AWE, Urban Warrior. This experiment will further explore naval operations in the urban environment, including naval fires (i.e., the emerging concept of netted sensors and strike/land-attack weapons, which was previously known simply as "strike operations"), command and control, and theater air defense. FBE Echo will also initiate an examination of new concepts for undersea warfare to more fully deal with asymmetric maritime threats.

Concept-based experimentation is the means to fuse new technologies with novel operational concepts to satisfy future warfighting requirements. The Navy Warfare Development Command's Maritime Battle Center (MBC) and Marine Corps Warfighting Laboratory (MCWL) have cognizance over the range of naval innovation—to include tactical, operational, and organizational concepts as well as technical innovations. The laboratories' primary purposes are to develop concepts, tactics, techniques, and procedures for the application of advanced technologies that will result in a Revolution in Military Affairs (RMA) for U.S. naval forces. The RMA promises a dramatic change in the fundamental nature of war through a combination of technological advances and operational, organizational, and institutional changes.

The Marine Corps Warfighting Laboratory's primary responsibility is to investigate concepts, tactics and technologies, and to coordinate results with other organizations. To carry out this process, the MCWL has developed the Five Year Experimentation Plan (FYEP). This three-phase plan is the cornerstone document for concept-based experimentation and the introduction of science and technology into the Marine Corps' operating forces. Each phase comprises limited-objective experiments and culminates in an AWE. The first phase, called Hunter Warrior, was completed in March 1997 and examined the contribution that a highly capable MAGTF could make if provided with selected conceptual and technological improvements.

Now in its second phase, Urban Warrior is projecting lessons learned from Hunter Warrior—with additional capabilities addressing tactics, techniques, and procedures required in a primarily urban littoral battlespace. Urban Warrior's charter is to increase the ability of naval forces to execute simultaneous, non-contiguous operations throughout the littoral region. It will address operations in a coastal urban setting and the surrounding battlespace, including sea-basing of its support infrastructure, and will also focus on defense against WMD attack.

The final Urban Warrior capstone exercise will be executed by the First Marine Expeditionary Force (I MEF) in Kernal Blitz 1999 in conjunction with Third Fleet's FBE Echo. Preparations for the third phase, Capable Warrior, will begin in early 1999 and will examine whether a sea-based Marine Expeditionary Force can con-

duct maneuver throughout an extended littoral battlespace by employing sea-based command and control, naval fires, and logistics.

As AWEs and FBEs explore new warfighting concepts, Advanced Concept Technology Demonstrations (ACTDs) explore the military utility of new and emerging technologies. ACTDs provide naval forces with the opportunity to experiment with new technical capabilities very early in the acquisition process and are an effective means of rapidly fielding new capabilities at a reduced cost. Preference is given to joint programs and is designed to involve the warfighter throughout the process. ACTDs can provide insights into the development of doctrine and training, and can be used to drive the acquisition process. For example, the Navy and Marine Corps are heavily involved in the Extending the Littoral Battlespace (ELB) ACTD. As part of Kernal Blitz 1999 and Urban Warrior, ELB ACTD intends to establish a near-seamless C^4ISR network that fully supports over-the-horizon, sea-based force projection, distributed firepower, and manuever warfare.

Total Force Operations: Navy & Marine Corps Reserve Integration

The augmentation provided by Reserve forces is a combat multiplier that provides active duty forces with depth and flexibility. Cost-effective Reserve forces have become an increasingly crucial component of the crisis-response and warfighting capabilities of the naval services.

The Naval Reserve plays a significant role in virtually all major operations and exercises. Last year, for example, Naval Reserve Force ships deployed to the Western Pacific for CARAT–98, to South America for Unitas, and to the Caribbean for several counterdrug deployments. The 1998 exercise Ulchi Focus Lens included more than 600 Reservists, which is double the number deployed just five years ago. Naval Reserve aircraft units also contribute to the military effort in Incirlik, Turkey, while supporting United Nations' sanctions against Iraq, and are integral to all major fleet operations. A Marine Corps security team was the first reinforcement force to arrive in Dar Es Salaam, Tanzania, after the embassy bombing in 1998, and was flown to the scene on board Naval Reserve aircraft.

The Naval Reserve maintains its traditional capability for wartime mobilization, and its people are integral to war-plan staffing. Recent emphasis on peacetime support for the Fleet, however, further enhances the overall mobilization readiness of the Naval Reserve. It also helps the Fleet by providing Personnel Tempo (Perstempo) relief in important skill areas. To this end, Naval Reserve support to the Fleet increased to more than two million workdays last year.

During 1998, rotations of 10 Reserve Civil Affairs Marines were continuously deployed to Bosnia for Operation Joint Guard. Forty-one Reservists were activated to support Marine Forces Pacific and I MEF in response to increased tensions over Iraq. Some 2,000 Reserve Sailors and Marines augmented II MEF for Exercise Strong Resolve in Norway. Marine and Navy Reservists also served alongside their active duty counterparts in numerous other operations, exercises, and counterdrug missions in 1998.

The Naval Reserve has embraced a Revolution in Business Affairs increasing its flexibility to emerging missions. One example is the flexible drilling program, where Reserve personnel are no longer tied to traditional monthly drill weekends. Instead, they combine their drills into longer-term packages that better address Fleet support needs and Reserve training. Reservists in places like Minneapolis and Denver are now electronically networked in order to complete time-critical work, and enhance their integration with active counterparts. Electronic connectivity was extended to Naval Reserve units that serve national intelligence centers as well. Additionally, a web-based information exchange system provides better Fleet access to the civilian skills of the Naval Reserve.

The Marine Corps Reserve forces mirror their active duty counterparts and are structured to augment and reinforce the active component as integrated units. Coupled with the individual skills resident in the Reserve, this facilitates the ability of the Reserve to support total force missions across the spectrum of engagement and conflict—from peacekeeping and smaller-scale contingencies to major theater war.

Today more than 98 percent of Marine Corps Reserve units are assigned to active duty forces in support of the Marine Corps' commitment to joint operation plans. A seamless integration of reserve elements with active duty components is essential due to an increasing demand for military forces and an smaller overall force structure. The Marine Corps Reserve contributes approximately one-fourth of the force structure and one-third of the trained manpower of the total Marine Corps force. Marine Reservists also comprise all of the adversary squadrons and civil affairs groups; one-half of the tank battalions; one-third of the artillery battalions; and one-fourth of the reconnaissance battalions. Reserve contribution will be reviewed during a total force structure review in 1999.

Retention challenges in the Marine Corps Reserve are being addressed through the Reserve Recruiting and Retention Task Force. Two important programs sponsored by the task force are Operation Harvest and the Reserve Career Management Team (CMT). Operation Harvest matches Marines separating from active duty with reserve units, while the CMT provides for reserve career management similar to the monitoring of Active Component Marine careers. When fully functional in fiscal year 1999, CMT will provide an equitable reserve career management and professional development program to assist Reservists in achieving a fulfilling reserve career.

SAILORS, MARINES, AND CIVILIANS: THE CORNERSTONE OF SUCCESS

America's naval forces are combat-ready largely due to the dedication and motivation of individual Sailors, Marines, and civilians. Developing and retaining quality people is vital to our continued success and is among the Department's biggest challenges. Meeting these challenges is essential to long-term effectiveness. But, with continued fiscal austerity and constrained funding, any increased investment in personnel programs will likely come at the expense of future modernization programs. However, as it is so often said, our people are our most valuable resource. It is with this in mind that we must continue to put a premium on recruiting, retaining, and training the best people our country has to offer.

Core Values: Honor, Courage, and Commitment

The Department of the Navy's core values of honor, courage, and commitment are the very fabric of our naval character. It is the ethos of who we are and how we conduct ourselves on a daily basis. From these principles we uphold the traditions of the naval profession and shape the service's standards for moral conduct. As warfighters, we wield destructive power and must often act independently on the battlefield to judge situations and show the highest caliber of moral leadership. Therefore, it is essential that core values be an integral part of Sailors' or Marines' leadership training and professional development throughout their careers.

Sailors, Marines and civilians possess a strong personal commitment to these core values and are relied upon to uphold the highest standards of professional and personal conduct. Thus, ethical awareness and adherence to core values is at the forefront of every decision, Department-wide.

Recruiting America's Best and Brightest

At the end of fiscal year 1998, the Navy's end strength was 381,502 active duty and 94,294 reserve. Active duty and Reserve Marines numbered 173,142 and 40,842, respectively. Department-wide civilian staffing stood at 207,782. The downsizing of the early/mid-1990s is nearly complete, and the Department of the Navy is working to ensure that the nation's youth are aware of the diverse and rewarding career possibilities that naval service offers to America's best and brightest. Naval service stimulates and challenges young people while providing a solid foundation of "high-tech" training, life skills, and leadership experience at a relatively early age. Although the Navy and Marine Corps both met officer and enlisted recruiting goals for their respective Reserve forces, recruiting remains a challenge for active duty Navy forces. Increasing college attendance, historically low unemployment, and prolonged economic growth all combine to compete with naval recruiters for the limited pool of qualified enlistees.

The Navy experienced a recruiting shortfall of 6,892 Sailors in fiscal year 1998. Unfortunately, fiscal year 1999 is equally challenging with the same competitive factors. In response, we developed a strategy to address this environment and help avoid an accession shortfall in fiscal year 1999. First, we boosted the number of recruiters by 25 percent, from 3,600 in 1998, to over 4,500 by March 1999. Next, our advertising campaign strongly emphasizes that the Navy represents a great career opportunity. We have further empowered our recruiters by increasing recruiting incentives, including Enlistment Bonuses, Navy College Funds, and a series of specific bonuses and contracts targeted to attract general detail (GENDET) Sailors. Shorter enlistment contracts will help young people unsure whether the Navy is the right choice for them. Likewise, we included a legislative request to increase the maximum enlistment bonus from $12,000 to $20,000, which should help attract enlistees.

Additionally, the Navy increased the maximum allowable enlistment percentage of non-High School diploma graduates (NHSDGs) from five percent to the DOD limit of 10 percent earlier this year. Although a high school diploma is an important validation of ability to succeed, it is not the "be-all" or "end-all" of a potential recruit's measure of worth. This initiative authorizes the recruitment of up to an additional 2,600 boot camp entrants when their work experience and above average test scores identify them as "Proven Performers" and justifies their admission. Additionally, we

will provide highly effective training through our Personal Academic Capacity Enhancement Program for personnel at boot camp requiring remedial instruction. We recognize that recruits without high school diplomas have historically failed to complete recruit training at a rate of about 10 percent greater than those with diplomas. However, this metric is more than offset by the fact that non-diploma graduates who complete boot camp have higher retention rates and perform as well or better than their peers in the fleet.

Despite the impact of a strong civilian economy, the Marine Corps met all of its recruiting goals in fiscal year 1998, extending an unbroken string of recruiting success—both in quantity and quality—to 41 consecutive months. To continue to recruit quality men and women, the Marine Corps maintains an effective and award-winning advertising program. As young Americans grow less inclined toward military service, new approaches and more resources must be applied to recruiting. To generate awareness and quality recruiting leads, and to make the Marine Corps more attractive, the Marine Corps expanded the use of high-profile marketing opportunities. The Marine Corps is also developing an Internet-based system to bolster both initial and follow-up recruiting effectiveness. Likewise, a CD–ROM product is under development that gives comprehensive Military Occupational Speciality information to help recruits make informed career decisions before departing for boot camp.

Retention

Individual Sailors and Marines are the foundation of the total force. Caring for them and their families is central to personnel retention and the overall readiness of the Navy-Marine Corps team. Decreasing quality of life, family separation, pay disparities with the civilian community, lower advancement opportunity, erosion of other benefits, and a strong civilian economy adversely affect retention of Navy and Marine Corps personnel.

Enlisted Retention.—Overall, enlisted first-term retention during 1998 was approximately 32 percent for the Navy, which is about 6 percent below the retention level to support a steady-state Navy force level. Overall enlisted first-term retention for the Marine Corps was 21.86 percent, which is the minimum rate to sustain the Marine Corps force structure. A combination of initiatives, such as increasing the Selective Reenlistment Bonus (SRB) from $45,000 to $60,000, should boost retention figures. The Navy's ongoing commitment to fund the personnel account adequately addresses lingering concerns about timely permanent change-of-station moves, bonus payments, and advancement opportunities. In addition, the Chief of Naval Operations' initiative to reduce the inter-deployment personnel tempo will give Sailors more time at home. Despite these efforts, an across-the-board increase of military compensation is needed to stem the tide of declining accessions and insufficient retention.

Other initiatives to enhance personnel compensation were included in the Fiscal Year 1998 National Defense Authorization Act. Housing allowance reform, to be phased in over six years, will first stabilize and then reduce the percentage of housing costs absorbed by individual Sailors and Marines. Subsistence allowance reform will correct pay inequities among enlisted people and will tie increases in this allowance to a credible food-cost index. The Department enhanced family separation pay, hazardous duty pay, and overseas tour extension bonuses to alleviate hardship situations. In order to offer our quality people a competitive standard of living, however, the Department needs strong and continuing support from the Congress for significant increases in military compensation.

To complement these financial initiatives, the Department of the Navy is placing a greater emphasis on the way we work. For example, the Department is developing a new Smart Work program to provide our Sailors and Marines with the best tools and equipment possible, which will help reduce the number of hours our enlisted personnel work while increasing the quality of their work. Some examples include: developing and procuring a new type of watertight door that will replace the high-maintenance type that consumes significant maintenance man-hours; acquiring "top-of-the-shelf" basic equipment that will make scraping and painting less burdensome; and Developing paint for the fleet that is more resistant to deterioration and yet does not affect the environment, to help reduce maintenance burdens and improve working conditions.

Officer Retention.—During the past few years, reduced force levels partially offset the adverse impact of Navy officer community shortages, which were exacerbated by high-tempo operations. While the Marine Corps is meeting its end strength requirements and will for the foreseeable future, retention in aviation specialties is a concern. Unfortunately, our armed forces are nearing their lower end-strength goals, at a time when the robust civilian market offers strong employment alternatives to Sailors and Marines. Inadequate retention only increases the personal

sacrifices demanded of our remaining officers, as sea tours are lengthened due to operational requirements and commitments. Positive changes are needed immediately to help stem the loss of highly skilled and motivated people before current readiness is more adversely affected. Retention must be improved to meet officer manning requirements particularly in Navy and Marine Corps aviation, nuclear power, surface warfare, and special warfare.

Aviation.—Navy Pilot retention decreased to 39 percent in fiscal year 1997 and further declined to 32 percent in fiscal year 1998. This trend is expected to continue for the foreseeable future, and pilot retention already falls short of the 35 percent aggregate level required to fill critical department head and flight leader positions. Naval Flight Officer retention is also declining, with aggregate retention in early 1999 at the minimally acceptable level of 38 percent. While continuation of these mid-level officers represents our greatest retention challenge, there was also an increase in resignations of more senior aviators, particularly due to intense competition from private industry. The Marine Corps is also experiencing aviation retention challenges, especially for fixed-wing aviators. The Navy is developing compensation proposals to address Service-specific retention shortfalls and regain the high ground in the retention battle. Relief from current Title 37 legislative constraints will enable us to continue developing new compensation programs and more efficiently apply limited resources where and when they are needed. Aviation Career Continuation Pay (ACCP) is one such initiative that would mark a departure from the unsuccessful retention programs of the past. Tied directly to force structure, ACCP would meet the retention challenge at every critical point throughout an aviation career by rewarding aviators for superior performance and increased responsibility.

Nuclear Power.—The success of the Naval Nuclear Propulsion program is a direct result of quality people, rigorous selection and training, and high standards. Fiscal year 1998 retention for submarine officers was 27 percent and 21 percent for nuclear-trained surface warfare officers, which is currently adequate because of our post-Cold War downsizing. However, nuclear officer accessions and retention remain below the required level to sustain the future force structure. Retention rates must improve to 38 percent for submarine officers and 24 percent for nuclear-trained surface warfare officers by fiscal year 2001 to meet steady-state manning requirements. In its present form, the Nuclear Officer Incentive Pay program remains the surest and most cost-effective means of meeting current and future manning requirements. The authorization requested to extend the program and increased pay limitations provides the Department of the Navy with sufficient program flexibility to address current and future retention challenges.

Surface Warfare.—Despite a large reduction in the number of ships since the Cold War "high water mark" in the mid-1980s, the Surface Warfare Officer (SWO) community is experiencing difficulty retaining enough senior lieutenants and junior lieutenant commanders to meet department head requirements. Current retention in the SWO community is 25 percent against a manning retention requirement of 38 percent. To reverse the SWO retention trend, Navy leadership is addressing waterfront quality-of-life concerns and has proposed Surface Warfare Officer Continuation Pay (SWOCP). This initiative would pay surface warfare-qualified officers up to $50,000 to remain in the community through their tenth year of commissioned service.

Special Warfare.—Historically, officer retention in Naval Special Warfare (NSW, commonly referred to as SEALs—for Sea, Air, Land forces) was among the highest in the Navy. Since 1996, however, the annual number of resignations has risen dramatically. The SEAL retention rate at the critical seven-year point has fallen to 58.2 percent from historical levels of greater than 80 percent. The Navy is attempting to address SEAL junior officer retention problems in several ways including proposed increased incentives. These incentives include a proposal for NSW officer continuation pay—targeting officers with 6–14 years of service—and proposed legislative relief from the restriction on drawing more than one Hazardous Duty Incentive Pay. Additionally, the Naval Special Warfare leadership is conducting a thorough evaluation of its organization in an effort to reduce personnel tempo, improve job satisfaction, develop a mentoring program, and expand postgraduate education opportunities.

A Comprehensive, Competitive Military Compensation Strategy

Navy leadership is fully cognizant that we need a multi-faceted approach to be successful in improving personnel readiness. While there is no one remedy to this complex problem, a boost to military compensation is fundamental to a long-range solution.

Therefore, we strongly endorse the DOD compensation triad (basic pay increase of 4.4 percent in fiscal year 2000 and 3.9 percent each year through fiscal year 2005,

pay table reform to recognize and reward performance, and repeal of the Military Retirement Reform Act of 1986 (Redux)) as an excellent step toward addressing pay gap and compensation concerns.

While the compensation triad will begin to address our recruiting and retention concerns, it will not ensure adequate retention in many of our undermanned, highly skilled warfare specialties. Historically, targeted bonuses have proven highly effective and very cost efficient in attacking these retention problem areas. This year, we plan to make greater use of this proven strategy. As discussed in the section on Recruiting and Retention, our Fiscal Year 2000 Authorization Act request seeks congressional support for several special and pay incentives and bonuses to deal with key personnel problem areas.

Long-term savings and financial security for our Sailors and Marines can help improve recruiting and retention. Therefore, in addition to the DOD compensation triad, we believe that a 401K-type payroll savings plan would pay significant dividends in providing our Sailors and Marines an uncomplicated, low initial investment means of establishing financial security. An important program that supports these goals is the Uniformed Services Payroll Savings Plan (USPSP), a tax-deferred long-term savings program that would authorize service members to contribute up to 5 percent of basic pay with no government matching funds. It would be managed by the Federal Thrift Investment Board (FTIB), which already oversees the Civil Service Thrift Savings Plan, who would be charged with professional oversight and participant education for the Navy and Marine Corps.

Strongly supported by the Department of the Navy, the establishment of USPSP would be a significant step in addressing continuing congressional concerns that young men and women joining the Services have inadequate knowledge and understanding of the skills required for personal financial management and fiscal responsibility. While the Department has implemented personal financial management programs that provide excellent access to information for managing a Sailor's or Marine's financial future, these programs are only a first step and should be complemented by a Defense Department-sponsored savings plan.

Equal Opportunity/Diversity.—The Department of the Navy remains committed to development of Navy and Marine Corps forces that reflect the demographics of American society. Both Services traditionally emphasize accessions to diversify the military population. Last year some modest gains were made in minority recruitment. The services also have increased efforts to retain minorities. Mentoring programs are also being developed for the benefit of all Sailors and Marines. In addition, a cadre of naval leaders is being assigned to a Standing Committee for Minority Affairs to provide experience and guidance on issues of diversity and equal opportunity.

Quality of Life.—The availability of effective Quality of Life (QoL) programs and services offer Sailors and Marines peace of mind no matter where they are stationed or deployed, and contribute greatly to retention and readiness. The four major goals for QoL include adequate and fair compensation, appropriate bachelor and family housing, access to high-quality health care, and effective programs for community and family support.

The Department of the Navy has established QoL Master Plans to provide standards for QoL programs and services. Through this effort, the Department provides an array of programs that are an essential component of the career benefits package. Many of these QoL programs cultivate and reinforce Department of Navy core values, while others provide vital community support services. Of special note is a $77 million increase in the Voluntary Education (VOLED) program throughout the Fiscal Year 2000 Future Years Defense Plan (FYDP). Recent studies show a strong relationship between the use of VOLED and increased retention. Additionally, LIFELines, a revolutionary, web-based approach to QoL support services education and delivery, was inaugurated in early 1999 to provide more effective access to these services.

In the execution of its QoL Master Plan, the Marine Corps has revolutionized its approach to the delivery of critical QoL programs by merging Morale, Welfare and Recreation (MWR) and Human Resources (HR) programs into the Personal and Family Readiness Division. The Personal and Family Readiness model creates a strong advocacy voice for quality of life and establishes a proactive, prevention-based focus. The "One Corps, One Standard" goal is accomplished by a variety of initiatives that address the family, youth activities, and physical fitness. A premier example of a prevention-oriented program is Semper Fit, which promotes the personal readiness of Marines and healthy lifestyles in families by offering a team of fitness, medical, and education counselors.

Housing—Ensuring that America's Sailors, Marines, and their families are adequately housed in the local community or in military housing is a top QoL issue.

New initiatives are underway in housing allowance reform, family housing, and bachelor housing. The newly implemented Basic Allowance for Housing (BAH) system, which is to be phased in over a six-year time frame, will provide allowances that more closely match the actual housing costs of the service member.

In addition, the Department will use Public Private Venture (PPV) initiatives to meet its future housing needs. The Navy is implementing plans to privatize housing at 16 different locations that target more than 29,000 family housing units. In a similar fashion, the Marine Corps is pursuing privatization at nine locations that include more than 8,000 family housing units.

PPVs have become the first choice to accomplish whole-house revitalization or replacement of existing homes. Effective use of PPVs allows the Department to increase the number and improve the quality of housing. In areas where analysis of economic, quality, and market factors demonstrate that a PPV is not feasible, more traditional means of meeting our requirements are employed. Privatization allows the Services to enter business agreements with the private sector to revitalize or replace existing housing, build new units to meet the additional needs of the Service, and maintain the inventory.

The Department is similarly committed to improving the Quality of Life for our single Sailors and Marines through the elimination of inadequate barracks and the achievement of a higher standard of living. As currently programmed, the Navy will eliminate all community restrooms by fiscal year 2008 and attain a seven-year replacement cycle for all barracks furnishings by fiscal year 2003. The Marine Corps will completely replace inadequate barracks by fiscal year 2005, eliminate all barracks maintenance and repair backlogs by fiscal year 2004 and reach a seven-year replacement cycle for barracks furnishings by fiscal year 2002.

Safety

Protecting the lives of Sailors and Marines and preserving valuable material assets are critical benchmarks in ensuring that America's naval forces remain operationally ready to meet their daunting global commitments.

One of the major innovations developed and adopted by the Navy and Marine Corps is the Human Factors Analysis and Classification System (HFACS). Recognizing that human error continues to be the leading cause of accidents, this analytical process provides the first step in the Operational Risk Management (ORM) process—hazard identification. This new process of analysis better focuses intervention strategies at the root causes, and is designed to help Sailors and Marines identify and eliminate or reduce these risks.

The Chief of Naval Operations and the Commandant of the Marine Corps continue to move forward with ORM at all levels. The Naval Safety Center has conducted eight organizational level "Train the Trainer" courses and developed a new ORM training course for fleet staffs. The Navy has also incorporated ORM into the Leadership Training Continuum. ORM is used by the Fleet to throughout the Inter-Deployment Training Cycle (IDTC) identify and quantify risk and create more dedicated unit-training time. Continued emphasis by leaders at all levels throughout the Navy and Marine Corps has made safety awareness part of the Department's culture. Another significant risk-management tool entered the Fleet Marine Forces in April 1998, when the computer-based Squadron Assistance/Risk Assessment (SARA) software program was fielded for every Marine Corps squadron. SARA is a unit-level risk management and flight-scheduling tool, designed to assist military aviation organizations in conducting daily activities. SARA facilitates daily scheduling, accumulates unit data, and analyzes aircrew risk factors based on aircrew qualifications. In July 1998, the Joint Service Safety Chiefs endorsed SARA and recommended funding for continued development, product support, and possible use of SARA by all U.S. Armed Services.

Medical

Navy Medicine is committed to delivering world-class health care to the Navy-Marine Corps team, its retirees, and their families. Operational medical units, such as hospital ships and fleet hospitals, are capable of providing state-of-the-art health services throughout the world. On a smaller scale, a lighter and more flexible rapid response capability is being developed. Lastly, preventive medicine—health education, reducing injuries, encouraging healthy lifestyles—has been given priority because it is key to sustaining a fit and healthy fighting force.

TRICARE.—The foundation of our health care system is TRICARE—Department of Defense's triple option managed health care program. In regions where TRICARE was established early and is now mature, it improved access and uniformity of benefits while ensuring a high level of medical readiness. In regions where TRICARE has only recently started up, there have been some growing pains. Because

TRICARE introduced some fundamental changes in how beneficiaries receive care, the Office of the Secretary of Defense and the Services continue to address problem areas in implementing the program. The Department of the Navy is committed to making TRICARE work and will work to ensure that its beneficiaries continue to receive the finest health care possible.

Retiree Medical Care.—Another important focus for the Department is improving access to medical care for Medicare-eligible beneficiaries. The TRICARE Senior Prime demonstration project, now being implemented at the San Diego Naval Medical Center, offers some encouraging opportunities for improved health care for retirees. Other promising methods to mitigate the loss of medical benefits for retired members and their families at age 65 are under evaluation.

Medical Innovation.—Navy clinicians and researchers are leveraging technology advances and developing processes to improve medical care. In addition, telemedicine is now being used to provide better access to specialized treatments for both patients and providers. The use of telemedicine provides operational and remote units a medical force-multiplier by keeping Sailors and Marines on station, while maintaining direct contact with designated specialists. The Navy is also streamlining medical operations by working closely with the other Services and the Department of Veterans Affairs to integrate health care services better and avoid duplication.

The Department is working with the Department of Defense to establish the Federal Employees Health Benefits Program (FEHBP) to provide medical care for up to 66,000 retired service members and their dependents. The demonstration program will be offered at naval hospitals in Roosevelt Roads, Puerto Rico, and Camp Pendleton, California, starting January 1, 2000. DOD is planning two additional demonstration programs, the TRICARE Senior Supplement program and an expanded pharmacy benefits program for Medicare-eligible persons over age 65 (mail order pharmacy benefit), as mandated by the Fiscal Year 1999 DOD Authorization Act.

Moreover, the Navy's research programs are internationally recognized as being at the forefront of DNA vaccine technology, immunobiology, and hearing conservation. The Navy will continue its medical research initiatives for the benefit of our personnel, and make results of our research available to citizens everywhere.

Revolution in Training: Educating Today's Force for Tomorrow

The Department needs a potent Navy-Marine Corps team capable of responding to increasingly diverse and sophisticated operating environments. Tomorrow's force must adapt to decentralized operations, smaller crews, increasingly sophisticated and lethal weapon systems, expectations of precise execution, proliferation of asymmetric threats, and unpredictable environments. Satisfying these needs demands a highly trained, broadly educated, and exceedingly proficient core of individuals molded into cohesive teams to perform a wide variety of missions. Intensive training and education are central to the continuing success of our naval forces into the 21st Century.

The Naval Services are committed to training that emulates the operational environment and instills the warrior's ethos of sacrifice, endurance, teamwork, and dedication. In this regard, the Department of the Navy is instituting fundamental changes to the way we train by focusing on the following objectives: reducing the infrastructure cost of training and education; increasing personnel readiness; improving quality of life by increasing time in homeport; and making training an ongoing priority for every Sailor and Marine. The current training infrastructure is being modernized and made more efficient to take advantage of a host of new technologies. Investments in training technologies, focused curricula, modeling and simulation, and a shift toward increased training in an operational setting will better support the preparation of today's Sailor and Marine. The net results will be an enhanced ability to teach a broad foundation of knowledge, an increased speed of learning, an improved realism of training scenarios, access to special situational knowledge, and a focused remediation in order to minimize attrition.

The Department also recognizes that the demands of the 21st Century will challenge their training continuum. Accordingly, the Service has embarked on a new Training Modernization Initiative that will provide our operating forces with trained Marines in a shorter period of time than the current training pipeline. The primary focus of the Training Modernization Initiative is to identify core competencies that contribute to mission accomplishment for each Military Occupational Specialty (MOS). We will then infuse technology into institutional training for core competencies and provide the proper mix of distance and resident learning for core plus competencies. The Department's plan is to reduce the length of formal institutional training, teach more courses per year, and provide training to Sailors and Marines

when and where required. Constrained resources require leveraging live training opportunities, while remaining within operational and personnel tempo constraints. Limited range and training areas, reduced steaming days and flight hours, environmental restrictions, and constrained budgets restrict operational training opportunities. The importance of "Train Hard, Train Fast, Train Often, Train First" cannot be overemphasized, especially as the Navy-Marine Corps team will continue to be the "force-of-choice" for forward presence, peacetime engagement, crisis response, and many of the conflicts that are sure to come in the future.

Critical to overcoming some of these constraints are some simulation initiatives. Although not a complete solution, simulation offers a way to overcome many of these obstacles and use technological advances to present more realistic training. Combining simulation with live training opportunities overcomes range and target limitations, enhances the realism of the training scenario, improves after-action review and objective evaluation, and supports tactical decision making and mission rehearsal/planning. The Navy and Marine Corps will continue to develop modeling and simulation capabilities to enhance operational training at home and on deployment.

Basic Training.—Initial training for officer and enlisted personnel must prepare them to handle increasingly diverse operational environments—from Arctic and desert wastes to urban "canyons" and labyrinths. Decentralized operations, increasing weapons lethality, asymmetric threats, and complex and varied environments require innovative and resourceful individuals capable of making timely, effective decisions under pressure. The focus on building strong foundations in character, integrity, and leadership during recruit training and initial officer training lies at the heart of a career-long continuum of education. The updated Battle Stations in Navy recruit training and The Crucible in Marine Corps recruit training are dedicated to instilling a common set of core values, overcoming mental and physical challenges, and fostering unit cohesion and teamwork. Battle Stations and the Crucible were specifically designed to provide a defining moment in the transformation of young men and women into Sailors and Marines.

The Navy and Marine Corps design basic training to best meet the needs of their respective operational environments and missions. The Navy conducts basic training in a gender-integrated manner, while the Marine Corps is gender-segregated. The Department of the Navy believes strongly that each Service should retain the flexibility to structure its training to satisfy the specific and sometimes unique needs of that Service.

Advanced Military Education.—Integration of Professional Military Education (PME) and leadership training with tactical and strategic warfare education throughout a naval officer's career is essential in meeting the Department of the Navy's mission. Providing advanced education opportunities for Navy and Marine Corps officers is critically important as the Services transition to more complex network centric warfare and operational maneuver doctrines and supporting tactics, techniques, and procedures. Education in strategic, operational, and tactical levels of warfare is being strengthened to prepare officers to integrate their understanding of the wide range of 21st Century naval warfare. Expansion of off-campus professional military education opportunities, development of distributive learning options for graduate education, and modernization of advanced education labs and libraries increase flexibility in critical education areas for tomorrow's leaders. Implementation of the new Operational Planner course at the Naval War College highlights the Navy's commitment to producing astute tacticians and leaders.

Furthermore, the Navy has implemented its Foreign Area Officer (FAO) program, which combines formal education with overseas assignments in an effort to develop a cadre of regional experts. These area specialists are essential to furthering the nation's engagement strategy.

The Marine Corps Total Force Distance Learning program is forging a worldwide network of satellite campuses to make continuing education accessible for everyone. The Marine Corps University (MCU) improved its approach to PME through distance learning by establishing the College of Continuing Education (CCE) in 1997. Employing the higher education resources of the MCU, the CCE improves traditional correspondence-based distance education programs in conjunction with the Marine Corps Institute, while leveraging multimedia technology, such as the Marine Corps Satellite Education Network, to improve course delivery. In addition, the Marine Corps makes extensive use of programs like the MAGTF Staff Planning Program (MSTP). MSTP is an instuctor and evaluation cell that travels to respective Division-equivalent and above commands to train and educate commanders and their staffs in operational planning and execution.

Managing our Civilian Workforce

Civilians make up about one-third of the Department's people and are essential members of the Navy-Marine Corps team. Recent efforts to train and maintain a pool of well-qualified employees include better training opportunities for junior employees and new civilian performance appraisals that emphasize incentive awards. The Department also has hosted a series of successful civilian recruitment programs throughout the country, which brought Navy and Marine Corps activities together with civilian college students. In addition, the Department sponsored special engineering and science residential programs, to expose outstanding high school and college students to Navy and Marine Corps technical missions and functions.

There is growing concern about the impact that such issues as Base Operating Support regionalization, claimant consolidation, and outsourcing will have on the civilian workforce. A generally shrinking workforce does not generate enough new people to replace the Department's aging scientists, engineers, and senior managers. Without careful management of retirements and hirings, significant gaps in experience can occur. Accordingly, we have sharpened our focus on succession planning to ensure that the necessary civilian expertise is available for continuity, consistency, and strategic support.

Civilian Leadership Development Program.—The Department of the Navy's Civilian Leadership Development Initiative provides opportunities for employees to enhance their competitiveness for higher level positions. Several civilian leadership and management programs including the Defense Leadership and Management Program, the Senior Executive Fellows Program (SEF) at the John F. Kennedy School of Government, and the Department of the Navy's Brookings Institute course, provide significant opportunities for development. The curriculum in each of these programs include rigorous graduate-level coursework, rotational assignments, and Professional Military Education (PME). The long-term goal is to sharpen civilian leadership skills, increase experience levels, and enhance understanding of the missions of the Departments of Defense and Navy.

GAINING EFFICIENCIES AND FLEXIBILITY FOR THE TOTAL FORCE

From 1988 to 1998, the Department of the Navy's Total Obligation Authority (TOA) decreased by 40 percent in constant 1998 dollars. Coincident with this decrease was a marked increase in forward-presence and contingency operations. In fact, owing to the unique capabilities naval forces bring to a turbulent post-Cold War world, the peacetime Navy-Marine Corps team has never been busier.

Today, our deployed naval forces maintain a high level of readiness in part by shifting resources from non-deployed forces. Therefore, previous declines in funding coupled with increases in operational tempo, resulted in impacts on personnel retention, maintenance backlogs, recapitalization, and modernization which were disproportionate. The resulting effect is most apparent and acute in non-deployed readiness, which affects those forces that are not on deployment or are scheduled to depart in the near term.

The Readiness Challenge

This chart shows the readiness "bath tub" effect (readiness versus time) and illustrates the difficulty non-deployed forces experience as they pass through the Inter-Deployment Training Cycle (IDTC). While this chart depicts only carrier air wing readiness, similar trends are seen among non-deployed ships and submarines. These are precisely the forces that would have to surge in the event of a major theater war. The deeper the "bathtub" becomes, the greater the risk to our ability to respond with combat-ready follow-on forces. Clearly, the slope that IDTC units must climb to attain the necessary levels of readiness by deployment is getting steeper. This accelerated activity greatly affects quality of life and fleet morale. To make up for resource shortfalls, our Sailors work harder and longer to compensate. Not only does this prevent them from spending the needed and well-deserved time with their families, it also stresses them both mentally and physically at a time where they should be focused on preparing for deployment.

Similarly, the Marine Corps' high operational tempo comes at the expense of not investing in modernization, infrastructure, and quality of life accounts. For example, sustaining today's readiness requires sacrificing more training time for extensive maintenance hours, in essence mortgaging tomorrow's Marine Corps to sustain current readiness. The Marine Corps' unfunded Backlog of Maintenance And Repair (BMAR) leveled off at $700 million. While we have finally peaked, we are not achieving the goal of reducing the backlog by fiscal year 2010. Reversing this trend requires approximately $500 million per year, approximately $125 million per year above current funding levels. Additionally, Marine Corps aviation assets saw a 49

percent rise in average cost per flight hour during the last three fiscal years. The Marine Corps must keep its "eyes on the prize" of 21st Century warfighting capability and resist the demand to invest limited resources into the maintenance of equipment and weapons systems beyond their designed service life. This will require investing in advanced technology and reducing total cost of ownership of new equipment.

For these reasons, the fiscal year 2000 budget requests increased funding for Navy and Marine Corps readiness and modernization. Over the next six years, the request would provide nearly $4 billion to purchase spare parts, increase equipment and property maintenance, address manning and training concerns, and increase procurement of new Marine Corps equipment. Funding of this request would be an initial step toward reversing the downward trend in readiness and easing the strain on our forces.

Improving Our Business Processes

One area in which substantial savings may be achieved is in making the Department's support infrastructure—its business side—more efficient. A major challenge for the Department of the Navy is determining how to transform the way it conducts business in order to achieve the efficiencies and effectiveness of the commercial sector.

In late 1997, the Secretary of Defense announced a sweeping program called the Defense Reform Initiative (DRI) to reform the business side of the Department of Defense. Secretary Cohen noted that, "to carry out our defense strategy into the 21st Century with military forces able to meet the challenges of the new era, there is no alternative to achieving fundamental reform in how the Defense Department conducts business." Following the Secretary's leadership, the Department of the Navy initiated its Revolution in Business Affairs (RBA) process in early 1998.

U.S. industry gained a competitive advantage over its overseas competitors in the 1980s and 1990s by being faster to market, quicker to change, less constrained by needless regulation, and more innovative in applying technology.

In the same manner, the Department's business vision is to efficiently and effectively design, acquire, and support the world's premier operational naval forces. Our vision must ensure Department of the Navy business practices mirror the best examples in public and commercial enterprises. By taking advantage of the RBA, the Navy and Marine Corps team will become a more combat-effective and cost-efficient force postured for the 21st Century.

Although the Navy and Marine Corps are the world's premier naval forces, business processes supporting our forces are not as efficient and effective as the best public and private practices. As noted by Secretary Cohen in his Defense Reform Initiative Report, "DOD has labored under support systems and business practices that are at least a generation out of step with modern corporate America. DOD support systems and practices that were once state-of-the-art are now antiquated compared with the systems and practices in the corporate world, while other systems were developed in their own defense-unique culture and have never corresponded with the best practices of the private sector."

This is unacceptable, particularly since the demands on our operational forces have increased while our resources have declined. Our people have already taken extraordinary measures to save resources by reducing force structure and infrastructure, including more than 350 initiatives to improve our existing business systems and support to our forces. We are also working closely with the Defense Management Council (DMC), established to serve as the Secretary of Defense's Board of Directors to oversee the Defense Reform Initiative process. Official tasking is accomplished in Defense Reform Initiative Directives (DRIDs). There are over 45 DRIDs that include initiatives for competitive sourcing, utility privatization and paperless contracting and acquisition.

These initiatives are a key part of the Department of the Navy's business reform process. For example, DRID 20 is a review of inherently governmental functions providing an initial step towards increased outsourcing/privatization. DRID 46 directs paperless contracting DOD-wide by January 1, 2000. As per DRID 49, the Services will carry out the privatization of utility systems by January 1, 2003.

In conjunction with DRIDs, the Department of the Navy is charting a new course and making new rules. We are developing a Department of the Navy Strategic Business Plan (SBP) as a first step in organizing and managing how the Department meets its business obligations to the operational naval forces. This document will provide a strategic plan to transform naval business processes and infrastructure to better support the naval forces of the 21st century.

The SBP will outline the Department of the Navy's overall business strategy and provide a common focus to guide transformational change in naval business affairs.

It will also describe a plan for accomplishing Title 10 business responsibilities and serve as a focus and guide to our efforts toward our key strategic goals. Our overarching goal is to foster the continued conceptual, technological, and operational superiority of our naval forces.

Innovative business practices can be implemented at all levels in the Department. We will evaluate our business processes, keeping those that serve us well, and adapting the best practices of commercial or public enterprises to meet our other needs. As our efforts mature and systemic innovations are identified, initiatives will be prioritized and integrated to enhance our use of time and other resources. We want our business systems as agile, fast, and net-centric as our warfighting is now. We must do this to enable recapitalization and modernization of our forces. While there is much to do, progress has already been made. In the fall of 1998, we commenced business reform initiatives in areas of recruiting, retention, training and assignment of personnel; commercial business practices; and housing. Working groups comprising representatives from the Fleets, Navy and Marine Corps Headquarters, and field commands began the change process. The reform initiatives these groups have grappled with are very much in support of the Revolution in Business Affairs articulated in the Department of Defense Reform Initiative. These initiatives will produce change that, although iterative, will fundamentally revolutionize our business processes over the long-term.

Key to achieving business process re-engineering is the Information Technology for the 21st Century (IT–21) initiative. Many of the challenges the Navy and Marine Corps face today are driven by revolutionary changes in technology. In order to meet these challenges and to lead change, the Department of the Navy must invest in both the IT–21 infrastructure and in building connectivity. Only then will the Navy and Marine Corps be able to fully leverage technology to achieve the needed revolution in business processes. Information Technology is the critical enabler for the Department to reap the benefits of process improvement. Building a world-class corporate intranet is the next step in the Navy's commitment to IT–21. The corporate intranet will do for the Navy business manager ashore what IT–21 is doing for the warfighter afloat. The goal is to connect all commands/units in a common information environment by building the critical infrastructure, organizing data, and achieving process and cultural change. This will enable the sharing of information, eliminate redundancy, achieve near-seamless connectivity between afloat and ashore units, improve quality and pride in the workplace, and ultimately, enable the Department to become a world-class business.

Research and Development

Science and technology are the fuel for naval warfare innovation. This year's technology demonstrations will identify tomorrow's options. Today's R&D programs—focused on affordability and warfighting superiority—are the basis for the technology successes of the future.

Basic Research Programs.—The Navy's basic research programs are the basis for the technology successes of the future. Basic research is much like seed capital. For example, research initiated at the Naval Research Laboratory in the 1960s led to the Global Positioning System, which proved its worth in Desert Storm and is arguably the most important navigation tool since the advent of the sextant and chronometer. Current basic research initiatives include:

—Molecular trapping research at ultra-cold temperatures that could pave the way to a molecule laser for ultra high-precision spectroscopy and chemical sensors. The molecule laser may also allow precision probing of surfaces for better circuit patterns on silicon wafers (chips) and for studying metallic alloys for improved materials to increase weapon system accuracy and reliability. In addition, trapping cold molecules may improve atomic clocks, enhancing the accuracy of the Global Positioning System.

—Autonomous Oceanographic Sampling Network (AOSN) is a sensor network of inexpensive, autonomous underwater vehicles to survey the marine environment and relay real-time data to warfighters. The AOSN oceanographic and bottom-mapping capability has major implications for improved anti-submarine warfare and in-stride mine countermeasures. AOSN also offers mobile underwater communications and versatile sensor payloads.

—Hearing Loss Rescue is a new medical procedure pioneered by Navy doctors that can prevent and restore hearing loss caused by sudden, loud, high-impact noises, or hearing loss suffered over time in noise-hazardous environments. This procedure will reduce lost work time related to hearing degradation and save millions in medical care costs each year.

The Marine Corps is the executive agent for the DOD Non-Lethal Weapons (NLW) program and is participating in seven joint non-lethal weapons efforts to augment

the capabilities already fielded. These programs are divided into four categories: (1) personnel protectors (e.g., face and riot shields); (2) personnel "effectors" (e.g. sting grenades, pepper sprays, and incapacitating rounds); (3) mission enhancers (combat optics spotlights and caltrops designed to facilitate target identification and crowd control); and (4) training devices (e.g. training suits, batons, and inert pepper sprays). These basic research programs, delivered throughout the FYDP, demonstrate a clear Service commitment to this program that offers important new capabilities across the spectrum of conflict, particularly in urban environments.

Applied Research and Technology Demonstrations.—These demonstrations are of more mature technology that may be fielded within a few years. For example, three systems being installed in the Virginia class attack submarine were developed through applied research: the Light Weight Wide Aperture Array, the High Frequency Chin Array, and the advanced propulsor. Other examples of fiscal year 1998 successes include:

—The Joint Countermine demonstration addresses alternatives for combating both mine threats and obstacle barrier systems while operating in the littorals—from shallow water through the surf zone. Efforts continue to improve mine detection, classification, data dissemination, breaching, marking, and clearing capabilities.

—The DNA vaccine demonstration successfully completed the first Federal Drug Administration-approved human trials for malaria and produced the first successful eradication of Stage 1 malaria infection.

—The Reconnaissance, Surveillance, and Targeting Vehicle advanced technology demonstration program is a joint effort between the Marine Corps and the Defense Advanced Research Projects Agency (DARPA) to evaluate light combat land vehicles. It includes design, fabrication, and demonstration of two prototype tactical vehicles capable of being transported inside the MV–22 Osprey tiltrotor aircraft. The design also incorporates hybrid electric propulsion, integrated survivability, improved mobility, and modular design for mission tailoring.

Affordability is key to recapitalizing force structure. Affordability efforts imbedded in current science and technology programs include:

—Power Electronic Building Blocks (PEBBs). PEBBs may lead the second electronic revolution. This new approach to power-handling promises new efficiencies and phenomenal power densities at reduced costs and production time. A PEBB will replace complex power circuits with a single device containing a multifunction controller. This will reduce design and development costs for complex power circuits and simplify the development and design of large electric power systems. PEBBs incorporate sensor-driven and software-controlled solid state power controllers and high-frequency megawatt power devices. These could be the foundation for a future "all-electric Navy," and could support multiplatform (submarine, surface ship, aircraft) applications for advanced propulsion systems, sensors, passive armor, and weapons.

—The Advanced Lightweight Influence Sweep System lays the groundwork for a rapid mine clearance capability in shallow water. The system uses new technologies for superconducting magnets and spark-gap acoustic arrays. This program is merging with the Shallow Water Influence Mine Sweep program to develop a highly effective acoustic and magnetic influence sweep capability.

—The Advanced Enclosed Mast/Sensor encloses major antennas and other sensitive equipment to protect them from the weather. This not only reduces maintenance costs but also improves radar performance by eliminating reflections and blockage associated with conventional metallic truss-mast structures. It also will help significantly reduce the ship's radar cross section.

Shipbuilding Technology

Maritime Technology (MARITECH) is the technology-development element of the President's five-part plan to revitalize the U.S. shipbuilding industry, and is aimed at improving the design and construction processes of U.S. shipyards to compete in world markets. MARITECH, funded at approximately $40 million per year, was established to run for five years (fiscal year 1993 through fiscal year 1998) and was initially managed by DARPA. The Navy will take over MARITECH in fiscal year 1999, and the renamed MARITECH Advanced Shipbuilding Enterprise (ASE) program will be managed by the Naval Sea Systems Command with representation from the Office of Naval Research and the Maritime Administration. The mission of MARITECH ASE is to manage and focus national shipbuilding research-and-development funding on technologies that establish U.S. international shipbuilding competitiveness—and further reduce the cost of warships and other vessels to the Navy.

Submarine Technology.—The Virginia class SSN is designed to meet the demands of the 21st Century. State-of-the-art technologies designed into the Virginia class include enhanced acoustic and non-acoustic stealth, integrated combat systems, fiber-optic periscopes, vertical-launch Tomahawk missiles, and a simplified nuclear propulsion plant with a life-of-the-ship reactor core. The Virginia class design/build process incorporates the latest Revolution in Business Affairs concepts and includes participation by industry, the shipbuilder, and government. The submarine has built-in design and operational flexibility through the incorporation of modular construction techniques, open systems architecture, and commercial off-the-shelf components to facilitate insertion of rapidly evolving technologies. As new technologies are developed, for example, electric drive and advanced autonomous sensors, they will be incorporated into successive Virginia class SSNs to improve capability and reduce total ownership cost. Increased capabilities funded for the first four hulls include organic mine reconnaissance, stealthy weapons launch, and greater target detection capabilities in littoral environments.

Aircraft Carrier Technology.—The transition to CVNX, the next-generation aircraft carrier class, will begin with CVN–77, which will have a new integrated combat system with multifunction sensor arrays and additional technologies. CVNX–1 and later carriers will have increasingly sophisticated technologies for improved capability and reduced life-cycle costs, particularly in the area of manpower. CVNX–1 will have a new nuclear propulsion plant, an advanced electrical power distribution system, and an electromagnetic aircraft launching system. This will provide immediate life cycle cost reductions and warfighting improvements, as well as enabling follow-on technologies for subsequent CVNX-class carriers. (Both CVN–77 and CVNX–1 will be based on the existing Nimitz hull form.) CVNX–2 is planned to have an improved hull, improved crew habitability, survivability enhancements, new functional arrangements, distributed systems, an electromagnetic aircraft recovery system, and enhanced automation to further reduce manning and life-cycle costs.

Surface Ship Technology.—The Navy's 21st Century Land Attack Destroyer, DD–21, is being designed from the keel up to provide support for forces ashore. "Leap-ahead" capabilities targeted for DD–21 include advanced major caliber guns, precision weapons, signature reduction, seamless joint interoperability, enhanced survivability, and reduced manning. DD–21 will incorporate an open system architecture and modular design, such that newer subsystems can be incorporated as they mature. The Navy expects a significant fuel savings compared to the Arleigh Burke class through advanced engineering propulsion systems, which may include integrated power systems, fuel-efficient propulsors, and new hull designs. Finally, the Navy has established a 95-person manning objective for DD–21, which is a 70 percent reduction from Burke destroyers. Where possible, the DD–21 program will leverage technologies from the Defense Advanced Research Projects Agency, the Smart Ship Program, and North Atlantic Treaty Organization (NATO) programs on reduced-crew-size concepts.

Network Technology

The Department of the Navy's Science and Technology investment strategy is addressing the top technology concern of the warfighting commanders: battlespace connectivity. This critical issue addresses the need to standardize data sharing and usage, network management, common formats, information management, and transmission protocols. Specific technology challenges that need to be addressed are: Radio Frequency (RF) throughput to support Precision Engagement RF throughput to support the disadvantaged user, which includes new antenna technologies; Compatibility with Low Earth Orbiting (LEO) Commercial Satellites; Improved Information Management; Improved Network Management; Improved Information Assurance/Network and Security

Year 2000 (Y2K).—The Department places a high priority on addressing the Y2K problem. Efforts are on going to ensure Y2K-vulnerable systems are evaluated, tested, and necessary modifications implemented before January 1, 2000. As these remediation efforts are completed, the Navy and Marine Corps have undertaken a comprehensive series of operational evaluations to ensure that interrelated systems work together in an operational environment. As an added measure of assurance, contingency plans are being formulated. These efforts will ensure that combat readiness is maintained, and the Department of the Navy transitions seamlessly into the next millennium.

Acquisition Excellence

Building on the Federal Acquisition Streamlining Act, the Clinger-Cohen Act, and elements of the Department's Revolution in Business Affairs, we are aggressively seeking to field technologically superior warfighting systems. These keystone pro-

grams crucial to the effectiveness of tomorrow's naval forces must be affordable in the numbers required. As an example, the Navy is pursuing a multi-year procurement approach to the F/A–18E/F, which will enable the purchase of 222 aircraft for the price of 200 during the next six years. The Marine Corps seeks efficiencies by pursuing the most economic buy rate for its MV–22 program. We seek comparable opportunities for savings in acquisition and life-cycle support in all Navy and Marine Corps procurements.

Acquisition Center of Excellence.—The Department of the Navy opened its Acquisition Center of Excellence (ACE) in early 1998, demonstrating a firm commitment to address the fundamental changes needed to achieve the "faster, better, cheaper" objective. The ACE was the site for the first-ever acquisition war game, which was focused on 21st Century aircraft carrier acquisition strategies. ACE will be the principal test bed and development site for simulation-based acquisition efforts that are expected to revolutionize design and procurement of major systems.

Marine Corps Materiel Command (MARCORMATCOM).—The Marine Corps needed a single-process owner for materiel life cycle management of its ground equipment, information systems, and ground weapons systems. The Marine Corps Materiel Command stood up on 1 September 1998 at Marine Corps Logistics Base, Albany, Georgia, and will be fully operational by 30 September 1999. MARCORMATCOM will consist of a headquarters element and two major subordinate commands, Marine Corps Systems Command (MARCORSYSCOM) and Marine Corps Logistics Bases (MARCORLOGBASES). Some materiel life cycle management functions of the Deputy Chief of Staff for Installations and Logistics (DC/S) will be transferred to MARCORMATCOM. MARCORMATCOM's top-level objectives are to reduce acquisition and logistics' response time, improve readiness and reduce total ownership costs. The Commander of MATCOM will be the single life-cycle manager responsible for the focused logistics concept articulated in Joint Vision 2010 for Marine Corps ground equipment, information systems, and ground weapons systems.

Acquisition Reform Success Stories.—The broad success of the Department's aggressive approach is reflected in four examples highlighted here:

—The Standards Improvement program resulted insignificantly fewer military standard specifications in acquisition contracts. It gives contractors greater flexibility and improves communication and cooperation between program managers and industry. Thus far, this has resulted in significantly reduced costs throughout individual programs. As an example, the Marine Corps's Medium Tactical Vehicle Re-manufacture Program streamlined the test and evaluation process and applied the principles of specification reform to reduce military specifications from 24 to 7. The result was a program savings of more than $500K.

—The F/A–18E/F Super Hornet aircraft acquisition program is on budget and schedule, and has met or exceeded all key performance parameters. Per plane costs are 12 percent below the Congressional unit cost cap, and during operational test IIA, it received the best possible rating for operational effectiveness and suitability. By the beginning of this year, the F/A–18E/F logged over 2,700 flights and 4,000 flight hours in developmental testing. It begins Operational Evaluation (OPEVAL) in May 1999.

—The Advanced Amphibious Assault Vehicle (AAAV) program combined the best of industry and government management practices to create a single, highly effective management team, and applied innovative acquisition techniques including Integrated Process and Product Development (IPPD), Simulation-Based Acquisition (SBA), and Cost-As-An-Independent-Variable (CAIV). This implementation of IPPD teams is unique in that the program office, the prime contractor, and major subcontractors are co-located at the AAAV Technology Center. Acquisition reform and the use of state-of-the-art business practices has resulted in reducing acquisition cycle time, the elimination of unnecessary maintenance actions, and the participation of Marines in every design decision. In addition, cost savings of approximately $225 million will be realized in production, operating, and support while maintaining core mission capability and improving system performance.

—The San Antonio class Amphibious Assault Ship (LPD–17) program was initiated under the traditional rules of shipbuilding design and development, with the Navy performing the ship's preliminary and contract design. When the acquisition process was modified to focus on total life cycle cost reduction, the Navy elected to re-align the program and embrace the ideals of acquisition reform. The program is now operating in an IPPD environment and the program office has co-located with the contractor.

—The Virginia class submarine was the first major defense acquisition program to apply Integrated Process and Product Development methods to complex war-

ship system development. The program reduced unique parts from 98,000 to 12,000 and implemented many environmental-protection design considerations. The sharing of test assets alone will avoid more than $4.5 million in operational evaluation testing costs.

International Acquisition Programs.—The Department uses programs such as Foreign Military Sales (FMS), leases, grants, cooperative development, technology transfer, and training and education to achieve program efficiencies, assist allies, and develop coalition partners. Early in the acquisition process, we work to identify cooperative research and development programs to help reduce each country's production costs for major systems. International programs also facilitate standardization and interoperability. Examples include:

—The Joint Strike Fighter program will develop and field a family of next-generation strike aircraft with an emphasis on affordability and warfighting capabilities for the 21st-Century combat environment. The joint-service approach to development of this aircraft will pool resources and provide opportunities for savings. Allied participation in the concept-demonstration phase will provide additional economies of scale.

—The NATO Sea Sparrow program, now amounting to more than 180 ship installations, is the largest and longest-running NATO cooperative program to date. Ten countries now participate in a collaborative development program called the Evolved Sea Sparrow Missile (ESSM). Through allied cooperation, the United States saved $153 million in development costs for ESSM, which starts testing in 1999.

—The Rolling Airframe Missile (RAM) is another NATO program developed by the U.S. and Germany. RAM is a lightweight, low-cost, fire-and-forget missile system installed in more than 50 U.S. and German ships. An upgrade to the RAM missile completes operational testing and enters production in 1999.

—The Improved Submarine-Launched Mobile Mine (ISLMM) is an international mine warfare project between the U.S. and the Royal Australian Navies. Development of the ISLMM will provide the covert capability to establish distant offensive and defensive undersea minefields.

National Partnership for Reinventing (NPR) Government

In January 1997, the President issued a challenge to the Executive Agencies and Departments to implement the Government Performance and Results Act (GPRA). The vision of National Partnership for Reinventing Government is to create a government that works better and costs less based on the four principles of: (1) putting customers first; (2) cutting red tape; (3) empowering employees; and (4) getting back to the basics. In July 1997, the Vice President approved 12 three-year acquisition goals for the Department of Defense. These goals address the acquisition system, program management, financial management, logistics, and property management. The Department of the Navy has already achieved four of these goals by the end of fiscal year 1998: Reduced major defense acquisition program cycle time by 25 percent; Increased micro-purchases by purchase card to 90 percent of transactions; Reduced toxic material releases by 20 percent and Managed major defense acquisition program cost growth to no greater than 1 percent per annum

In addition, the Department of the Navy achieved its 1998 annual targets in support of Year 2000 goals: Increased Total Asset Visibility to 90 percent while reducing logistics response time by 50 percent; Eliminated layers of management through streamlined processes while reducing the acquisition-related workforce by 15 percent; and Disposed of $3 billion in excess property while reducing supply inventories by 20 percent.

Significant progress also was made in implementing other Year 2000 goals, including training the acquisition-related workforce, increasing the procurement budget, reducing paper transactions, and implementing Activity-Based Costing (ABC) for weapons systems.

Streamlining Infrastructure

Base Realignment and Closure (BRAC).—As a result of the four rounds of BRAC reviews, the Department of the Navy ultimately will close or realign 178 Navy and Marine Corps bases. These closures will bring the size of the Department's shore infrastructure more in line with its operating force structure. The Department's investment in BRAC will result in a $5.6 billion reduction in the Navy's operating budget through the year 2001 and $2.6 billion per year thereafter. The Navy's strategy has been to reach operational closure quickly, then complete cleanup and dispose of the property in support of local redevelopment efforts. In 1999, 11 additional closures will be added to the 162 closures or realignments already completed.

Of the 178 BRAC-related actions, 135 are closures, but only 91 require disposal of property. To date, 38 disposals have been completed, representing more than 40 percent of the closure sites. By the end of fiscal year 1999, 67 percent of the disposals will be completed. At the end of the base closure program, the Navy will have reduced its property inventory by approximately 163,000 acres. The Navy has executed 100 leases at closing bases prior to disposal of the property to assist local redevelopment efforts. Also, the Department of the Navy is pursuing several opportunities for early conveyance of base closure property, which, by statute, permits BRAC property to be conveyed before the cleanup remedy is completed.

After $400 million in construction, MCAF Tustin and MCAS El Toro finish the relocation of units to the newly designated MCAS Miramar and other air stations by July of this year. The relocation of Marine Corps assets to Miramar from El Toro, although a single BRAC action, represents 10 percent of the construction budget for all BRAC rounds. Disposal of the air stations at Tustin and El Toro is dependent upon reuse decisions involving the local communities. These have been slower than anticipated, thus delaying the realization of savings as we continue to maintain this infrastructure in a caretaker status. Timely and equitable resolution of these reuse issues remain a high priority within the Department.

In spite of these accomplishments, reductions in the Navy's infrastructure did not keep pace with reductions in force structure. While the number of ships and Sailors were reduced by 40 percent and 30 percent respectively since 1988, the Navy's infrastructure decreased by only 17 percent. Additional BRAC rounds are critical to support the Secretary of Defense's Quadrennial Defense Review strategy and to achieve the objectives of the Joint Staff's Joint Vision 2010.

Real Property Maintenance.—Ships, aircraft, and weapon systems are kept ready through planned maintenance and modernization programs. The Navy's piers, runways, buildings, structures, and utilities are equally important assets that must be given a similar level of commitment, concern, and fiscal support. The Department's focus on real property maintenance must be increased to ensure that facilities can support the fleet and the growth in the critical backlog of maintenance and repair can be reversed. The Navy's critical backlog of maintenance and repair (BMAR) is currently $2.4 billion and expected to exceed $2.9 billion by fiscal year 2003. Approximately $1.3 billion per year (as compared to $961 million in fiscal year 1999) is required to arrest the growth in BMAR and attain C^2 readiness levels for all mission essential facilities by the end of the FYDP. Of particular concern are aging piers and runways, which require substantial attention in the near-term. In addition to its operational facilities, the Department of the Navy is also concerned with improving support facilities affecting the quality of life of Marines and Sailors. The Marine Corps is making a significant investment in repairs of barracks between now and 2004 in order to have all barracks in good physical condition. The Marine Corps is also taking aggressive stance in demolishing excess facilities to help reduce operating costs. Theseinitiatives must be part of a long-term funding effort to recapitalize Navy's infrastructure and meet the needs of tomorrow's more sophisticated and complex ships, submarines, and aircraft.

Naval Infrastructure Cost Reduction Initiatives.—The Navy has developed an infrastructure reduction business plan that pursues innovative approaches to reduce infrastructure costs and will provide savings that can be allocated to critical modernization and recapitalization needs. These initiatives include implementing the Office of Management and Budget Circular A–76, business process re-engineering, and activity-based costing. Regionalization reduces Base Operating Support costs, streamlines administration, and eliminates redundant functions. Regionalization also intends to improve use of the work force to develop more efficient organizations, produce opportunities for regional public/private competition, standardize processes, and facilitate interoperability and regional planning. As regional installation management organizations are created, Base Operating Support resources and responsibilities will transfer to a single major claimant, which will permit other claimants to concentrate on their primary missions.

The Marine Corps' primary challenge for infrastructure reduction is the elimination of outdated, inefficient, and deteriorated structures. We are aggressively identifying and demolishing any facilities where installations cannot identify hard requirements. This allows the Marine Corps to concentrate scarce maintenance and repair dollars on maintaining higher value facilities. As excess plants are identified, they will be destroyed. The current 1999 plan is to eliminate 600,000 square feet of unused infrastructure which will amount to 0.5 percent of total Marine Corps inventory.

Civilian Human Resources Regionalization and Systems Modernization.—The Department of the Navy is streamlining the civilian human resources (HR) function to meet the objectives of the National Performance Review and Department of De-

fense mandates for regionalization and information systems modernization. Approximately 60 percent of the Department HR functions are being realigned to eight Human Resources Service Centers. Regionalization and systems modernization are expected to return $148 million for reallocation between fiscal year 1997–2003. After fiscal year 2003, savings are projected to exceed $40 million dollars per year.

Smart Base.—The Navy's Smart Base Project Office solicits industry, academia, and government agencies for innovative, state-of-the-market technologies and business practices to boost shore installation efficiency. Two key enablers are the Smart Link and Smart Card. Smart Link established a state-of-the-market, wide-area network of major Navy installations. Planned to provide connectivity to 300 sites at completion, Smart Link in early 1999 provides voice, video, and data to more than 80 sites on the Navy's Intranet, at significant savings. The Navy Smart Card Project starts at the Great Lakes Recruit Training Center. This computer-chip card is issued to each recruit to facilitate laborious administrative processes. Significant cost is already being saved, with a clear potential for additional savings as more applications are introduced. In fiscal year 1999, the Smart Base Project will partner with fleet commanders, major claimants, and regional commanders to test new cost-saving projects and begin implementation of the resulting initiatives.

Regionalization.—The Navy's restructuring efforts use state-of-the-market business practices and technologies for installation management. Navy installations within a region will no longer be operated as independent entities, but as an integrated organization using the best business practices. As functional management is consolidated and redundant overhead eliminated, additional opportunities for demolition, outlease, or alternative use of underutilized facilities will become apparent. The creation of Navy Regional Commanders allows the Navy to take advantage of these opportunities quickly.

The Environment

The Department continues its active program for environmental compliance and stewardship. Most importantly, the Navy is focused on achieving substantial progress in shipboard pollution control. The Department of the Navy and the Environmental Protection Agency (EPA) published the first set of regulations to establish uniform national discharge standards for warships and other vessels. This initiative is being developed in partnership with EPA, the Coast Guard, and the National Oceanic and Atmospheric Administration, in consultation with coastal states.

Plastic waste processors, designed to eliminate the disposal of plastic trash at sea, will be installed as required by the Act to Prevent Pollution from Ships. Procurement and installation of other required solid waste processing equipment for ships are also on track. Also, approximately 500 shipboard air-conditioning and refrigeration plants were converted from chlorofluorocarbon-12 (CFC–12) to non-CFC plants. The first CFC–114 air-conditioning plant conversion is underway in Normandy (CG–60).

Ashore, the Department's active Pollution Prevention Program assists installations to meet environmental requirements. Pollution prevention technologies also improve occupational safety, increase productivity, and reduce operations and maintenance costs. Pollution prevention measures helped reduce toxic releases by 51 percent from the 1994 baseline.

The Department's environmental team is effectively carrying out the President's five-point program for base reutilization. The Department has confirmed that more than 70 percent of the property at closing bases is environmentally suitable for transfer, with community reuse plans fully considered in cleanup decisions.

The Department has aggressively searched our installations for potentially contaminated land sites and identified nearly 4,500 sites. Since 1996, over 1,100 sites had necessary actions taken bringing the total sites completed to 2,175, or 48 percent. By the end of 2,001, action will be complete at 64 percent of the sites at active bases and 90 percent of the sites at closed bases. Since 1996, the Department was able to reduce the cleanup program cost-to-complete estimate by more than $1 billion using new cleanup technologies, better site characterizations, and more realistic risk assessments.

Likewise, the Marine Corps takes its environmental responsibilities seriously. It has instituted the Pollution prevention Approach to Compliance Efforts (PACE) program, which requires installations to evaluate their environmental compliance on a continuing basis. In fact, during 1998, the Marine Corps paid more for environmental compliance than it did for formal schools training. For example, MCAS Beaufort instituted a demodexing/modexing process using vinyl film rather than paint for aircraft lettering and markings. This process reduced aircraft downtime by an average of one day, reduced hazardous waste generation by 90 percent, and saved $35 thousand in labor and materials per year. Innovations such as these will

continue to ensure that the Department is a leader in integrating environmental stewardship in business affairs.

The Department continues to pursue research and development on technologies to meet environmental requirements most efficiently. This research has recently focused on marine mammal protection, contaminated site cleanup, hull paints/coatings, and facilitating full integration of life-cycle environmental protection into the design, engineering, and acquisition of weapons systems. Indeed, environmental planning is now an essential ingredient of acquisition efforts. Environmental considerations are weighed when acquiring weapon systems and platforms and are carefully monitored throughout each program's life cycle. We are finding substantial opportunities for good business decisions and cost savings by this practice.

Several specific goals of the National Performance Review have strong environmental components. The Department is pursuing specific goals for a 20 percent reduction in toxic emissions releases and electronic replacement of paper-intensive procedures. These serve both the environment and help to reduce the costs of doing business.

TECHNOLOGY FOR TOMORROW

The Navy and Marine Corps' strategic concepts papers . . . From the Sea and Forward . . . From The Sea sharpened the focus of naval forces to emphasize operations in the littorals and the requirement to project decisive power and directly influence actions ashore—anywhere, anytime. Events of the past decade demonstrate that naval forces must be prepared to confront a variety of threats while executing diverse missions—ranging from peacekeeping and disaster relief to combat operations. Absent the superpower stability of the Cold War, several regions are more prone to violence and conflict, underscoring the need for highly effective and credible forces to protect vital interests. Moreover, as recent crisis and conflict make clear, naval forces are an essential tool of statecraft.

America's naval forces must meet the diverse challenges of today and the ambiguous threats of tomorrow by addressing strategic and doctrinal constructs, by preparing for nontraditional and even unconventional warfare, and by harnessing the power of the latest technology. Littoral operations in a complex, confined battlespace place naval forces at greater risk from enemy submarines, sea mines, and cruise missiles than open-ocean scenarios. Many regional powers can purchase systems, including weapons of mass destruction, virtually off-the-shelf. Countering these weapons, and their associated command-and-control nodes, presents a continuous challenge to Navy and Marine Corps maritime dominance in the littorals.

Three areas of especially rapid technological growth—sensor technology, computer processing capability, and long-range precision guided weapons—are vital factors in maintaining our current unparalleled offensive capability. Together, these factors provide the means for a significant increase in the ability of naval forces to find and exploit enemy vulnerabilities, and to project significant power precisely and accurately to all but a small fraction of the world's surface.

Leveraging Our Technology

Our ability to execute the functional characteristics of naval forces—naval fires, naval maneuver, cooperative protection, and sustainment—and the Marine Corps' application of Operational Maneuver from the Sea (OMFTS) are essential to the success of future joint and combined campaigns. These primary operational elements parallel the four tenets of Joint Vision 2010: Dominant Maneuver, Precision Engagement, Full Dimension Protection and Focused Logistics. They frame the way force structure, employment policies, and tactics are developed. Further, they define how naval forces perform in support of national military objectives. Depending upon the particular mix of these capabilities, naval forces provide joint task force commanders and unified commanders-in-chief a flexible set of tools useful across the full spectrum of conflict.

Naval fires define what previously was called strike operations. It includes the networked use of sensors, information systems, responsive command and control systems, precisely targeted weapons, and agile, lethal forces to achieve desired effects, assess damage, and reengage when required. Naval fires range from Marine mortars and artillery to conventional land-attack cruise missiles. The capability to precisely attack land targets with a variety of weaponry is core to sea-based forces' ability to hold at risk and dominate an adversary's military, political, and economic centers of gravity.

Naval maneuver is the coordinated use of mobile sea-based forces to gain advantage on or from the sea. Using the sea as maneuver space, naval forces, equipped with advanced amphibious capabilities, can strike anywhere in the littoral region and deliver a decisive blow to an adversary's centers of gravity. Future networked

naval forces, sharing a common operational picture, will exploit enemy weaknesses. Networked naval forces will maximize self-synchronization and achieve mass effects, without the need to mass forces off shore. In addition, naval forces will concentrate fires from widely separated locations at speeds adversaries cannot match. As such, naval maneuver exploits several principles of war simultaneously.

Cooperative protection is the control of the battlespace to ensure that joint and combined forces maintain freedom of action during deployment, maneuver, and engagement, while defending those forces and facilities. As the defensive aspect of sea and area control, cooperative protection requires more than self-defense; it also integrates force-protection extending throughout area and theater defense of naval forces and assets on land. The Navy is developing the maritime pieces of a cooperative protection capability with Joint Theater Air and Missile Defense and Cooperative Engagement Capability. Enhanced situational awareness, coupled with shared, real-time targeting information, makes possible a stronger, more complete defense than could be provided by any single system or unit.

Sustainment is the delivery of tailored and focused support and logistics from the sea across the spectrum of crisis-response and conflict. Sustainment is more than logistics. For high-tempo operations to succeed as envisioned in OMFTS and the complementary Ship-to-Objective Maneuver (STOM) concept, sea-based sustainment must support and work in harmony with naval fires, naval maneuver, and cooperative protection. OMFTS forces traveling lighter and faster will carry less logistic support organically and depend upon sea-based resources.

Sealift is a critical enabler for joint ground and air components ashore. As recently as Desert Storm, over 90 percent of all material transferred into theater, for all U.S. forces, arrived by sea. Joint warfighting forces will continue to depend heavily on prepositioned and surge sealift assets for sustainment during a conflict.

The Navy invests heavily in building a fleet of support ships to sustain all aspects of a conflict. For instance, 13 Maritime Prepositioning Ships (MPS), divided into three squadrons, support the Marine Corps. Each squadron carries equipment and supplies to support a notional MAGTF of up to 17,000 Marines and Sailors for 30 days of combat. A Maritime Prepositioning Force Enhancement program (MPF-E) is underway which will add one ship to each squadron.

The Navy also supports a fleet of ships to preposition equipment for an Army brigade. This fleet includes a variety of ships with specialized capabilities, such as self-sustaining container ships, barge-carrying ships, float-on/float-off ships, crane ships, and roll-on/roll-off ships. A third fleet of prepositioned vessels is located in key locations with fuel and ammunition for the U.S. Air Force, as well as supplies for a fleet hospital. Finally, strategically located near U.S. ports of embarkation are eight Fast Sealift Ships (FSS) to provide the initial surge lift capability needed to transport tanks and other heavy tactical equipment early in a conflict. A new-construction/conversion program for 19 Large Medium Speed Roll-on/Roll-off (LMSRs) ships will be completed by 2002 to augment the eight FSS for these missions.

A final sealift option exists in a unique business arrangement—the Voluntary Intermodal Service Agreement (VISA)—which guarantees the Department of Defense priority access to the worldwide container distribution system in return for annual subsidy payments to U.S. flag companies. This arrangement ensures the capability to move massive amounts of cargo needed to sustain a war effort is available.

Advanced Naval Maneuver Concepts

The Marine Corps' OMFTS presents a new approach to amphibious, expeditionary, and littoral operations. OMFTS capitalizes on the advantages inherent in seaborne maneuver and the flexibility provided by sea-based command and control, fires, aviation and logistics. It couples amphibious and maneuver warfare with technological advances in speed, mobility, fire support, communications, and navigation. These advantages allow naval forces to identify and rapidly exploit enemy vulnerabilities. Most significantly, the sea-based character of future MAGTFs and logistics/support ships and bases will allow them—in most cases—to be the first to reach a crisis area. This also enables them to remain at sea nearby, as a crisis develops—free from dependency upon land bases.

Meeting the military challenges of the next century will require innovation, experimentation, and change—grappling with the realities of chemical and biological warfare and tackling the difficulties inherent in modern warfare, especially in urban terrain. It means finding solutions to challenges using both technology and new approaches in doctrine, organization, tactics, and training. It also means developing a transformation strategy to maximize opportunities created by rapid technological advances. Using OMFTS as a roadmap to the future, the Marine Corps developed a series of supporting warfighting concepts to complement their core competencies.

Ship-to-Objective Maneuver focuses on the tactical level of amphibious operations, eliminating the operational pause at the beach during ship-to-shore movement and subsequent maneuver ashore. Sustained Operations Ashore describes how naval forces, even in long-duration campaigns, will capitalize on their sea-based character to reduce their vulnerable footprint ashore, while conducting effective military operations. Maritime Prepositioning Force (MPF) 2010 and Beyond outlines capabilities required to enhance MPF operations to fully support OMFTS.

Another critical concept is Beyond C^2: Comprehensive Command and Coordination of the MAGTF. It attempts to move future commanders away from technology-induced "mechanistic control" and toward the fundamental exercise of command. Through the principles of adaptive learning, implicit communications, mutual understanding, and intuitive decisionmaking, Beyond C^2 focuses on the powerful positive aspects of human interaction that foster creative problem-solving. Additionally, access to a worldwide command information architecture will provide forward deployed situational awareness. Through an in-depth examination of technology and the functions of command, Beyond C^2 explores the coordination of the intellectual and material power of the military, business entities, academia, other government agencies, and non-government organizations to address the challenges of the 21st Century. Beyond C^2 improves upon the MAGTF's ability to serve as a "JTF Enabler" for large coalitions or follow-on forces.

Finally, the Marine Corps Combat Development Command (MCCDC) and the Navy Warfare Development Command (NWDC) jointly addressed two of the most difficult problems facing naval forces in future maritime campaigns: the threat of naval mines and sustainment from the sea. Two concept papers, Future Mine Countermeasures in Littoral Power Projection and Sea-Based Logistics, establish a foundation for the Navy-Marine Corps team to take on these challenges. Collectively, these publications define future battlespace and the capabilities that are needed to win in it.

Navy Warfare Technologies

Recognizing the challenges of tomorrow along with advances in technology, the Navy is investing its resources in five specific warfare areas: Network Centric Warfare, Land Attack, Theater Ballistic Missile Defense, Mine Warfare, and Anti-Submarine Warfare.

Network Centric Warfare (NCW).—The culture of a networked world society will make the Navy of the 21st Century unrecognizable from today's. At the end of 1998, according to one published account, 900 million voice-mail messages were exchanged each day, 5 million e-mails were sent each minute, Internet traffic was doubling every 100 days, and there were 27 million new cellular phone subscribers (285 million in all worldwide).

As we continue to navigate the uncharted waters of this new era, the Navy and Marine Corps need to harness technology and accept the resulting cultural changes to remain the world's pre-eminent naval force. To accomplish this will take at least the following: (1) the installation of reliable, robust and secure information infrastructure with well-managed bandwidth, spectrum, and information flow (PCs, LANs, switches, RF link, and landlines); (2) the effective organization of naval information; and (3) fundamentally changing our information-based warfighting practices.

Central to every aspect of the Navy's future operations, NCW derives its power from the reliable and ubiquitous networking of well-informed, geographically dispersed forces. A multi-sensor information grid will provide all commanders access to essential data, sensors, command-and-control systems, and weapons. This easily accessible open network will support rapid data flow among the sensor, command-and-control, and shooter grids. The first steps toward meeting this requirement include implementation of Information Technology for the 21st Century (IT–21), the Navy-Wide Intranet (NWI), and the sensor netting technology of the Cooperative Engagement Capability (CEC).

Superior knowledge is a powerful advantage in a conflict and is a prerequisite for victory. NCW will change U.S. warfighting fundamentally, by employing information technology as a force multiplier. It will facilitate the penetration, disruption, denial, and deception of the adversary's information processes, while providing friendly forces a superior understanding of complex operations. NCW will provide accurate and timely shared situational awareness that allows dispersed forces to coordinate actions and respond rapidly to emerging threats and opportunities within the theater of operations.

Land Attack.—Precision land-attack operations conducted by carrier-based aircraft, land-attack surface warships, and attack submarines will provide massive, sustainable fires from the sea. High-intensity sea-based firepower will allow forces

ashore to achieve critical objectives quickly and permit the flow of heavy follow-on forces within desired timelines.

In the early years of the 21st Century, the Navy will use F/A–18E/F Super Hornets, advanced Joint Strike Fighters, and variants of the Tomahawk land-attack cruise missile to deliver devastating long-range precision strikes. In that same timeframe, the Navy will provide high-volume fires from 5-inch/62-caliber guns firing extended-range guided munitions (ERGMs). Targeting will be achieved with a Naval Fires Control System that operates seamlessly with joint fire support systems. In addition, the Navy is using new production methods and modular design techniques to develop a new variant of the Tomahawk missile. The new program will preserve long-range precision strike capability while significantly increasing Tomahawk's responsiveness and flexibility.

Providing sustained, sea-based precision firepower guarantees the benefits of effective massed fires without the need to mass forces physically. The long reach of precision guided weapons adds a new dimension in the ways the Navy can affect conflict ashore. In short, the 21st Century Navy will be equipped to deliver offensive distributed firepower from long range for extended periods, with reduced risk.

Theater Ballistic Missile Defense (TBMD).—Recent events emphasize the growing need for a theater ballistic missile defense (TBMD). Pakistan's test of the medium-range Ghauri ballistic missile, North Korea's test of a three-stage, solid fueled Taepo Dong missile, and Iran's test of the medium-range Shahab-3 underscored the compelling requirement for an effective, forward deployed TBMD capability. Today, more than 20 nations have a ballistic missile or cruise missile capability. In addition, 20 nations have, or are thought to be developing, nuclear, chemical, or biological weapons. The Navy is attempting to leverage the impressive power of the Aegis cruiser-destroyer force in ways that will provide safety and sanctuary for U.S. and allied troops. Through the power of the Aegis SPY radar and the capabilities of the Standard Missile (SM–2), the Navy is working to provide a reliable theater missile defense network that will act as a protective umbrella for operations in most scenarios.

The mission of the Navy's Area TBMD system is to provide U.S. and allied forces, as well as areas of vital national interest, defense against TBMs. Rapid deployability of Navy TBMD reduces the requirement for airlift to be devoted to TBMD forces in the opening days of a crisis. This permits using scarce airlift resources to transport aircraft squadron logistics, anti-armor, and troops to deter or stop a conflict. Finally, Navy Area TBMD takes advantage of the inherent flexibility and mobility of naval forces to provide defense against ballistic missiles without reliance on host-nation permission or support.

The Navy Theater Wide (NTW) effort evolves from the Navy Area TBMD Program and consists of modifications to the Aegis weapon system and the integration of the Lightweight Exoatmospheric Projectile (LEAP) with a three-stage SM–2 Block IV missile. The NTW system will be capable of high-altitude exoatmospheric intercepts of medium- and longer-range TBMs. The near term development approach includes nine Aegis-LEAP intercept tests from 1998 to 2000 and parallel risk-reduction activities in preparation for engineering development.

Necessary to winning any littoral conflict is securing control of the air. The Navy is developing an afloat Area Air Defense Commander (AADC) system to support sea-based theater battlespace management. AADC will support the joint commander in conducting near-real-time, area-wide air defense planning in support of joint operations. Using commercial, off-the-shelf hardware, a prototype is capable of executing 56 billion instructions per second. This computing power enables the testing of alternative air defense plans to support the commander with the very best disposition of air defense forces. The use of three-dimensional symbology in tactical displays provides unprecedented situational awareness to the embarked joint commander and staff. A prototype will be installed in USS Shiloh (CG–67) in early 1999 for at-sea testing. An Initial Operational Capability (IOC) is anticipated in fiscal year 2001. Twelve Aegis cruisers will be outfitted with this capability between fiscal year 2004 and fiscal year 2007, in accordance with the Cruiser Modernization Program.

Mine Warfare.—The Department of the Navy is investing now to equip carrier battle groups and amphibious ready groups with organic minehunting and mine-clearance capabilities. Variants of the H–60 helicopter will carry minehunting sensors and neutralization gear such as the Airborne Laser Mine Detection System, the Shallow Water Influence Mine Sweeping System, and the Airborne Mine Neutralization System. Instead of waiting for dedicated mine-warfare assets on station, the commander will have mine detection and avoidance systems at his disposal. The tactical information and tools needed to allow freedom of action and dominant maneuver of his force in the face of a dangerous, cheaply deployed mine threat will now be on station. The ultimate goal of deploying organic mine warfare systems is to ex-

tend maritime domination into the littorals by minimizing the effectiveness of the most asymmetric and prevalent sea threat there, the sea mine.

The Navy's Underwater Unmanned Vehicle (UUV) program has focused on developing a Near-Term Mine Reconnaissance System (NRMS) for Los Angeles class submarines. The NRMS will provide limited, stopgap operational capability to conduct clandestine mine reconnaissance. Subsequently, a Long Range Mine Reconnaissance System (LMRS), which will replace NMRS, will fully meet the requirements to conduct clandestine mine reconnaissance from submarines.

Anti-Submarine Warfare (ASW).—ASW is essential to sea control and maritime dominance. As such, it is a critical element in attaining joint objectives from the sea. Many nations can employ submarines to deny access to forward regions or significantly delay the execution of operations plans. Because of its inherent stealth, lethality, and affordability, the submarine is a powerful counter to an adversary's surveillance and targeting systems that increasingly will hold surface assets at risk. Although the worldwide inventory of submarines has declined, their quality and lethality have improved dramatically.

The Navy is sustaining efforts to counter our adversaries' submarines. A key requirement is an architecture that can maximize commonality among all ASW platforms for both effectiveness and affordability. Multi-static active detection systems will employ advanced processing and leverage legacy ASW systems. The use of rapidly deployable, distributed arrays, like that being developed in the Advanced Deployable System program, will provide wide-area deployable shallow water undersea surveillance in the complex littoral environment. The Lightweight Hybrid Torpedo for surface and air ASW forces and the CBASS upgrade to the Advanced Capability torpedo (ADCAP) for submarines will offer the Navy improved weapon effectiveness against littoral submarine targets and countermeasures. In this regard, the Virginia class attack submarine is designed for multi-mission operations, but will have a level of stealth unsurpassed by any other submarine currently in operation or under development.

These are just a few of the programs, augmented by sustained and focused research-and-development efforts that will ensure our continued undersea warfare superiority against a continually evolving submarine threat.

Naval forces use space systems to support tactical warfighting needs, including communications, reconnaissance, surveillance, targeting, battle damage assessment, navigation, and environmental monitoring. This tactical focus characterizes naval efforts in space. Our maritime forces, operating in accordance with strategies and tactics which emphasize maneuverability and joint operations tailored to national needs, and operating forward, from the sea, necessitate naval dependence upon space-based support.

Marine Corps Core Competencies

MAGTF operations are built upon a foundation of six special core competencies. The direct result of more than 223 years of expeditionary experience, these six core competencies define the essence of the unique Marine institutional culture as well as their role within the national military establishment. Core competencies are developed from inherent Marine missions, such as expeditionary amphibious operations, and drive Marines to develop specific sets of skills while executing special missions roles and missions.

The first core competency, expeditionary readiness, defines an institution ready to respond instantaneously to world-wide crises, every day. This requires a force that can transition from peacetime to combat operations at a moment's notice, and achieve certain success without critical Reserve augmentation. It also demands a force that can flourish under adverse conditions and in ambiguous conflict environments. Finally, it means being ready to defeat the opponent-after-next, which can be achieved only through continued investment in experimentation, adaptation, and change.

The second core competency is combined-arms operations. The MAGTF requires an organic, combined-arms capability. For half a century, MAGTFs have been organized, trained, and equipped to ensure that their ground combat, air combat, and combat service support capabilities would be directed by a single commander.

Expeditionary operations, the third core competency, is primarily a special mind set—one that ensures that Marines will be prepared for immediate deployment overseas into austere operating environments.

The fourth core competency, sea-based operations, provides extraordinary strategic reach, and gives the nation an enduring means to influence and shape the evolving international environment. An appropriately prepared and equipped combined-arms MAGTF, operating from a mobile, protected seabase, provides the Na-

tional Command Authorities with unimpeded and politically unencumbered access to potential trouble spots around the globe.

The Marines are best known for their fifth core competency, forcible entry. In the past, forcible entry from the sea was defined as amphibious assaults, establishing lodgments on the beach and then building up combat power ashore for subsequent operations. It is now defined as an uninterupted movement of forces from ships located over the horizon directly against decisive objectives.

The sixth core competency of reserve integration captures the practice of augmenting and reinforcing active component units with the Marine Reserve in crisis-response missions and adding to combat power for sustained operations. All Marines are combat-ready, and the integration of Reserve elements into the active duty force structure ensures that the phrase "Total Force" is not a hollow boast.

These core competencies are not honed to perfection without relevant and applicable concepts, and concepts cannot be realized without mutually reinforcing warfighing assets. By modernizing and tailoring the amphibious fleet, over-the-horizon launch platforms will be provided to support the MV–22 Osprey aircraft, the short-takeoff and vertical-landing (STOVL) variant of the Joint Strike Fighter, the Advanced Amphibious Assault Vehicle, and the already proven Landing Craft Air-Cushion. The following program elements are essential to the Marine Corps' future ability to execute Operational Manuever From the Sea and Ship-to-Objective Maneuver.

Sea-Based Forcible-Entry Operations.—The MV–22 Osprey remains the Marine Corps' highest aviation acquisition priority and is necessary to conduct sea-based forcible entry operations. Recognizing the huge operational advantages of this aircraft, the Marines have long championed the development of tilt-rotor technology. The development of the MV–22 compares with earlier technological breakthroughs associated with the first helicopter and the first jet engine, and gives the Marine Corps the range to cover a much greater expanse of the littorals from the sea. The MV–22 flies significantly farther, faster, and with greater payloads than the current fleet of aging medium lift CH–46E/CH–53D helicopters.

This combat multiplier allows Marines to strike rapidly at objectives located deep inland. It provides Navy ships adequate stand-off distance to defend against shore-based missiles, sea mines, and other asymmetric threats, and also delays detection of the striking force. Initial operational capability for the Osprey is expected to occur in fiscal year 2001.

Amphibious Modernization Program.—The amphibious lift modernization plan also supports Marine Corps core competencies. The program is focused on the formation of the 12 Amphibious Ready Groups (ARGs) needed to meet the nation's forward-presence and contingency response requirements, and it supports the lifting equivalent of 2.5 Marine Expeditionary Brigades in wartime. The plan shapes the future amphibious force with the optimum number and type of ships required for a flexible and adaptive combined-arms crisis-response capability. Ultimately, the amphibious force will consist of 12 LHA/Ds (Tarawa and Wasp classes), 12 LPD–17s (San Antonio class), and 12 LSD–41/49s (Whidbey Island and Harpers Ferry class), capable of forming 12 ARGs or operating independently in a "split-ARG" concept of operations.

The San Antonio class (LPD–17) is a critical link in attaining the goal of a modern 12-ARG amphibious force. The LPD–17 will be a significant improvement in ameliorating current vehicle stowage shortfalls and meeting other MAGTF lift requirements. The LPD–17 will carry 700 embarked troops and two LCACs, while providing 25,000 square feet of vehicle stowage space, 36,000 cubic feet of cargo space and the capacity to accommodate four CH–46 helicopter or a mix of the other rotary wing Marine aircraft. The LPD–17 will have a robust communications network including narrow- and wide-band satellite communications and the ability to connect directly to the Tactical Telephone System used by ground units ashore via the Switch Multiplexer Unit (SMU). The LPD–17's communication suite will provide multiple pathways to and from the theater while the ARG is combined and similarly mirror communications capabilities in the "split-ARG" mode.

The Tarawa class LHAs will begin to reach the end of their expected service life in 2011. A Development of Options Study (DOS) conducted by the Center for Naval Analyses (CNA) is underway to determine the best course of action to preserve the land attack and sea control/power projection missions of our large deck amphibious ships. There are three alternatives being considered: (a) LHA service life extension; (b) modification of the Wasp class LHD, designated LHD 8; and (c) a new ship designated the LHX.

An essential component in implementing ship-to-objective maneuver is the Advanced Amphibious Assault Vehicle, or AAAV. Currently in its demonstration and validation phase, the AAAV will allow rapid, high-speed transportation of Marine

combat units directly from amphibious assault ships—located well beyond the visual horizon—to objectives located well inland. This will effectively eliminate the need for an operational pause to build up combat power on the beachhead. When fielding begins in fiscal year 2006, the AAAV will be the most modern and capable amphibious vehicle in the world. The AAAV will have capabilities comparable to infantry fighting vehicles.

Force protection against TBMs and land-attack cruise missiles is a critical component of future forcible entry operations. Scheduled for Fleet operation in fiscal year 1999, the AN/TPS–59(V)3 is the Marine Corps advanced three-dimensional, long-range radar, and is the MAGTF's primary means of detecting, identifying, tracking, and reporting on all aircraft and missiles within the MAGTF area of responsibility. This improved radar provides land-based air surveillance for the Marine component of a naval force, and will contribute to the Navy's Cooperative Engagement Capability. This system is also capable of detecting and tracking multiple theater ballistic missiles, with point of origin/point of impact calculations in support of theater missile defense.

Combined-Arms Operations.—The Short Takeoff or Vertical Landing variant of the Joint Strike Fighter is critical to conducting combined-arms operations in the future. The Marine Corps depends heavily upon the use of fully integrated air support in combined-arms and expeditionary warfare. This approach reinforces expeditionary warfare by radically reducing dependence upon limited armor and artillery assets. The JSF will replace the Marine AV–8B Harrier and F/A–18 Hornet aircraft, and is scheduled to reach the initial operating capability phase in 2010. JSF first delivery of USMC VSTOL type is planned for fiscal year 2008.

The lightweight 155 mm towed howitzer (LW155) will replace the aging M198 155 mm towed howitzer as the only artillery system in the Marine Corps inventory. The LW155 is designed for expeditionary operations requiring light, highly mobile artillery, and will be transportable by MV–22 Osprey and CH–53E aircraft. The howitzer's lighter weight and automated breech, rammer, and digital fire control computer will provide the MAGTF commander with increased responsiveness and efficiency. The program is in the engineering and manufacturing development phase, with initial operational capability scheduled in fiscal year 2003.

Predator is a one-man portable, fire-and-forget missile system capable of defeating the next generation of advanced armor threats. This system is "soft-launch" capable, which allows it to be fired from within an enclosure. Additionally, its fly-over, shoot-down profile gives it an effective range between 17 and 600 meters. The Predator begins production in fiscal year 2001 for an initial operational capability in fiscal year 2003 and a full operational capability in fiscal year 2008.

Naval Command and Control Systems

The advance of digital technology has had no greater impact than in the field of command, control, communications, computers, intelligence, surveillance, and reconnaissance (C^4ISR). The capabilities provided by modern C^4ISR systems dramatically changed the way conflicts will be resolved. An innovative, efficient, and well-coordinated approach to technology infusion is necessary to establish connectivity for joint warfare.

Command and control afloat is the foundation upon which future naval operations will be built. This vision requires an integrated and comprehensive command/control structure to facilitate decisive events ashore. Technologically, this will require superior sensors and fast and powerful networks that are integrated with deadly weapon systems. Four of the most prominent C^4ISR initiatives include:

Extending the Littoral Battlespace Advanced Concept Technology Demonstration (ELB ACTD).—The requirements for the ELB ACTD grew out of the Defense Science Board (DSB) Summer 1996 Study, Tactics and Techniques for 21st Century Military Superiority. This study recommended the establishment of a joint expeditionary force that is light, agile, potent, and distributed. The focus of the ACTD is the integration of advances in information technology with industry, the Services and Defense Agencies to expedite the implementation of the advanced warfighting concepts outlined in Forward . . . From The Sea, Operational Maneuver From The Sea, and Joint Vision 2010.

Global Command and Control System—Maritime (GCCS-M).—GCCS-M is the Navy's designated command-and-control (C^2) system for entering the 21st Century. A key enabler of the Navy's IT–21 Network Centric Warfare initiative, GCCS-M follows an evolutionary acquisition process to meet emerging fleet requirements rapidly. This system supports C^2 and tactical intelligence warfighting requirements for afloat, ashore, and tactical/mobile units. GCCS-M provides timely, accurate, and complete all-source C^4ISR information management and develops a common operational picture for warfare mission assessment, planning, and execution. The cur-

rent version of the system software is using the same core software as the joint GCCS and MAGTF C^4I systems. This fielded version also initiates the long-term migration from UNIX workstation to PC hardware.

Cooperative Engagement Capability (CEC).—CEC is a weapons-control network that uses revolutionary sensor netting technology to exchange raw sensor measurement data to develop composite air tracks. This capability expands the battlespace and provides increased situational awareness to the operators. CEC is the foundation network for the development of a single integrated air picture, which is vital to air dominance in the littoral. CEC also will allow warfighters to make maximum use of advanced surface-to-air weapons.

The increasingly complex threats in the air-defense arena make it necessary to link geographically dispersed sensors of differing capabilities with all potential firing platforms. CEC acts as a force multiplier in that each firing platform benefits from a force-wide netted sensor input. In addition, the ability to build force-wide composite tracks means that every participating unit has an identical, real-time tactical picture. Installation of the system in the E–2C Hawkeye aircraft will greatly expand the CEC envelope to include the ability to conduct overland engagement of cruise missiles. Further, the E–2C CEC installation, part of the Hawkeye 2000 Program, will allow more widely dispersed fleet units to reap the full benefits of this enhanced capability. CEC achieved initial operational capability in late-September 1996, and was deployed in the Eisenhower battle group in 1998. The Navy continues to work with the Army and Air Force to expand CEC applications in the joint arena.

Tactical Combat Operations (TCO) System.—TCO is an automated capability for processing battlefield information. Achieving its initial operating capability in fiscal year 1996, the TCO System provides the Marines the same automated operations system currently used by the Navy. This system is built around GCCS-M, which brings a major increase in interoperability to the services. Currently, the Marine Expeditionary Force and Marine Expeditionary Unit headquarters elements have an interim capability, with a full operational capability expected at the end of fiscal year 1999.

A VISION OF TOMORROW'S CHALLENGES AND SOLUTIONS

The past few years unquestionably demonstrate that the Navy and Marine Corps continue to play pivotal roles in the protection and advancement of U.S. interests worldwide. On-scene naval forces conducting peacetime forward presence operations are frequently the first elements of a measured U.S. response to regional crisis and aggression. In order to deter aggression, foster peaceful resolution of dangerous conflicts, underpin stable foreign markets, encourage democracy, and inspire nations to join together to resolve global problems, the United States needs a multidimensional naval force ready to exert influence and extend national power anywhere on the globe. However, possessing the political will to influence events abroad is not enough to fulfill U.S. obligations.

Readiness is the foundation of Navy and Marine Corps credibility as indispensable instruments of foreign policy and national resolve. It is the key measure of survivability and success for naval forces. Today, the most profound challenge to our nation's naval forces arises from the mandate to maintain current readiness while preparing for the needs of the future. We need to recruit and retain quality people and modernize their equipment. Today, fewer Americans are inclined to serve in the armed forces. Worries about families, retirement, and day-to-day bills are causing our people to leave the Navy and Marine Corps for civilian occupations. The cost of better pay and better retirement is small as compared with the cost of losing these trained people. For these reasons, it has been and will remain a priority of the DON to encourage substantial improvement in military compensation. The President's budget takes a significant step toward meeting the needs of our Sailors and Marines.

Sailors and Marines are suffering now not simply from a deficiency in pay, but from overwork as well. This overwork manifests itself in a pattern of sixty-hour weeks, of excessive demands between as well as during deployments, and of frustration because there is too little time and too little equipment to do a good job even while working strenuously. To address this, the President's budget includes a program for "Smart Work" (described briefly in Chapter 3) whose aim is to improve the resources with which we work, the environment in which we and our families live, and the power with which we fight. Further, the Secretary of Defense's Reform Initiative (DRI) program, the DON's Revolution in Business Affairs (RBA), the Navy's Information Technology for the 21st Century (IT–21) initiative and the Navy-wide Intranet, and the Marine Corps' Reserve Recruiting and Retention Task Force,

showcase examples of programs and policies that help ensure our efficacy for tomorrow.

With regard to modernization, Navy and Marine Corps initiatives are based on a comprehensive assessment of future strategies, interests, requirements, and threats. Sufficient force levels—people, ships, aircraft, and equipment—to meet long-term needs are in jeopardy under current funding constraints. Specifically, the inventory and projected build rate for ships and aircraft, and the lack of funds to effectively modernize combat equipment will affect naval operations beyond the FYDP. Unless sufficient funding is provided, the recapitalization and modernization of the Navy and Marine Corps will necessarily be deferred, in most cases, to fund current readiness accounts. Another consequence of our aging, maintenance-intensive equipment is its negative effect on productivity and reliability, detrimentally impacting the quality of life for our people, increasing our retention challenge. The proposed fiscal year 2000 includes budget increases for modernization and begin to address concerns for supporting long term force goals.

It is apparent that in an increasingly constrained fiscal environment, innovative thinking and revolutionary initiatives are imperative to maintain our readiness, modernize and capitalize our forces, improve our processes, and better serve our national interests. In the coming year, we will strengthen existing initiatives and begin a number of new efforts to ensure that our naval forces can perform the missions the Nation is likely to ask of them. These initiatives include: (1) identifying and implementing additional cost reduction opportunities across the Department; (2) taking a more expansive look at our Reserve Forces with regard to potential efficiencies; and, (3) exploring the use of Navy and Marine Corps forces in conjunction with other agencies and allies as a means to enhance the global economy and U.S. interests.

Cost Reduction.—This initiative will continue to seek cost reduction opportunities at a macro level by managing organizations and infrastructure costs concurrently with the total ownership costs of weapon systems and platforms. In addition, we will seek ideas designed to cut costs by consolidating individual activities and deleting redundant functions and also analyze and compare similar components and successful cost reduction processes used by the private sector and foreign navies, adapting those ideas best suited to the U.S. Navy and Marine Corps. This initiative will work in concert with the Secretary of the Navy's Smart Work program, involving manning initiatives, capital investments, improved working conditions and information system investments, as well as with the National Partnership for Reinventing Government, and the Defense Reform Initiative (DRI).

Reserves.—We must continue to enhance opportunities for Navy and Marine Corps Reserves to perform critical missions where minimal active duty capability exists. For example, some reservists have considerable education and experience in the private business sector and could be effectively used in Peacekeeping missions. Another example is the cadre of Reserves who have significant education and experience in areas critical to chemical and biological warfare. These individuals, who as civilians work in research, medical, and academic communities, could provide a CBW response capability which could not be sustained by active duty forces without considerable investment.

Global Economy.—We need to continue to capitalize on the forward presence posture of deployed U.S. armed forces as an instrument of peace to enhance the global economy. We will improve existing efforts by developing operational concepts for expanding the role of naval forces to shape events throughout the world. Our efforts will focus on three key elements: (1) the significant likelihood that shaping activities will occur in or near the littorals; (2) the sizable increase in shaping capacity that results when joint, multi-agency or allied operations are combined with naval forces; and (3) growing evidence that shaping can result in both stability and growth of market economies and democratic societies.

Today, operating forces of the Navy and Marine Corps remains forward deployed and ready to protect our nation's interests. We remain the finest naval force in the world due to efforts of our superb personnel and support of Congress. The challenges and solutions detailed in this Posture Statement must be addressed for the benefit of the citizens of the United States, and for the courageous and selfless men and women who are America's Navy and Marine Corps.

Senator STEVENS. Thank you, Mr. Secretary. General Krulak.

OPENING REMARKS OF GENERAL KRULAK

General KRULAK. Mr. Chairman, Senator Inouye, let me first thank you both for your kind words, and I mean that sincerely.

You are correct. On the 30th of June, when I take off this uniform, it will be the first time in 70 years that a Krulak has not worn the uniform of a United States Marine. I mention that only because if you think that is continuity, it is nothing compared to the continuity provided by this magnificent body called the Congress of the United States.

You two represent a term that we use in the Marine Corps all the time, and it is called gung ho. It means work together. And I do not think that any committee, subcommittee is better represented by that philosophy than this one where two great Americans sit together independent of what party they are in and produce for this Nation a strong defense.

Jay Johnson and I would like to claim that we are doing it. But the reality is the Congress raises armies and maintains navies. We recognize that, and we recognize particularly you two war heroes and great gentlemen. I just want to tell you, as I walk out the door, I go out with tremendously fond memories of the man who brought me in the door so many years ago and who has listened to me and your unbelievable support of my marines over the years.

And so although you said kind words about me, I think that if I can be a mirror and reflect them back to you and to your entire committee, I would do so. On behalf of the Navy-Marine Corps team, thank you for all that you do for our precious young men and women of character.

You are right. This is my last time. I have been before this committee four times. And in the three and a half years that encompass those four times, my testimony has been basically pretty consistent. It starts by saying we are ready now.

When the whistle blows, we are going to put on our helmets. We are going to put on our flak jackets. We are going to march to the sound of the guns. We are going to fight and we are going to win. We are going to guarantee that. We guarantee that.

The second thing that we guarantee: That that near-term readiness comes at great expense. It comes at great expense. Since Desert Storm and the reduction in the defense budgets, we have been forced to deal with what we call near-term readiness, the health of our Corps versus long-term readiness or the wellness of our Corps.

Since Desert Storm, we have had to make some tough decisions that involved reductions in our procurement, infrastructure, and quality of life accounts. We did that to meet your mandated requirement that we be the Nation's expeditionary force in readiness, that force most ready when the Nation is least ready.

We have also maintained the Defense Department's desires that readiness be a top priority. In doing so, that has cost us dearly in our long-term readiness.

Simply stated, our equipment is old. It wears out rapidly. It takes more money to buy the spare parts to fix that equipment. It spends more time in the maintenance bay. It takes longer for our young marines, men and women of character, to maintain that equipment.

Because it is in the maintenance bays longer, it is not available for training. Because it is not available for training, it takes longer

to train our marines. And it becomes a very vicious and destructive cycle.

The budget we are looking at today provides the first glimmer of hope in attacking this critical problem before your Marine Corps—it begins to address procurement, infrastructure and quality of life. It is a step in the right direction, and I confess it is a very welcome step.

Unfortunately, I think we all agree it still falls short of addressing some of the critical requirements for this year and the out years. As I have testified before, it does no good to throw money at the short-term operation and maintenance (O&M) problem if we forget about the long-term problem of modernization.

This committee knows better than any that the world is changing. It is changing rapidly and in ways that I am not sure America is prepared to understand, certainly that they have not experienced before.

The days of what I call armed conflict between nation states is waning. We see the tip of the iceberg every day. We see ethnic, religious, cultural and tribal conflict, asymmetric warfare, enemies who have seen our awesome capability on CNN and who will attempt to negate our strengths while capitalizing on our weaknesses.

Terrorism, information warfare, economic disruption, chem-bio threats will become as dangerous to this Nation as what you and I refer to as major theater war. Your Marine Corps has never been focused on the major theater war, what I call the Russian bear. We fight across the spectrum of conflict. That is what we have always done. That is what we will always do.

We are in many ways the Nation's insurance policy against asymmetric conflict, and we are a very inexpensive insurance policy.

I would be remiss, as I walk out the door, if I did not express my deepest respect again to this body, my respect, appreciation, my admiration for what you do as individuals and for what you do as a body.

In my opinion, you are the patriots in the truest sense of the word. You have taken on a job that is very difficult and one that many in this country would not take on for all the money in the world, and you are not getting paid that much.

I would also be remiss if I did not mention the people who sit behind you, your staff. I will tell you, I have never met a greater bunch of patriots and knowledgeable individuals than the staff that supports you. And so, as I walk out the door, I not only applaud this committee, but I applaud those who work behind the scenes. They are as much a patriot as anybody else.

Thank you very much and "Semper Fidelis."

Senator STEVENS. Admiral Johnson.

OPENING REMARKS OF ADMIRAL JOHNSON

Admiral JOHNSON. Thank you, Mr. Chairman, Senator Inouye, Senator Bond.

I am grateful to be back before the committee. I would like to endorse what has been said about my friend and my shipmate, General Charles Chandler Krulak. And let the record show, indeed, he

is a proud Marine and a great leader, but he is also my friend, and I, too, will miss him when he steps ashore this year.

General KRULAK. Thank you.

Admiral JOHNSON. I must also note to his first words, what he said about the leadership of this committee and what that means to us and to our country.

And I would commend to anyone's reading the chapter in Mr. Brokaw's book, "The Greatest Generation," on Senator Inouye. It ought to be required reading for every American to understand from whence you gentlemen have come. And it is hard for me to describe the comfort and reassurance that brings people like Chuck Krulak and Jay Johnson and Richard Danzig when we are dealing with tough but very important issues of national defense. And I thank you, gentlemen, for your service and your leadership.

I will say a couple of words about the Navy, if I could, and then we can talk in more detail later, but just to make a couple of points, sir.

The operating tempo you know for us is very high. I would categorize it as sustainable for now within our six-month maximum deployment policy. The tempo and the work load on the non-deployed side of our lives is clearly, clearly too high. We are hard at work on many things to fix that. It needs to be fixed now.

The readiness out forward is still good. We are very proud of that. Desert Fox is a classic example. When asked to execute, we executed and we did it very well.

But at home, our readiness has eroded. That readiness bathtub we talk about is still very much too deep. Recruiting and retention for us are problematic. I am very happy to say that in the recruitment of sailors thus far this fiscal year we have met our numbers. But I also would remind you that February, March, April and May are historically the toughest time of the year. So we know we have got major challenges ahead and we are working those very hard.

I, too, would like to just stress the importance of the pay triad—the pay raise, pay table reform, Redux repeal—as a matter of utmost importance in this budget. I believe it is fundamental and must underpin everything else we do to help us in recruiting, to help us in retention for sure and to better sustain the fleet we know we need.

The No. 1 priority spinning out of that for the Navy in the short-term clearly is our people. The pay, as I just described, OPTEMPO in providing them stability at home.

My No. 1 long-term concern is building enough ships and aircraft to recapitalize the force. We need a minimum of 305 ships fully manned, adequately trained, and properly equipped, and we need between 150 and 210 aircraft per year to sustain the force that is centered around twelve aircraft carrier battle groups and twelve amphibious ready groups.

As always, Mr. Chairman, your Navy is very grateful for this committee's support as your sailors continue to stand the watch proudly out forward where it counts.

Thank you very much.

Senator STEVENS. Thank you all very much.

The two of us appreciate your comments. My friend deserves them a great deal more than I do.

We have some really enormous problems as I mentioned when we began. Let me read to you a statement that Secretary Cohen made. If we get an $11 billion bill we have not budgeted for, we have to take it out of our modernization or operations, and that is a major concern we have.

Now, this bill that we all voted for does a lot of things. It even makes the Government Issue (GI) Bill benefits transferable to a spouse or children and takes $3 billion out of our readiness account to pay for education.

It is not the Montgomery concept of increasing the education of people in the armed services. It is an additional benefit to those who have served, but it goes to a spouse or a child. In retrospect, now, I seriously question that. As a matter of fact, I think I voted against it on the floor. But it is really a problem to us to contemplate how to deal with the cost of S. 4.

S. 4

So let me ask you first, Secretary Danzig, have you costed out the effect of S. 4 on the Navy and people under your area of the military?

Secretary DANZIG. Mr. Chairman, I think you are on to a very important theme. We, all of us, are very enthusiastic about expanding the pay and the benefits of service members. I think the military members do not enter the service for pay advantages.

But if we fall into a circumstance where we are not paying them enough and bills distract them, we cause them to flee from what they really want to do, which is to serve our Nation as, in our case, sailors and marines. So efforts to increase the well-being of sailors and marines in these contexts are very important to us.

We found that we could fund the basic triad that I know you have embraced, an increase in pay at the level of 4.4 percent, a change in the pay table that rewards promotion and acceleration and gives some people pay raises of as much as 9.9 percent, and also a movement away from the Redux system so that people get 50 percent retirements.

We know that activities beyond that are frequently very desirable but, as your comments suggest, costly. For example, a tenth of a percent of further increase in pay yields to an O4 after ten years of service, about $11 more a month in his paycheck. It brings his pay increase from $127 or so to $138 in approximate terms.

That is a valuable thing, but it costs us $20 million a year as we progress out and will do every year in the future. And we can give you obvious cost numbers for all of the other components associated with this.

The crucial question, I think, is how do you pay for these. From my standpoint, the important thing is to make sure we do not pay for them from other aspects of our program.

I think an aviator, for example, cares very much about getting a substantial pay raise, but he cares, I think, even more about his ability to fly, to do what he came into the Navy to do and making sure he has the spare parts and the platforms to be able to do that, that he is flying safe equipment, making sure that our sailors and marines are working in acceptable environments and that they can perform those missions.

Those are all very important, and what we have to do is find a way to balance what we are doing on the pay side and other activities with our needs for readiness, for modernization, for quality of life and other respects. Doing that requires the kind of calculus that you are encouraging, and I applaud it.

Senator STEVENS. Did the Navy get any increase as it went through the Office of the Secretary of Defense (OSD) allocation process this year in the budget review?

Secretary DANZIG. Yes.

Senator STEVENS. How much?

Secretary DANZIG. Well, the exact numbers vary, in part, according to the calculus. I think what you will find is, compared to the lists of added requests from the Commandant and the Chief of Naval Operations (CNO), they bought something between 50 and 60 percent of what they wanted. We can give you the exact numbers for the record.

[The information follows:]

The topline relief provided for in the fiscal year 2000 President's Budget gave the Navy an additional $19 billion over the Future Years Defense Program, $2.4 billion in fiscal year 2000. This additional funding allowed the Navy to address its most critical readiness, recapitalization and modernization needs.

Senator STEVENS. But the Marines decline as compared to the fiscal year 1999 and the fiscal year 2000 budget. How did that happen?

Secretary DANZIG. I am sorry. The Marines' total allocation, you mean?

OPERATION AND MAINTENANCE ACCOUNT

Senator STEVENS. Our Marine Corps, particularly operation and maintenance, is down in 2000 compared to 1999, and yet there was additional money received from OSD. How did that happen?

Secretary DANZIG. Well, what has happened with the operations and maintenance account is that the account was revalued to take account of changes in, for example, oil pricing and inflation.

We found that we are able, in fact, to maintain more equipment and the like given our recognition that oil pricing, for example, is at $10 a barrel. So the practical reality is that the Marine Corps and the Navy both are achieving an increase in their spares capability, in their ability to sustain flying hours and ability to operate——

Senator STEVENS. Mr. Secretary, that is just not true. That is the problem. Our reading is the allocation savings in fuel and inflation still result in the Marine Corps operation maintenance account being down for the fiscal year 2000 compared to 1999.

Secretary DANZIG. What I am trying to suggest, Mr. Chairman, is if you look at the benefits of the account, that is, how many flying hours are sustained, how many purchases of spare parts, how much ammunition is bought, you will find increases in the actual numbers of capabilities that are being bought because the per unit price is lower than it was previously. And we have captured those savings and allocated them to the Navy and Marine Corps rather than return them to the Treasury. Perhaps——

Senator STEVENS. The trouble is the budget captures a savings in fuel and in interest and the basic exchange differences and allo-

cates it across the board, and then you come back and say but, look, these are lesser costs, so they are going to get more done. You cannot allocate that savings twice.

Watch that clock, will you?

Secretary DANZIG. Could I just make one comment, Mr. Chairman.

Senator STEVENS. It is Senator Inouye's time. The clock is screwing up on us.

Secretary DANZIG. OK. Sorry.

TACTICAL BALLISTIC DEFENSE

Senator INOUYE. Mr. Secretary, Admiral and General, last night by chance I was surfing the TV set and came across a documentary on the Barbary Coast pirates, and I got a lesson in history as to how the phrase from the shores of Tripoli came in and the exploits of Lt. Steven Decatur. And now we are talking about tactical ballistic defense.

And, if I may ask any one of you here, we have been funding this sea-based tactical ballistic missile defense system. Can you tell us how the plans are proceeding? You have asked for $617 million.

Secretary DANZIG. Well, perhaps I can comment first and then the CNO might want to add.

I am enthusiastic about these programs. I think that the Navy area of missile defense and theater ballistic missile defense are both robust programs with enormous potential. We have had substantial discussion within the Pentagon directly with OSD, about the appropriate levels for funding these programs. And from my standpoint, there has been an evolution to a recognition that the Navy programs represent a substantial opportunity for the Nation and that they warrant robust funding.

The theater high altitude area defense (THAAD) program continues as a land-based system from my standpoint. That is fine. The Navy program has an opportunity to be technologically tested, as does the THAAD program.

We are going to be running a substantial number of tests over these next two years, and I think they will enable us to fully validate and demonstrate the capabilities of the Navy system and then make a decision as to how much money to put towards its deployability. Our area achievements should be evident over the next year or two as a result of those and our theater in the wake of that. Maybe the CNO would like to add to that.

Admiral JOHNSON. Thank you, Mr. Secretary, I would. Senator Inouye, I share the Secretary's enthusiasm for the Navy systems. I believe they are the right answer for the country, and they are part of the overall kit that we need to field for theater ballistic missile defense. Indeed, the area system for us is priority one, and it is well in hand, I would report.

When I saw you at the Pacific Command (PACOM) change of command in Hawaii, I also spent a great deal of time at the Pacific Missile Range Facility and talked to the team out there. Also one of the two Aegis cruisers we have with area theater capability in the build right now is at Pearl Harbor and I spent time on the U.S.S. *Port Royal*. It is a very impressive, very aggressive program

that will be, as the Secretary said, fielded here in the next two years.

We have the tracking capability right now on those linebacker ships. We will have the missiles embedded in those ships within the year, and that will give us an area capability that will allow us to protect ourselves, our marines, our troops, our friends in close to the battle space.

The theater system which follows out of that is also subject to extensive tests. We believe that we are being supported now at a level, in my opinion, that has changed greatly over the last couple of years. That is the right answer. We cannot wait to get started.

Senator INOUYE. I, for one, am convinced that this is a key weapons system in our national arsenal—not just in the Navy one. So far your testing has shown that it not only has the potential, but it will do the job. Will $617 million do the job for this coming fiscal year?

Admiral JOHNSON. Yes, sir. The answer, sir, my answer to that and then I would defer to the Secretary is that that will keep us on the aggressive test plan profile that we need right now.

I believe we need to field both the area and theater systems as fast as we can sanely do that. This funding profile starts us—actually, it continues us on the area side—but starts the theater system down that path, I think, with renewed vigor with a time line that gives us the option to field that system with block one capability in about the 2007 time frame.

My personal view is that as the tests evolve and go the way we think they are going to go, there will be opportunity to pull that with additional investment forward to about the 2005 time frame. And that is the construct as I see it.

Senator INOUYE. Mr. Secretary.

Secretary DANZIG. I would agree with that. At the moment I feel that the questions and the issues that we need to address in the near term on this program are technological. We are funded at appropriate levels now. We may have opportunities for more funding later if the technological results are productive.

Senator INOUYE. I have no idea of what the outcome will be on our current debate on the ballistic missile defense system. That is why your system seems to be the best thing we have got going right now. At least it can knock out the Scuds and the Nodongs, and that is what concerns us at this point.

Admiral JOHNSON. Yes, sir. Our obligation to you is that we will proceed down the path of sanity, as I describe it, in terms of the construct and test of these systems so that we can field both the area system and the theater system and then present them to the country. That is my objective.

Senator STEVENS. What about the national system?

Secretary DANZIG. The national system is a central focus, of course, for OSD. My feeling is that we have got a logical sequence here in what the CNO calls the path of sanity. We need to demonstrate and field the area system. We need to work through the problems associated with the theater system.

I think Navy ballistic missile defense does pose an opportunity in terms of national missile defense. But it is an opportunity that is technologically further out and more demanding, as you well

know, having treaty compliance issues associated with it, because the Anti-Ballistic Missile (ABM) Treaty explicitly opposes or restricts or prevents a deployment at sea.

But at the moment it is the technology, not the treaty that constrains us, and I am in favor of developing Navy theater strike forwardly now.

Senator STEVENS. I will get into that later. Go ahead, Senator. I interrupted you. But that is not my understanding of that situation either. Sorry about that.

FORD ISLAND DEVELOPMENT PROGRAM

Senator INOUYE. Mr. Secretary, the Navy has submitted legislation to authorize a Ford Island development program. Can you tell us what the status is now or tell us why you are enthusiastic about it? It is a leading question.

Secretary DANZIG. Right, but I am happy to be led there. We are very enthusiastic about the possibilities on Ford Island. Our military construction budgets are, of course, restrained. But if we can involve a public-private venture for the development of Ford Island, we can get great benefit from this property and at the same time working with a private developer, develop barracks and other kinds of family housing and other kinds of facilities as well as give the State of Hawaii a center on Ford Island that they can use in good ways.

We need legislative authorization for such a public-private venture, and I expect we will be requesting it in the immediate future. It gives us a very efficient use of property that otherwise stands fallow and unused.

Senator INOUYE. This concept is not unique or new, is it? It has been employed?

Secretary DANZIG. No. That is correct. We are using public-private ventures in a number of locations on the continental United States, for example, in Washington State at Everett, in San Diego with respect to housing. We have used it in Texas, and it has yielded to us the advantages of a private developer's efficiency and imagination and flexibility while at the same time not absorbing Navy resources.

Senator STEVENS. Senator Bond.

Senator BOND. Thank you very much, Mr. Chairman. And I would certainly concur on behalf of the other members of the subcommittee with the very kind words that the general and others and the admiral mentioned about the leadership of this committee.

AMMUNITION

General Krulak, we, too, have enjoyed having the opportunity to work with you on this committee and appreciate your great service.

One of the things that I think struck many of us very, very heavily was—and I have heard so many of my colleagues repeat it—the story that you told this past holiday of a past holiday season concerning the young marine standing his post who, when you questioned him about what he most wanted, thinking he would probably say he wanted to be home or with his family simply responded more ammunition.

Well, that really tells a tremendous story. And we understand that you have an unfunded requirement for small arms ammo. Could you give us an idea of the extent of that requirement and what do we need to do to make sure that that young marine and all the others who are in harm's way have the ammo they need?

General KRULAK. Yes, sir. We are short two types of ammunition. One of them is a 7.62 ammunition. The shortage is about $5 million. And in 5.56, the shortage is about $9.7 million. So we can solve the entire problem for less than $15 million.

Senator BOND. Thank you, sir. That certainly ought to be a very high priority.

General KRULAK. Yes, sir, it is.

Senator BOND. I cannot think of any more serious problem than sending somebody out without the ammo.

F/A–18E/F

Mr. Secretary, it is no secret that I have a great deal of interest in the Navy's F/A–18E/F program. I understand that the combat capability and the survivability is essential for the brave men and women who fly them, and I have heard the Department of Defense laud it, and I gather it has achieved the milestones. And I, also, understand that, as we are sitting here today, it is completing carrier "quals" and sea trials. They tell me it is called bagging of traps and cats off the coast a few hundred miles southeast of here. We have heard anecdotal stories from some of the pilots. Some of them say that if I had to go to war today, this is an aircraft I would want to be in.

Well, let me ask you first, Mr. Secretary, can you give your professional views on the aircraft, its viability, its versatility and its need?

Secretary DANZIG. Yes, Senator. I have spent a fair amount of time looking at this program. I have also had discussions with the CNO and the Secretary of Defense about it. I am very enthusiastic about it. I think it brings us a capability that we highly value, which is a greatly increased strike capability.

It adds two weapon stations beyond the F/A–18C/D, its predecessor. It is 25 percent larger; therefore, it gives us more avionics and weapons capability. It has a 40 percent greater range capability. It has refueling and tanking possibilities that are very welcome.

What is most remarkable to me about this is that in acquiring an airplane that is some 25 percent bigger, we have also managed to maintain its fighter capabilities at a level that, if anything, exceeds those of the "C" and "D". So I think of this, to use a basketball analogy, something like a seven-foot plus center that has all of that kind of scoring potential and at the same time has the agility of a point guard.

You cannot be all things to all people, and it is not the absolutely maximal fighter aircraft, but it does do an extraordinary job of blending strike and fighter capabilities.

As an acquisition program, I am very impressed with it. It is on time. It is underweight. It is slightly under budget. I regard these as very great achievements.

From time to time problems have been shown in the course of its 4,000 hours of flight testing. That seems to me to be entirely appropriate. We have been very straightforward and visible about those.

I regard problems as like the labor pains of giving birth. You encounter these kinds of things. All the ones that I have seen that have struck me of any significance have been resolved, and I am very optimistic about the program.

The CNO has hands-on experience as an aviator. And if we can take a moment more, I will yield to him with respect to some further particulars.

Senator BOND. Maybe he can tell us about the seven-foot center that shoots three pointers from the outer perimeter. Maybe he can add something on that.

Secretary DANZIG. I should say this is nothing like my own basketball game.

Admiral JOHNSON. The Secretary has said it very well, Senator Bond. And I would only add that from a pilot's perspective—not a test pilot, but an old guy pilot—I would tell you that for an airplane that is 25 percent larger, it flies smaller, if you know what I mean. From a flying quality standpoint, it is very tight, very, very impressive.

When it comes to the business of generating combat power, which after all is what it is all about, it also—when you balance it—a wing of F/A–18E/F's against a wing, an air wing of F/A–18C/D's—the phenomenal numbers I have stuck in my head would tell me that I can service twice as many targets in half the time with a third of the combat losses. That is a very impressive performance kit.

When you take the airplane as it is and look at the key performance parameters by which it must be measured, we are very satisfied with that airplane. And, indeed, we have got two of them, an E and an F, out on U.S.S. *Harry S. Truman* right now.

And the bagging of cats and traps is, indeed, what they are doing. But I will put it another way and tell you that they are into the serious business of heavyweight asymmetrical cat and traps, you know. They are really ringing it out.

I checked before I came over here. They are a little over a third of the way through with this at-sea phase. They are very pleased with what they have seen so far.

So we feel very good about the F/A–18E/F. It is ready for full rate production. Our budget reflects that, and we would like to put it into multiyear as a result of that, sir.

Senator BOND. Admiral, I understand that the E and F has a significantly enhanced bring back capability with the——

Admiral JOHNSON. Yes, sir.

Senator BOND [continuing]. Say, for example, the joint standoff weapons load out. And could you address that and the tactical functional maneuvering capability in a wartime environment?

Admiral JOHNSON. Yes, sir.

JOINT STANDOFF WEAPON (JSOW)

Senator BOND. I think those two items are important.

Admiral JOHNSON. Indeed. The JSOW, first of all, is a wonderful weapon. It is a weapon that we have all committed to. We have

had great support from the Congress. We have fielded that weapon now, and we are using it, and we are most impressed with the results.

Having said that, I would tell you that the airplanes that are carrying it right now for us, the F/A–18C's that are in the Arabian Gulf, it is advertised to carry two JSOWs. I will tell you as a practical matter, as an operational tactical load matter, if you carry two JSOWs in an F–18C, you are either going to have to shoot one of them or dump one of them in the water to bring it back aboard because you exceed the max landing weight of the airplane. The F–18——

Senator BOND. You can only bring back one JSOW.

Admiral JOHNSON. That is correct. And if you look at the configurations they are carrying in the Gulf right now, indeed, they are only carrying a single JSOW. The F/A–18E/F will carry four JSOWs out and bring four back if it has to. That is an example of where we are.

Another characteristic that is probably worth just mentioning briefly is the wing that we have today when you send those Hornets into the threat area, you send the Hornets and you also send EA6B's or other Hornets for suppression of enemy air defense. So you have two packages. You have got one of the strike birds and one of the suppression of enemy air defenses (SEAD) birds.

When you get to the E–F because of the extra stations, because of all the things that the Secretary touched on, you will be able to take those eleven or twelve airplanes and send six Super Hornets and they can do suppression by themselves. They can carry the armed missiles by themselves. So those are the kinds of real world trades and upgrades, if you will, that this represents. So we are very much committed to it as you can tell.

Senator BOND. Thank you very much, Mr. Chairman, and thank you, Mr. Secretary.

Senator STEVENS. I think that is music to my friend's ears here.

Senator BOND. Well, it helps. It does not hurt today a bit.

Senator STEVENS. Senator Durbin.

Senator DURBIN. Thank you, Mr. Chairman, and thanks, Mr. Secretary, Admiral Johnson and General Krulak. I am in big trouble here because I do not know what a JSOW is. But I am new to the committee and my staff is working on it.

Admiral JOHNSON. Joint standoff weapon, sir. Sorry. We acronym ourself to death.

General KRULAK. Nothing to do with pigs.

S. 4

Senator DURBIN. I am glad to know that.

The chairman addressed S. 4 that we considered a couple of weeks ago. There were eight of us that voted against this bill. And I do not believe there is a single person in the Senate who does not want to increase the compensation and retirement benefits of those serving in the military, as well as increasing recruitment and retention. But by the time that bill was finished on the Senate floor after not a minute of hearings in committee, we had increased the amount requested by some $17 billion over the President's budget

without a clue as to how it was going to be paid for. I did not believe that was a responsible thing to do.

But I want to ask you point blank. Some of the things I have been told about recruitment and retention in the Navy are of great concern. And I noticed in your statement which you have presented to the committee you acknowledge problems that you have had in this area, the Navy recruiting shortfall of 6,892 sailors in fiscal year 1998, equally challenging in 1999.

Can you tell me something about what you have done to come to an understanding as to why these shortfalls have occurred?

Secretary DANZIG. Yes. With respect to recruitment, my feeling coming in, and I know the CNO's on having reviewed it earlier, was that most immediately we had a need to put more recruiters in the field. We fielded 3,500 recruiters for the Navy in the previous fiscal year. We will over the course of this month get to 4,500 recruiters with respect to this fiscal year.

Those additional 1,000 recruiters, almost a 30 percent increase, buy us a very substantial increment in capability with regard to recruiting. And, as the CNO has commented, we have been on track with respect to recruiting this year. So I think that is a major step.

Congress has also helped us and we have directly addressed the question of advertising and we have increased the amount of advertising. We have noted that the Marine Corps success in 43 months of unbroken meeting recruiting goals correlates not only with an emphasis on this area in the Marine Corps and a full funding of billets, but also with additional stations for recruiters. We are expanding the number of naval stations so as to increase our outreach to communities.

We have done a number of things on the management side as well, and together I think we produced a likelihood that we are going to meet our Navy recruiting goals this year. I stand with you. I think that is very important.

Senator DURBIN. Now, do you have to reduce your standards for recruitment, for example, on the requirement of a high school diploma? Bring me up-to-date on what is happening there.

Secretary DANZIG. Thank you for asking about that. Senator Inouye also mentioned that in the opening comments, and I am glad to address it.

The Navy is meeting the DOD standard of recruiting 90 percent of our graduates with high school diplomas. The question for me, as a manager, and for the CNO was did we want to sustain a level of 95 percent high school graduates or aim at the 90 target, which was the OSD established standard.

I think it is fair to say that a high school diploma is a relevant criterion, and on balance, I like people with high school diplomas. They have demonstrated a stick-to-itiveness that is desirable.

The question for us was are we overemphasizing that and can we do better in recruitment if, for an additional 5 percent of our recruits, we do not insist that they have a high school diploma but look at some other criteria. And my conclusion was yes. It is the right thing to do, to shift the emphasis for that 5 percent, some 2,600 recruits, from requiring a high school diploma to looking at other criteria.

What are those other criteria? Test scores, employment history, character references.

My feeling was, we are taking some high school graduates who have below average test scores. They are very capable. They fall between the 30th and 50th percentile of the population. But I have non-high school graduates who score much higher in the top half of the population.

Do I want to take those people with higher test scores, especially in critical skill areas, rather than pursue the last high school graduate who has lower test scores. My answer was, well, yes, if I can be assured that they have the characteristics of stick-to-itiveness that high school graduates have. How can I do that?

Answer: We know by looking at employment history and by taking people who are somewhat older. The average high school graduate may be 18 years old. Let us focus on 19-year-olds and older. Let us insist that these people have an employment history immediately before coming in that stretches back over a year. Let us insist on character references which we do not normally insist upon.

So I do not regard this as a lowering of standards. I view this as a shift to people who are proven performers in quite another context. And it seems to me we are in no significant risk when we take in 2,600 people of this kind rather than pursuing the umpteenth high school graduate whose test scores are nowhere near as good.

Senator DURBIN. That is a valuable perspective on that issue. I am glad you told us that. I would like to ask several parochial questions.

GREAT LAKES NAVAL CENTER

One, let us focus on Great Lakes for a moment here. Are you familiar with the Navy's plans to privatize certain services of Great Lakes Naval Center?

Secretary DANZIG. I have paid a fair amount of attention to the Great Lakes issues and been out there and talked with them. I have not looked in detail at the privatization there. We have pushed the expansion of Great Lakes.

Go ahead. Sorry.

Senator DURBIN. If I might, I will save my follow-up questions for a more direct conversation or in writing. But it is my understanding that there is an effort underway to privatize or basically to sell off to North Chicago, an adjoining community, the water plant as well as the sewage services, and they are very anxious to get involved in that discussion. So I will follow up with you on that.

Secretary DANZIG. I look forward to that, Senator.

AVONDALE SHIPYARD

Senator DURBIN. Can I ask you about a more contentious issue that has become somewhat national in nature, and that is the Avondale shipyard. We have received notice—primarily from the American Federation of Labor-Congress Industrial Organization (AFL–CIO), but from others—about ongoing concerns of the treatment of workers there, the amount being paid, the number of foreign workers, the safety of the workplace and perhaps the misuse of funds for legal expenses.

I know you have received a lot of letters from the members of Congress on this issue. Can you tell me the extent of your investigation of this problem?

Secretary DANZIG. Yes. This is an issue which, as you say, has been raised several times. It is one that warrants Navy attention. The regulations are very clear that we are not to take sides with respect to a labor dispute, and even mediative activities and so forth should be undertaken by other government agencies. We have talked with the Department of Labor about that. I have asked the General Counsel's office within the Navy to look at the inclusion of legal fees in the cost base and make a judgment about whether they are appropriately included.

The litigation, as you may know, is now before a court of appeals. I am hopeful that the labor situation at Avondale will be resolved over these next several months. From the Navy's standpoint, the achievement of a resolution is a desirable thing.

Senator DURBIN. I will ask one last and specific question. I want to be sure I understand this if you can answer it.

Secretary DANZIG. Sure.

Senator DURBIN. Here we have a union election at this shipyard and, as I understand it, the workers voted to unionize. The management then contested that election, and they have pursued their legal rights administratively and in the courts.

And the question that has been asked of me and I ask of you, does the United States Navy now pay for the company's legal expenses to contest this union election? Is that legal for the Navy to make that payment?

Secretary DANZIG. And the answer is that the Navy recognizes as a legitimate cost in the cost base that we are paying for legal fees. And legal fees are appropriately included to the extent they are within the range of reasonableness. I have asked our General Counsel to look at whether Avondale's expenditures in those regards—and our procurement activities—to look at whether Avondale's expenditures in those regards exceed that range.

Senator DURBIN. So it is the amount that you are interested in as opposed to the principle of whether or not a taxpayer should be paying a company's efforts to, in effect, reverse a union election?

Secretary DANZIG. I am interested in the principle as well. But there is some discussion in the context of revising the Federal Acquisition Regulations about whether these fees should be includable or not, and that issue is one that needs to be resolved at a federal level and the Navy does not have, I think, the power to make an individual determination about it.

Senator DURBIN. My time is up, but I agree with you completely. We should address that because there is some very serious concern among some members as to whether or not taxpayers should be subsidizing this legal effort. Thank you very much.

Secretary DANZIG. Thank you, Senator.

Senator STEVENS. Senator Harkin.

Senator HARKIN. I want to follow up, Mr. Secretary, on that directly. Are you telling me and are you telling us that as Secretary of the Navy, you do not have the authority to disallow legal fees submitted to the Navy by Avondale that are being used to overturn

or to thwart a legitimate, legal election by the workers? Are you telling me you do not have that authority?

Secretary DANZIG. The legal fees incurred here are incurred by Avondale's contending that the election was not an appropriate one. That went first to the National Labor Relations Board (NLRB) and is now on appeal.

So, the issue for us is, is it a reasonable legal fee as a part of the cost base for Avondale to exercise its legal rights to appeal, first, to the NLRB and then to the court.

As I say, I have asked the General Counsel to make a judgment with regard to that, but the question pivots on the reasonableness of the fees. I do not have the power as the Secretary of the Navy to say as such that expenditures on litigation in this kind of context are not inappropriate or unacceptable.

Did I say that clearly enough?

Senator HARKIN. So you do not have that authority?

Secretary DANZIG. I do not have that authority.

Senator HARKIN. Whether they are reasonable or not.

Secretary DANZIG. Exactly.

Senator HARKIN. All right, fine. I understand that.

I understand that Avondale recently refused access to inspectors from the Occupational Safety and Health Administration (OSHA) seeking to examine the company's injury records. In the course of OSHA's prior inspections, work had to be stopped in several locations because of imminent dangers to workers present in Avondale's yard.

Is this factual? Do you know about that?

Secretary DANZIG. Yes. I cannot say that I know about any refusal of permission for OHSA's access.

Senator HARKIN. Would you find out for me?

Secretary DANZIG. Certainly.

[The information follows:]

Avondale recently refused OSHA access to employee injury and sickness records, asserting the request was overly broad and would violate its employees' privacy rights. OSHA did not request the Navy's assistance, but at OSHA's behest a Federal magistrate ordered Avondale to provide the requested records. We believe Avondale is appealing this ruling.

Currently, OSHA has access to Avondale's facilities and has advised us that it expects to complete its inspection of alleged safety or health hazards at Avondale by June 1999, but otherwise has refused to comment on the ongoing investigation.

Senator HARKIN. I am told that they refused access for OSHA inspectors. Now, it seems to me, Mr. Secretary, that someone being paid by the taxpayers in making our ships for the Navy to refuse the right of OSHA inspectors to come in is something that we should not condone. Find out for me if that is factual.

Secretary DANZIG. I will.

Senator HARKIN. And I would like to know about that.

I am also told that Avondale has one of the highest death rates, three times the death rate of any other shipyards making ships for the Navy. I have also been told—all kinds of information the AFL–CIO.

Let me say this. If only a third of it is accurate, we have a real problem there. And I have found usually the AFL–CIO gives me pretty darn good and accurate information. I have got to tell you that.

They told me that last year for no reason—in 1997, 200 Indian welders worked at Avondale under H2B visas approved by the U.S. Government. Yet they go on to say that qualified workers in the New Orleans area would like to work full-time at Avondale for the prevailing industry wage for about a third more than what Avondale pays. So they have plenty of workers there. Yet they have 200 people coming in under H2B visas. Is that factual?

Secretary DANZIG. They do have a significant number of people coming in under those visas, and we have talked directly with the Department of Labor about this.

The one thing I would note, Senator, is that there are, I think, two separate questions here. One is the character of any given piece of conduct—the appeal of an election, the openness to OSHA, the accident rates.

The other is the question of whether the Navy is an appropriate entity to do that. And it is the second question that gives me considerable pause as Secretary of the Navy. I do not think, for example, that the Navy is the appropriate entity to adjudicate whether an election was appropriately conducted or whether a union should be certified. That falls within the domain of the NLRB.

And, similarly, the issue of visas is one that is a Department of Labor issue in conjunction with the Immigration and Naturalization Service. And though I have a real interest in this and have had direct discussions myself with the Deputy Secretary of Labor, it is not an issue that I can take action with regard to.

Senator HARKIN. I am going to get to an important point. I am told that a judge has found that Avondale broke the law more than a hundred times, including illegally firing 28 workers.

Now, it seems to me, again, if this goes on and on and on that you cannot just wash your hands of it, Mr. Secretary.

Secretary DANZIG. I agree with that.

Senator HARKIN. It seems to me you have got to get a grip on this one. And I really believe that some action has to be taken.

What I would like to know is do we have to do something? Is there something that we have to do here that will enable you to take some positive action?

As I said, I will not swear that all the facts I am giving you are true. I am just saying that this is what I have been given.

Now, I am going to tell you one fact that is true. You should write this name down.

Sidney Jasmin was one of the workers I met with last year. He came up here to see me about this issue, and then he was fired. The National Labor Relations Board basically has issued a charge asserting this is in retaliation for his visiting with members of Congress. Now, that really does disturb me, that someone comes up here exercising their legitimate, constitutional right and they get retaliated against.

Secretary DANZIG. Senator, if I can, I will just suggest three avenues here. One is what we have already discussed. It is entirely plausible and this body can well speak to this point to change the Federal Acquisition Regulation and give us authority in regard to these issues.

Second, you will know that there is a proposal which has already been approved by the Department of Defense for Avondale to be

merged into Newport News. Newport News operates considerably differently in terms of its labor activities.

Senator HARKIN. They sure do.

Secretary DANZIG. I have talked with the president of Newport News about this. And I think there is a distinct possibility that this labor situation will be resolved either through the resolution of the Court of Appeals decision or as a consequence of the merger.

The third thing is, I would underscore that I have actively talked with the Department of Labor about some of these issues, and you may want to do that as well.

Senator HARKIN. Oh, I have. I have and I will continue to.

Secretary DANZIG. All right.

Senator HARKIN. I understand the contractors have their legitimate rights, too. But you have a pattern here. The pattern has gone on for far too long. And out of that pattern emerges a company that is just thumbing its nose at labor law and labor relations. And I think something has to be done about it pretty soon.

I see my yellow light is on. I have one more question, but I will see if we get another round.

Senator STEVENS. You can finish up.

Senator HARKIN. OK, two minutes.

TRIDENT

Admiral Johnson, if I can shift abruptly here, Trident ballistic missile submarines. You pointed out that the United States can reduce its fleet from 18 to 14, with an annual savings of hundreds of millions of dollars.

It is my understanding this would require congressional approval through a repeal of the congressional ban on reducing the number of deployed nuclear missiles, or at least Congress would have to allow DOD some more flexibility in deploying our nuclear arsenal.

Am I stating it correctly and could you elaborate on that a little bit?

Admiral JOHNSON. Senator Harkin, my understanding is that right now until such time as START II is ratified by the Duma, we must maintain an 18-boat SSBN force.

Senator HARKIN. That is according to Congress?

Admiral JOHNSON. Yes, sir.

Senator HARKIN. So you have to maintain the current force unless and until Congress does something about it. You have to maintain the 18.

Secretary DANZIG. That is correct, sir. And, indeed, there are things being examined right now that would have us look at the possibilities for those four boats if and when we are allowed to come from 18 to 14. What do we do with the other four SSBN's. That is all being looked at right now.

But for the moment, we must comply with the 18-boat force.

Senator HARKIN. Thank you, Admiral.

Senator STEVENS. Thank you very much, Senator.

Senator Dorgan.

Senator DORGAN. Mr. Chairman, thank you very much. Mr. Secretary and Admiral and General, welcome. You do not have a large presence in North Dakota, the United States Navy. Well, we have invited the Navy there for some inland activity in one of the——

Senator STEVENS. Nebraska has got a Navy. I do not know why you should not have one.

Senator DORGAN. Well, I have talked to the Secretary about this.

Let me just ask a question on the Trident D–5 ballistic missile. I want to get your thoughts about something. As you know, one of the departed members of this subcommittee, Senator Bumpers, continually raised this question about the acquisition of the D–5.

And I would like to know, if you have the information with you, what is the proposed acquisition of D–5's in the future according to the Quadrennial Defense Review (QDR)? Do you know and what the cost would be about?

Secretary DANZIG. I am happy to comment on this, but if you want to go first.

The intent is to go ahead—and as you know, at the present moment, we have got ten of our Tridents on the East Coast all D–5 equipped. We have eight Tridents on the West Coast. They are not D–5 equipped. The intent is to go ahead and modernize those Tridents on the West Coast replacing the C–4 missiles that are there with D–5's.

If, as has just been discussed, we move to a 14-ship Trident force, then we will be buying D–5's adequate for four Tridents. If we have to go to an 18, then we will because of the aging of the C–4's and because of the utility of having all our submarines consistently equipped, we will buy D–5 production capable of covering all eight additional Tridents.

Senator DORGAN. And what is the difference in cost of the D–5's for the four boats?

Secretary DANZIG. Unless the CNO is good enough to have that number in his head, I will have to give that to you for the record.

Admiral JOHNSON. No, I think we would like to give that to you for the record. If I could just add to what the Secretary said, though, sir.

It is very important to us that at 14 boats we have an all D–5 force. I think that is a point worth making. The Secretary may. I will just say it in my own terms. We need a 14-boat—my personal red line for the Navy in strategic deterrence is 14 boats, two oceans, all D–5.

Senator DORGAN. Why is that important?

Admiral JOHNSON. Because of the capabilities of the D–5 versus the C–4.

Senator DORGAN. Do you know the acquisition cost of a D–5?

Admiral JOHNSON. I will provide that for the record, sir. I can't pull it——

Senator DORGAN. It would be helpful if you would provide the procurement schedule and the acquisition cost of that program. I would like to talk to you some more about that program in the coming weeks before we move an appropriations bill to the floor.

[The information follows:]

The cost of additional D–5 missiles required for an 18 D–5 Trident II SSBN force is approximately $2.2 billion above the Navy's current program. This figure includes missile procurement and re-establishing the missile production base. Since the D–5 missile is presently in low-rate production, many vendors have elected to have their production lines bought out and pursue other ventures. These various component production lines would have to be started to produce additional missiles beyond those programmed for a 14 Trident II D–5 SSBN fleet. Concurrently, there would

be additional costs to support the 18 Trident II D–5 SSBN fleet long-term above the Navy's present program. It would require $2 to $3 billion within the Future Years Defense Program (2001–2005) to maintain an 18 Trident II D–5 SSBN fleet. These costs include the refueling overhauls that would be required to maintain these submarines beyond the 2003 to 2004 time frame and backfit to the D–5 weapons control system.

The total acquisition cost of the TRIDENT II D–5 missile program, including both development and production, is $26.9 billion, as reported in the December 1998, Selected Acquisition Report. Of that total, $3.4 billion is budgeted in fiscal year 2000 and outyears, including years beyond the FYDP, to support total life-cycle requirements of the D–5 missile.

A total of 425 D–5 missiles, including both shipfill and flight test missiles, are required to support a force structure of 14 Trident II D–5 submarines. The D–5 missile procurement schedule is as follows:

Fiscal year 1999 and prior	360
Fiscal year 2000	12
Fiscal year 2001	12
Fiscal year 2002	12
Fiscal year 2003	12
Fiscal year 2004	12
Fiscal year 2005	5
Total	425

The flyaway unit cost of the 65 D–5 missiles remaining to be procured in fiscal year 2000 through fiscal year 2005, including both airframe and motor and guidance system costs, is $28.5 million, as reflected in the fiscal year 2000 President's Budget request.

Senator DORGAN. Mr. Chairman, that is all I have. Again, I had an opportunity to visit with the Secretary some while ago and the general and the admiral. I very much appreciate your leadership and appreciate your being here. I was at a hearing that the chairman was at earlier today and I regret that I was not here for your opening statements.

Secretary DANZIG. Thank you.

Senator STEVENS. Senator Hutchison.

I might point out to the new Senators that just came in this is General Krulak's last appearance before our committee unless we have some, God forbid, crisis that requires some additional money.

Senator Hutchison.

Senator HUTCHISON. Thank you, Mr. Chairman. I, too, just left another hearing and I apologize for not being here. It was quite interesting after you left. So we just finished.

Let me say that I do want to mention General Krulak's retirement. The last General Krulak to serve in the Marine uniform for 70 years and what a great lifetime of service you have given and your father before you and grandfather.

And I understand your son has stayed sort of in the fold, though not exactly.

General KRULAK. Jay Johnson took him from me.

Senator HUTCHISON. But Admiral Johnson is very pleased to have the next Admiral Krulak.

But I do appreciate all you have done for our country and I have appreciated working with you. And I have to say that I will never forget the man that introduced me to SOS. I will never forget it. [Laughter.]

RECRUITMENT AND RETENTION

I would like to talk about a couple of things. Of course, I am sure it has been mentioned, our readiness concerns, our recruitment concerns for the Navy. I was very disappointed that the Navy felt it had to lower the standards in recruitment. And I hope that is temporary, frankly.

I hope that when you are able to look at the issue and determine a strategy that we will not lower the standards, but instead increase the interests in serving in the Navy because it is such a great service.

I would like to ask you a question based on the pay raise issue that we have addressed in the Senate in the last couple of weeks and that is, I think, it was a Rand study that actually showed that an overall pay raise is not the best approach for recruitment and retention problems, but rather targeted pay raises in the areas where you are having the most difficulty recruiting qualified people or retaining qualified people.

And I wanted to ask your opinion, both Mr. Secretary and Admiral Johnson, if you think that that is a better approach and should we be looking at something different from the across-the-board pay raise that we have just passed?

Secretary DANZIG. Senator, I think you are very right to emphasize the utility of targeted bonuses. The Navy more vigorously, I think, than any other service has moved toward just such a program. And part of S. 4 that I am very enthusiastic about and a part of our program in general, is targeted bonuses.@

I think there are about $100 million of Navy bonuses proposed for this year either through S. 4 or through other means. A good vivid example is our surface warfare officers. We know that our retention at present is about 24 percent. We would like to get up to 38 percent. How do we bridge that gap?

Our division officers as they move up to department heads in the Navy go to department head school. I know exactly how many people I need to get into department head school, 257. I can give 257 bonuses of a substantial kind. It is a very concrete, identifiable number to an extremely targeted audience and address by that means the surface warfare retention problem.

So I entirely agree with you and with Rand. These are very high-value, high-reward kinds of activities.

Having said that, I would encourage though that we not—and I do not think you intend to—slight the desirability of some overall force-wide general pay raises and of doing things like rolling back the Redux and revising the pay table because those provide the foundation across the whole force on which we build with respect to the individual targeted bonuses. So I think it is a question of achieving a mix of those two things and I think the program we laid out for you provides you with that mix.

If I can, I would like to take just a moment on the question of standards. But if you would prefer to have the CNO or anyone else comment on this one topic, maybe I can come back to that question, whatever you would like.

Senator HUTCHISON. Why don't we stay on that and then I would like to have you address standards if you can.

Admiral JOHNSON. I would just add very briefly, I mean, I agree exactly with what the Secretary said. I believe that the pay triad that we talk about in terms of the overall pay raise, the pay table reform, and the Redux repeal is fundamental in this year's budget. We have to do that for the force.

In addition to that, as the Secretary described very adequately, we have to have the flexibility to be able to target specific critical skills. We have them in the officers' side with surface warfare officers. We have them with aviators. We have them for the first time ever with our special warfare SEALs, and we have them with the submarine officers.

Ditto on the enlisted side in the technical skills, the selective reenlistment bonuses, for instance. We have to be able to target those technical skills in order to be able to compete to keep those people in the force.

The enlisted—an E–6, a first class petty officer with ten or twelve years of service, base pay is about $2,000 a month. That petty officer, if you run that with other numbers, you could say, well, he makes maybe $25,000 to $30,000 a year.

What we are being told or what I am being told from friends in corporate America, they will take that same specially skilled petty officer—I have a friend who runs a company who said, "I need 72 of them tomorrow and I will pay them. I will start them at $50,000 apiece sight unseen just because I know what I am getting from the Navy." So we have to be able to compete with that. So it is the basic package and the special skill targeted bonuses that I think are really essential for us to compete.

General KRULAK. Can I make one comment that may be a little bit different here.

One, I think the triad is critical. Critical. Two, I am very concerned when you go above the triad where the money is going to come from because, in fact, what these young men and women of character also want is to operate good equipment that does not break down all the time.

And I am very concerned that we not bear the brunt of the entire S. 4 at the cost of warfighting. I mean, that is what we are here for, to fight and win. And if I do not have the gear to do that, these kids, their quality of life is coming home alive. And so I am concerned that—I believe—and I think Jay agrees—that the triad that the Joint Chiefs talked about is critical and that will help.

Our concern as you go above that, is that money going to be there or is that going to eventually come out of all the readiness issues that are also part and parcel of why somebody stays in? Because they are part of a first-rate outfit?

Secretary DANZIG. And all three of us are as one on this point.

Admiral JOHNSON. We are, indeed.

Senator HUTCHISON. Let me just ask you quickly. I know my time is up, but isn't increased OPTEMPO also taking some of those valuable dollars, the peacekeeping missions and hurting recruiting and retention because the OPTEMPO is——

General KRULAK. One of the great things about your Navy and Marine Corps team, of course, is when you buy the Navy and the Marine Corps, you buy forward deployed forces and the OPTEMPO is there. They are going to deploy at this six months and you have

already paid for that. So to the extent that we are compared to the other two services, it is not quite as bad.

The question of OPTEMPO, of course, is they want to know when they are going to be gone and they want to know when they are going to be home. But the actual cost of readiness you have already paid for.

Secretary DANZIG. If I can, I will just take a moment on the question of standards if it is all right with the chair. If it is agreeable to you, Mr. Chairman, perhaps I just can take a moment on the last question that Senator Hutchison asked with respect to standards, but I do not want to disrupt the time.

Senator STEVENS. I am planning a trip back here. [Laughter.]

Secretary DANZIG. If I can just say, you, in my view, are coming from exactly the same place that I am with respect to quality and the importance of quality in Naval recruits and Marine Corps recruits. So I entirely agree with your concern.

But I actually do not hope, as you said, that it will turn out to be a temporary thing that we take an additional 2,600 non-high school graduates out of our total force of 53,000.

It should be a temporary thing if it turns out that those people are not high-quality sailors and we ought to go back to the emphasis on a high school diploma if this does not work. We are collecting data on it, and in that respect I am entirely in agreement with you.

But my belief is that we will, in fact, acquire better sailors by taking people in the last increment here who are not high school graduates and are proven performers in other ways. And the proof of that performance in expectation before they come in will be in the fact that they have higher test scores, dramatically higher test scores than the high school graduates they may be displacing, that they will have an employment history which shows their stick-to-itiveness and their quality, and that they will have substantial character references that we can trust.

In the end, the proof of the pudding will be how they perform in the fleet. And we have a long record of many such people that suggests that they will perform very well. But I agree with your notion that time will tell. That is where I am coming from.

Senator HUTCHISON. Actually, there have been studies, which I am sure you have, on the retention rate of non-high school graduates and high school graduates. So you have a record. Now maybe you can improve on it. But I hope you will be true to the record or true to the issue.

Secretary DANZIG. Right, right, absolutely right. The studies of non-high school diploma graduates in general show that they have a lower retention rate than high school diploma graduates. I entirely agree with that.

We also have done studies that suggest that we can select from that population of non-high school graduates, people who have the proven performer characteristics I have described and take from that group exceptional sailors who, for example, can perform critical skills better than high school graduates who have lower test scores.

So that is where I am coming from. We have long experience. The Desert Storm force had 15 percent non-high school graduates

in it. We know they can perform very well. But you are also correct that historically they have had a higher attrition rate.

Senator HUTCHISON. Thank you.

Senator STEVENS. Thank you very much, Senator.

Senator Cochran.

Senator COCHRAN. Mr. Chairman.

General Krulak, let me congratulate you on your excellent service as Commandant of the Marine Corps. It has been a pleasure to work with you and to meet with you at your residence for breakfast a couple of times and observe you in this capacity very closely. And I just cannot tell you how much we are going to miss you. We appreciate the valuable service you have rendered to the country.

General KRULAK. Well, thank you, sir.

LHA AND LHD

Senator COCHRAN. I was reading a copy of an article in Sea Power, November 1998. It is an interview with you. And it talks about your career and some of the things you see coming along that we need to take into account.

One of the subjects that was discussed was whether or not we need to have another Wasp class LHD ship on the schedule earlier rather than later. They talk about the service life extension program of the LHA, and you compare that with the benefits that would accrue from having a newer ship built earlier, an LHD–8.

Could you comment on that subject for us? We are going to have to look at this Navy program of LHA and LHD and what you see the requirements are in the future.

General KRULAK. Yes, sir. I think that the Secretary of the Navy and the Chief of Naval Operations and myself all agree that the twelve big deck ARGs coupled with the twelve big deck carriers is the forward deployed forces for our Nation.

As an example, right now we have two big deck amphibious ready groups (ARGs), one of them right off the coast of Greece and one of them in the Persian Gulf. They are critical. There is absolutely nothing that can compare for a Marine like that big deck ship. Ninety-plus percent of our aviation is on it. It carries 70 percent of all the rolling stock, about 60 percent you can put of our personnel in the Marine Expeditionary Unit, unbelievable capability.

They are in the midst right now of a study on whether or not to use the LHA or to go with the LHD. That study is due out very shortly. We have had a discussion on this. It is our belief that the study is going to say it makes sense to go with the LHD sooner than later.

Senator COCHRAN. One question, then, is about the cost. Comparing the cost, of course, there is an initial outlay for a new ship that would be greater than the life extension program of an older ship. But what do you get for that cost? Can you compare those numbers for us?

General KRULAK. You, obviously, get a ship that will last for at least 40 years and that will meet the requirements of the 21st century system such as the V–22, the advanced amphibious assault vehicle (AAAV), and other systems that we are going to see as we move into the 21st century that we do not have right now.

Senator COCHRAN. What about operating efficiency? I hear that there are fewer hands that will be needed. Maybe Admiral Johnson——

Admiral JOHNSON. All of that. And in fact, as this evolves, this is a Navy-wide statement but you can target it to an LHD–8. You can target it to DD–21.

There is great work being done on the surface combatant force to drive down the operating costs across the board in manpower, in technology insertions. All of that would be focused like a laser beam on the upgraded LHD that you would call LHD–8. So that would be fundamental to anything we do with it or DD–21 or anything else.

Senator COCHRAN. Do you agree with General Krulak on his assessment of the need and the importance of building the new ship?

Admiral JOHNSON. I do, sir. And, as the three of us have talked, what we see and you know as our budget sits today we have got an LHD fully funded in the out-years.

But what is happening right now is we are sort of coming to a merge with this study. It is all coming together right now. There will be granularity on this here within a matter of months at most and likely weeks that I think will follow what we intuitively feel to be the right answer and that is that we need another LHD.

Senator COCHRAN. Right now it is programmed—you mentioned the out-years—I think fiscal year 2004 or 2005?

Admiral JOHNSON. Yes, sir. It has got an advanced procurement in 2004 and a full buy in 2005 is the way it sits in the budget right now.

Senator COCHRAN. Well, is there not efficiency, too, in the shipbuilding assets that we have in terms of having the LHD constructed sooner rather than later in terms of losing people who are equipped and trained and ready to build the ship?

Admiral JOHNSON. Yes, sir. Mr. Secretary.

Senator COCHRAN. Secretary Danzig.

Secretary DANZIG. The short answer is yes.

Senator COCHRAN. Is there a longer answer that could be persuasive? [Laughter.]

General KRULAK. It sounds great to me. [Laughter.]

Secretary DANZIG. Certainly. As the CNO has emphasized, I think we will be in a position to provide you the richest detail with respect to the cost and benefits of the LHD versus the LHA SLEP when we have the study in hand.

But the continuity in increasing the employment of welders, for example, and maintenance of a level work force is attractive in terms of accelerating some ship procurement into 2000. We have succeeded in getting ship procurement for 2001 and out to eight ships a year, and in the last year of our program to nine.

I think that is a very substantial achievement, but I do recognize that we only have six ships in 2000 and a leveling certainly has advantages, a leveling of those procurement numbers to a higher number in 2000.

DD–21 PROGRAM

Senator COCHRAN. The DD–21 program is also an important part of the plan for the Navy shipbuilding program, is it not?

Secretary DANZIG. Definitely.

Senator COCHRAN. Could you tell us, and maybe you already have in response to other questions, about what your proposals in this budget are for the DD–21 program?

Secretary DANZIG. Certainly. I will say a little bit and maybe the CNO would like to add.

We have not really had a chance to talk about it. This is very much our ship of the 21st century. It has land attack capabilities through its guns and missiles that give us the ability to do what we care most about, which is project power from sea to shore.

It has got enormous attraction in terms of its manning levels. We have a 95-person crew anticipated for the DD–21. That generates for us very great savings as compared to crews of 300 and more associated with our DDG–51s and our cruisers.

My sense is that over the life cycle of the 32 DD–21's that we would build, we could save as much as $25 billion because of the reduction in crew and the greater efficiencies in the life cycle maintenance and the like, really two-thirds of the life cycle costs of that ship.

We envision the first procurement of DD–21 in 2004 and we are investing now in study money, and we have two teams competing to make presentations to us with regard to the development of that ship.

I do not know, CNO, if you want add anything to that.

Admiral JOHNSON. Only to say, Senator Cochran, that DD–21 is the first member of the Surface Combatant 21 family. We are very excited about it, and the strength of it is, to me, is that it epitomizes the Navy-Marine Corps team because the requirements for the weaponry that that platform will carry were built with the Navy and the Marine Corps working the numbers together.

So that we can, indeed, shoot an extended range guided munition out of a five-inch 62 gun at 63 miles with precision accuracy, that we can shoot a vertical gun 100 miles with that same kind of accuracy, that we can shoot a missile, a vertical launch missile with precision to 150 miles, and we can fire tactical Tomahawks and we can support the marines ashore exactly the way they need to be supported. So it is a powerful combat asset with great technology applications.

And as the Secretary said, we are on stride right now. We have got $270 million in research and development (R&D) investment in 2000 to nurture the teams to help them build toward this down select in 2001. So we feel very good about the program.

Secretary DANZIG. If I could just add. We have a general emphasis that is important to note regarding ship R&D. It is a consistently underfunded area historically. And the program in front of you shows very dramatic plus ups in that regard not only with respect to the DD–21, but also, I would note, with regard to the carrier.

Our carrier investment in research and development has frequently been as low as $5 million a year. It is an astonishingly low number compared to the billions we put in aircraft R&D.

The program in front of you, has as a result of our joint efforts, $1.5 billion in carrier R&D to transform the carrier to a weapon system of the 21st century as well.

So DD–21 fits into a general picture that we are trying to emphasize to you. And I am sure we will have an opportunity to talk about that further.

Senator STEVENS. Thank you very much.

Gentlemen and ladies, let me tell you. I know that these gentlemen are hosting a luncheon for the distinguished chairman of the Armed Services Committee at noon.

Senator Domenici will have his ten minutes and then I have some questions. The clock was screwed up. I only got five minutes to start with. So I am going back in the second round.

PAY RAISE AND RETENTION

You go ahead, Senator Domenici.

Senator DOMENICI. Thank you very much.

Mr. Chairman, you will remember last year in lieu of putting something in the statute regarding getting an outside evaluation of why were our military men and women unhappy and why were they not, and you and I wrote a joint letter to the General Accounting Office (GAO). They are going to give us their final report the first week of April. You have been asking how does that pay raise bill affect our ability to keep people in.

You are aware, are you not, that the GAO has undertaken a very broad based evaluation talking to men and women in the military, getting their conclusions about why they have concerns and the like. Did any one of you participate in any way in that GAO study that you are aware of?

Admiral JOHNSON. Not personally, no, sir.

Secretary DANZIG. No. I can say for myself that we have all been doing a very parallel thing in terms of talking with members of the services. But I think our feeling is GAO obviously should do their work with some independence and we have not been intimately involved with it.

Senator DOMENICI. I understand that. But I am sure there has been some concern whether we have hit the right things in terms of retention and ability to get more people to sign up in that bill we passed.

Surely the pay provision needs to be seriously considered, but I am very concerned that the price tag for that bill may, indeed, be such that many things that you really need you cannot get in the areas of shortcomings that everybody has been talking about.

I would hope that before we are finished we have the benefit of the in-depth studies that you have done with reference to retention and what you think is causing the problem.

It is not the first year and I guess you know that, Mr. Secretary, that is of concern under S. 4. It is the third, fourth, fifth and sixth years where the money gets very, very big. We can afford the first year from what we can see in numbers.

Another thing has concerned me, and this is the only question I have today: Why are the Marines so successful in both retention and recruiting when it would appear that what we expect of them is more rather than less of the kinds of things that the other military services are saying cause men and women not to want to stay in?

They are overseas longer. Everything that seems so difficult, they do more of and yet they have better retention and better recruiting. Why is that?

Secretary DANZIG. Go ahead. You can go first.

General KRULAK. I think there are several reasons. One, we early on decided we were going to put our very best against this problem. No one goes to recruiting as an officer that his jacket is not personally approved by me. I approve every single officer who goes onto recruiting duty.

In order for my staff NCO's to go they must be screened at my headquarters level, and then the commanding officer of that individual must also give a thumbs up. They are the best in the Corps. We literally take our very finest and send them either to recruiting duty or to be drill instructors.

Third, they are rewarded. If they successfully complete their recruiting tour, that is a very big plus. It is almost a guarantee for their next promotion.

Four, they are selling a hell of a product and that is being a United States Marine.

Senator DOMENICI. I thought that would be No. 1. [Laughter.]

Secretary DANZIG. This was building to a climax. [Laughter.]

Let me just note that I just have immense admiration for the management judgments made by the Marines with regard to their recruiting issues. Some of it is just resources.

The Marines consistently have overridden the number of billets. That is, they have assigned 105 percent of the individuals they think they need to recruiting. For a variety of reasons not attributable to Admiral Johnson's leadership in any way but prior decisions that were made, the Navy was underfunded in that area.

I would also underscore that there are differences in the requirements. The requirement for a nuclear officer, for example, in the Navy is obviously demanding in a way that is different from the Marine requirements.

Marines, in terms of retention, have a very different approach to force manning and an appropriate one for the Marine Corps, but it would not be appropriate for the Navy. The Marines retain a much smaller percentage of their first term enlistees than the Navy seeks to or than the Navy does.

So I think there is a fair amount to be learned from the terrific example of the Marine Corps here, but these are not exactly symmetrical cases.

Senator DOMENICI. Thank you very much, Mr. Chairman.

RESCISSIONS

Senator STEVENS. Yes, sir. Thank you.

Mr. Secretary, this budget that was presented to us by the President assumes reductions or changes that are very difficult for us to comprehend. The first is $1.65 billion in unspecified rescissions. Congress has only rescinded an average of $250 million annually for the last four years. No Congress has ever rescinded $1.65 billion.

Second, this budget proposes to incrementally fund military construction for the first year with a credit of $3.1 billion for deferring it, the balance. It is our studied judgment that deferring military

construction increases costs in the second and third years. It does not decrease it.

Third, there is a $2.9 billion credit for real estate investment tax revenues and there is a $6.6 billion credit for military retirement trust fund payments.

Now I assume that you are aware of these and you know—let me ask you this. Has anyone identified anywhere any accounts within your jurisdiction where the $1.65 billion could be rescinded?

Secretary DANZIG. I have not seen the specific rescission numbers that underlie that. So I will have to take a look and answer that particular one for the record.

Senator STEVENS. I will be glad to have it on the record. I do not want to go into a long discussion because Senator Inouye has a couple of questions.

[The information follows:]

It is my understanding that the $1.6 billion unspecified reduction contained in the fiscal year 2000 President's Budget request is to be applied Defense wide. The specific Navy programs that would be reduced have not been identified.

Senator STEVENS. I have got to tell you. I have seen smoke and mirrors in my life. But these do not have either one. It is a broken mirror. We cannot find that money. And yet these gentlemen think they are going to spend it. They are going to spend the savings that are transferred to their accounts. It is just not there.

Now, this really worries me because I know my friend is going to put up the wall between defense and nondefense again in the next year if it falls down right now. But those credits are to this part, to the defense part. And the savings are supposed to be there within the Defense Department in order to make available the money that we are telling the armed services is there for the year 2000.

I am going to submit to you some questions for the record on that. But I just want to tell you I believe that someone—and I am not blaming you all—I believe that someone over at the Office of Management and Budget (OMB) has got some new gimmick wheel, and you turn it, and you decide who gets the reduction. There are no winners in any one of those for the Department of Defense.

Now, second——

Secretary DANZIG. Mr. Chairman, could I——

RETENTION

Senator STEVENS. I want you to ask it for the record, my friend. I want you to get to your lunch, and these guys have some questions to ask, and I only had five minutes to start with. So I am going to just ask them to you to make sure that everybody knows I have asked them.

I am told that the U.S.S. *Harry S. Truman* is deployed undermanned and is experiencing great strain. The operational tempo (OPTEMPO) and the personnel tempo (PERSTEMPO) rates are hurting retention. I want to know, Admiral, is that true?

Admiral JOHNSON. U.S.S. *Harry S. Truman* is not yet deployed, sir. But the point is well taken because the U.S.S. *Enterprise* is deployed and she is down 400 and some. So, yes, in the short term that is true and we are working that issue hard. It is partly a

shortage of people. It is partly a distribution problem. But the facts as you present them are correct.

Senator STEVENS. Well, I first heard the phrase a hollow military in connection with vessels of the United States Navy. They could not get away from the dock at Norfolk because they are undermanned and undersupplied. That happened during the Carter administration. It led to us having a total revolution in the way we handled spending for defense.

Now, how did those lights come on so quick? [Laughter.]

I am in charge of everything but those lights.

Secretary DANZIG. Can you solve our problems as rapidly?

Senator STEVENS. That's ringing, that is tolling the bell on us that this is a hollow Navy. If it is a hollow Navy, it is going to be a hollow Marine force and a hollow Air Force and Army if that is happening. We are getting more and more reports about shortage of supplies and shortage of material and shortage of people.

Now, I have some questions on that for the record, too. But that is worrisome to us when you mix it with that prior question I just asked you of where do we find the money that OMB says we have to spend to increase defense spending this year. I am talking about the year 2000.

V–22

Second, now, my friend you are leaving. But I remember your successor and I and Senator Inouye battled one thing against the Republican administration, Republican Secretary of Defense and we won the V–22. The buck stopped right here three times and we insisted on the V–22.

Now I am told that the V–22 has some problems during sea trials. Can you tell us, have those been solved?

General KRULAK. Yes, sir. The V–22 is doing great. We are over a thousand hours on those engineering and manufacturing development (EMD) aircraft. It has completed the sea trials. It had a software issue that was a minimal problem.

This aircraft is doing magnificently. We are standing up the training squadron in less than three months. We will be initial operationally capable in the year 2001.

Senator STEVENS. Has there been a second incident with regard to the wind rock oscillation problem on the carriers? Was that totally isolated.

General KRULAK. Yes, sir. That is totally isolated. We are going back. Jay and I are going to put that thing back on. I mean, we are talking about a success story, not something that we need to be concerned about.

Senator STEVENS. That is good news for me.

Admiral JOHNSON. That was one of the testing cautions, Senator Stevens—Mr. Chairman. You know, we are very cautious when we take these birds to sea for the first time. They elected to bring it back. We have got some computer adjustments to make. We are very confident, as Chuck said. I have flown that airplane, too. It is a great machine. We need it.

Senator STEVENS. Last night at the United Services Organization (USO) dinner there was a naval officer that came up to me—I think he is a retired admiral—but he talked about the V–22 and

said that he thought the fight we put on in 1991 and 1992 will make the difference in the next war as far as the Marines are concerned. That was our belief then and it is still my belief.

Senator Inouye has five minutes of questions. I am sorry, gentlemen.

Senator INOUYE. If I may just follow up on the V–22, the fellows in Kaneohe want to know when are they going to get theirs.

Senator STEVENS. I had one other question. Can I just take it back one second.

OKINAWA

I am hearing rumors that you might stand down some of the troops on Okinawa. If that is the case, before you leave I would like to have you come up and visit Kodiak. There used to be an enormous Marine base in Kodiak.

General KRULAK. My wife still does not forgive you for that little gift you gave me when I was up there last year. Do you remember what that was? It was a fossil.

Senator STEVENS. We do not want to go into that. [Laughter.]

I will tell you about the time I gave one to Barry Goldwater and you will understand it even more.

General KRULAK. I got it, sir.

Senator STEVENS. You still own the property on Kodiak?

General KRULAK. Yes, sir.

Senator STEVENS. The Marines still own that property on Kodiak?

General KRULAK. Aye, aye, sir.

Senator INOUYE. Mr. Secretary, I have a question that Senator Byrd has asked me to submit to you. It refers to fiscal year 1998 and 1999 when we appropriated $3 million for the Direct Support Squadron Readiness Training Program and somehow the funds have not been released for these two fiscal years. And, if I may, I would like to submit the statement and questions referring to this.

Secretary DANZIG. Good. I would be happy to respond to that on the record, but I will just note here that this is a particular appropriation I have focused on. It is with the Reserve Command. And I would like to see that money flow. I think we can address the Senator's concerns.

Senator INOUYE. If I may, I would like to ask General Krulak, now that we have had new elections in Okinawa, what is the present status of your forces there?

General KRULAK. There has been a great change in the relationship between the government on Okinawa, the government in Japan and all U.S. forces on Okinawa. The change has been for the good and not for the bad.

I am on my way out there myself to pay a call within the next two weeks. I get nothing, but very positive reports back from Lieutenant General Libutti and General Fulford regarding how we are doing. At the same time, we continue to seek opportunities to train off island.

As you know, we are now doing our artillery firing totally off island. We are up in mainland Japan. We have a great reception there. That has proven to be very positive.

We are also training in Thailand, Australia, Indonesia. We are looking to possibly move back in small numbers into the Philippines and obviously into Korea. So we are doing all in our power to lessen the day-to-day footprint of Marines on board Okinawa.

Senator INOUYE. What is the latest on the replacement of Futenma Air Base?

General KRULAK. That is a great question, sir. We have gotten a break through it because of the new election down there. There is one township right outside of White Beach just a short while ago stood up and said we would accept a look see for that. Also, further north the willingness to look at the movement of Futenma.

So we now have two sites that we are looking at. The U.S. Government and the Department of Defense is working very hard with the government of Japan and the government of Okinawa to come to as quick a settlement as possible on where we want to go and what it is going to look like.

Senator INOUYE. General, I am planning to visit Okinawa and before I do, if I do at all, I would like to sit with you to discuss the situation there.

General KRULAK. Absolutely. I will be back from Okinawa in about two weeks.

Secretary DANZIG. I would be grateful as well, Senator, if that discussion could include our substantial efforts to improve the situation with respect to the incinerator on Atsugi as well. Maybe you can put that on your list because we really care about that.

WAR FIGHTING LAB

Senator INOUYE. Sure. Finally, if I may, General, one of the first things you recommended as commandant was a war fighting lab.

General KRULAK. Yes, sir.

Senator INOUYE. And I think it has the greatest potential, not only for the Marines, but for when I was in the infantry in the Army. What is the latest you have on that?

General KRULAK. Sir, we are now, thanks to this committee, three and a half years into a multiple series of experiments. The one that we are doing right now and has been ongoing for two years is called Urban Warrior. It is trying to come to grips with the asymmetric threat in the battle in the urban environment.

It will culminate an advanced war fighting experiment within the next week out in the Alameda area. One of the other spin-offs coming out of the experimentation we have done is the chemical biological incident response force. Again, if it were not for this committee, we would not have that. The Nation would not have it. It does now. It is teaching first responders all over the country. Plus it has been utilized around the Nation for our own—when I say our own, America's needs.

We have looked at overhead systems, the unmanned aerial vehicles (UAV's), payloads on those, nonlethal weapons. Both the Army and the Marine Corps now have nonlethal weapon capability sets forward deployed. Again, none of that would have existed if it were not for this committee's support of the war fighting laboratory.

So it has been a tremendous capability and, as you indicated, sir, not just for the Marine Corps, but for the good of the country. And we are in deep partnership right now with all the services on joint

experimentation. Admiral Johnson and his fleet will be with us for Urban Warrior this coming week.

DD–21

Senator INOUYE. I, for one, would like to join the chairman in thanking all of you. It has been most helpful. This is the best description I have had of the F–18 ever before this committee. I think everyone who heard you could have understood what you talked about.

I have just one final question. You said that the DD–21 has just 60 personnel?

Secretary DANZIG. I am sorry. Ninety-five is the plan.

Senator INOUYE. DDG–51 has 300?

Secretary DANZIG. Yes.

Senator INOUYE. I thought I heard wrong.

Senator COCHRAN. Mr. Chairman, can I just make one comment and submit a question.

Senator STEVENS. Gentlemen, I promised they would get out of here by noon. So go ahead.

NATIONAL MISSILE DEFENSE

Senator COCHRAN. He can walk that fast. I am going to the same lunch. Mr. Chairman, thank you.

On national missile defense there is a report in the newspaper today from one of the think tanks here that the Navy program would be the best program to fund and deploy for a national missile defense system.

Admiral Rempt testified that a sea-based capability would be a complement to a land-based national missile defense program.

What is the Navy's response to these discussions about whether we should pursue both, fully fund both, or pick and choose now between the two? What is your assessment of the situation?

Secretary DANZIG. I am glad you have come back to that, Senator, because I saw, Mr. Chairman, when I answered this earlier that you were not entirely satisfied with my answer.

Senator STEVENS. Let me interrupt and tell you. Our briefings indicated we have the technology. It is the integration of the systems we have as the problem, not technology.

Secretary DANZIG. Well, the integration of the systems is, I think you are quite correct, fundamental to the creation of the land-based national missile defense system. From my standpoint, we do not have the proven technologies yet with respect to interceptor capability in the Navy system. For upper tier, we are going to be testing over these next couple of years very intensively. I am optimistic about it.

But the earliest, I would point out, that we can deploy the Navy theater system is something in the range of 2005 or 2006, and I think there is a strong argument that the earliest we would actually be able to deploy would be 2007.

So it trails the land-based systems in terms of its capability. And I want to get to area defense first and then theater defense and then address the issue of national defense after that.

I would add that there is a real question about speed of intercept here. The Navy systems are premised around the intercept speeds,

significantly lower than those that you need for a national missile defense system because an intercontinental ballistic missile is a faster system, at about 5.5 kilometers per second.

The naval threats that we are anticipating are slower than that. That makes the Navy systems defense appropriate for area and theater defense. There are still, in my view, Mr. Chairman, technological steps before you can translate to national defense.

Does the Navy system have potential in the longer term as a national system? Yes. Would it be a good complement to a land-based system? Very possibly. Is it conceivably a substitute for a land system if the land system does not develop well? Yes, I think that is conceivable.

But in my view, the first tasks should be addressed first, and those are the demonstration of our area and theater capabilities and their deployment, and we ought to come to national after that.

Senator STEVENS. I am constrained to comment on that, though, because I have got to tell you I think part of the Pentagon ought to move to Anchorage or Honolulu and talk to the people on the street. They know what has been going on on the other side of that ocean. And they know that they are the targets. They have the reserve forces for the defense in the Pacific.

Under those circumstances to say that we would have area, then theater and then national missile defense means that we are going to have national missile defense sometime around 2010.

That is entirely unacceptable—entirely unacceptable—the thought that we would postpone national missile defense until we have perfected the defense for a movable target and leave the fixed targets on base. The reserve forces of the United States in the Pacific at risk for that period of time is totally unacceptable to me.

Secretary DANZIG. Mr. Chairman, can I take a moment more? I know I am at some risk that the mallet, the gavel will come in my direction.

Senator STEVENS. I have got to break, I promise, here in a minute. Go ahead.

Secretary DANZIG. I will take, from our end, the responsibility on the promise.

I am not urging that we ought to suspend national missile defense issues now or anything like that. I am merely noting that in terms—you may well choose to have a land-based system sooner and you are quite right. The problems in the land-based system are of integration of existing technologies.

But with respect to the naval system, what I am urging is that before we get to running with missile intercepts at 5.5 kilometers a second, we ought to develop our abilities at walking—it is pretty fast for walking—at 4.5 kilometers a second.

So, on the Navy side I do believe we need an unfolding of the technology. If you want to invest faster in national missile defense, which is obviously your right to conclude, I think you are going to be driven in the near term towards the land-based system. It just comes faster. We can discuss this at greater length, obviously, separately.

Senator STEVENS. We can do that. Senator Inouye said we ought to all come over and have a seminar about this. I have been traveling around the country having them with people who are inves-

tigating the systems. And I have come to the conclusion that they are right, that we can integrate—if we can integrate the systems, we have a national missile defense system now.

Senator DOMENICI. Mr. Chairman, I just want to compliment you on this last series of questions and make an observation with you and the committee. You know, we are devoting an awful lot of our time and energy trying to analyze the threat of the Soviet Union, with its great arsenal of nuclear weapons, still has on the world and on us. I do not hear anybody talking about China.

You know, China is past the stage now where they have one rocket and one nuclear bomb. Everybody understands. You see the last parade they held, you just look at the weapons.

Since this committee is always on the cutting edge, would you consider having a meeting and asking the Defense Department in a private session with this committee to tell us about the Chinese threat of nuclear weapons?

Let me say to you, also, with reference to the Budget Committee, we agree with you. We have been absolutely unable to find this $1.6 billion. We actually think it is a number that was arrived at as a filler: add up all the things that they were going to take savings for, put the budget together and they are $1.6 billion short. And so they just plus in a rescission number. We cannot find anything else other than that.

We are going to get rid of most of the offsets that are phony like that and still be able to give you a number that is very close to what you spoke of at the last committee meeting in terms of how much, $8.3 billion above the President's. We are looking towards that goal and I just want you to know that in advance.

Senator STEVENS. Good. Senator Inouye and I would like to have that checkbook and know that the money is in the bank, not the check is in the mail business. We want the money in the bank.

ADDITIONAL COMMITTEE QUESTIONS

Thank you very much. Additional questions have been requested by members here, and they will submit them through the staff for the record, please.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO SECRETARY RICHARD DANZIG

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

Question. Mr. Secretary, what is the DoN position on alternate funding methods such as long term leasing, extended multi-year procurement, or incremental funding to meet ship force structure requirements?

Answer. The Navy continues to explore alternate funding methods, where appropriate and permissible, to maintain an affordable and appropriate level of ship construction. The Long-term lease authority provided by Title 10 U.S.C. 2401 is one alternative funding method we are reviewing, especially for ships that provide commercial services to the fleet.

Regarding multi-year contracting, the Navy continues to support multi-year authority for ship programs that meet the requirements for multi-year statutory authority and involve savings to the government. The fiscal year 1998–2001 DDG 51 multi-year contract, as an example, achieved savings in excess of $1 billion for the Navy, effectively enabling procurement of 12 ships for the price of 11.

With regard to the DoN position on incremental funding, it is contrary to Department of Defense budget policy to use incremental funding to meet ship force structure requirements. Navy policy requires that funds be available at contract award to cover the total estimated cost to deliver the contract quantity of complete, militarily useable items.

Question. Mr. Secretary, the DD 21 acquisition strategy permits the competing industry teams the flexibility to meet mission requirements as they see fit. Recently, the Navy seems to be promoting integrated electric drive as the propulsion system of choice for all future ships. Does the DoN intend to permit the teams full flexibility in selecting propulsion systems and other major design features, or do you plan to direct they use certain government selected systems?

Answer. The DoN will continue to allow DD 21 industry teams full flexibility in selecting propulsion systems and other major design features. I have a personal interest, and the Navy has an interest in advanced technologies, such as integrated electric drive. This is part of a long-term strategy for improved warfighting capability and reduced total ownership cost. Support for exploring these possibilities does not mean that the Navy is directing their use for any specific platform.

Question. Another aspect of the DD 21 acquisition strategy is the requirement for full service contract support. What is DoN's definition of full service contract support?

Answer. Full service contract (FSC) support is envisioned to encompass essential "care and feeding" of the platform throughout its commissioned service life. For DD 21, FSC support is the industry-based portion of the life cycle engineering and support program required to ensure operational readiness of the ship. Each of the DD 21 industry teams are defining their respective FSC support concepts in a competitive environment, addressing the following functional areas: Operational Context; Engineering and Design; Production and Construction; Operator/Equipment Training; Tactical Training; Test and Evaluation; Certification; Modernization and Upgrade; Maintenance and Logistics; and Disposal.

Beyond DD 21, the definition of FSC support is expected to vary by ship class due to differences in design features, as well as business case alternatives pursued by the industrial agent and vendor base.

Question. I understand the LHAs are reaching their stability design limits. Can you describe those limitations?

Answer. Under normal conditions, LHAs do not have a stability problem. The issue is one of damage stability, the ship's ability to absorb damage and recover. The Navy standard is the capability to withstand three adjacent compartments of flooding damage. The LHA class, designed in the 1960s and built in the 1970s, is now only capable of sustaining two major compartments of flooding. The primary reasons for this situation are that topside weight growth has exceeded the design margins built into the ship class and that dirty ballasting (filling fuel tanks with seawater as the fuel is consumed) is no longer practical in the fleet due to environmental and operational/fuel quality considerations. In order to mitigate the damage stability risk, the fleet has been advised of this situation, provided flooding control software to quickly assist the crew in combating flooding and given updated loading instructions. Additionally, topside weight removal of obsolete equipment is scheduled during each maintenance availability, and weight growth is closely monitored. The Navy is currently studying other options such as a fuel compensating ballast system to correct this problem.

Question. What effect will the embarkation of the new MV–22 "Osprey" Tiltrotor and other aircraft aboard the LHA have on these limits?

Answer. As discussed above, weight growth on LHAs has been a major factor in the ships reaching/exceeding their damage stability limits. The Navy is considering various alternatives to accommodate fleet introduction of MV–22s, including LHA replacement options and shipboard structural modifications.

Question. I understand the Navy has studied building an LHD with a gas turbine propulsion plant. What are the advantages of such a design over the current steam plant, and what savings would you expect to accrue in terms of manning and life cycle costs for a gas turbine powered LHD?

Answer. A major benefit of gas turbine over steam propulsion is manpower and workload reduction. Current private sector estimates are that a significant number of personnel and life cycle costs can be saved with a gas turbine LHD. The Navy is currently reviewing those estimates.

QUESTIONS SUBMITTED BY SENATOR MITCH MCCONNELL

NAVAL GUN WORK PERFORMED IN LOUISVILLE, KENTUCKY

Question. As a result of the 1995 BRAC, the industrial departments at the former Naval Ordnance Station in Louisville were privatized and the work that had been performed there was turned over to private contractors. One of the programs continued at the facility was the repair and overhaul of MK45 guns.

This Committee supported the inclusion of $13 million in Weapons Procurement funding and $10 million in O&M for the MK45 program in fiscal year 1999. Has the Navy obligated and released these funds as directed by Congress?

If not, why not?

Answer. O&M: $5 million was released in January 1999, and placed on the Privatization Contract with United Defense Limited Partnership (UDLP), Louisville. The remaining $5 million will be released April 1, 1999 and placed on the UDLP Privatization Contract by April 30, 1999. WPN: The $13 million was released in April. $9.7 million has been obligated on contract with UDLP with the remaining $3.3 million in commitment, to be obligated by June 30 1999.

Question. How much does the Navy plan to spend on MK45 repair and overhaul in fiscal year 1999? If less than the appropriated amount, what is the justification for not spending the entire amount that Congress directed for MK45 repair and overhaul program?

Answer. $9.88 million of the O&M funds will be spent on MK45 repair/overhaul and $2.32 million of the O&M funds will be spent on Mk45/75 component overhaul/repair. $13 million of the WPN funds will be spent on MK45 Gun upgrade and conversion.

OPERATIONAL AVAILABILITY OF MK45 GUNS

Question. What percentage of MK45 guns in the fleet does the Navy categorize as 100 percent operationally available? How does this percentage compare to the previous 10 year's figures?

Answer. All deployed Fleet MK45 Guns are 100 percent operational. The overall Operational Availability of all MK45 guns for all Fleet units for fiscal year 1998 is less than the operational requirement of .85 and has been on average declining over the past ten years. The calculation of operational availability is dependent upon three factors: Mean Time Between Failure, Mean Logistics Delay Time and Mean Time to Repair.

Question. How does the MK45 operational availability status compare to that of other weapons systems in the fleet?

Answer. The MK45 operational availability is comparable to other weapons systems similar in age and complexity.

Question. What are the Navy's plans to repair those MK45 guns, which are not fully operational? Can you provide a schedule and budget proposal for the repair work which the Navy intends to pursue?

Answer. The Navy will repair the MK45 Guns on a priority basis as funding and deployment training schedules permit. The current Gun Weapon System Overhaul Program budget for fiscal year 2001 through fiscal year 2005 is approximately $10 million per year. This funding level will support in-place pierside MK45 overhaul program and other gun weapon system maintenance programs.

CRUISER CONVERSION PROGRAM

Question. What are the Navy's plans for the MK45 advance work for the Cruiser Conversion program? Is any thought being given to accelerating this schedule?

Answer. The Cruiser Modernization Program will upgrade two MK45 gun mounts per Cruiser. Equipment procurement starts in fiscal year 2002 with installations starting in fiscal year 2004. While there are no current plans to accelerate this schedule, the Navy initiated a rotatable pool of MK45 Gun Mounts at United Defense Limited Partnership (UDLP) Louisville using fiscal year 1998 WPN Congressional plus-up funds to mitigate schedule risks associated with gun deliveries. This will also benefit the Navy by providing a level load of work at the UDLP contractor site. Three gun mount assets were inducted into the rotatable pool in fiscal year 1998 and are being prepared for subsequent overhaul and upgrade to the MOD 4 configuration and installation at a land-based test site, a training site and on a CG 47 Class Cruiser. Fiscal year 1999 WPN Congressional plus-up funding will be awarded to UDLP Louisville to continue this effort with the induction of three additional gun mounts into the rotatable pool for subsequent overhaul and upgrade to MOD 4 configuration and installation on CG 47 Class Cruisers.

Question. Can you provide a schedule and budget projection for Cruiser Conversion, including gun upgrade work?

Answer. Procurement of equipment for the Cruiser Modernization Program begins in fiscal year 2002 with installation commencing two years later in fiscal year 2004. The funding stream for MK45 Gun upgrade work in the Cruiser Modernization procurement budget is shown below. MK45 Gun upgrade work in fiscal year 1998 and fiscal year 1999 was funded with Congressional WPN plus-up dollars to mitigate schedule risks.

[Dollars in millions]

				Fiscal year—				
				2001	2002	2003	2004	2005
Number of Ships					1	3	4	4
Procurement Quantity (Gun Upgrades)					2	6	8	8
Install Quantity (Upgraded Guns)							2	6
CG Modernization Procure and Install					$81.2	$231.6	$318.5	$388.9
MK45 Gun Upgrade	$5.0	$13.0			$15.6	$50.0	$67.0	$70.6

LAND CONVEYANCE AT FORMER NAVAL ORDNANCE STATION, LOUISVILLE

Question. Finally, what is the Navy's schedule and plan for completing negotiations and settlement for the property conveyance of the former Naval Ordnance Station, Louisville?

Answer. The Louisville/Jefferson County Redevelopment Authority (LJCRA) has indicated plans to acquire the property through an Economic Development Conveyance (EDC) to support the reuse plan. The LJCRA's ultimate redevelopment plan includes: privatization in place; precision manufacturing, high technology and other industry; Navy Engineering Detachment; a plating operation; Advanced Technology Center of Excellence; Neighborhood Place Clinic and Social Services Center; Redevelopment Authority facilities for park support; and Little League ballfields.

The EDC was submitted on 24 July 1998. EDC negotiations are targeted to begin in August 1999 and approval of the EDC is targeted for December 1999 with the property transfer commencing December 1999 and concluding October 2002.

The Draft Statement of Work (SOW) to secure the appraisal was reviewed by the LJCRA. Comments received 18 March 1999 will be incorporated and the SOW will be awarded. The Appraisal should be completed by August 1999 in order to proceed with EDC negotiations.

The Recreation and Housing Area Finding of Suitability to Transfer is targeted for August 1999 with property transfer by December 1999. The Building 102 Area Finding of Suitability to Transfer is targeted for March 2000 with property transfer by July 2000 and the Industrial Area Finding of Suitability to Transfer is targeted for June 2002 with property transfer by October 2002.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

Question. Secretary Danzig, in light of the continual emergence of innovative technologies, (i.e. GRAD Consortium's GSCAD) by what procedures, criteria and measures does the Navy evaluate and approve the most advanced and effective tools available for shipbuilding design?

Answer. In keeping with the principles of Acquisition Reform, decisions concerning shipbuilding design tools are made by the respective industry teams responsible for design and development. Industry considerations include design tool capabilities, design tool availability relative to shipbuilding program schedule, and net cost to the shipbuilding program.

Question. Secretary Danzig, with the growing trend in acquisition toward outsourcing for services, (i.e, shipbuilding design) how does the Navy ensure that: objective competition is maintained, quantifiable cost savings are confirmed, and increased effectiveness is verified?

Answer. The Department is committed to achieving the lowest life cycle costs for our platforms. By providing industry performance specifications and allowing the industry experts to select technologies to achieve the desired cost and performance, the Navy is confident that we will realize lower life cycle costs while maintaining a technological advantage. For example, in the case of DD 21, we have structured

the acquisition strategy to maximize the utilization of industry's talent. There are two shipbuilder teams (Ingalls and Bath Iron Works) which include integrator members (Lockheed and Raytheon) whose designs are competing for the platform.

Question. Secretary Danzig, what role do you envision the Navy playing in National Missile Defense? Is the ABM Treaty an obstacle to that role?

Answer. It is first important to note that the Navy has no assigned National Missile Defense (NMD) mission. Therefore, there are no current Navy NMD programs. We agree with the classified Ballistic Missile Defense Organization (BMDO) report to Congress entitled "Utility of Sea-Based Assets to National Missile Defense", prepared in response to the Conference Report accompanying the Defense Authorization Act for Fiscal Year 1998 (H.R. 1119). This report notes that the most practical and effective role for sea-based NMD systems would be to supplement land-based systems.

A sea-based complementary NMD architecture could provide more operational flexibility and robustness than architectures that relied solely on a single land-based interceptor site. The mobility and flexibility of our ships at sea could allow for earlier detection and kill opportunities and enhance the overall architecture with what the Navy calls "Defense in Depth".

Currently, the Anti-Ballistic Missile (ABM) Treaty explicitly prohibits sea-based Anti-Ballistic Missile systems, just as it prohibits space-based, airborne, and land-mobile ABM systems, or sites other than in defense of either the National Capital or ICBM field. Thus, the development, testing, or deployment of Naval NMD would raise significant Treaty issues.

Question. Secretary Danzig, can the Navy provide a clear and logical rationale as to why the Computer-Graphic Aided Three-Dimensional Interactive Application (CATIA), a French controlled and managed proprietary software, is used by the Navy to design the nuclear propulsion plants of U.S. Navy vessels, while in-country industrial capabilities are excluded from consideration?

Answer. The Navy has contracted with Electric Boat Corporation (EB) as the prime contractor for the design of the VIRGINIA Class submarine. The prime contractor has the responsibility to ensure it has the needed design tools for ship design and integration including design of the propulsion plant. The Navy does not dictate the tools used by contractors for ship design.

EB found it necessary to develop the next generation of Computer-Aided Design (CAD) software tools capable of capturing the complexity of ship design and construction interface. Pursuing this new technology was an internal business decision necessary for EB to minimize cost and risk for both itself and the government. Using standard industry processes, EB reviewed all prospective vendors and selected CATIA, marketed by IBM, as the best product to satisfy its requirement. CATIA has worldwide exposure and is used extensively on commercial and defense projects, both shipbuilding and aerospace.

QUESTIONS SUBMITTED BY SENATOR ROBERT C. BYRD

Question. Mr. Secretary, during the processing of the fiscal year 1998 Defense Appropriations Bill, the Congress provided $3 million for the Reserve Components for the Direct Support Squadron Readiness Training Program. The intent of this program is to create a computer-based training capability that will address the need for reserve personnel to meet certain readiness qualifications. The training is needed because the operational readiness of the reserve maintenance personnel was extremely low. I am told of growing concern within the Department of Defense of the ability of the Naval Air Reserve Force to perform its war-time mission due to lack of training programs.

The intent of the contractor, ManTech International, was to conduct this effort in Hinton, West Virginia. The funds, to my knowledge, were never utilized for the purposes for which they were appropriated, despite calling this matter to the attention of your predecessor and his staff. I am disappointed that these funds were never released.

During the processing of the fiscal year 1999 Defense Appropriations Bill, the Congress again provided $3 million to fund the Direct Squadron Support Readiness Training Program. On February 22, 1999 I followed up with a letter to Defense Secretary William S. Cohen, asking for a status report, including significant milestone events leading to the release and obligation of the funds.

Question. What can you tell about the status of these funds?

Answer. The appropriated funds have been released by NAVCOMPT and are in the process of contract award through GSA.

Question. When will the funds be obligated and the contract signed?

Answer. It is anticipated that this process will be complete and the contract awarded by mid to late May 1999.

Question. What suggestions can you make so that the delays that have been encountered in fiscal years 1998 and 1999 are not repeated? Will assigning another PE number to the program resolve the matter? Please elaborate for the record.

Answer. If Congressional adds are expected to continue to support Direct Squadron Support Readiness Training in the future, it is recommended that the requirement be included in the Defense Appropriations Bill language. Assigning a new PE number will not resolve this situation.

QUESTION SUBMITTED BY SENATOR RICHARD J. DURBIN

Question. The City of North Chicago, home to Great Lakes Naval Training Center, is interested in the transfer of the Navy's water and sewer infrastructure into the City's. What is the Navy's time line for privatizing services at the Great Lakes Naval Training Center? What criteria will be used to transfer the services? Is the Navy working with the City of North Chicago on the possible transfer of water and sewer functions?

Answer. The Navy issued Requests for Information (RFI's) in February 1999 to determine if there was market interest regarding the privatization of the water and sewer systems at Great Lakes Naval Training Center. An RFI was sent to the City of North Chicago and the City responded, indicating an interest in both systems. The Navy will proceed with the development of an environmental baseline survey and an engineering assessment designed to document existing conditions and to facilitate the development of a government estimate of fair market value. Once these actions are complete, the Navy will issue Requests for Proposal for each system. Upon receipt and analysis of proposals, the Navy will convey the utility systems, in accordance with 10 U.S.C. 2688, to the offeror whose proposal would result in the best long-term economic benefit to the Navy. These systems are scheduled to be privatized prior to September 30, 2003.

QUESTIONS SUBMITTED TO ADM. J.L. JOHNSON

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

Question. Admiral Johnson, last year the Committee provided an additional $134.9 million for Navy procurement. How far did these increased dollars go in meeting the needs of the Navy and in meeting your goals of modernization?

Answer. As always, the assistance of Congress was, and is, appreciated. The additional funding provided in fiscal year 1998 allowed the Navy to make crucial investments in long overdue modernization and recapitalization efforts. However, as I have testified, an average increase of $6 billion per year above fiscal year 1999 President's Budget across the future years defense program in total obligation authority is required to restore non-deployed readiness to acceptable levels and to recapitalize and modernize to meet future warfighting requirements.

Question. Admiral Johnson, which specific area or areas of the Navy procurement budget do you believe to have the greatest shortfall?

Answer. An average increase of $6 billion per year across the future years defense program in total obligation authority above fiscal year 1999 President's Budget levels is required to restore non-deployed readiness to acceptable levels and to recapitalize and modernize to meet future warfighting requirements. The President's fiscal year 2000 Budget request is a substantial down payment toward our needs but falls short of addressing them completely. In February 1999, I provided the Defense Committees a list of underfunded or unmet requirements that additional funds could be applied to if they became available. The Navy's underfunded requirements in fiscal year 2000 total about $2.3 billion, including approximately $1.1 billion in underfunded or unmet requirements in procurement accounts. A breakout by procurement account is provided below.

[In millions of dollars]

	Fiscal year 2000
APN	528.4
OPN	380.8
WPN	101.0
PANMC	112.0

QUESTION SUBMITTED BY SENATOR RICHARD C. SHELBY

Question. Admiral Johnson, the Navy has had women assigned to combat vessels since 1994. The Navy maintains that pregnancy is compatible with a naval career and does not harm readiness. The Navy reports that it is short some 18,000–20,000 sailors. Many of these vacancies are sea duty billets. The Center for Naval Analysis has recently reported that the unplanned loss rate for women at sea is 25 percent, or 2.5 times the unplanned loss rate for men. More than one-third of the 25 percent were lost due to pregnancy.

In light of these statistics and looking back at the last five years in an objective manner, do you believe that the presence of women at sea has enhanced the combat readiness of the U.S. Navy?

Is pregnancy compatible with a combat ready Navy? Does the Navy of Communist China have similar policies regarding the presence of women (pregnant and not pregnant) in its combat forces?

Answer. Women have been permanently assigned to Navy ships since 1978 and have been serving in surface combatants since 1994. There are now over 10,000 Navy women serving aboard ships (10,946 as of 01 Jan. 1999). The majority of these women serve aboard combatant vessels. The repeal of the combat exclusion law enables the Navy to fill billets with the best qualified Sailors available. In the current challenging recruiting environment, readiness would be severely diminished if those 10,000 plus women were not serving the Navy on combatants and other shipboard units.

Pregnancy and parenthood are compatible with naval service. Sailors, men and women, know that they can raise a family and also have a successful Navy career. The Navy has an information/training program to encourage servicemembers to plan pregnancy and parenthood to meet their military and family responsibilities. Women officers and senior enlisted women, E–5 and above have low unplanned loss rates for pregnancy (less than 4 percent). The Navy is making additional training resources available to ensure that the "responsible parenting" message reaches the junior enlisted Sailors (E–4 and below), who account for the majority of pregnancy and other unplanned losses.

Pregnancy accounted for 6 percent of Navy shipboard unplanned losses in 1997. Medical (40 percent), other than pregnancy, and disciplinary (39 percent) account for the vast majority of Navy unplanned losses. Navy policy requires pregnant servicewomen to transfer to shore duty no later than their 20th week of pregnancy. The pregnant servicewoman's sea duty counter stops at the point of transfer and she will transfer back to complete the remainder of her sea duty tour four months after delivery of her child (this is waived if there is less than 6 months of sea duty remaining). Pregnant sailors are more likely than any other category of unplanned losses to return to sea duty and the least likely to leave the Navy. Within one year, less than 30 percent of pregnancy unplanned losses leave the Navy vs. greater than 40 percent for other medical and greater than 90 percent of disciplinary unplanned losses.

The Peoples' Liberation Army (Naval Forces) (PLA(N)) of China has similar policies to DOD concerning women serving in its armed forces.

[Deleted.]

QUESTIONS SUBMITTED TO GEN. C.C. KRULAK

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

Question. General Krulak, last year the Committee provided an additional $128,358 million for Marine Corps procurement. How far did these increased dollars go in meeting the needs of the Marine Corps and in meeting your goals of modernization?

Answer. The Marine Corps received an increase of approximately $111 million in Congressional plus-ups for ground equipment in fiscal year 1999. This $111 million reflects the net increase after application of Section 8134 Title III General Reductions. We deeply appreciate your assistance in this most critical area. As a result of your increase, our ground equipment modernization funding for fiscal year 1999 is approximately $1 billion, slightly below our historical, or "steady state" level of $1.2 billion.

As you are aware, Marine Corps ground equipment modernization has been funded well below this historical, or "steady state" level of $1.2 billion for the last seven years. During this time, we have deferred nearly $4 billion of much-needed ground equipment modernization in order to fully fund our top priority, near-term readi-

ness. This extended period of underfunding has driven the recovery rate to $1.8 billion per year for ground modernization.

As this budget was being developed, we had reached a critical point in the life cycle of our ground equipment. We are facing virtual block obsolescence of crucial end items and we are spending more time and money maintaining our aging equipment. Ground modernization is quickly becoming a near-term readiness issue.

The topline increases provided in the fiscal year 2000 budget allow us to take the first critical steps toward properly funding ground equipment modernization. While the increases provided in the current budget allow us to achieve the "steady state" level in fiscal year 2000, we do not attain the recovery level until fiscal year 2005.

I am concerned about our ability to sustain the increases projected in the outyears of this budget. It is absolutely critical that the increases projected be sustained over the entire Future Years Defense Plan—not just in fiscal year 2000. The problems we face are the result of years of decreased funding. The solution to these problems cannot come overnight—it will take the sustained interest and concern of the Administration and the Congress to recover from the cumulative effects of years of constrained funding. I deeply appreciate your continued support.

Question. General Krulak, how do the priority items in this budget and on the Unfunded list support the Marine Corps' goal of providing a flexible military capability for the next century?

Answer. The Marine Corps has long recognized the need for a flexible military capability to meet tomorrow's threat. Our future opponents will attempt to mitigate our capabilities and fight us where we are least effective. The proliferation of high-tech weapons and weapons of mass destruction may make such asymmetric clashes as lethal as clashes between superpowers. Therein lies the great danger of our time. The United States and the world cannot afford to allow crises to escalate and threatens its vital interests. Cultural clashes can trigger even bigger wars as outside nations and groups with cultural affinities take sides. They can, in fact, threaten the global order as well as jeopardize the interdependent global economy. To meet these future challenges, the Marine Corps will not rely on outdated solutions but is developing new concepts and techniques which will ensure decisive victory in the "savage wars of peace." Future conflicts that may demand in one moment, Marines to provide humanitarian assistance; in the next, to conduct peacekeeping operations; and finally, to fight a highly lethal mid-intensity battle—all in the same day—and all within three contiguous city blocks. The Marine Corps, in partnership with the Navy, is critical to meeting those challenges. Together, we provide Naval Expeditionary Forces—integrated air, land, and sea combined arms teams. These unique forces are mobile and self-sufficient and can operate unfettered from sea bases in international waters. When needed, they can immediately operate ashore in austere areas throughout the globe.

Ultimately, a global superpower must possess the ability for unilateral action. A key requirement is the capability to project power ashore in the face of armed opposition. In the past, forcible entry from the sea was defined by amphibious assaults that focused on establishing lodgements on the beach and then building up combat power for subsequent operations. Under the Operational Maneuver from the Sea concept, currently being implemented, it is now defined as the uninterrupted movement of forces from ships located far over the horizon, directly to decisive objectives, whenever and wherever we desire.

Operational Maneuver from the Sea will provide Naval Expeditionary Forces with the ability to maneuver combat forces from the sea, to high value objectives deep inland without stopping at the water's edge. At the operational level, it will exploit enemy weakness and deliver a decisive blow. The concept combines high technology with maneuver warfare. What distinguishes Operational Maneuver from the Sea from all other types of operational maneuver is its extensive use of the sea as a means of gaining advantage. It serves as an avenue for friendly movement while acting as barrier to the enemy. The concept is designed to ensure that Naval Expeditionary Forces will project decisive power and influence in the 21st Century.

The priority items in this budget and on the unfunded list are needed to bring the OMFTS concept to fruition. Several key platforms, each at the cutting edge of technology, are critical to the flexibility inherent in OMFTS. They are the MV–22 Osprey, the Advanced Amphibious Assault Vehicle (AAAV), and the already operational Landing Craft Air Cushion (LCAC) vehicle. Once introduced to service, the STOVL variant of the Joint Strike Fighter (JSF) will provide fire support critical to the success of OMFTS. Continued development of these visionary enhancements will open new windows to power projection operations. They will enhance decisive responses by forward deployed forces in operations ranging from forward presence to conflict resolution. Additionally, OMFTS requires overcoming challenges in battlespace mobility, intelligence, command and control, and sustainment. These

challenges will be met through the introduction of such programs as the KC–130J aircraft, HMMWVA2, Medium Tactical Vehicle Replacement (MTVR), Reverse Osmosis Water Purification Unit (ROWPU), and M88A2 Hercules Improved Recovery Vehicle.

In addition to meeting tomorrow's threats, the Marine Corps must ensure that its forces are ready to respond to today's conflicts. Improvements to Base Telecommunications and Network Infrastructures, as well as maintenance of aging equipment, corrosion control and coating (C^3), and real property maintenance will enhance the readiness of the current force. The procurement of additional ammunition, the Advanced Targeting Forward Looking Infrared (ATFLIR), and the F–18A engineering change kits will help the Marine Corps improve its current operational capabilities.

The Marine Corps is also taking the lead on the Non-Lethal Weapons (NLW) capabilities. The NLW Capability Set is designed to counter a variety of threats for which Marines have previously lacked the appropriate tools to address. The program is currently fully funded. However, more funding will be required over the years to keep the NLW Capability Set on the cutting edge and to achieve the highest degree of commonality attainable among all the Services.

The priority items in the budget and on the unfunded list will allow the Marine Corps to meet the demands of future operational trends while halting the process of mortgaging the health of today's Corps.

Question. General Krulak, which specific area or areas of the Marine Corps procurement budget do you believe to have the greatest shortfall?

Answer. The increases provided in this budget allow us to take the first critical step toward recovery from the cumulative effects of seven years of underfunding. The problems we faced as we developed this budget, however, did not occur overnight. It is absolutely essential that the increases projected in this budget be sustained over the entire Future Years Defense Plan (FYDP)—not just in fiscal year 2000.

Following is a brief summary of my most critical shortfalls by category. A detailed list is attached.

In the area of ground modernization, although we attain our historical, "steady state" level of $1.2 billion in fiscal year 2000, we do not reach the $1.8 billion "recovery level" until fiscal year 2005. Additional funding beyond the $1.2 billion would be used for programs such as acceleration of the procurement of the HMMWVA2, modernization of network infrastructure in a more timely manner, and acceleration of upgrades to base telecommunications infrastructure in order to ensure reliable support to Marine forces deployed, in training, or in combat.

In aviation, although the fiscal year 2000 request provides sufficient funding to maintain existing platforms, it does not accelerate V–22 near-term procurement rates, nor does it fund the AV–8B ATFLIR, or annual procurement of KC–130Js.

Projected increases for maintenance of real property allow for the arrest of the growth of backlog of maintenance and repair (BMAR) and stabilization at approximately $700 million, however, this is still far short of our goal to reduce BMAR to $100 million by fiscal year 2010.

Our resource-constrained goal in the area of military construction is to invest one percent of plant value in new construction every year, replacing plant every 100 years. The industry standard is every 50 years. While this budget allows us to attain the 100 year replacement goal in fiscal year 2002, we would prefer to do so earlier.

In the area of family housing, the Secretary of Defense guidance is to eliminate all substandard housing by fiscal year 2010. Increases provided in this budget allow us to achieve this goal in fiscal year 2012, however, the increases do nothing to address our deficit of approximately 10,000 units.

In summary, while increases provided through the FYDP accompanying this budget allow us to make progress toward ensuring our continued readiness, there are requirements in many areas which could be accelerated to fiscal year 2000 should additional funds become available.

USMC Fiscal Year 2000 High Priority Unfunded Programs (Prioritized within appropriations)

[In millions of dollars]

	PRGM
APN:	
MV–22 Aircraft (3 A/C)	182.0
KC–130J Aircraft (5 A/C)	313.9
CT–39 Replacement Aircraft (3 A/C)	18.0
F/A–18A ECP–583	43.0

	PRGM
CH–53 Helicopter Night Vision Systems (HNVS) "B" Kits	27.7
Health of Marine Aviation	26.4
Subtotal	611.0
FAMILY HOUSING:	
H–346, MCB Hawaii, Family Housing	22.6
CP–H–0110–M2, MCAS Cherry Pt., Exterior Insulation & Finish System (EIFS)	2.7
LE–H–0410–R2, MCB Camp Lejeune, Paradise Pt., Whole House Revitalization	9.1
H–560, MCAS Yuma, Family Housing	17.0
PE–H–9995–M2, MCB Camp Pendleton, San Onofre Whole House Revitalization	10.6
CP–H–0201–M2, MCAS Cherry Pt., Whole House Revitalization Townhouses I	3.3
CP–H–0202–M2, MCAS Cherry Pt., Whole House Revitalization Townhouses II	7.2
Subtotal	72.5
MILCON: P–741, MCB Hawaii, Bachelor Enlisted Quarters	21.3
NGRE AVIATION:	
F/A–18A ECP–583	20.0
CH–53E Helicopter Night Vision System (HNVS) "B" Kits	9.3
KC–130T Avionics Modernization	16.8
AN/AAS–38 FLIR	9.7
O&I Level Support Equipment for AN/AVS–9 Night Vision Goggle	0.1
AH–1W Night Targeting System (NTS) Kit	9.0
Aviation Maintenance Trng Continuum System/Computer Based Trng	0.6
Controlled Environmental Storage Shelters	3.6
CH–53E Aircrew Procedures Trainer (APT) Flight Simulator	10.0
CH–46E Aircrew Procedures Trainer (APT) Flight Simulator	10.0
Subtotal	89.1
NGRE MISC:	
Common End User Computer Equipment	2.0
AN/PSC–5 Single Channel TACSAT Terminal	0.4
Rough Terrain Container Handler	1.0
NBC Equipment	1.6
Multiplexer AN/FCC–100(V)8	1.2
M1A1 Dehumidifiers	0.1
Quad Container (QUAD CON)	6.1
Pallet Container (PAL CON)	4.6
Containerized Laundry Unit	0.3
Special Application Scoped Rifle (SASR)	0.2
Subtotal	17.5
O&MN:	
Marine Aviation Program Related Logistics (PRL)	35.0
Marine Aviation Program Related Engineering (PRE)	12.0
Subtotal	47.0
O&MMC:	
Maintenance of Aging Equipment Program	37.2
Corrosion Control and Coating (C^3) Program	13.8
Advertising	5.0
Initial Issue	20.0

	PRGM
Real Property Maintenance	82.0
Subtotal	158.0
O&MMCR:	
Maintenance of Aging Equipment Program	1.5
Corrosion Control and Coating (C^3) Program	1.5
Initial Issue	10.0
Real Property Maintenance	0.8
Subtotal	13.8
OPN: OMNI IV NVGs	18.1
PANMC:	
25MM Target Practice Discarding Sabot—Tracer (TPDS–T) (DODIC A940)	3.2
25MM Target Practice—Tracer (TP–T) Linked (DODIC A976)	3.0
Fuze, Hand Grenade Practice (DODIC G878)	3.0
5.56MM Ball (DODIC A059)	5.0
5.56MM Ball 4&1 Linked (DODIC A064)	4.0
40MM Practice (DODIC B519)	0.4
40MM White Star Parachute (DODIC B535)	1.0
Cartridge .50 Cal Ball 4&1 Linked (DODIC A576)	2.0
60MM with PD Fuze (DODIC B643)	4.0
Charge, Assembly Demolition (DODIC M757)	7.2
Items Less Than $5M	1.3
Rocket, 83MM Dual Mode (DM) HE (DODIC HX05)	9.0
Subtotal	43.1
PMC:	
Base Telecommunications Infrastructure (BTI)	32.9
Network Infrastructure (NI)	57.4
CBIRF	6.5
HMMWVA2	40.0
Network Infrastructure (NI)	17.3
IRV, M88A2 HERCULES	49.4
Night Vision Equipment	8.5
P–19A Aircraft Firefighting SLEP	1.3
Power Equipment	8.4
Manpack Secondary Imagery Dissemination System (SIDS)	0.7
Base Telecommunication Infrastructure (BTI)	25.5
Network Infrastructure (NI)	37.3
Subtotal	285.2
R&D AVIATION:	
4BN/4BW EMD	26.6
AV–8B ATFLIR	48.3
Subtotal	74.9
R&D GROUND:	
AAAV Program Opportunities	26.4
LW155	4.2
MCWL	10.0
CBIRF	4.0
Subtotal	44.6
SCN: LHD–8	([1])
TOTAL USMC	1,496.1

[1] Unspecified.

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

Question. How many Amphibious Ready Groups (ARGs) are required to sustain continuous forward presence and how many ARGs do we have today? How many Amphibious Ready Groups have the Unified CINCs requested?

Answer. The twelve Amphibious Ready Groups (ARGs) we have today are the minimum needed to meet the Nation's forward presence and warfighting requirements.

Three Unified Commanders (USCINCCENT, USCINCEUR and USCINCPAC) continue to have requirements for continuous ARG/Marine Expeditionary Unit (Special Operations Capable) (MEU(SOC)) presence in each of their areas of responsibility. However, fulfilling this requirement would necessitate fourteen ARGs, which would exceed current funding levels. The present amphibious ship procurement plan results in an amphibious force capable of lifting a fiscally constrained 2.5 MEB equivalents of lift and forming twelve ARGs.

These twelve ARGs and their embarked MEU(SOC)s provide a balanced distribution of Naval amphibious assets to the CINCs based on NCA approved allocation. Once forward deployed, the inherent mobility of naval forces can be exploited by deploying from one CINC to another as necessary in response to emerging crises. The 21st century ARG/MEU(SOC) will provide the Nation with technological advances in speed, mobility, communications, and navigation to identify and exploit enemy weaknesses across the entire spectrum of conflict. The LPD–17 and the LHD ship classes are the essence of power projection and will not only provide added flexibility, but will enhance the Corps' forward-deployed Marine Air Ground Task Forces' operational capabilities to effectively combat future threats.

Question. How many LHAs and LHDs does the Navy have in service today and how much service life is remaining in the LHAs?

Answer. Currently there are a total of 11 big deck amphibious ships in the Fleet comprised of 5 LHA TARAWA Class ships and 6 LHD WASP class ships. A seventh WASP class ship (LHD–7) is under construction and will commission in fiscal year 2001 resulting in a total of 12 big deck amphibious ships.

The five LHA–1 TARAWA class ships will decommission at the end of their 35 year service life starting in the year 2011. The LHA–1 ship class decommissioning plan shows one ship decommissioned per year until the last ship in the class is decommissioned in 2015.

Question. How do the LHD and LHA aviation capabilities differ, particularly with respect to MV–22 and other equipment and aircraft that will need to be brought aboard in the future?

Answer. Aviation requirements for LHA and LHD flight decks are identical. Although the LHD was designed using the LHA hull as a baseline, there are two primary differences between the TARAWA class LHA and WASP class LHD. These differences are in flight deck size and "island" design, which make the LHD deck a safer environment for flight operations.

First the LHD is designed with a smaller island providing more available flight deck area. Second, the LHD flight deck is slightly larger because the LHA ship class was originally configured with the two 5 inch gun mounts located on the forward corners of the flight deck. Although this represents a relatively small flight deck area on the LHD ship class, it allows for convenience in towing and parking of aircraft resulting in a safer environment when conducting flight operations. These two factors provide operators and maintainers greater clearances and safety margins, increasing the LHD operational capability.

Of final note, neither the LHD or LHA allows concurrent rotary-wing/tilt rotor and fixed wing operations.

Question. What is the cost of constructing an eighth LHD as scheduled in the fiscal year 2000 FYDP?

Answer. Funding for the eighth LHD is contained in the fiscal year 2000 SCN budget, Advance Procurement in fiscal year 2004 totals $166.7 million, and SCN Unit Cost in fiscal year 2005 totals $1,537.7 million.

Question. What are your thoughts on the savings that could be realized from building LHD 8 immediately following LHD 7 rather than in fiscal year 2004/05 as in the President's budget?

Answer. We defer to Navy on particular savings for this building plan. However, industry has estimated that approximately $780 million in shipbuilding and acquisition costs are anticipated if the production line is interrupted. Building an LHD–8 immediately following LHD–7 would prevent lay-off or reassignment of skilled employees, the loss of the "learning curve" benefit from serial production, the break in supplier production, increased material costs due to loss of suppliers, retooling and startup costs of the production line, and inflation avoidance.

QUESTIONS SUBMITTED BY SENATOR CHRISTOPHER S. BOND

Question. General Krulak, many of my colleagues have been struck by the story of your encounter with a young Marine standing his post overseas this past holiday season and how, when you asked him what he wanted most, he responded "More ammo, sir"—that really brought home for us the serious nature of what needs to be done to make sure they have what they need to get the job done.

We are aware of a shortfall in the Marine Corps Small Arms Ammunition account. Would you please address the committee on the extent of the shortfall and how much it might cost to fix the problem?

Answer. Ammunition requirement determination is a complicated process since it has to take into account the 2 MTW scenarios, Residual and Strategic Reserves, as well as training requirements. Small Arms Ammunition is on my Unfunded Priority list.

The following provides the small arms ammunition items that have been identified as having shortfalls and the amount needed to correct the problem:

Item	Fiscal year 1999 shortage	Proj fiscal year 2000 shortage	Proj fiscal year 2005 shortage	Amount
5.56 mm ball (A059)	.....	.....	[1] 9,554,862	$5,000,000
5.56 mm ball (A064)	2,876,625	11,502,375	3,230,048	4,000,000
5.56 mm blank (A080)	.....	.....	147,713	700,000
7.62 mm ball (A131)	.....	.....	605,058	5,000,000
.50 cal ball (A576)	2,832,718	3,881,218	835,859	4,000,000
25 mm TP (A940)	79,442	105,228	104,225	3,200,000
25 mm TPT (A976)	.....	336	60,332	3,000,000
Total	.....	.....	.....	24,900,000

[1] Funding request for 5.56 mm ball ammunition (A059) is in support of a projected fiscal year 2001 shortage. Due to production lead times, funds are needed in fiscal year 2000.

Question. Mr. Secretary, CNO, I have championed the F/A–18 Superhornet program because I am concerned about the well being of our pilots. The Department of Defense has lauded the program and the aircraft. It has achieved every milestone and requirement, and I understand that as we speak, it is undergoing sea trials and carrier qualifications as you say, "bagging cats and traps". I have heard some anecdotal comments about the Superhornet, and the pilots have been saying things like "if I had to go to war today, this is the aircraft I would want to be in." Would you each address your personal professional view of the aircraft, its viability and its versatility?

Answer. The Superhornet is absolutely the right aircraft for the Navy and it is delivering exactly what we have asked for. In addition to providing a significant improvement in survivability to our pilots over our earlier model F/A–18s, the F/A–18E/F will provide much greater operational utility and flexibility due to its 40 percent increase in range and 50 percent increase in endurance, greater payload, and a 300 percent improvement in weapons recovery payload. The Superhornet is truly a multi-mission aircraft which will deliver every piece of aviation ordnance in the Navy inventory with the exception of the AIM–54 Phoenix missile, which will be phased out with the F–14. The carrier airwing's flexibility and reach is also improved by the F/A–18E/F's ability to function as a tactical refueler. Two separate campaign level analyses have concluded that the F/A–18E/F is two to five times more effective than the earlier model F/A–18C while suffering up to only one-fifth the losses. This means the air campaign could be completed more quickly resulting in fewer casualties in the air. The future viability of the Superhornet is assured by its capacity for growth and ability to accommodate new weapons systems to meet emerging requirements and threats. The F/A–18E/F remains on schedule and cost, is meeting its performance requirements and will deliver the capability needed in the carrier airwing well into the next century.

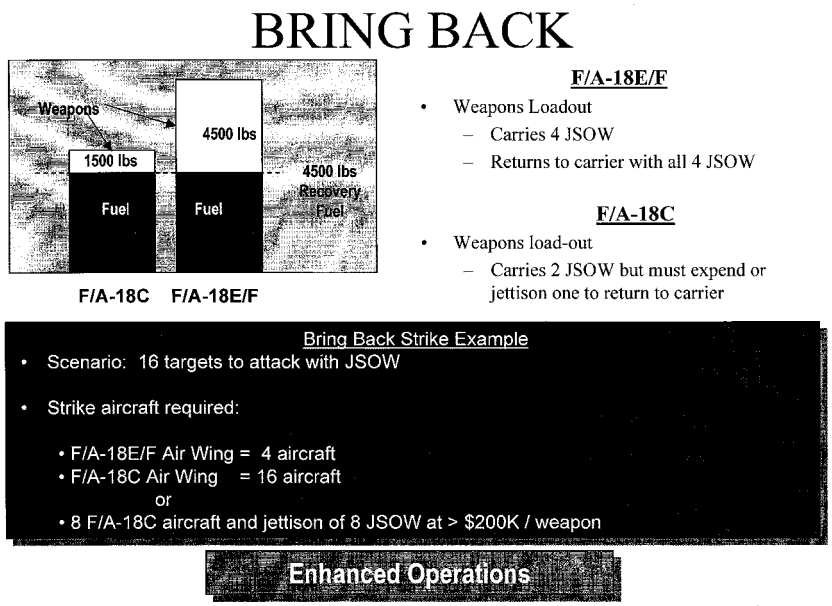
Question. CNO, would you please discuss the Superhornet's abilities specifically addressing the aircraft's bring back capability and its Joint Stand Off Weapon Loadout and its capability in a functional tactical wartime environment?

Answer. "Bringback" is the total combined weight of fuel and external stores that an aircraft can land aboard the carrier with. When you subtract the required fuel reserve, you are left with the weapons recovery payload or the amount of ordnance that can be brought back aboard the carrier. As the attachment shows, the weapons bringback is 1,500 lbs for the F/A–18C and 4,500 lbs for the F/A–18E/F. This signifi-

cantly limits the F/A–18C's ability to carry expensive joint weapons such as JSOW if there is a possibility of bringing these weapons back to the carrier. For example, the F/A–18E/F can launch with a weapons loadout of four JSOWs and recover at the carrier with all four weapons. On the other hand, an F/A–18C can launch with two JSOW but would have to expend or jettison at least one JSOW prior to landing aboard the carrier. This limitation has a significant impact on peace keeping operations such as those in Bosnia in which aircraft typically do not expend their ordnance and have to bring it back to the carrier.

Another example of the importance of this capability would be a strike mission that required 16 targets to be attacked with JSOW. In an E/F airwing, you could launch just four E/Fs to complete this mission and if needed they could recover with all their weapons. It would take 16 F/A–18Cs to do the same mission and prevent the possibility of having to jettison any weapons or eight F/A–18Cs with the possibility of jettisoning eight JSOW at a cost of greater than $200,000/weapon.

The bottom line is that the F/A–18E/F enables the airwing commander to get the job done faster while putting considerably fewer aircraft at risk.



QUESTION SUBMITTED BY SENATOR RICHARD C. SHELBY

Question. General Krulak, if the Marines are ordered into Kosovo as part of a NATO peacekeeping unit, how long do you anticipate having Marines on the ground? Will the Marines be relieved by Army troops? Will this operation adversely affect Marine Expeditionary Unit deployment and training cycles?

Answer. Currently the Marine Corps expects limited involvement in Kosovo. In terms of potential NATO-led peacekeeping operations, Marine Corps operating forces have thus far been tasked to provide an Initial Entry Force capability for follow-on NATO peacekeeping forces (KFOR). The projected duration of this USCINCEUR/NATO mission requirement should not exceed 30–45 days from the initial introduction of Marine forces ashore from amphibious shipping. Such a limited duration force deployment will not have a long-term, adverse impact on MEU(SOC) training or deployment cycles.

Given the Marine Corps posture of engagement, few of our operating forces are actually deployed in support of ongoing, long-term deployments such as those taking place in Bosnia and Iraq. For future peacekeeping operations in Kosovo, we anticipate providing individual Marines with specific skills (i.e, civil affairs, etc.), electronic warfare support with EA–6B assets as required, and naval presence through routine MEU(SOC) deployments to the European theater. Assuming that the scope

of our involvement does not increase, the associated operational impact on the Marine Corps will remain limited. If U.S. Armed Forces are assigned a ground mission in Kosovo, the Marine Corps certainly has the capability to contribute forces towards that mission.

SUBCOMMITTEE RECESS

Senator STEVENS. Thank you very much. I am sorry to hold you up. The committee will meet on Wednesday, March 17th in this room for testimony on the Air Force fiscal year 2000 budget request and current operations.

[Whereupon, at 12:05 p.m., Wednesday, March 10, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, March 17.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2000

WEDNESDAY, MARCH 17, 1999

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:02 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Specter, Bond, Hutchison, Inouye, and Dorgan.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE AIR FORCE

OFFICE OF THE SECRETARY

STATEMENTS OF:

HON. F. WHITTEN PETERS, ACTING SECRETARY OF THE AIR FORCE

GEN. MICHAEL E. RYAN, CHIEF OF STAFF

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning. We are delighted to have General Ryan and Secretary Peters with us this morning. I welcome each of you back to our committee, as we review the year 2000 budget request.

Our review of your budget suggests the Air Force has done a good job in balancing limited dollars. The budget resolution now to consider may, however, develop so that we will not have the resources to fund the program you have proposed. I was waiting to analyze that.

The proposed unspecified rescission and incremental funding of military construction in the President's budget are holes that Congress is trying to find a way to fill so we can pursue the defense bill. I know that you face a number of near- and far-term acquisition challenges. We are going to be pleased to hear your testimony in that regard.

I must tell you, though, that I am becoming more and more worried about the future and our ability to pay for some of the systems that we believe you need and Congress has already authorized. We want to upgrade our missile warning capability. And further, we have anxiety about the future of the Joint Strike Fighter (JSF).

I want to work with you, and I am sure all members of this committee want to work with you, through this budget and try to un-

derstand your priorities. But we must make certain that what we do now really lays the foundation for the Air Force for the next century. I think that clearly is your goal, and it is ours, also.

I have to tell you, as I drove to work this morning, I kept thinking about some of the things I have heard this last week, and I am personally alarmed at some of the little facts that keep popping up that lead me to the conclusion we are nearer to the hollow military than I thought.

As I mentioned to you, General, when I hear stories that we have an aircraft carrier deployed with less-than-full capability, and we hear stories about even people deployed overseas not having parts available that they need to maintain and prevent the redlining of our aircraft abroad, it worries me that we could be coming back to the point where we will get behind the curve on maintenance and spare parts supply and have to back up to do that instead of go forward with the next century's new systems.

I know that that is a matter of your concern, also, and we have discussed the great problem of the pilot shortage. I hope to work with this committee and with you to develop a new approach to pilot education. I think we have to go back out and look at the ROTC function and see if we can find a way to start young men and women in college thinking about becoming pilots, even though they may not yet have made the decision to enter the Air Force or the Navy.

I know I am taking a little bit long. I am a little tired. My brother-in-law was in town last night. That is always a problem. [Laughter.]

You have sitting behind you the budget director for the Air Force, Major General George Stringer. He sneaked out with that announcement of a retirement. He has made these threats before, and we have been able to convince him not to do that. He is too young to retire.

But, George, on behalf of the committee and those of us who, back in your days when you were a younger man, when you did not think about retirement, I traveled a great deal around the world with you, we want to thank you for all of the help you have given us personally, Senator Inouye and I in particular, and for your dedication and for postponing your retirement for these years that you did postpone it. We know that you wanted to leave before, and we wish you God speed. We really do.

But before we proceed, let me ask Senator Inouye and the other members if they have any comments.

Senator INOUYE. We can always provide another star, you know. [Laughter.]

Senator STEVENS. Would that do it, George? Are you opening bidding?

General STRINGER. We would have to have that discussion on a Tuesday. [Laughter.]

Senator INOUYE. Well, I would like to add my gratitude, also. I remember General Stringer coming here as a captain.

I believe you were a captain then, were you not, about 19, 20 years ago? You have done pretty well. I am waiting for Colonel Ruter to follow you in there.

STATEMENT OF HON. DANIEL K. INOUYE

Mr. Chairman, I want to join you in welcoming our Air Force leaders. The fiscal year 2000 budget request for the Air Force seeks to preserve our forces, but it provides an increase in funding compared to previous projections. That is true, but it is not as much as many of us on this committee would like to see.

However, this is an important budget in many ways. We hope it will help to turn around the decline in our air forces, as noted by our chairman. It is clear that there are problems today in the Air Force that must be addressed. Mission capability rates are down. Recruiting goals are going unmet. Pilots are still leaving the force in large numbers. The approaches which we have used in the past to try to stem the tide do not seem to be succeeding as well as before.

For those of us who have watched our defense establishment over the past several decades, we have seen an Air Force which has always been on the top. Your infrastructure has been the finest, your airmen and officers the highest caliber, and your weapons systems always in pristine condition.

Even when our Army or Navy might have experienced problems, the Air Force usually seemed to be unscathed. So when we hear reports from you and from your staff that all is not well, we know that we had better respond immediately.

I am told that there may be some good news as a result of increases in compensation and benefits endorsed by our military and congressional leaders. We can hope that these increases may be enough to signal our men and women in uniform that we intend to address their concerns.

However, I believe we will need to do more to address the underlying readiness problems. We simply must provide at least the funding level that has been recommended by the administration. And, if possible, we should increase it.

Mr. Chairman, I am sure you agree with this sentiment. Now we need the support from our colleagues to make it a reality. And I look forward to listening to the statements.

Senator STEVENS. Thank you very much.

Senator Bond.

STATEMENT OF HON. CHRISTOPHER S. BOND

Senator BOND. Thank you very much, Mr. Chairman.

Mr. Secretary, General Ryan, I join with my colleagues in welcoming you. We know once again the Air Force is being asked to do more with less.

Mr. Secretary, I know I join my colleagues when I voice concern over the Air Force's ability effectively to meet its mission requirements without making deep cuts into supply stocks and accelerating the depreciation of life cycle times of equipment, not to mention stretching personnel to their limits to increase deployment schedules.

I understand that certain wings are experiencing debilitating cannibalization in order to give deploying squadrons fully mission capable aircraft, and that is a major concern. We have all heard about the abysmal retention rate of our pilots. We are sympathetic

and supportive of your efforts to find an answer. But I am also concerned that the exodus spans the rank structure.

Now over the years individual tactical training flight time has been drastically reduced. Operation maintenance funding has been creatively shifted around so that contingency operations may be fully resourced, while other phases of readiness training are critically short of funds. And operational flights in large part are spent flying figure eights in the sky, Iraq notwithstanding.

That said, we recognize the awesome burden facing our armed forces, both in terms of increase in mission requirements, such as current operations in Iraq and a concurrent decrease in funding available to meet those missions.

For many years, this committee, under the leadership of Chairman Stevens and Senator Inouye, has warned the Department of Defense about the policy of low-balling funding requirements, which only exacerbates the physical problems which will face the services' ability to conduct the myriad of operations required of you.

As I understand from Mr. Hamre's comments before the committee, Iraqi weapons expenditures are not anticipated in this year's request. And we probably are going to be looking at another, yet another, emergency supplemental. If we know it is happening, it should not be an emergency.

Over the past six years, the Congress has increased the defense budget by billions of dollars. And some critics have attacked us for those increases. But the department and the administration have routinely come back to us pleading for more through these emergency supplementals, primarily because of the burgeoning contingency operation costs. Some of those operations have extended way beyond contingency, and we have contested your financial planning for them.

On a more happy note, as we look to meet your fiscal requirements and operational requirements, I think we ought to recognize the need to coordinate and integrate our combat forces more than ever.

And Mr. Secretary and General Ryan, as one who is deeply concerned about the integration of our active and reserve forces, I particularly congratulate you on the manner in which the Air Force leadership has dedicated itself and been able to integrate the active, the reserve and guard components into a united fighting force.

I do have concerns about the upgrading of National Guard general purpose squadrons to ensure their viability for future use in the 21st century. And I draw this fact to your attention because the St. Louis Air Guard F–15 unit is scheduled to conduct front line deployed operations overseas. And many of our nation's most experienced fighter aviators reside in Guard units.

I am sure the service would benefit from ensuring their continued full integration into the fighter force, but they must be adequately resourced in order to keep them up to speed and to permit full integration into the order of battle for the front line theater commanders.

General Ryan, when it comes to my question time, I would like you to address how the Air Force intends to ensure this and maybe speed up the integration of the F–15C into Guard units, or upgrade

the fighter-to-fighter data links and electronics of the F–15As to keep them front line viable, or even convert these units to F–15E squadrons.

I am also concerned, as you are both well aware, over the Air Force's handling of logistics support contracts and, quite frankly, the administrative negligence that we believe we see in the Air Force planning execution review, which seems to have been outlined by the Department of Defense Inspector General as well. I will specifically discuss this issue in the question and answer round following on our previous discussions.

I do congratulate and thank both of you on your dedication to providing the Air Force with a program to ensure the Air Force will continue to meet its airlift mission requirements well into the future and will address that, too, in the questions and answers or questions submitted for the record.

PREPARED STATEMENT

And, Mr. Chairman, I thank you for the opportunity and look forward to the questions and answers.

[The statement follows:]

PREPARED STATEMENT OF SENATOR CHRISTOPHER S. BOND

Mister Secretary, General Ryan, I join with my colleagues in welcoming you before the committee today to address prominent issues concerning the Air Force.

Today, the Air Force is once again being asked to do more with less. Mister Secretary I know I join with my colleagues when I voice my concern over the Air Force's ability to meet effectively its mission requirements without making deep cuts into supply stocks and accelerating the depreciation of life-cycle times of equipment not to mention stretching personnel to their limits through increased deployment schedules. I understand that certain wings are experiencing debilitating cannibalization rates in order to give deploying squadrons fully mission capable aircraft.

We have all heard of the abysmal retention rate of our pilots and we are sympathetic to your efforts to find an answer. But I am also concerned that the exodus spans the rank structure. Over the years, individual tactical training flight time has been drastically reduced, operations and maintenance funding has been creatively shifted around so that "contingency" operations may be fully resourced while other phases of readiness training are critically short of funds. And, "Operational" flights in large part, are spent flying figure eights in the sky, Iraq notwithstanding.

That said, we recognize the awesome burden facing our armed forces both in terms of its increase in mission requirements, such as current operations in Iraq, and a concurrent decrease in the funding available to meet those missions.

For many years, the chairman and the other members of this committee have warned the Department of Defense about the policy of low balling funding requirements which only exacerbates the fiscal problems facing all of the services' ability to conduct the myriad of operations required of you. As I understand it from Mr. Hamre's comments before this committee, Iraqi weapon expenditures are not anticipated in this year's request and we might look forward to yet another Emergency Supplemental.

Over the past six years, this Congress has increased the Defense budget by billions of dollars, some critics have attacked us for those increases but the Department and the Administration have routinely come back to us pleading for more, through these "Emergency Supplementals" primarily because of the burgeoning Contingency Operations costs. Some of these operations have extended way beyond any "Contingency" status and we have contested your financial planning for them.

On a more happy note, as we look to meet your fiscal requirements and your operational requirements, we recognize the need to coordinate and integrate our combat forces now more than ever. Mister Secretary, General Ryan, as someone deeply concerned about the integration of our active and reserve forces, I congratulate you for the manner in which the Air Force leadership has dedicated itself, and been able to integrate the Active, Reserve, and Guard components into a unitary fighting force.

I do have some concerns regarding the upgrading of National Guard General Purpose squadrons to insure their viability for future force of the 21st century. I draw attention to this because of the fact that the St. Louis Air Guard F–15 unit is scheduled to conduct front-line, deployed operations overseas and many of our nation's most experienced fighter aviators reside in Guard units. I am sure that the service would benefit from insuring their continued full integration into the fighter force, but they must be adequately resourced in order to keep them up to speed, and to permit their full integration into the order of battle for the frontline theater commanders. General Ryan, when it comes to my question time I would like you to address how the Air Force intends to insure this and maybe speed up the integration of F–15C into Guard units—or upgrade the fighter to fighter datalinks and electronic suite of the F–15A's to keep them front line viable or even convert these units to F–15E squadrons.

I am also concerned, as you are well aware, over the Air Force's handling of its logistic support contracts and the administrative negligence I have found in the Air Force's planning, execution, and review which seems to have been outlined by the Department of Defense Inspector General, too. I will specifically discuss this issue in the question and answer round.

I do congratulate you both on your dedication to providing the Air Force with a program to ensure the Air Force will continue to meet its airlift mission requirements well into the future and we will address this, too, during the question and answer portion of this hearing.

Mr. Chairman, I conclude my remarks now and await my turn for the question and answer round.

Senator STEVENS. Senator Hutchison.

STATEMENT OF HON. KAY BAILEY HUTCHISON

Senator HUTCHISON. Thank you, Mr. Chairman. I thank you for having this opportunity for us to talk to our Air Force Chief of Staff and Secretary. And I want to say right off that I so appreciate Secretary Peters' service as the Acting Secretary. He has done a terrific job under some tough circumstances, and I appreciate it. I also have appreciated General Ryan since he has been on board.

I would just say that I have been very outspoken and very concerned about mission fatigue, over-deployment. As you know, I have visited bases in Saudi Arabia with the chairman and the ranking member.

I have certainly visited our troops in Bosnia, not necessarily Air Force, but Army there. And there is no question that mission fatigue is part of our retention problem.

I want you to discuss that, because, of course, the pilot shortage is a big one. And I am hearing real problems, also, in our Guard, which has been the most impressive performer in real combat of all of our reserve-type units. This must be addressed.

Now having said that, I believe the Air Force has responded with more creativity in the concept of the expeditionary aerospace forces (EAFs) than any of the other services, because now my Air Force personnel tell me they can plan. They know within a 15-month period that they are going to be on-call for a 3-month period and when it is going to be.

Now that is a whale of an improvement in quality of life and planning possibilities for these families to know when they can have their vacations, when they will not be there for their children and perhaps compensate with other family members. So I applaud you, and I hope other services will look at that.

The other—there will be some concerns that I will want to address in my question period. TRICARE is another quality of life issue that is particularly important for some of my Air Force bases.

And I think shortchanging research in the bigger picture is an issue. I understand the constraints that you have and that you have had to prioritize. And certainly I support the Joint Strike Fighter. It is expensive, but absolutely necessary that we stay in the forefront of technology. But I want you to address the shortchanging of research. And I do not argue with how you cut, because I think you were quite fair. But I argue on the merits that I want to know what we are going to lose if we do not have human factors research. We are getting ready to have a joint strike fighter. I want to make sure that we know how the pilots are going to react in every instance with the strings that we put on them. And the same for other types of research and aerospace medicine.

So I think you are doing a terrific job with what you have. And I applaud you. And I have to say that I am very impressed with both of you. But I want you to address these other issues and then tell us how we can help.

Thank you.

Senator STEVENS. Senator Dorgan, do you have an opening statement?

STATEMENT OF HON. BYRON L. DORGAN

Senator DORGAN. Mr. Chairman, I will be brief. I am anxious to hear the statement of the Secretary and the general. But let me echo the comments of Senator Hutchison.

I think, Mr. Secretary, you have done a first-rate job. And, General Ryan, you as well. I am pleased with your leadership of the Air Force and pleased to be here today.

I am going to have to leave at 11 o'clock. We have a national missile defense debate on the floor, and I am going to participate in that at 11 o'clock. So I do not know whether I will be able to offer my questions. But if not, I would like to send you some in writing.

I would like to just mention that I have visited both of the air bases in North Dakota in recent weeks and some other visits as well. And I find a great deal of pride on both of our bases.

Interestingly enough, I did not come away with the notion that there is a crisis in retention among the crews I talked to with B–52s and KC–135s. But there are mission fatigue issues, and a whole series of quality of life issues that I know that we have to deal with.

But having said all that, these men and women on the airbases serving our country have a lot of pride in what they are doing and are people that this country should be proud of to have serving.

Senator STEVENS. If it would be a convenience to you, you could take the first five minutes and question.

Senator DORGAN. No. That is fine. I will be happy to submit questions.

But let me just also mention, I noticed in your statement that you quote Field Marshal Rommel, talking about the importance of the command of the air on the battlefield. And as I saw that quote, I was thinking of reading "Citizen Soldier," which you no doubt have read, a remarkable book. And I was struck in reading that book of the importance of control of the air as well to our success on the battlefield. That book makes that point over and over and over again.

I would like to ask some questions at some point about tiered readiness. You talk about readiness issues. And there have been some in Congress talking about a concept of tiered readiness, something I have not studied a great deal, but I understand what they mean by that. I would be interested in having your perspective on that.

I am very interested, as you know on the issue of the size of our bomber force and the future of the B–52s and the capability of the B–52s for both the nuclear and non-nuclear mission.

Having said all that, while I have a lot more to say about the Air Force, almost all of it complimentary, let me allow you to get to your opening statement.

And again say, Mr. Secretary, thank you for your service. I know you have visited our state recently.

And, General Ryan, I think you are doing a remarkable job, and I appreciate your being here.

Senator STEVENS. Thank you very much.

May we have your statement, please, Mr. Secretary?

Secretary PETERS. Thank you, Mr. Chairman. Mr. Chairman, distinguished members of the committee, we very much appreciate the opportunity to appear here this morning to discuss the Air Force's future plans and priorities and, in particular, our proposed program for fiscal year 2000. We have submitted a lengthy posture statement for the record, but I would like to highlight several points.

First, I would very much like to thank this committee for its unwavering support for Air Force programs, and probably even more importantly, your unwavering support for our outstanding young men and women. It has truly been gratifying to see the support of this committee. And I know everybody in the field understands that support and feels very much the same way that I do.

Every day the talent, dedication, patriotism and spirit of our young men and women transform our aging aircraft and aging space systems into the most competent aerospace force the world has ever known. As we have shown in Operation Desert Fox and in daily operations in Southwest Asia, our Air Force is ready to fight with skill and precision and can deliver a powerful punch, when required.

RECRUITING AND RETENTION

Last year was a tough year, a year in which mission capable rates continued to fall, a 10 percent decline since 1991, and we were faced with unprecedented recruiting and retention problems. To combat these problems, our fiscal year 2000 budget focuses on enhancing readiness. Our program, we believe, permits real gains for our people, addresses high OPSTEMPO, and arrests declining readiness while providing for a balanced modernization strategy. Let me talk very briefly about each of these points.

First, experienced airmen are absolutely the heart of our combat capability. As you know, we are losing our airmen at a rate that threatens readiness. The primary reasons for this, we think—and I have been out in the field now for about 125 days, talking to these folks—are fourfold: noncompetitive pay, reduced retirement

benefits, high operational tempo, and lack of working equipment and spare parts.

In my trips to the field and in surveys of airmen who leave the force, non-competitive pay and reduced retirement benefits are universally cited as key reasons for leaving, not for staying. One in three enlisted airmen say they would have stayed in the Air Force if the retirement benefit were returned to 50 percent. One in two say they would have stayed had pay been more competitive.

Our fiscal year 2000 budget addresses pay and retirement through a triad of benefits, a 4.4-percent pay raise, pay table reform and return to 50-percent retirement. These are our number one priorities and are essential to improving readiness.

The Air Force's efforts to improve retention and recruiting do not rest on these alone, however. During 1998 and continuing to 1999 and proposed for 2000, we have greatly increased the number of career fields eligible for enlistment or reenlistment bonuses that we have budgeted for additional increases.

But with respect to recruiting, we made our mark in 1998, but in the last 5 months we are about 1,000 short out of about 13,000 we have needed. To combat this shortage, we will increase the number of Air Force recruiters in the field. And for the first time, we have begun a program of paid advertising.

We have used part of the plus-up money that we were given by Congress last year to fund recruiting, and our budget request for 2000 seeks additional funds for both recruiting and advertising.

Today, as the chairman noted, we are about 1,000 pilots short out of 13,000. And we will be over 2,000 pilots short by the year 2002, if current trends continue. To combat this trend, we are increasing our pilot production to 1,100 per year in fiscal year 2000, and that includes converting Moody Air Force Base into a training base, which is part of our 2000 budget.

We have also increased our active duty service commitment for new pilots from 8 to 10 years. And we are selectively offering a 20-year career to pilots who are passed over for promotion.

We will also ask Congress to extend the aviation bonus to those who have over 14 years of service and to give us the authority to waive restrictions on dual compensation for retired pilots, so we may use retirees on our staffs and possibly in training roles.

There is one positive note on the pilot front, and that is that our long-term retention rate has gone up to about 45 percent. It is too early to tell whether this is a trend, but we certainly hope it is.

On the tempo front, as Senator Hutchison noted, we are working our young men and women very hard. Not only when they deploy for contingency operations, but also when they are at home filling in for others who have deployed.

EXPEDITIONARY AEROSPACE FORCE

In addition, maintenance forces are working overtime because of a scarcity of spare parts. When parts are not on the shelf, maintainers cannibalize parts from other equipment, and that triples the amount of time to do the repair. To combat these tempo problems, we need to create the Expeditionary Aerospace Force, or EAF, which General Ryan and I announced last August. This effort is essentially budget neutral.

We are on track to create the EAF by January 1, 2000. We believe that the EAF structure will in fact stabilize people's lives, even though the world will remain a very unstable place. We will ultimately drive down both the deployment tempo and the day-to-day work tempo of our forces.

As part of EAF implementation in fiscal year 2000, we are realigning 2,641 positions from jobs that do not directly support expeditionary operations to those that do. We have found these positions through our reengineering and competitive sourcing efforts, which will continue for the next several years.

A new scheduling system will also allow our reserve component to increase its participation in contingency operations. As a result, we believe we will lower individual workload by spreading work more evenly over a larger pool of active and Reserve airmen.

SPARE PARTS

In addition, we are spending money on spare parts. We estimate that age-rated factors have driven spare parts consumption up by about $570 million over the last two years and that cost increases in industry and our depots will have added about another $750 million by fiscal year 2000.

We plussed up spare parts in 1998 through reprogramming. We have used the extra money that Congress gave us last year to plus up spare parts again and to bring depot maintenance up to about 100 percent. And in our budget request for this year, we have added $300 million to assure full funding of the flying hour program, and an additional $223 million for new engine parts to try to stabilize our mission capable rates.

In order to begin turning the corner on maintenance costs, we have also funded upgrade programs for all of our major weapons systems. And on our unfunded priority list we have put in funds for what we call a bow wave, which is critical spare parts, which we need to increase our inventory level.

AIRCRAFT MODERNIZATION

On the modernization front, we continue the F–22 program, which is moving into low rate production. Let me digress for a moment to add that we are still within the cost caps on that program. And with the full support of our contractors, we will continue to aggressively seek cost reductions.

We funded the C–17 multi-year program and added 14 C–17s for special operations. We also propose to buy additional F–16s to meet the needs of both our active and Guard fighter units. We restructured the airborne laser program to add additional funds and an additional year of risk reduction and testing, as recommended by General Marsh's independent advisory team, by the General Accounting Office (GAO) and by many members of both the House and Senate.

And in space we have fully funded the evolved expendable launch vehicle, which now provides two competitive families of medium and heavy lift vehicles for use by military, civilian and commercial customers.

Importantly, we also transferred launch complexes at Cape Canaveral and Vandenberg to both Boeing and Lockheed, so that they

may operate EELV as a truly commercial launch service. We hope through these efforts to bring launch back to the United States, reducing the cost both for ourselves and for civil and commercial space users.

And finally, in the space modernization area, we are funding global positioning system (GPS) modernization, advanced EHF (extremely high frequency), the polar EHF, the Discover II space-based radar demonstration program and the space-based laser program.

In summary, General Ryan and I believe that the synergy of EAF with these budget initiatives will stop the decline in readiness by addressing the four issues central to sustaining our Air Force: people, OPSTEMPO, readiness and modernization.

PREPARED STATEMENT

Mr. Chairman, I very much thank you for the opportunity to be here, and I will be happy to take your questions.

Senator STEVENS. Thank you very much, Mr. Secretary.

[The statement follows:]

PREPARED STATEMENT OF F. WHITTEN PETERS AND GEN. MICHAEL E. RYAN

UNITED STATES AIR FORCE POSTURE STATEMENT 1999

Mr. Chairman, members of the committee, 1998 was an important year for the United States Air Force. Comprised of the world's finest aerospace professionals, America's Air Force provides a flexible force that can quickly respond over long distances operating across the spectrum of peace and conflict, from combat to humanitarian relief.

Always a progressive service, the Air Force continues to innovate. With its Expeditionary Aerospace Force (EAF) initiative the Service is reorganizing its forces to provide better trained aerospace forces to U.S. Commanders-in-Chief while adding predictability and stability to the lives of our airmen. Through innovative business practices, the Air Force is pushing quality up and costs down.

Today, the Air Force is preparing itself for the challenges of the 21st century. Our investments in airmen, infrastructure, and modernization will ensure the Service's ability to meet the needs of the United States in a dynamic national security environment.

AMERICA'S AIR FORCE IN 1998

America's Air Force is smaller today than at any point in its history. At its birth in September 1947, the active duty Air Force numbered 387,000 members; today it stands at 367,000. The Total Air Force includes 108,000 Air National Guardsmen, 71,000 Air Force Reservists, and 173,000 civilians, for a total of 719,000 people.

Air Force professionals are responsible for operating and sustaining 20 fighter wing equivalents, 190 bombers, 120 intelligence, surveillance, and reconnaissance platforms, 1,450 mobility aircraft, 550 intercontinental ballistic missiles, and 59 satellites. They live and work at 172 installations around the world; on any given day, approximately 95,000 members are either deployed or on permanent duty in forward locations. An additional 138,000 airmen are ready to deploy on short notice to support America's national security needs.

The Air Force is globally engaged on a daily basis. While the active duty portion of the Air Force has dropped 33 percent since the fall of the Berlin Wall, the number of deployed forces has risen 400 percent. In 1998, the Air Force flew more than 2,200 missions in the Balkans, 27,000 missions over Southwest Asia, and 30,000 airlift missions. During this same period, Air Force members participated in over 1,600 exercises in 35 countries, and conducted almost 300 military-to-military contact visits in Europe and the Pacific. Additionally, Air Force airlifters conducted almost 100 Denton Amendment humanitarian relief missions to 30 countries, and supported numerous joint force deployments throughout the year. From Air Force space ranges, the Service launched 13 military, 13 civil, and 17 commercial satellites, keeping the nation first in space.

INTRODUCTION

Today's national security environment requires flexible military forces that are able to quickly respond over long distances and accomplish many different missions. The Air Force is uniquely suited to this environment—its inherent speed, range, flexibility, and global perspective make it the military rapid response force of choice for post-Cold War U.S. decision makers. Whether advancing national interests from space, deploying to distant theaters to enforce American policy, or airlifting life-saving food and medical supplies to victims of natural or man-made disasters, the Air Force has proven time and again the pivotal role of aerospace power in meeting the nation's security needs.

Aerospace power is critically important to national command authorities and to joint force commanders. With its highly trained professionals, the Air Force is skilled at bringing unmatched aerospace power to bear on any crisis, no matter the distance. The Air Force core competencies, aerospace superiority, global attack, precision engagement, global mobility, information superiority, and agile combat support integrate well into joint campaigns, providing the most rapid and effective way to achieve national objectives, while reducing risk to our men and women in uniform.

From beginning to end, Air Force aerospace power enables joint operations. Prior to conflict, global intelligence, surveillance, and reconnaissance (ISR) assets provide strategic awareness to national leaders. On the eve of combat, global aerospace mobility assets bring critical manpower and supplies to the theater. During combat operations, Air Force ISR provides theater commanders the operational and tactical information edge they need to fight and win. The Air Force wins aerospace superiority for the joint force—freeing it from the threat of attack from aerospace and allowing it the freedom to use the medium to maneuver and attack. Uniquely, Air Force long-range airpower and air refueling assets give the joint force the ability to deliver precise effects throughout the depth of the battlespace to win decisive victory. In non-combat scenarios, Air Force global mobility assets are the world's best at delivering humanitarian relief. Air Force space-based systems are on-duty 24 hours a day providing strategic warning, as well as facilitating communication and precise navigation. Across the spectrum of peace and conflict, the Air Force provides the joint force commander key military capabilities.

A unique dimension of Air Force aerospace power is its ability to project the full range of these capabilities on a global scale, quickly, effectively, and when necessary, lethally. If needed, Air Force global attack aircraft can leave airfields in the United States, fly directly to any target on the globe and deliver overwhelming, precise firepower to achieve strategic, operational, or tactical effects.

AIR FORCE ROLE IN NATIONAL SECURITY

"Anyone who has to fight, even with the most modern weapons, against an enemy in complete command of the air, fights like a savage against modern European troops, under the same handicaps and with the same chances of success."—Field Marshal Erwin Rommel

The United States integrates its many instruments of power to influence the international security environment. In October of last year, the President published an updated National Security Strategy. This document, in combination with the National Military Strategy, directs the Department of Defense to work with other government agencies to shape and respond to today's security challenges and prepare for those of the 21st century. The Air Force actively executed this strategy during 1998.

SHAPING

The Air Force shapes the international security environment in many ways. With more than six forward-stationed fighter wings, 95,000 people permanently or temporarily assigned to forward locations, and satellite constellations constantly on watch, Air Force presence immediately and continuously influences world events. The Air Force's ability to employ aerospace power for combat, peacekeeping, or humanitarian operations anytime, anywhere gives national leaders the ability to react to any crisis, often at a very early stage.

In addition, the Air Force shapes the international landscape with a comprehensive program of cooperative engagement. Clearly recognized as the world's most capable aerospace force, the Air Force is building sound security relationships with allies and coalition partners around the world through substantive international exercises, education and training programs, and foreign military sales.

Deterring

Preventing conflict—deterrence—is an important dimension of shaping and a mission accomplished by the Air Force daily. The broad range and forward posture of aerospace forces—whether conventional or nuclear, theater- or CONUS-based—deter aggression and demonstrate U.S. commitment to the international community. During 1998, airmen stood watch in the Pacific, Europe, and Southwest Asia with forward-based units; maintained around-the-clock alert in order to deter conflict with Peacekeeper and Minuteman III intercontinental ballistic missile forces in the United States; and flew B–1, B–2, and B–52 Global Power missions from the U.S. to distant locations, underscoring U.S. commitment and willingness to defend its interests throughout the world.

Promoting Stability

The Air Force seeks to promote international stability by building broad relationships with the militaries of other nations. These ties increase mutual understanding and enhance interoperability. Air Force engagement programs facilitate cooperation and access during contingencies and enable future coalitions of willing and capable allies.

Recently, Air Force international engagement and stability efforts have focused on support of Joint Chiefs of Staff (JCS) and other international exercises, the Partnership for Peace Program, Military Contact and International Armaments Cooperation Programs, as well as Security Assistance efforts. Last year, the Air Force was actively engaged in 88 international exercises in 82 locations throughout the world. These included 17 exercises with 27 Partnership for Peace countries and nearly 300 focused Military Contact Program events. The Service maintains more than 250 agreements under the International Armaments Cooperation Program to encourage the exchange of information with allies and coalition partners. These exchanges involve cooperative research and development, scientist and engineer exchanges, equipment loans, and scientific and technical information exchanges.

In 1998, the Air Force's Foreign Military Sales (FMS) program managed over 4,000 contracts for aircraft, spare parts, munitions, and training worth more than $105 billion. Meanwhile, the International Military Education and Training (IMET) Program continued to emphasize management training and professional military education. Under the IMET Program, the Air Force trained 1,156 students from 88 countries; 225 graduated from U.S. specialized undergraduate pilot training.

RESPONDING

Contingency Operations

Should shaping and deterrence prove inadequate to meet U.S. security needs, the Air Force is prepared to respond across the spectrum of conflict. For small-scale contingencies, the Air Force offers U.S. policy makers the ability to provide humanitarian assistance, enforce no-fly zones, evacuate U.S. citizens and conduct limited strikes and interventions.

In the 1998 National Security Strategy, national leaders identified halting operations as a linchpin in the nation's two Major Theater War (MTW) strategy. This strategy uses fast responding U.S. capabilities to defeat aggression in distant theaters, quickly and decisively. This strategy allows warfighting commanders to seize the initiative, minimize territory that must be won back, and maintain coalition integrity. The traditional attributes of aerospace power—speed, range, flexibility—and its global reach and perspective; combined with stealth and precision, make aerospace power the force of choice to execute the halt. The Air Force can rapidly deploy a powerful maneuver force to any location and conduct sustained operations with precise effects. Importantly, using aerospace power to stop an aggressor allows our warfighters to win with minimum risk to U.S. personnel—a strategy consistent with enduring national values.

During 1998, aerospace power advanced the interests of the United States in every corner of the world. This was especially true in Southwest Asia and the Balkans, where the Air Force put teeth into United Nations resolutions and the Dayton Peace Accords. Using powerful, day/night, all-weather, surveillance and reconnaissance capabilities, the Air Force ensured that allied leaders and U.S. commanders retained dominant battlespace awareness in both regions.

In the Arabian Gulf, Air Force units in operations Northern Watch and Southern Watch, patrolled no-fly zones and maintained the ability to employ decisive force in support of U.N. resolutions on Iraq. Three times in 1998 the international community reacted to violations of these resolutions by Iraqi leadership. The Air Force, central to the coalition team, rapidly increased its deterrent presence. Behind the scenes, CONUS- and space-based assets provided support to, and enhanced, this po-

tent in-theater force. Faced with clear resolve and imminent employment of aerospace combat power, Iraqi leadership twice backed down. In December, because of continuing Iraqi intransigence, National Command Authorities ordered DOD to execute Operation Desert Fox—a strong, sustained series of air strikes against Iraq.

The Air Force played a crucial role in Operation Desert Fox employing its air and space weapons systems to ensure aerospace and information superiority, and to precisely attack Iraqi military targets. The Service's space systems provided targeting, threat, and navigation support to coalition forces. Air Force bombers precisely struck targets from distant bases, once again demonstrating the range, strikingpower, and flexibility of these weapons systems. The B–1 Lancer proved itself in combat, destroying Iraqi military barracks. B–52 Stratofortresses launched from Diego Garcia and employed Conventional Air Launched Cruise Missiles (CALCM) against a range of targets, illustrating the long-range power and effectiveness of Air Force aircraft with standoff weapons. And, theater based F–16's and A–10's conducted precision attacks.

The Air Force remains the key contributor to our nation's commitment to stability in Southwest Asia. The Service's intelligence, surveillance, and reconnaissance assets provided the majority of resources that informed national leaders about activities in the region. Additionally, the Air Force flew 75 percent of the sorties in Northern Watch, 68 percent of the sorties in Southern Watch, and nearly all of the air refueling sorties essential to Air Force, Navy, and Marine operations.

Air Force participation in operation Joint Forge helped keep peace in the Balkans. Fusing imagery and other information from space, manned aircraft, and unmanned aerial vehicles, the Service created a unified picture of the region, allowing U.N. forces to control what flew in the air and moved on the ground. The ability of aerospace power to provide battlespace awareness and hold at risk targets that aggressors value provided diplomats the leverage they needed to negotiate an agreement to end the violence in Kosovo. Within hours of inking the Kosovo agreement, Air Force aircraft were flying over the area, executing operation Eagle Eye, the NATO mission to monitor compliance. The speed, range, and flexibility of aerospace power were again on display.

Counterdrug Operations

Throughout 1998, Air Force counterdrug operations demonstrated both the versatility of aerospace power and the innovative ways the Service uses its assets to counter non-traditional threats. Airborne and ground-based radars and sophisticated intelligence collection platforms identified suspected drug traffickers before they could enter U.S. airspace. Reserve fliers tracked drug smugglers far from our borders, and the Civil Air Patrol aided law enforcement agencies at home. On the ground, Air Force working dogs detected significant quantities of illegal drugs at U.S. ports, which barred their entry.

Humanitarian and Relief Operations

The Air Force continues to use its global mobility assets to save lives and relieve suffering. When the U.S. embassies in Kenya and Tanzania were bombed, the Air Force deployed Initial Response Teams of medical personnel and security forces in less than 24 hours from Prince Sultan Air Base. Their timely arrival reduced suffering and helped to stabilize the situation. This marked one of the first times that the Service deployed forces from one contingency operation to another. In addition, twice this year, the Air Force reacted to natural disasters in China airlifting emergency supplies to remote areas. To the delight of the world's children, the Air Force also airlifted Keiko, the whale, from Oregon to a new home in Iceland, demonstrating the flexibility of our people and equipment.

At home, when heavy winter storms ravaged the East Coast and Rocky Mountains, the Air Force airlifted critical disaster relief supplies to the affected areas. Livestock stranded by these conditions were kept alive by airdrops in Vermont and New Mexico. When catastrophic wildfires engulfed large parts of Florida, the Air Force helped reduce the destruction, moving 72 fire trucks and 269 fire fighting personnel from the western U.S. to decisive points in Florida to fight these fires. Their efforts protected thousands of residents and greatly limited damage.

PREPARING

The Air Force was in constant demand during 1998 with deployments continuing at four times the Cold War pace. The Air Force met this demand with one-third fewer people and 40 percent less force structure. We did significantly more, with significantly less. The combination of increased commitments and reduced resources while operating within a Cold War organizational structure have led to a higher tempo and increased strain on people and equipment. To improve the way that it

accomplishes its mission, while lessening the impact of increased tempo on our airmen, the Air Force is implementing its Expeditionary Aerospace Force initiative.

EXPEDITIONARY AEROSPACE FORCE—INNOVATING FOR THE FUTURE

Today's national security environment requires America's Air Force to be continuously engaged in contingency operations across the spectrum of peace and conflict, frequently in austere locations, while remaining ready to fight in two major theater wars. To meet this need, the Air Force is revamping its concept of operations—transforming how it organizes, trains, and deploys forces into theaters of operation, accomplishes its missions, and then redeploys. The Expeditionary Aerospace Force (EAF) concept represents an evolutionary transition from a threat-based, Cold War garrison force, oriented on containing the Soviet Union, to a capabilities-based force focused on responsiveness and engagement.

Under EAF, the Air Force will reorganize its forces by January 2000, operationally linking geographically separated units to form ten Aerospace Expeditionary Forces (AEF's). Each AEF package will consist of a full complement of air and space assets with manpower drawn from the Total Force: Active duty, Air National Guard, and Air Force Reserve. Fighter, bomber, tanker, airlift, command and control, radar, and electronic warfare aircraft combined with communication, intelligence, surveillance and reconnaissance air and space systems will provide customized AEF units with unparalleled lethality and responsiveness. The AEF reorganization utilizes new operational concepts and developing information-based technology to create these units without moving significant force structure.

AEF's will be scheduled on a 15-month cycle with 90-day vulnerability periods for deployment. During each vulnerability period, two AEF's will be available to support short notice taskings as well as scheduled forward presence missions such as the Balkans and Southwest Asia.

AEF's will provide U.S. combatant commanders more capable, highly trained forces. Training as a team during their spin-up cycle, AEF's will form fully integrated aerospace units that combine the capabilities of the Service's weapons systems to create a powerful composite force. AEF deployment schedules will be published a year or more in advance allowing commanders to structure training programs to put these units at the peak of readiness as they enter their vulnerability period. A known commitment period will also permit AEF's to refine training and planning to match current world events, resulting in shorter response times and a tailored force that better meets the needs of U.S. commanders in the field.

Advanced scheduling is an important dimension of the AEF; it adds predictability and stability to the lives of airmen. Letting airmen know ahead of time when they are likely to deploy will permit them to predictably plan professional and family events and mitigate the impact of high operations tempo on them. The AEF also will allow better use of the Air Reserve Component. Knowing in advance when they will be committed to AEF taskings will permit Air National Guard and Air Force Reserve personnel to better manage their civilian work schedules enabling them to participate. This predictability will benefit the Air Force, its reservists, and their civilian employers. In this way, the move to the EAF concept will allow the Air Force to make fuller use of its versatile, hard-working Reserve Component.

The EAF is much more than an innovative way of organizing and employing aerospace power. It is a change in the way the Air Force assigns its forces. Currently, the Air Force sizes its support forces based on the number of permanent bases that it operates. Support forces for expeditionary sites are then drawn from this pool of manpower with the result that over 10,000 personnel—enough to man three average-sized fighter wings—are deployed from their assigned locations every day. Consequently, there are not enough support personnel to go around, and airmen left at home work longer, and harder than they should, without relief. The EAF initiative addresses this problem by realigning manpower authorizations to support the Air Force's AEF's. By increasing the size of deploying support career fields, the Air Force will be able to better sustain expeditionary operations and manage the effect of tempo on airmen. In part, this realignment of manpower is being made possible through improvements in business practices. As the Service finds better ways of accomplishing tasks that do not require uniformed personnel, it is redirecting authorizations to career fields that deploy and support expeditionary operations.

TOTAL FORCE

America's Air Force is a well-integrated Total Force that relies on critical contributions from active-duty members, guardsmen, reservists, civilians, and contractors. Each has unique and complementary characteristics that, when combined, produce a strong and versatile team. This year, building on its reputation as the

DOD Total Force benchmark, the Air Force expanded the role of the Reserve Component in its flying training and security force missions, more fully utilizing the special skills reservists bring to these important mission areas. Continuing to look ahead, the Air Force commissioned a study, Future Total Force, to determine how to achieve the right force mix in the 21st century. A key to tomorrow's Total Force is continued support of Reserve Component personnel by their civilian employers. The Air Force is working with employers to make guardsmen and reservists' military service as beneficial to them, as it is to the nation.

FOCUS AREAS

Force Protection

The Air Force has an impressive force protection capability. The Service's long-range objective is to institutionalize force protection—making it a cornerstone of daily operations. The Air Force continues to enhance force protection by training airmen, equipping and reorganizing security forces, and exploiting technology to protect home-station and deployed units. In 1998, the Service continued to adapt its security forces to face the evolving threat. For example, to meet the needs of expeditionary operations, the 820th Security Forces Group provides stand-alone, rapidly deployable security forces squadrons consisting of security forces, intelligence, Office of Special Investigation, medical, communications, and engineering personnel. Tailor-made to support rapid deployments into forward theaters and sustained, secure operations from forward locations, the 820th provided the security for two Air Expeditionary Wing deployments to Southwest Asia in 1998.

To improve the security of its permanent and expeditionary locations, the Air Force is conducting vulnerability assessments at every installation. The Service is mitigating the deficiencies that the teams identify while pursuing long-term remedies. This review is strengthening the security of Air Force installations at home and abroad.

Space Operations

Composed of both air and space, the continuous, indivisible aerospace medium is the operating environment of the Air Force. Since its founding, the Service has dominated the aerial environment. It is now evolving its doctrine, equipment, personnel, and culture in order to continue that dominance throughout the entire aerospace dimension.

Today, Air Force space operations enable many of the current capabilities of all the U.S. Armed Forces. The Air Force's space-based systems are increasingly responsible for the global awareness that national leaders and regional Commanders-in-Chief count on. Air Force satellites provide aircrew the intelligence and weather data they need to plan and conduct their missions. The Service's constellation of Navstar Global Positioning System (GPS) satellites helps all of the Armed Forces navigate and deliver weapons precisely on assigned targets. Constellations of Air Force communication satellites facilitate the command and control of the joint force.

The Air Force is working hard to better integrate its air and space systems. For example, the Multi-Source Tactical System (MSTS) brings a range of space products such as weather, surveillance and navigation information directly into cockpits. Another example, Combat Track, provides airborne aircraft precise GPS location data, two-way message text, and planning information.

As a strong steward of space for the nation, the Service is collaborating with several governmental and private organizations to best use its resources and improve space operations. One example is the Space Partnership Council, which consists of the Air Force, the National Aeronautics and Space Administration (NASA), and the National Reconnaissance Office (NRO). Working together, the Council integrates planning efforts, reduces risk, avoids duplication, and identifies ways to save money. In 1998, for example, the Council realized substantial savings in the areas of precision targeting and long haul communications. In a similar effort, the Air Force and NASA combined base operating support contracts at their Florida launch facilities, significantly reducing costs for both organizations. Additionally, the Air Force Research Laboratory is partnering with NASA to leverage research and development funds, maturing important technologies while saving tax dollars.

The Air Force has also formed partnerships with industry. With its Warfighter-1 technology demonstration program, the Air Force is taking advantage of commercial infrastructure and investment to assess the military utility of hyperspectral remote sensing from space—a new technology with great promise. Also in 1998, the Air Force reached agreement with major companies using the launch facilities at Cape Canaveral Air Station, Florida and Vandenberg AFB, California. The Commercial Space Operations Support Agreement created a standard for commercial use of

the Air Force's unique space infrastructure, making it simpler and cheaper for U.S. concerns to reach space.

Information Operations/Assurance

The Air Force depends on timely, reliable, and secure information. The Service executes Information Operations (IO) in air, space, and cyberspace to gain and maintain information superiority. Toward this end, the Air Force published its IO doctrine and issued a comprehensive policy for defensive IO last year. It also completed a sweeping Electronic Warfare (EW) Operational Shortfall Study aimed at ensuring the superiority of Air Force EW capabilities into the 21st century.

The Air Force continues to focus on defensive counter-information operations, particularly information assurance, by deploying technologies that improve intrusion detection and response capabilities to protect computer networks. The Service fielded the Automated Security Incident Measurement (ASIM) system at all its bases worldwide. ASIM gives the Air Force the ability to identify and track those that attempt to penetrate its networks. Additionally, the Service deployed a new suite of firewall, network management, and protection tools in December 1998, giving it an up-to-date, robust capability to assure the operational availability and integrity of networks and the information contained within them.

The Air Force is also creating organizations and capabilities at all levels to control, monitor, and protect its networks. These organizations are establishing reporting and compliance procedures to ensure that the vulnerabilities of the Service's networks are identified and remedied. These precautions will also ensure that information placed on publicly accessible systems is properly reviewed and does not include personal or operational data.

Finally, the Air Force is undertaking a program known as Operationalizing and Professionalizing the Network to treat networks similar to its weapons systems. "Operationalizing" focuses on applying operational rigor to network functions including inspections and evaluations, graduated response, operational reporting, and rules of engagement. "Professionalizing" networks involves actions required to organize, train, equip, and sustain networks and the personnel that operate them. Specific initiatives include applying engineering discipline to in-garrison and deployed networks, designing layered "information protection" throughout the network, certifying and licensing network professionals and users, assigning data ownership, and standardizing network equipment based on common Air Force technical architecture. The Air Force is instilling in every airman that information security is everyone's job and that lives depend on it.

An important information assurance task is the transition to the Year 2000. The Air Force will ensure that mission-critical functions continue without interruption or error on January 1, 2000 and beyond. To do this, the Air Force has evaluated, prioritized, and updated its systems. Eighty-two percent of its mission-critical weapons and information systems were certified Y2K compliant by December 31, 1998. Certification of remaining systems is on-track to meet requirements before January 2000. The Air Force began executing a thorough Y2K testing and operational evaluation program in 1998 completing "end-to-end" tests of the F–15, B–1, and Advanced Medium Range Air-to-Air Missile. Evaluations will continue in 1999 and include tests with sister services, defense agencies, and other joint activities. The Service will have continuity of operation plans in place for all mission tasks and systems—the Air Force will be mission ready and flying on January 1, 2000.

READINESS UNDER FISCAL CONSTRAINTS

"Airpower is like poker. A second-best hand is like none at all—it will cost you dough and win you nothing."—Lt Gen George Kenney

Readiness—the ability of a Service to conduct its primary mission is a complex quality. It depends on bringing many components together to develop and focus combat power. Some of these components are tangible, such as the number of top-notch and fully trained airmen, mission-ready aircraft, or orbiting satellites. Others, like individual and unit morale, unit cohesion, and unit effectiveness, are less tangible. As Air Force senior leaders have reported, the Air Force remains ready to meet today's demands. However, the combination of several years of constant high operations tempo, aging equipment, and the cumulative effect of too few dollars has taken its toll on current readiness and created concerns about future readiness.

Readiness is declining, especially for stateside forces. Because the Air Force gives forward units priority for resources to keep them at peak strength, stateside units suffer lower readiness rates. The strains—and the limits—of doing more with less are clearly evident. Major unit readiness decreased by 18 percentage points in the past two and a half years, with stateside combat readiness declining by 56 percentage points in that same period. Nearly half of that decline occurred in the last ten

months of 1998. In response, the fiscal year 2000 President's Budget increases readiness spending, which should address the readiness decline.

OUR AIRMEN ARE A TREASURE TO THE NATION

Recruiting and Retaining

"Only the most dedicated, well-trained personnel with first class leaders will succeed in the complex and fast-paced environment of future military operations"—Gen Shalikashvili, 1997 National Military Strategy

America's airmen are the foundation of the Air Force and a national treasure. We must recruit and retain the very best. Although the Air Force met its recruiting goals in fiscal year 1998, its increasing difficulty in meeting these goals and a slight decline in the quality of recruits caused concern. Therefore, the Air Force enlarged its recruiting force, significantly increased its enlistment bonus program and increased the size of its advertising budget to ensure that it continues to attract top-notch people.

Attracting good people is only the first step in building and maintaining the world's finest air force; retaining them is just as important. Retention has become a serious problem. Air Force people have earned an enviable reputation as disciplined and highly skilled workers—civilian employers actively recruit them. The combination of several years of high operations tempo, a less attractive retirement package, civilian-military pay disparities, and a strong economy, are making it difficult to keep our people in uniform.

Retention is challenging across all ranks and career fields. For many, especially pilots, the pull from the civilian sector is powerful. The stable family lifestyle, as well as excellent pay and benefits offered by the airline industry, are strong enticements. At the start of this year, the Service was 855 pilots short of its needs, that number is expected to increase to approximately 2,000 in fiscal year 2002. The Reserve Component is also having difficulty manning its full-time flying billets. To address these shortages, the Air Force has increased pilot production and added two years to the initial pilot training commitment. These changes will make a difference; however, they have a long-term focus and will not be felt for several years.

Retention is also a serious concern for enlisted personnel, especially mid-level non-commissioned officers. These airmen represent an experience and leadership base that is critical not only for today's readiness, but also for training tomorrow's Air Force leaders. In 1998, the reenlistment rate for those completing their second term of enlistment was 69 percent. This is below the Air Force goal of 75 percent and dropped for the fifth year in a row. In fact, many key warfighting career fields, such as security forces, avionics, aircraft maintenance, and air traffic control are experiencing even larger drops in reenlistment. First-term and career reenlistments also fell below Air Force goals. For the first time since 1981, the Service has failed to meet retention goals for all three categories of its enlisted force: first-term; second-term; and, career professional airmen. Losing these individuals is a costly blow to readiness. To combat these trends, the Air Force more than doubled the number of career fields eligible for Selective Reenlistment Bonuses to 117. The Service believes that the improvements in the retirement system and military pay, proposed in the fiscal year 2000 President's Budget, will enhance retention.

Quality of Life (QoL)

America's sons and daughters become Air Force airmen because they want to be part of a quality organization—an organization that offers a higher calling and special way of life. To provide for, motivate, and retain its airmen, the Air Force continues to support several Quality of Life initiatives: a valued retirement benefit; fair and competitive compensation; safe, affordable, and adequate housing; quality health care; balanced tempo; robust community and family programs; and, expanded educational opportunities. These are the initiatives commanders, first sergeants and airmen indicate are important to them.

Traditionally, the retirement benefit has been perceived as a powerful retention tool. Airmen say that the reduced retirement plan adopted by Congress in 1986 is having the opposite effect. The reduced program is widely viewed as inadequate and has become an oft-cited reason not to remain in uniform for an entire career. The Air Force strongly supports the President's proposal to return the 20-year retirement to 50 percent of base pay.

Airmen also report that chief among their QoL concerns is fair and competitive compensation. Military pay has not kept pace with the civilian economy. The Air Force enthusiastically supports the improvements to military pay proposed in the fiscal year 2000 President's Budget, including both overall pay increases and the pay table restructuring that rewards promotion over longevity. Further, the Service

is committed to ensuring the value of compensation keeps pace with inflation and wage growth in the private sector.

Housing, for both single members and families, continues to be an important Air Force concern, especially given the increase in the real property maintenance backlog driven by fiscal constraints. Air Force commitment to the new DOD 1+1 dormitory standard, where airmen share a kitchen and bath, but have a room of their own, is a visible and popular QoL improvement for our junior enlisted personnel. The Air Force is also addressing family housing concerns. The Air Force is committed to reducing out-of-pocket housing expenditures for those members living in the civilian community, and to revitalizing over 61,000 aging, on-base homes. Where feasible, privatization offers one way to update base housing quickly and affordably. At Lackland AFB in Texas, private funds are being used to replace 272 housing units and construct 148 new units on base. With such positive results, the Air Force is studying nine additional housing privatization projects, with more to come.

Quality health care is fundamentally a readiness issue that affects every Air Force member. Airmen must be physically able to meet the challenges of expeditionary warfare and they cannot be distracted by worries about their families' health care when they are deployed. To deliver timely, reliable, cost efficient health care, the Air Force is re-sizing facilities for community needs, promoting healthy lifestyles, and employing managed care via the TRICARE program. The Air Force operates 48 of the DOD's 115 hospitals and 30 of its 471 clinics. Air Force hospitals and clinics are top-notch, meeting the same high standards as their civilian counterparts. Health and wellness programs offer a range of nutrition and exercise options aimed at keeping airmen healthy, rather than treating them after they become ill.

With the last three regions coming on line in June of last year, DOD fully deployed TRICARE, the military form of managed care. TRICARE is a significant change in military health care and its implementation has had its share of growing pains. Surveys show that confidence in the system improves as the program matures. At the direction of Air Force senior leadership, the Inspector General is conducting a focused management review, known as an EAGLE LOOK. This EAGLE LOOK will review available data and current policies to assess active duty and family member satisfaction with TRICARE. It will recommend courses of action in order to improve airmen's satisfaction level with the system.

Meanwhile, the Air Force supports alternative efforts to deliver affordable healthcare to its retired members. The DOD's Medicare Subvention Demonstration Project, TRICARE Senior Prime, began testing this year at a number of Air Force medical treatment facilities. With Subvention, Medicare is permitted to reimburse select facilities for care they give to Medicare-eligible beneficiaries. The Air Force is also participating in the congressionally sponsored demonstrations of the Federal Employees Health Benefits Program and expansion of the National Mail Order Pharmacy Program. If successful, these initiatives will deliver improved health care to those who served so commendably during another era. The current active-duty and reserve force is watching how we treat our retirees. We must do the right thing.

The Air Force manages tempo as a QoL initiative, seeking to limit an individual's time away from home station to a maximum of 120 days per year. To do this and still meet operational needs, the Air Force reduced its exercise and inspection schedules, increased reliance on its Reserve Component, and reduced the typical length of an aircrew deployment from 90 to 45 days. The EAF concept reinforces this initiative by spreading deployments more evenly among operational units, increasing the size of deploying career fields, and providing more predictable deployment periods.

Community and family programs knit our people together at home and provide for families while airmen are deployed. Through Air Force-sponsored family support, childcare and youth centers, commissaries and military exchanges, and morale, welfare, and recreation programs, the Air Force demonstrates commitment to its airmen and their families. The Air Force has also created a new position at each base, the Family Readiness Non-Commissioned Officer, to provide a single-point information and referral source for families of deployed airmen.

For the Air Force, education has always been the gateway to the future. Through the Community College of the Air Force, active duty airmen can combine college credits and Air Force-related education and experience to earn an Associate Degree in Applied Science. Additionally, the Air Force tuition assistance program pays up to 75 percent of tuition costs at accredited colleges and universities, many of which offer classes on base. The Air Force civilian tuition program answers a similar need for our non-uniformed employees. Taken together, Air Force educational programs constitute a meaningful, motivational, and highly valued QoL benefit.

Training

The highly technical Air Force will always need top-notch, well-trained, and highly motivated airmen. To ensure that basic training produces the world's finest professional airmen, consistent with the recommendations of the Kassebaum-Baker Panel, the Air Force made several improvements this year. The Service strengthened the basic military training (BMT) physical fitness regime and added a field training exercise to better prepare airmen for expeditionary operations. The Air Force also added additional military training instructor positions to reduce the trainee/trainer ratio. Through incentives, such as increasing special-duty pay and uniform clothing allowances, a new ribbon, and granting follow-on assignment preferences, the Air Force will continue to attract the best Military Training Instructors.

The Air Force strongly supports gender integrated military training. This judgement is, in part, based on 25 years of highly successful experience in this training environment. Air Force training is firmly linked to our combat mission—a mission that requires men and women to work together as a team. The aerospace team depends on professional relationships at all levels and among all peoples. These relationships are best cultivated from the first day of military training, rather than delayed until airmen reach operational units. Importantly, throughout BMT, trainee safety and security are paramount. Accordingly, gender-separated living areas in dormitories are secured and monitored twenty-four hours a day, seven days a week.

The Air Force is improving leadership training with the introduction of the Aerospace Basic Course (ABC). Officers and civilians attend the ABC shortly after beginning their Air Force careers. This course is designed to better prepare company-grade officers and select civilians for the future. It provides a foundation in the profession of arms and a working knowledge of the unique contributions of aerospace power. Through this entry-level professional military education program, Air Force lieutenants and key civilian interns gain a deep appreciation of Air Force values, history, doctrine, and the skills required to operate and fight from austere, forward bases, as well as to fully exploit the medium of aerospace for the joint force.

Training warrior-leaders begins with the Aerospace Basic Course and extends throughout each officer's career. The Service develops its leaders deliberately, using a proven process that exposes them to Air Force and joint operations, Professional Military Education (PME), and increasing command and staff responsibilities. The depth of an airman's expertise is developed through a series of operational assignments that make him or her an aerospace power authority. Having always placed a premium on education, for both officers and enlisted members, the Service's PME system prepares its leaders for the challenges they will face in their immediate future. As airmen progress through their careers, the Air Force competitively selects the very best to command its squadrons, groups, and wings. The Service relies on a comprehensive series of additional leadership and command courses to supplement continuous mentoring in order to produce commanders who are able to make the right call, whether in peace or war. Leadership and command have always been an Air Force strength, one it will continue to rely on in the 21st century where commanders must quickly, and confidently, make life and death decisions.

The Air Force prepares its airmen for specific operational duties through advanced training programs. The Air Force is aggressively expanding and updating one of these, specialized undergraduate pilot training (SUPT). To address its growing pilot shortage, the Air Force is expanding its annual pilot production from a low of approximately 500 active duty graduates per year in the early nineties, to 1,100 per year in fiscal year 2000.

The Air Force has also made several training force changes that improve SUPT, while permitting more efficient use of resources. The Air Force is consolidating its "Introduction to Fighter Fundamentals" training and increasing the size of its primary flying training force structure. In 1998, the Air Force developed an enhanced training syllabus for advanced bomber training. It features the T–1 aircraft instead of the T–38 and focuses on developing crucial crew coordination skills. Placing greater reliance on the T–1 for bomber training, allows the Air Force to dedicate more of its T–38 fleet to fighter training.

The Air Force is also pursuing new ways to train its operational aircrews. Distributed Mission Training (DMT) is an area that holds great promise. Using state-of-the-art simulation technology, DMT permits aircrews to train in synthetic battlespace, connected electronically to other aircrews at distant air bases. Importantly, DMT delivers this enhanced training from the home station, helping the Air Force limit the amount of time airmen spend deployed and will facilitate the training of AEF's as they prepare for deployment.

Air Force civilians are an integral part of the aerospace team. To prepare them for the 21st Century, the Air Force overhauled its civilian development program and increased opportunities for professional development. The goal is to produce tech-

nically proficient civilians who are well versed in Air Force missions, structures, and doctrine.

Equipment—Sustaining an Aging Fleet

The Air Force's weapons systems are older than ever before. In 1999, the average age of our aircraft will be 20 years and despite current modernization plans it will increase to 30 years in 2015. Many weapon systems already have exceeded their initial estimated service lives. Fatigue, corrosion, and parts obsolescence progressively are driving up the costs of maintaining these older aircraft and systems. For example, an older model F–15, nearing its third decade of service life, costs 37 percent more to maintain than newer models. For the Air Force to stay ready, and to keep readiness affordable, it must replace weapon systems that are beyond their useful lives and revitalize those that are still viable.

Faced with competing needs—to both operate and modernize in a budget-constrained environment—the Air Force has been forced to make difficult choices. Over the past few years, the costs for spares and depot repairs have continued to outstrip funding. As a result, the rate at which we must use our aircraft as a source for spare parts to keep the rest of the fleet flying—the cannibalization rate—has increased 78 percent since 1995. Additionally, mission capable rates have dropped by nearly ten percent since 1991, with a two percent drop in fiscal year 1998 alone. These indicators point to significant readiness challenges now, and in the future. In order to address these trends, the Air Force greatly increased spending on spares and repairs for fiscal year 1998 and fiscal year 1999. The fiscal year 2000 President's Budget adds additional funds to these accounts. The Service believes these increases will arrest the decline in mission capable rates. In the long term, this remains an area of concern given the increasing costs associated with an aging fleet.

Infrastructure

In the past decade, manpower and force structure reductions have outpaced infrastructure cuts. As a result, the Air Force is spending scarce resources on unneeded facilities and spreading its airmen too thin. The need to fund higher priority programs has caused the Air Force to under-invest in base operating support, communications support, real property maintenance, family housing, and military construction. To enhance readiness, the Service must be allowed to right size its infrastructure so that it matches strategy and force structure.

Key parts of Air Force infrastructure are range complexes. Test and training ranges are crucial to readiness and in many cases a national asset. The Service is working collaboratively with the Department of the Interior to renew the legislative withdrawal of public lands that comprise several of its ranges, especially the Barry M. Goldwater Range in Arizona and the Nellis Range in Nevada. Additionally, in 1998 the Air Force completed an agreement with the commercial space launch industry that optimizes use of its unique space launch ranges.

Readiness

The Air Force can support the National Security Strategy today, but to do so in the future at an acceptable level of risk, requires increased funding. To arrest the readiness decline, the Service needs additional funding to resolve shortfalls in programs that affect its airmen and its equipment. The Air Force believes improvements in the retirement system and military pay, proposed in the fiscal year 2000 President's Budget, will aid retention, and therefore readiness. The EAF concept, introduced in 1998, will enhance the Service's ability to conduct sustained expeditionary operations and reduce the impact of the tempo they require of airmen. Additionally, the fiscal year 2000 President's Budget proposes additional funding for spares and repairs that are intended to affect cannibalization and mission capable rates. In the longer-term however, the Service must modernize and upgrade its weapon systems to keep its aging fleet sustainable at an affordable cost.

MODERNIZATION—FUTURE READINESS

"In the development of air power, one has to look ahead and not backward and figure out what is going to happen, not too much what has happened."—Brig Gen Billy Mitchell

The Expeditionary Aerospace Force will respond rapidly and globally to deliver decisive combat power or life-saving humanitarian relief. Expeditionary operations require a force that is light, lean, and lethal. This force is quick to deploy, easy to sustain, and powerful for its size. Air Force modernization efforts focus on developing and fielding systems that enhance the Service's expeditionary capabilities.

The Air Force is both procuring revolutionary new weapons systems and revitalizing existing equipment that is still viable. In some cases, a fielded, proven weapon

system may be upgraded for enhanced capability, survivability, or reliability and maintainability. In others, the best decision is to procure new. The choice turns on whether current capabilities can affordably meet and defeat anticipated threats within acceptable levels of risk. The C–5 modification program is an example of a successful upgrade strategy. The Air Force's plan to update the Galaxy's engines and avionics will keep this unique airlifter viable well into the next century at minimum cost to the nation. The F–22 program demonstrates the imperative to procure new weapons systems. The leap-ahead capabilities of the Raptor will enable it to win aerospace superiority in tomorrow's skies—the key to successful joint operations—against advanced threats, affordably. In all cases, modernization supports the Air Force core competencies and enhances the aerospace power that the Air Force delivers to joint force commanders. The fiscal year 2000 President's Budget provides funds to maintain key modernization programs like the F–22, C–17, and Evolved Expendable Launch Vehicle, and will address shortfalls in combat aircraft force structure. At the same time, while this budget maintains key modernization programs, it does so at slower than optimal rates.

AEROSPACE SUPERIORITY

"Once real mastery of the air was obtained, all sorts of enterprises would become easy."—Winston Churchill

Joint Vision 2010, the Chairman of the Joint Chiefs of Staff blueprint for the future, envisions the U.S. military dominating all aspects of a conflict—Full Spectrum Dominance. The history of modern warfare tells us that to dominate the battlefield, on land or at sea, a military must first control the high ground—aerospace. Aerospace superiority is the pivot point for every U.S. joint operation. By winning aerospace superiority, the Air Force gives every member of the joint team the ability to operate free from attack and free to attack. Air Force modernization includes a comprehensive and complementary plan that will give the nation the ability to control the vertical dimension well into the 21st century.

The Air Force's highest aerospace superiority priority, and its most pressing modernization need, is the F–22 Raptor. The F–22, replacing the aging F–15 Eagle, gives the nation the technology edge that it has come to depend upon. Blending stealth, speed, and integrated avionics, the F–22 brings an unmatched capability to the battlespace. In the hands of Air Force aviators, the F–22 will dominate the aerial arena of the 21st century.

The Raptor proved itself with extensive flight tests last year; demonstrating airworthiness throughout a large portion of the flight envelope, and meeting all requirements to enter limited rate production. The F–22 will begin operational service in 2005. Funding stability is critical.

The weapons for the F–22 and current aerospace superiority fighters are the AIM–120 Advanced Medium-Range Air-to-Air Missile (AMRAAM) and the Air Intercept Missile (AIM–9X). The AMRAAM, the world's best air-to-air missile, is undergoing an upgrade to improve its range, ability to counter electronic threats, and warhead effectiveness. Similarly, the AIM–9X will regain dominance over other comparable infrared missiles in foreign inventories.

The Airborne Laser (ABL) will add an important capability to aerospace superiority. Presently in development and moving toward a lethality demonstration in 2003, the ABL brings several revolutionary technologies together to form a formidable theater missile defense capability. The ABL will merge state-of-the-art optics and tracking technologies to identify, track, shoot, and destroy enemy theater ballistic missiles during their initial ascent, long before they place American or allied troops at risk. ABL's long range sensors and laser tracking systems also will enhance the performance of land- and sea-based theater missile defense systems with precise cueing of their radars; they also increase attack options by transmitting launch points to C^2 nodes. Last year, the Air Force successfully tested the ABL's flight-weighted laser module, demonstrating the ability of the laser to produce 110 percent of its required power output. Importantly, the ABL is a critical technology waypoint along the development path of the complementary Space-Based Laser. The ABL program is being restructured to reflect a 10–12 month delay due to congressional actions that reduce funding and direct additional risk reduction tasks.

The Space-Based Laser (SBL) Program is the result of an Air Force partnership with the Ballistic Missile Defense Office (BMDO). SBL could provide theater missile defense and defense against intercontinental missiles launched at the United States. Advancing the potential of SBL is part of the Air Force's charter as the nation's military space arm; the Service will do so consistent with international treaties and national policy.

Space-based assets play critical roles in aerospace superiority. With the Space-Based Infrared System (SBIRS), the Air Force is developing two constellations of satellites that provide improved detection and warning of strategic and theater missile launches. SBIRS also will cue ABL, SBL, and all other missile defense systems allowing them to destroy weapons before they can threaten deployed troops or the U.S. homeland. The Air Force is scheduled to launch the first SBIRS High satellite in fiscal year 2004; the first SBIRS Low satellite in fiscal year 2006.

To operate in space, the Air Force must have reliable and cost effective launch vehicles. The Evolved Expendable Launch Vehicle (EELV) delivers this capability. The EELV program teams with industry to develop a launch vehicle meeting military, civil, and commercial requirements with little or no modification. This dual-use procurement strategy ensures that military spacelift requirements are met while stimulating the nation's commercial launch industry.

GLOBAL ATTACK

"Airpower has become predominant, both as a deterrent to war, and—in the eventuality of war—as the devastating force to destroy an enemy's potential and fatally undermine his will to wage war."—Gen Omar Bradley

Central to U.S. warfighting strategy is the ability to rapidly defeat aggression. Halting operations prevent aggressors from reaching their objectives and create the conditions for a successful counter-offensive should it be deemed necessary. To quickly halt enemy forces, the U.S. must maintain the ability to project power rapidly, precisely, and globally—a job tailor-made for the Expeditionary Aerospace Force and the global attack assets that it contains. Air Force bombers can deliver decisive combat power from either the continental United States or in-theater bases. The responsiveness and overwhelming firepower of long-range aircraft greatly increase the options available to regional Commanders-in-Chief.

The B–2 Spirit is the Air Force's newest multi-role heavy bomber capable of delivering both conventional and nuclear munitions. The Spirit's low-observable characteristics paired with its inter-continental range give it the ability to penetrate an enemy's most sophisticated defenses and hold his highest valued targets at risk. Last year, the B–2 demonstrated the ability to attack buried hard targets, such as bunkers, by delivering sequential penetrating bombs separated by less than one second. The Air Force continues to enhance the Spirit's low observable coatings and to integrate additional advanced weapons.

The B–1 Lancer is the Air Force's primary long-range conventional bomber. The Lancer proved its mettle during Operation Desert Fox, when it destroyed Iraqi military barracks with its heavy bomb load. Once primarily a nuclear bomber, the B–1 is in the midst of a Conventional Mission Upgrade Program (CMUP). CMUP, a phased upgrade, will give the B–1 the ability to deliver a wide range of precision weapons and update its defensive systems, allowing it to counter evolving threats. The Air Force took delivery of the first four B–1's modified in the initial phase, Block D, in 1998; Block D upgrades will be complete in fiscal year 2001. Follow-on phases, Blocks E and F, should be completed by fiscal year 2009.

Although most of the airframes are 40 years old, the B–52 continues to be a workhorse of the long-range bomber fleet. The Stratofortress and its AGM–86C Conventional Air Launched Cruise Missiles (CALCM) form a powerful team—a team that destroyed high-value targets in heavily defended portions of Iraq during Operation Desert Fox. The B–52 can also deliver a wide range of precision weapons. Upgrades to its communication and navigation systems will keep the B–52 viable well into the 21st century.

Air Force modernization both procures new weapons systems and revitalizes existing ones. Pursuing this strategy enables the Service to deliver aerospace power in the presence of advanced threats in a cost-effective manner. The Air Force's roadmap for long-range aviation is a good example of this process at work. With this plan the Service is modifying its bombers, improving their effectiveness, at a fraction of the cost of procuring new aircraft.

PRECISION ENGAGEMENT

"Battle should no longer resemble a bludgeon fight, but should be a test of skill, a maneuver combat, in which is fulfilled the great principal of surprise by striking from an unexpected direction against an unguarded spot."—Captain Sir Basil Liddell Hart

The ability to achieve the precise physical and psychological effects that win wars and compel adversaries are an Air Force strength. The Service's precision engagement core competency integrates Air Force capabilities to give it the ability to locate and accurately attack targets with reduced risk of collateral damage. This capability

allows the Air Force to achieve desired effects faster, with fewer sorties and weapons. By giving the Air Force the ability to destroy more targets with fewer resources, precision engagement makes the Service lighter, leaner, and more lethal—a hallmark of the Expeditionary Aerospace Force. Because precision engagement is crucial to U.S. joint operations, the Air Force's modernization is guided by a comprehensive plan to ensure that the Service will be able to locate, attack, and assess damage to the targets that will decide the conflicts of the next century.

Virtually every Air Force fighter and bomber is able to deliver precision weapons. Among this group of weapons systems is the F–16 Falcon, the Service's primary offensive fighter aircraft. This year, the Air Force decided to procure additional F–16's in order to enhance its ability to suppress surface-to-air threats and maintain the current size of Air National Guard units that fly the Falcon. The F–16 is a highly capable fighter, however, like the A–10 Thunderbolt II, it is aging. The world is developing weapons that threaten the technological edge of both these aircraft, and they are increasingly costly to maintain. To counter these trends, the Service is making reliability and maintainability modifications and acquiring the Joint Strike Fighter (JSF) to replace both aircraft. Combining stealth and high performance in an affordable multi-role fighter, the JSF will complement the Air Force F–22 aerospace superiority fighter, giving the nation the one-two punch that will dominate aerospace well into the next century.

The centerpiece of the Air Force's precision engagement capability is its family of precision weapons. The best known precision weapon is the Joint Direct Attack Munition (JDAM), currently in production. The JDAM gives the joint force commander an all weather, low cost, accurate weapon by adding Global Positioning System (GPS) and inertial navigation capability to existing bombs. The JDAM will arm the F–16, F–15E, B–1, B–2, B–52, and the JSF. JDAM low rate initial production began in fiscal year 1997 with the first weapons delivered in fiscal year 1998.

Precision engagement weapons also include the Wind Corrected Munitions Dispenser (WCMD) and the Joint Stand-Off Weapon (JSOW). The WCMD adds a guidance tail kit to existing weapons to make them highly accurate. WCMD corrects for wind effects that degrade the accuracy of free-fall weapons, improving the Air Force's ability to deliver existing munitions with great accuracy from medium and high altitude. The JSOW is a near-precision, all-weather, standoff munition. These two weapons use advanced systems to guide them to a target area, where they then dispense smaller bomblets to destroy tanks, trucks, air defense, and command and control systems.

The Joint Air-to-Surface Standoff Missile (JASSM), currently in development, will provide a precise, low-observable cruise missile for Air Force aircraft. This missile will be launched from both fighter and bomber aircraft, and will be stealthy enough to penetrate the most heavily defended targets. JASSM, procured at a fraction of the cost of current standoff missiles, will enter the inventory in fiscal year 2002.

RAPID GLOBAL MOBILITY

"Strategic mobility allows the United States to be first on the scene with assistance in many national or international crises and is key to successful American leadership and engagement."—President Clinton, 1998 National Security Strategy

Rapid global mobility is the key to responding with the right force, at the right time, in the right place. Airlift and air refueling forces provide tremendous flexibility in deploying, employing, and sustaining America's military forces allowing them to rapidly arrive in the theater. Studies have consistently cited a shortage of strategic airlift, relative to the two major theater war scenario.

The Air Force showed the versatility of its global mobility fleet last year when it reacted to the devastation in Central America caused by Hurricane Mitch. The Air Force built an air bridge between the U.S. and the region, rapidly moving food and medical supplies to those in need. By February 1999, the Service will have delivered 10 million pounds of donated cargo to Central America. This relief effort is a tribute to the Total Force with the bulk of the airlift missions being flown by the Air Reserve Component under the Denton Amendment.

For the past generation, inter-theater global mobility has rested on the shoulders of the C–141 Starlifter and C–5 Galaxy, while intra-theater lift was accomplished by the C–130 Hercules. As requirements change and operating costs of these aircraft increase, the Air Force is replacing and refurbishing them.

The C–17 Globemaster III, fast becoming the superstar of global mobility, is a little over one third through its production run. The Air Force's innovative C–17 multi-year procurement strategy is an unqualified success. Aircraft deliveries are ahead of schedule and on cost. This year, the Air Force decided to purchase additional Globemaster III's, allowing it to better support special operations and stra-

tegic lift requirements. The C–17's ability to directly deliver out-sized and over-sized cargo from anywhere in the world to austere, forward airfields makes it a key strategic asset. As the C–17 fleet reaches maturity, the C–141 will be retired, with the last Starlifter projected to leave the inventory in 2006.

The C–5 fleet is a national asset, comprising 45 percent of the military's organic strategic airlift capability. The C–5, first flown in 1968, will continue to be a central platform for strategic airlift. The Galaxy is showing its age in unacceptably low mission capable rates. The Air Force will begin to update the Galaxy's avionics in 1999 and has programmed funds to replace engines and other major subsystems starting in fiscal year 2000. These upgrades will result in the delivery of a refurbished C–5 in 2004.

The C–130 fleet, with many aircraft approaching 40 years old, is being refitted with new avionics and electronics subsystems to carry them into the new millennium. This upgrade will consolidate several different variants into a single, more sustainable configuration. The Air Force is exploring the best way to replace 150 of the oldest C–130's with the new model C–130J. The C–130J will enter the inventory in 1999.

The Service is also updating its air refueling fleet. The Pacer CRAG upgrade, a reliability and maintainability modification, was completed on the first KC–135 Stratotanker in 1998; the fleet will be complete in fiscal year 2002. This program will significantly reduce the cost of operating the Stratotanker. Both the KC–135 and KC–10 will be modified with the Global Air Traffic Management (GATM) system, enabling these aircraft to operate in increasingly busy skies under new international mandates.

Modifications give these aircraft the future ability to operate in prime, high-density civilian airspace and improve safety. They are critical to extending the life of the global mobility fleet. Safety modifications include the Terrain Awareness and Warning System (TAWS) and Traffic Collision Avoidance System (TCAS) that help protect aircraft from collision. This year, the Air Force accelerated installation of TAWS and TCAS on several of its aircraft, making them safer.

INFORMATION SUPERIORITY

"In order to conquer that unknown which follows us until the very point of going into action, there is only one means, which consists in looking out until the last moment, even on the battlefield, for information."—Marshal of France Ferdinand Foch

Information superiority—the ability to collect, control, exploit, and defend information, while denying the adversary the same—is critical to success in all military operations. Controlling information has become a necessary precondition for success in combat, and is the objective of the Air Force's information superiority modernization efforts.

The Air Force manages command and control (C^2) as a weapons system and is committed to fielding state-of-the-art C^2 equipment and operational concepts. The Aerospace Command and Control, Intelligence, Surveillance, and Reconnaissance Center was created in 1998 to develop and implement standard Air Force C^2 and ISR programs across the Service that ensure joint operability. This Center, together with the Air Force Communications and Information Center and the NRO, is rapidly moving toward advanced capabilities that will allow commanders to make decisions inside an adversary's operating cycle and use information to its fullest effect.

Airborne information superiority assets are a key component of theater command and control. The E–3 Airborne Warning and Control System (AWACS), a mainstay for airborne situational awareness, is being upgraded with an improved radar and avionics. The E–8 Joint Surveillance Target Attack Radar System (JSTARS) provides theater commanders real-time, wide-area surveillance of enemy ground movements. JSTARS demonstrated crucial capabilities in combat and is proving itself invaluable supporting contingency operations. The fourth JSTARS aircraft was delivered last year, and ten additional JSTARS are currently planned, or in production.

During 1998, the RC–135 RIVET JOINT remained in high demand, providing accurate, timely tactical signals intelligence to a broad range of users in the Balkans and Southwest Asia. RIVET JOINT marked a noteworthy anniversary during October of last year, when it passed its 3,000th consecutive day deployed to SWA—a testament to the critical intelligence this platform collects and the dedication of the airmen who operate and sustain it. Two additional RIVET JOINT aircraft will be added to the fleet in 1999, helping to alleviate this system's high operations tempo.

Air Force provided satellite communications have been a cornerstone of joint military communications (MILSATCOM) for years. Air Force MILSATCOM provides critical support, command and control, and infrastructure connectivity for joint forces worldwide. Milstar and Polar MILSATCOM provides robust protection and

Global Broadcast Service (GBS) provides efficient dissemination of large volumes of information including imagery and video. In the future, systems such as Advanced EHF and Wideband MILSATCOM will replenish the Milstar, DSCS and GBS constellations.

Effective C^2, depends in large measure, on the ability to accurately identify all of the hostile, friendly, and neutral entities in the battlespace. This is known as Combat Identification (CID). The Air Force Research Laboratory is leading the way in CID technology. This year, the Lab began a project that seeks to develop a small, low-cost device that will identify U.S. or allied troops and vehicles as "friendly" when interrogated by airborne radar. This will greatly reduce the risk of fratricide.

Unmanned Aerial Vehicles (UAV's) complement the Air Force's manned aircraft to build a complete picture of the battlespace for joint force commanders. Air Force UAV's include the operational Predator and two Advanced Concept Technology Demonstration (ACTD) High Altitude Endurance (HAE) systems; Global Hawk and Dark Star. Predator recently returned from its third operational deployment to the Balkans, where it provided valuable imagery to United Nations forces. If any elements of the HAE UAV ACTD prove militarily useful, the residual assets could be used while the Service evolves the technology. The goal is to provide the joint force commander long-dwell imagery intelligence collection capabilities.

AGILE COMBAT SUPPORT

"Logistics controls all campaigns and limits many."—Gen Dwight Eisenhower

The success of the Expeditionary Aerospace Force ultimately will rest on the Air Force's ability to sustain it. Agile Combat Support (ACS) provides commanders improved responsiveness, mobility, and sustainability of their forces. ACS is accomplished by substituting rapid resupply for large deployed inventories, and by acquiring new or improved weapons systems that are more reliable and have smaller mobility footprints.

Information technologies, such as the Global Combat Support System, featuring both new leading edge capabilities and technical refreshment of existing systems, are key to ACS. When combatant commanders require an item, integrated information systems will "reach back" to U.S. locations and "pull" the resources required. Streamlined depot processes will release materiel in a timely fashion so that time-definite transportation can complete the support cycle by rapidly delivering needed resources directly to the user in the field. Integrated information systems currently being tested provide total asset visibility throughout this process, tracking resources throughout their delivery cycle. Air Force mobility assets equipped with this technology can be tracked in near-real time through Combat Track. Commercial aircraft tracking systems will be integrated into the Global Command and Control System giving field commanders visibility into contract shipments.

ENHANCING FUTURE OPERATIONS

Air Force Battlelabs

"Victory smiles upon those who anticipate the changes in the character of war, not upon those who wait to adapt themselves after the changes occur."—Gulio Douhet

In 1997, the Air Force established six Battlelabs to identify and validate innovative ideas that improve execution of the Air Force mission. The six Battlelabs—Aerospace Expeditionary Force, Command and Control, Force Protection, Information Warfare, Space, and Unmanned Aerial Vehicle—are paying big dividends. Battlelab success stories include the Air Tasking Order (ATO) Visualization and Assessment Tool designed to streamline ATO preparation, Improved Information Reachback, which will lessen forward footprint, and the Enroute Operations Center allowing aerospace commanders to control operations enroute to the theater. Each of these markedly enhanced joint operations by placing new and cost-effective capabilities into the hands of combatant commanders.

Expeditionary Force Experiment

The 1998 Expeditionary Force Experiment (EFX 98) was the first in a planned series of experiments designed to explore new operational concepts and advanced technologies. EFX 98 concentrated on better ways to command and control the air component during expeditionary operations. It explored dividing aerospace command and control functions between rear area support centers and an in-theater Air Operations Center (AOC), reducing the personnel and logistics requirements in the forward area. EFX 98 illustrated the ability to command and control en route aerospace forces from both ground and air. It also tested the spiral development of software systems that are critical to the future AOC. By working side-by-side during

EFX 98, software programmers and operators proved that spiral development reduces the cost and time required to develop and deploy new systems.

Wargaming

Wargames are valuable tools for exploring new or innovative ways to employ military forces. The Air Force conducts two major wargames each year that focus on force employment concepts and long-range planning. The first, the Global Engagement series, investigates operational issues eight years into the future. The second, the Aerospace Future Capabilities series, focuses on capability issues 20 years into the future.

Global Engagement wargames improve the understanding of the contributions aerospace power makes to the joint force. A key aspect of Global Engagement 98 was the rapid deployment and sustainment of multiple Aerospace Expeditionary Forces that included Air Reserve Component elements. The game demonstrated the use of aerospace power as a potent maneuver force for the joint force commander.

The Aerospace Future Capabilities Wargames evaluate strengths and weaknesses of capabilities contemplated by the Air Force's Vision and Strategic Plan. They also test alternative force structures in future warfighting environments. During the 1998 game, the Air Force gained valuable insights into the opportunities provided by—and challenges associated with—standoff warfare in an anti-access environment.

ENHANCING BUSINESS PRACTICES

Defense Reform Initiative

The Defense Reform Initiative (DRI) is an effort to improve the way DOD works. Last year the Air Force implemented 45 DRI Directives, pushing costs down and quality up. The City-Base Reinvention Laboratory at Brooks AFB in Texas is one example. At Brooks, the Air Force is developing a proposal to transfer the base's infrastructure to the City of San Antonio. It will then lease back only the facilities it needs. San Antonio benefits by gaining facilities it can use to spur development while retaining the Brooks mission; the Air Force benefits by eliminating unneeded base infrastructure; and, the community benefits by keeping its long-standing ties to the Air Force. Additional infrastructure initiatives, such as housing and utilities privatization, show great promise. The highly successful housing privatization effort at Lackland AFB, Texas is replacing 272 housing units and building 148 new units on base.

Competitive sourcing is another DRI success story. During 1998, the Air Force fully executed its plan for announcement of OMB Circular A–76 studies. The Air Force is conducting a top-to-bottom review of its manpower authorizations, with an eye toward identifying additional positions to compete. Recent competitive sourcing and privatization efforts have yielded 35 percent manpower cost savings, demonstrating that this is a promising area for business reform.

Air Force Management Reform

In 1998, the Air Force established its Management Reform Office, reporting to the Under Secretary of the Air Force and the Vice Chief of Staff. This office will help implement the Defense Reform Initiative and internally generated opportunities to make certain that manpower and fiscal resources are focused on high-payoff activities. The Service continues to lead the DOD in the shift from paper-based to electronic contracting, and in expanding the use of the IMPAC card. In addition, the Air Force has challenged its major commands to expand use of activity-based costing and activity-based management. Reducing the total ownership cost of weapons systems is another area where the Service is showing how better business practices yield resources that can be applied to high priority needs.

The Air Force continues to determine its military needs programmatically through a requirements based process linked to the National Military Strategy. The Service takes advantage of technology, modernization, and Total Force integration as well as aggressively pursuing opportunities to achieve best value in competing non-military essential support functions. Looking to the future, the Air Force will continue to size its forces to meet mission requirements, and fully resource them to ensure mission accomplishment. The Service must have the flexibility to set its required end strength levels consistent with evolving missions.

In today's era of tight budgets, the Air Force is committed to reducing overhead functions and moving maximum capability to its combat units. The Service continues to aggressively scrutinize management headquarters levels to ensure that they are the absolute minimum to execute the operational mission. In fact, reductions in management headquarters have outpaced those of overall force structure

since the draw down began in fiscal year 1987. Headquarters must be manned at levels that permit proper execution of evolving mission requirements.

Improving Air Force Depots

The Air Force also is improving depot maintenance by conducting competitions between public organizations and private firms for this work. The results, so far, have been encouraging. In the first competition, the Air Force awarded the C–5 Programmed Depot Maintenance workload to the Warner-Robins Air Logistics Center (ALC), saving the Air Force $190 million over the seven-year life of the contract. In a similar competition, Ogden ALC teaming with Boeing, won a nine year contract for repair of the A–10 and KC–135 aircraft, electrical accessories, hydraulics, and other commodities that will save the Service $638 million. A third public/private competition, for the engine workload at San Antonio ALC, will be completed in February 1999.

Acquisition Reform

Acquisition reform is another example of Air Force innovation. Lightning Bolt initiatives, the Air Force's initial program for improving acquisition, have saved taxpayers $30 billion. Building on this success, the Air Force introduced its follow-on concept for reform—the Air Force Acquisition and Sustainment Reinvention Process. This process capitalizes on proven industrial practices to deliver weapons systems faster and cheaper than traditional DOD acquisition practices.

Using partnering, the Air Force is raising acquisition reform to a new level. Partnering allows the Air Force to sponsor programs with industry and other government agencies, sharing costs and the risks associated with developing new systems and concepts. The Evolved Expendable Launch Vehicle demonstrates this powerful concept. With EELV, the Air Force and two contractors are pooling resources to build two new families of space launchers, at a fraction of what the rockets would cost if developed independently. America wins all the way around with EELV: The Air Force gets the lift vehicles it needs; domestic industry improves its space launch competitiveness; and, the nation's space infrastructure is enhanced.

SAFEGUARDING KEY RESOURCES

Preserving Warfighting Assets

To maintain its combat edge, the Air Force must train realistically while preserving its airmen and weapons systems. This involves accepting and managing risk. During 1998, the combination of capable leadership, accountability, and Operational Risk Management (ORM) led to a ready force with the best safety record in Air Force history. From top to bottom Air Force leaders set high standards—they ensured that airmen knew how to accomplish the mission effectively and safely. Having communicated the mission, leaders hold their people accountable through regular inspections and evaluations. Because of strong leadership, Air Force units routinely conduct potentially dangerous aerospace missions effectively and safely. The Service helps its leaders manage operational risk with its proven ORM program, a decision-making tool that systematically identifies risks and benefits to help make operational and training decisions. It helps Air Force leaders enhance mission effectiveness by minimizing risks in order to reduce mishaps, preserve resources, and safeguard the health and welfare of our airmen.

Financial Reform

The Air Force, as a prudent steward of public funds, is working diligently to comply with the Chief Financial Officer (CFO) Act and the Government Performance and Results Act (GPRA). During the past year, the Service achieved relatively clean audit opinions of its military and civilian pay accounts. Additionally, the Air Force strengthened its internal controls and management oversight to help prevent fraud and improve confidence in its financial statements, while incorporating some GPRA output measures into its financial statements and long range plans. The Service is striving to help reach the President's goal of unqualified audit opinions on government financial statements. As it improves its financial systems to help achieve this goal, the Air Force will emphasize improvements that benefit the decision-making of commanders in the field.

Environmental

The Air Force recognizes the need to balance its readiness requirements with stewardship of the resources with which it has been entrusted. For example, the Service actively participates in collaborative processes that safeguard the natural and cultural resources on public lands withdrawn as training ranges. In virtually every case, government and private organizations credit the Air Force with pre-

serving range environments that would otherwise have been diminished through human encroachment. Similar to its commitment to protect range lands, the Service promotes pollution prevention programs. Where past practices have disturbed the environment, the Air Force is now implementing clean-up programs.

Promoting Equal Opportunity

Dependability, trust, and teamwork are bedrock military values that directly affect readiness. Fair treatment and freedom from unlawful discrimination and harassment are essential to a professional work environment. To ensure we get the most from our people and maintain the highest levels of readiness, the Air Force promotes human dignity, a professional organizational culture, and cohesion among our military members and civilian employees through an active Equal Opportunity (EO) program.

The Air Force EO program has military and civilian components. The Military Equal Opportunity (MEO) program and the civilian Equal Employment Opportunity (EEO) program give commanders, executives, managers, and supervisors tools to establish and advance a climate of respect and fairness for all Air Force personnel. Full-time MEO professionals provide unit climate assessments, conduct a full spectrum of human relations education and training, and investigate complaints to ensure Air Force workplaces are free from discrimination and harassment. The EEO program is equally effective. A variety of avenues are available to voice and resolve complaints of discrimination, harassment, or reprisal by members of the military and civilian work force.

Through its EO programs, the Air Force has earned a reputation as an advocate for equal opportunity that allows it to attract the brightest and the best. Active duty racial minority representation has risen from 14 percent in 1975 to 24 percent today. Women now comprise 18 percent of the military force—17 percent of the officer corps and 18 percent of the enlisted troops. Women constitute 35 percent of the civilian force, while minorities represent 25 percent. The Air Force's goal is to promote a working environment that allows each employee—military and civilian—to realize his or her full potential.

CONCLUSION

As the 20th century dawned, few imagined the impact that flight would have on military operations—as it closes, aerospace power has become the preeminent tool of the national command authority.

The Air Force is postured to meet the nation's security needs and is actively confronting the challenges of today's dynamic environment. In 1999, the Service will reorganize its forces under the sweeping Expeditionary Aerospace Force (EAF) initiative. As a result, the Air Force will use its Total Force to deliver improved aerospace power—whether lethal firepower or humanitarian relief—wherever, and whenever, it is needed. EAF will also add stability and predictability to the lives of airmen, mitigating the effect of continued high operations tempo and improving retention. Improving retention is one of the keys to arresting the decline the Service is experiencing in readiness. To stay ready, the Air Force requires sustained funding increases in order to recruit, train, and retain its airmen; maintain its aging weapons systems; and modernize its forces to affordably face the future. As a careful steward of funds, the Service is harnessing the power of the Revolution in Business Affairs to improve efficiency through better operating practices. Composed of the world's finest airmen, the Air Force stands ready to meet the nation's security needs now, and in the 21st century.

Senator STEVENS. General Ryan.

STATEMENT OF GEN. MICHAEL E. RYAN

General RYAN. Chairman Stevens, Senator Inouye and members of the committee, I appreciate the opportunity to discuss the posture of the United States Air Force.

I recently returned from visiting our airmen in Southwest Asia. Our Air Force men and women are superbly executing their missions throughout that region and indeed worldwide. They are doing it under very dangerous demanding circumstances. And they deserve our staunchest support to retain their readiness edge.

Unfortunately, we face tough challenges in halting our readiness decline today while continuing to modernize for our readiness tomorrow.

I want to thank the Congress, and particularly this committee, for the rapid response to our readiness needs that we described last year. With your support, the increase in funding we received for readiness in 1999 and the proposed increase in funding in the fiscal year 2000 budget we have just submitted will certainly help to address some of our most immediate concerns.

Today our Air Force is engaged around the globe despite the lowest active duty manpower level in our 51 years. We have 95,000 airmen who are stationed or deployed overseas protecting our national interests in Korea, in combat operations over Iraq, in enforcement operations in Bosnia and reconnaissance missions worldwide, and in humanitarian airlift and engineering missions to Latin America, such as Hurricane Mitch. They are doing all that we ask of them, but readiness is very fragile. And the indicators are not good.

With a progressively aging force of aircraft and under-funding readiness accounts, our people are working harder and harder to perform the assigned missions. We must end that downward readiness spiral by funding the needed spares, by rehabilitating our older but useful equipment, like our airlift and bomber forces, and by replacing systems that are approaching the end of their useful life, such as the F–15, with revolutionary capabilities, like the F–22.

We must continue to provide our people with the best equipment and training to do the dangerous missions we ask them to undertake. Our airmen, without a doubt, are the most critical component of readiness. Their hard work has kept the Air Force readiness posture from not declining more rapidly. The Air Force requires motivated and professional, highly skilled and highly trained airmen to do its missions.

We are absolutely committed to recruiting and retaining the highest caliber of people. But our recruiting challenges are becoming more difficult, and we are losing too many of our experienced people, both enlisted and officers. Indeed, our projections show that we may miss our annual recruiting goals this year for the first time since 1979.

Last year I reported to this committee that pilot retention was a major concern. Today in the Air Force we are 1,000 pilots short of our requirement. The bonus provided by Congress last year helped. Plus the efforts that we have made to spread OPSTEMPO, provide downtime and better support our families of those who are deployed. Those are all aimed at affecting retention.

The proposed budget for fiscal year 2000 should help the Air Force to arrest the decline in readiness and allow the force to age a little more gracefully. Unfortunately, the additional funding efforts are insufficient to allow the Air Force to adequately address much-needed readiness and infrastructure shortfalls, such as military family housing and base operating support.

The infrastructure will continue to deteriorate, as well as long-term readiness, if we do not achieve increased and sustained funding. For our airmen, equitable pay and restoration of the retire-

ment system and additional funding for readiness are so important. They are visible evidence of our nation's commitment to them for the tremendous sacrifices they make every day.

This budget is a significant effort to help our recruitment and retention and arrest our readiness decline. And I appreciate very much the support we have received from Congress in focusing on our needs of our airmen in addressing our readiness requirements.

I look forward to working with you as we tackle these tough challenges. Thank you for inviting me to speak on behalf of the dedicated men and women of the United States Air Force, who so proudly and selflessly serve for all of us. And I am prepared to take your questions, sir.

Senator STEVENS. Thank you very much, General and Mr. Secretary. I do commend each one of you, as Senator Hutchison has, for the way you have been working with this committee. It is really a pleasure to be with you and to work with you.

If there is no objection, we are going to run the clock at seven minutes to start with and then shift to five in the second round.

Senator Dorgan, if you have to go, I would be happy to yield my time to you now.

Senator DORGAN. In fairness to my colleagues, why do we not just proceed?

Senator STEVENS. I am yielding to you my time. They will not be delayed. I play cleanup anyway. So if you want to start first, you may.

Senator DORGAN. Well, let me just ask two quick questions then, again in fairness to my colleagues.

Senator STEVENS. Just take your time now, if you are going to leave.

Senator DORGAN. Thank you, Mr. Chairman.

I would like to ask General Ryan and you, Mr. Secretary, if you would comment on the issue of tiered readiness very briefly.

General RYAN. Tiered readiness is a concept that is peculiar, I think, to different force structures. For the Air Force, we have never tiered our readiness. We have been unable to do that for several reasons.

First of all, we are—in the war plans that are out there today and in the construct of major regional contingencies (MRCs), all of our units are deployed in the first 30 days to either one of the contingencies or the other, because airpower is first on scene and needs to be first on scene in the halt phase of any type of conflict. We cannot tier our readiness because of our need to hold it at the highest level to make those time lines.

The second issue for the Air Force, in a tiered readiness concept, we have found in the past that any time we have let our readiness fall off some, our accident rate starts up. We have to keep our pilots, particularly our young pilots, at the highest level of readiness due to the demands of the missions that we have for them.

So falling off into a tiered readiness structure does not work for the United States Air Force and will not work under the EAF concept either.

Secretary PETERS. Let me just add to that that under the EAF concept, while people are in fact going to be on the bubble to deploy for 90 days every 15 months, the point of the other time is to allow

them to train to stay at the highest readiness levels, as well as have time with their families. There is no intention to drop readiness in the other periods of time.

This is really a scheduling opportunity for us to make sure that people do have time to train and do have time to spend with their families and do have time to recover from the very fast pace of operations which occurs when they are deployed. So our current intention is to try to keep all units up to the requirements of the two major theater wars.

General RYAN. And that includes our Guard and Reserve forces. We inspect our Guard and Reserve forces to the same readiness standards that we do the active duty, because we use them on a day-to-day basis, seamlessly intermingled with us.

STANDOFF WEAPON DEPLOYMENT

Senator DORGAN. In recent operations, including Operation Desert Fox, we have seen the use of standoff weapon deployment from B–52s and also from naval operations, naval vessels.

Is it your impression that that is the wave of the future? I mean, do you predict that having essentially air trucks to haul standoff capability to distant shores is the way that we will fight in the future?

General RYAN. It will be the way that we normally initiate the fight, because standoff gives you the ability on fixed targets to be able to go in and set the conditions to bring on forces that can then penetrate. So we will always begin, I think, with a standoff capability to allow us the penetration and then to bring on bomber forces, which can further penetrate, and fighter forces to bring mass and bulk to the fight.

BOMBER ROADMAP

Senator DORGAN. Is the Air Force planning the acquisition of a bomber, a new bomber, at some point in the future? And if so, when? We have the B–1. We have the B–52s. We have the B–2s in our arsenal. What next?

General RYAN. We just signed out the bomber road map, as you are aware.

Senator DORGAN. Right.

General RYAN. And that bomber road map shows our bomber fleet going out fairly far into the next century. But we are undertaking right now a future attack aircraft type of study. And do not even know whether the next capability will be a "bomber." It could be something else.

Senator DORGAN. I see.

General RYAN. So what we are trying to do right now is get definition on what are the attributes that we need for this world that we are going to live in this next century and how does rapid intercontinental precision response fit into that capability. So we are in the definition phase of what this B–3, if it is going to be a bomber, we are in that phase now.

Senator DORGAN. My colleagues probably know this, but I was interested to learn in talking to some B–52 crews that the average B–52, I think, has something like 12,000, 14,000, 15,000 hours on the airframe. The B–52 manufactured in the early sixties has

maybe 12,000 or 14,000 hours on the airframe. It is not unusual for a passenger to get on a 747 out here in a commercial airline someplace to find that the plane they are getting on has 50,000, 80,000, 90,000 hours on it.

And so these B–52s have relatively few hours on them. What is your expected life for a B–52 at this point?

Secretary PETERS. Our view is that it could be endless. When the engineers put it together, they figured out what they thought they needed and doubled it. So it is really an airplane that is going to be limited by its systems probably more than by fatigue life.

There are some wing skins, I believe, that we think would have to be replaced in the 2030 to 2040 time frame. And probably economically it might not be effective to do that at that point.

But our basic plan for the B–52 is to continue to try to upgrade the systems, which are the—particularly the electronics systems, which do wear out and which do get surpassed by other electronic systems on a regular basis. And we have started that work, although not all of it is funded.

Senator DORGAN. And the B–52s that are in our attrition reserve, are they generally upgraded to the point where we move them in and out of the active force—in a kind of a seamless way?

Secretary PETERS. They have been up until now, yes. And that would be our plan, to keep them on the same level.

Senator DORGAN. Do you have the same retention problems with the B–52 pilots and skilled maintenance folks as you do with the other? The reason I ask the question is that I did not detect that as a real serious problem in the KC–135s and the B–52 component that I visited.

General RYAN. Yes, sir. We have that across the board.

Senator DORGAN. And one of the other aspects is that when I visited the two bases, it was just after we had passed the legislation improving the retirement benefits and also a pay raise that was more than is usual.

I tell you, the moral boost from that action by the Senate was very significant, especially the young airmen and others, the commanding officers feeling that they would be able to keep a lot of good people they otherwise would not keep. It was a big deal to them.

General RYAN. Everywhere I go and every unit I visit, and I think it is true for the Secretary, our folks come up and say thank you and tell everybody who is working our issues in Washington thank you, that this is—that there is a light at the end of this tunnel. And they really appreciate that.

Senator DORGAN. One final question. The Grand Forks Air Force Base is one of the three core tanker bases. Do you have any plans to change the component of your tanker bases or the makeup of how you would deploy tankers?

Secretary PETERS. No. We have no plans at this point for that.

Senator DORGAN. Let me submit a couple B–52 questions to you. And let me thank the chairman for his generosity. Thank you, General and Secretary.

Senator STEVENS. Thank you. I think if it really lasts a full 80 years, it will be the first mechanism in war that has outlived all the generations that were associated with building it.

Secretary PETERS. I will tell you, having flown on one three weeks ago, that I was the only person on the plane who was older than the airplane. But it was in very good shape. And actually, we have taken excellent care of those platforms. The main concern is that we have not taken good care of the electronics, and we do need to fix that.

Senator STEVENS. If you can fly those things until they are 80, can you not reenlist Strom and me?

General RYAN. We would be happy to. We are short of pilots.

Senator STEVENS. Senator Inouye.

READINESS BUDGET

Senator INOUYE. General Ryan, I understand that additional funding was added to your readiness budget for fiscal year 2000. Was that amount enough, and what was the amount?

General RYAN. We added a significant amount of spare parts and readiness-related funding. In fact, you could almost say that everything we added, almost $2.5 billion that we added to our budget addressed readiness concerns, either right now or in the future. They were things that we really thought we needed.

But it did not get it all, because we had to balance the shortfalls that we had. In balancing them, we still had, as the Secretary said, another $300 million-or-so that we needed to put against spares and readiness kinds of accounts.

So we have not turned the corner. In fact, what we think we have done is try to level out our readiness; that is, stop the decline. But we have not, in the $2.5 billion that we put into this budget, turned it around and started it back up.

Senator INOUYE. I gather from your very careful response that you are not able to fix serious infrastructure shortfalls. In order to do that, what sort of funding would you need?

General RYAN. Over and above the funding that we put forward for this budget, and that was the addition of the $2.5 billion plus the retirement and pay reforms, we need to spend about another $2.5 billion to address some of our shortfalls, particularly in the readiness area and infrastructure.

We are mortgaging our infrastructure right now almost across the board. We have a backlog of our real property maintenance of $4.4 billion, and it is growing every year.

We have to stem that, because it is—and we have to make sure that we have funded those things that make quality of service as good as the quality of life we provide. So there is a real balance here between quality of service and quality of life that we think is located in this $2.5 billion unfunded priority list, which we supplied to this committee.

Senator INOUYE. We speak a lot about spares for engine and aircraft readiness. What is the situation at the present time?

Secretary PETERS. The situation is that we are trying to climb out of a hole that was created by some underfunding in 1997. We reprogrammed additional money against spares in 1998. We took the bulk of the additional money that Congress gave us in 1999 and put it into spares and depots. And we plussed up again in 2000.

Where we think we are right now is that, particularly with respect to engine parts, we have an 18-month to 24-month lead time. And we are beginning to see some of those new parts coming on line, based on the funding changes we made in fiscal year 1998.

Let me say one thing about that. Part of the spare parts problem is actually redesigning parts that are failing and need to be fixed. So there is a relatively long cycle in some circumstances.

At this point, if you talk to our commanders in Southwest Asia, you will find that they are basically getting the parts they need. They have priority.

In Europe and in the Pacific, they are just beginning to see additional spare parts. But in the United States, they are not seeing spare parts. Our hope is that within the next 12 months our continental U.S. units, which are the last in priority to get spare parts, will begin to see a much better fill rate for their requests. But it is an ongoing problem.

The ultimate solution, we now believe, is to put about another $380 million worth of parts, primarily engine parts, on the shelves in inventory. What we have been funding is the annual consumption.

What we have not done is rebuild inventory, and that is what we put on our unfunded list. And we are actually going to try to reprogram to fund those parts and work in the 2001 budget submission as well.

Senator STEVENS. Can you hold it there for a minute?

Senator INOUYE. Sure

Senator STEVENS. Are you flying parts? I mean, have we compared the cost of this resupply system we have now to really doing what you said, putting them on the shelf? I am asking that because industry now is using an on-time delivery concept.

Secretary PETERS. We are as well. We have both commercial delivery services and also world-wide express, which is the Air Mobility Command, 48-hour service, which is contracted for all of DOD. And we are doing that. But when we——

Senator STEVENS. Have you analyzed those costs?

Secretary PETERS. Yes, we have. And our belief is that when you go back and look at—these are by and large parts which make—you know, drive the bulk of our non-mission capable rate. They are parts which by and large are long lead time and parts which simply creating velocity improvements will not really affect.

So the answer is yes. We understand that there is a tradeoff here between inventory and velocity, and we are trying to work both. But our parts people tell us this is really a fundamental requirement we need to improve on.

Senator STEVENS. Thank you.

Senator INOUYE. General and Mr. Secretary, during Desert Storm, we used to assure ourselves that we had sufficient forces to involve ourselves in two major regional contingencies and still have reserves for other potential problem areas. Now we are supposed to have sufficient forces to fight two nearly simultaneous contingencies. Can you tell us with what degree of confidence and at what risk factor do you believe we have sufficient force structure to meet this challenge?

General RYAN. Sir, I believe that we have the force structure to meet it. And in two near-simultaneous contingencies, we would have to pull back from many of the small scale contingencies that we may be involved with. So our force structure is based on two near simultaneous major regional contingencies, and it will require all our force structure to do it.

That is based upon a fair or a moderate risk. We are at high risk, I think, right now in executing two of these major regional contingencies because of the readiness of our forces. For instance, the assumption in the major regional contingencies is that, for instance, a C–5 aircraft would have a readiness rate of 75 percent. Its mission capable rate would be 75 percent. Today that aircraft is running at 60 percent because of required upgrades and spare parts, et cetera.

So as we dip down in this readiness equation that we are in right now, what happens to us is the risk goes up. We still believe we could win two major regional contingencies, but that risk would be measured in the unresponsiveness of some of our systems producing casualties and loss of lives, further loss of lives, other than what would occur if we were at our right readiness levels.

Senator INOUYE. Can you describe the risks involved? You just said loss of lives, but——

General RYAN. I think additional loss of lives, both ours and our allies, additional loss of equipment, just a longer time to execute the halt phase of either of these regional contingencies, and the offensive parts of them. It would be measured in both equipment and loss of life.

Senator INOUYE. If you do not wish to respond to this, I can understand. Would we be able to involve ourselves in North Korea and Iraq at the same time?

General RYAN. Not at the same time. We would have—near simultaneous, yes. But if they went off both at the same time, we would have to swing to one and the other, because some of our force is not two MRC capable. And that is why we say near simultaneous.

Our lift capacity is built to take care of the surge up front for one. It is not built to take the surge for two. We estimate that they would have to be 45 days apart, and that is what we build it on. If they come simultaneously, our lift capability is not there.

Our bomber force also swings from one to the other. Some of our other special assets swing from one to the other. So we are not in total a two MRC simultaneous. It is near simultaneous.

Senator INOUYE. And one final question, if I may. In your study or your projection, you speak of retiring the B–52 in 2040. But I also note that the B–1 and B–2 would be retired before then.

Secretary PETERS. Let me address that, if I may, Senator. Both the B–1 and the B–2 were designed in a much later period of time with a specific number of flying hours on the platform. So they have kind of a shelf life, if you will, and *x* number of flying hours.

The way that we came up with those dates was to look at where we are in flying hours today, the projected flying rates in basically a peacetime scenario. And that tells you how long they will last.

But both the B–1 and the B–2 have fairly significant engineering features that will simply wear out through corrosion and through

fatigue. At that point they will not be economically sustainable once that happens.

Senator INOUYE. At the present pace that you are following in design and planning for the new generation aircraft, whatever you call it, do you think we will have something ready before then?

Secretary PETERS. We are looking at planning today. If you in fact agree that the force will not deteriorate until 2037, which is probably a number that is way too precise, then we have until the end of the next decade, the 2010 to 2013 time frame, before we really have to begin in earnest to look at requirements and begin a development program.

Our concern, as the Chief indicated earlier, is that we are not sure at this point what the right platform would be. Obviously, we are working very hard on precision weapons and standoff weapons. I have occasionally heard somebody call the C–5 the arsenal plane, where we could just throw precision weapons off the back.

But we need to look at the interaction between the weapons we have, the sensor systems we have and the space technology we have. And at this point, it is probably premature to start on another development course.

Senator INOUYE. Thank you very much.

Senator STEVENS. Thank you.

Senator Bond.

C–17

Senator BOND. Thank you very much, Mr. Chairman. Gentlemen, you have mentioned the problem with the lift capacity. And this is something that we understand from other testimony and other committees is a real problem. Focusing on that, what is the active Air Force requirement for C–17 lift platforms?

And second, considering the fact that the National Guard performs a major portion of the lift requirements of the nation, would it be advisable to contemplate a follow-on procurement of C–17 for National Guard lift squadrons? Could not additional C–17s be the most long-term cost-effective method of answering the problems we face on the aging fleet?

Secretary PETERS. Let me start by saying, Senator, that we have a Mobility Requirement Study '05 (MRS 05) ongoing right now to try to determine what the mobility requirements for the next decade will be. The current mobility requirement is 49.7 million ton miles a day, and we are not able to get to that with the sum of all of the lift we have, given the mission capable rates of the C–5 aircraft, which we are working on.

We have funded 14 additional C–17s for the special forces mission. The estimate is we need 15. That would be in the out-years beyond the end of the future years defense plan (FYDP). And we will be reviewing this MRS 05 at the end of the year, when it becomes available, to look at exactly that kind of issue.

Right now, my belief is that we should have a plan in place, as we do, to upgrade the C–5 to keep it flying. It also, like the B–52, has very few flying hours, and has about 80 percent of its life left on it.

But there will be tradeoffs between fixing older C–5s and buying new C–17s. That analysis has started, but it really needs the information from MRS 05.

As you may know, we already are using Reserve pilots with the C–17 community. We have in Charleston, for example, a Reserve unit that has no aircraft, but whose pilots and load crews work on the C–17s that are assigned to the active force.

So, one of the models that we are very much looking at is integrating active Guard and Reserve in flying units. And I suspect that rather than having stand alone flying units, what we really probably want, although this again is to be analyzed, are Guard, Reserve and active units that fly the same force of planes and are essentially interchangeable. That looks to us like the way to go. And that is in general where our thinking is taking us at this point.

GUARD AND RESERVE

Senator BOND. Actually one of the questions I guess we will defer is, as you use more, as we are using more of the Guard and Reserve on a routine basis, there is supposed to be this strategic reserve. What happens when you need to call in the strategic reserve, if you are using them in your routine operations?

Secretary PETERS. Well, we are having them play in the EAF, because, (*a*) they want to, and (*b*) that is probably the best way to make sure that their capabilities are interchangeable with ours.

Our basic scenario at this point is that in peacetime operations, we will be in these EAF units, and the Guard and Reserve will fill in a rotation. And we are doing the smart things with the schedules to make that more possible for both the Guard and Reserve.

In the context of two major theater wars, they would swing to that. And they are in the plans for that. So that is how they—they pull off of other stuff to follow in the two MRCs.

General RYAN. Our Guard and Reserve in the United States Air Force have in the units about one-third full-timers. The others are traditional Guard or Reserve folks, who are part time. Our full-timers are providing us some of the services that we have to use in this era of constant OPSTEMPO. They are helping us very much.

And our traditional Guardsmen and Reservists are using their two weeks of time in volunteering that time to us, indeed volunteering more than that when they have time off. So we could not be doing this day-to-day operation without our Guard and Reserve.

Senator BOND. That is what I understand. Let me move on. General Ryan, I raised a question about the National Guard general purpose squadrons. And I understand the procedural restrictions placed upon upgrading the F–15As. But there are As out there which still have a lot of life left on them, even more life than some of the early F–15Cs.

And now I understand that the Guard F–15A to F–15C replacement program the Air Force anticipates will be forced to the right, extending the sunset date of the F–15A because of procurement problems. Air Guard units are out there right now, will be for the foreseeable future.

Is there anything we can do to help with an F–15A system upgrade, such as accelerating the installation of fighter-to-fighter

data links to bring them up to tactical parity with the rest of the Air Force TACAIR inventory?

And specifically, do you see any way to speed up the process to take advantage of the experience of Guard pilots when they are asked to integrate with other deployed unit of the total force?

General RYAN. I will answer it in general. And could I get back to you on the specifics of the A?

Senator BOND. Please.

General RYAN. But in general, we are trying to do that today. We had an additional buy of 50, or correction 30, block 50, F–16s primarily for two reasons. One, to increase our capability in the active duty force for suppression of enemy air defense capabilities and to allow us to upgrade the Guard F–16A models, which are running out of life, that we absolutely have to replace with better capability.

And we would move block 30's, which are very capable aircraft, into these Guard units, whose the life of the aircraft is falling out.

The A model, I would like to take that for the record and get back to you.

Senator BOND. Please. And I would also like you to think about updating your active inventory of F–15s to include a procurement of F–15Es to upgrade your wing in Lakenheath, England. So if you would take a look at that as well, I would appreciate your views on that.

[The information follows:]

F–15A

The F–15 A/B fleet is vital to our continued air superiority mission. The F–15A/B is being upgraded to parity with the active force and is included with the active F–15 C/D fleet in the fiscal year 1999 Fighter Data Link (FDL) Lot 1 production buy. The Lot 1 buy equips 51 ANG aircraft. To complete the Guard FDL upgrade would require an additional $20,400,000.

The experience of the average Guard pilot is something we very much want to leverage into our force package. We are going to extraordinary lengths to upgrade all of the Guard aircraft to full parity with the active fleet. Current budget pressure leaves the Air Force unable to fully modernize its Total Force fleet. All Air Force aircraft (Active, Guard, and Reserve) must be completely compatible and mission capable when deployed. We are committed to modernizing the Total Force fleet including the ANG A–10s, B–1s, F–15s and F–16s with the latest technology so our most experienced pilot corps can bring the best capability to bear worldwide.

F–15E

The Air Force has not budgeted for procurement of additional F–15Es. The USAF has 17 attrition reserve F–15E aircraft on contract with the Boeing Company (St. Louis), which will be delivered between May 1999 and February 2000. After delivery is completed, the USAF will have 217 F–15Es. These new F–15Es have Global Positioning System (GPS), Digital Map System (DMS), full wiring for precision weapons, and other avionics and fuel system improvements installed on the production line. The USAF plans to retrofit all existing F–15Es with these modifications.

Current fleet requirements are 201 aircraft. Given the current buy of 17 attrition reserve aircraft, if expected attrition rates and aircraft retirements due to expired service life are considered, by 2015 the fleet will have been reduced to 201 aircraft. The Quadrennial Defense Review (QDR) states that an F–15E replacement will be considered when the F–15E reaches its service life beyond 2015. Since sufficient aircraft will be available to meet fleet requirements, the USAF does not require additional F–15Es.

C–20 CONTRACT

Senator BOND. Mr. Secretary, last week you graciously came to my office, and we spent a good bit of time discussing the logistics

support contract for the C–20 contract. A schedule was outlined to me which supported your contention that the schedule change was a cardinal change.

However, when we reviewed that information, we believe it is of questionable accuracy. And because of that, the huge wedge which the Air Force contended drove it to reevaluate its workload requirement apparently may not exist or it may be in a different construct than was presented to us.

There are a number of other questions, but additionally the 175-man-hour per day requirement, as we discussed, may not be necessary, at least as has been indicated by some of the discussions in the pre-bid conference. So I question whether you have any cardinal changes.

I do think there are some internal administrative problems on this that you need to get fixed before you go in any direction on it. And I would like to know for the record, are you willing to put this matter on hold? Do you think this is worth starting over and taking a fresh look?

Secretary PETERS. Senator, I think it is certainly worth taking a fresh look at this to try to understand where we are. In fact, after the bidders' conference, there was a decision made to hold off on putting out an request for proposal (RFP) until the comments could be resolved.

Let me get back to my staff and figure out where we are on that. As I mentioned to you last week and again today, this is a very important contract.

[The information follows:]

C–20 CONTRACT

Our intention to re-compete the contract logistics support (CLS) for the C–20 was based on our responsibility to ensure current and future DOD mission requirements for C–20 aircraft are met.

Our analysis revealed that the current contract requirement for a 125 man-hour per day burn off of over and above effort was not being met. Consequently, delivery of aircraft to our customers was sometimes late, causing an increased usage of available aircraft. In conjunction with this, in fiscal year 1997/1998 aircraft depot visits averaged approximately 160 days. Our market analysis revealed that in the commercial market place, 60 days is generally the case. Further, our projected depot schedules in fiscal year 2000 and 2001 indicated we would experience an increased number of airplanes in the depot beyond what we had experienced to date and what was projected at the time the contract was awarded in 1995. These schedules have subsequently changed because they are driven to a large extent by the use of the airplanes, which we do not have total control over. So exactly what the bow wave is going to look like and when it will occur is subject to continual change. Nevertheless, based on our analysis to ensure the success of the C–20 mission, we pursued a new competition in order to achieve depot support beyond that of the current contract and more consistent with that in the commercial sector.

We have conducted discussions with both the AF program office, our customers and Sabreliner on March 25, 1999 to ensure the concerns of all parties were clearly represented. As a result of these discussions, Sabreliner has recommitted to the original terms of the contract and a contract modification will be issued to capture that agreement. More importantly, Sabreliner has committed to fulfilling all C–20 CLS requirements at the current contract rate.

Given this commitment by Sabreliner, and our careful review of all other pertinent information, we have determined it is not necessary at this time to conduct a new competition and that it is more advantageous to continue with the current contract. Therefore, we suspended our planned competition efforts on April 2, 1999.

Finally, I will ensure program office works diligently to ensure the success of this effort. As expressed in the DOD/IG report, there are areas where we need to im-

prove and we have already initiated corrective actions. We are committed to working with our users, as well as Sabreliner, to ensure our C–20 CLS needs are met.

Secretary PETERS. The schedules are driven pretty much by the use of the airplanes, which we do not have total control over. So exactly what the bow wave is going to look like, we do not know. But we certainly need to look at the concerns that you have raised, and we will absolutely do that. And I will get back to you on schedule.

Senator BOND. Well, I very much appreciate that. And we would be happy, I think, the Appropriations Committee staff can work with yours, my office staff and the DOD Inspector General to see how this thing is working, to make sure that we fully understand what the needs are and where it stands.

Thank you, Mr. Secretary.

Mr. Chairman.

RESEARCH FACILITIES

Senator STEVENS. Senator Hutchison.

Senator HUTCHISON. Thank you, Mr. Chairman.

My first question deals with the research issue and the cuts that were made across the board pretty much of your research facilities a couple of weeks ago. And I want to ask you if you are shortchanging the future with these cuts. And with the Joint Strike Fighter and the F–22 coming on line, can we afford to downsize the human impact priority as we are going into these new aircraft?

Secretary PETERS. Let me get back with some detail for the record. But, Senator, let me say this: When we looked at the science and technology budget and other things we had to balance, it was clear to us that we had to put the space-based radar and space-based laser programs, which are science and technology (S&T) programs, into the S&T budget without additional money. So something had to come out.

[The information follows:]

RESEARCH FACILITIES

The fiscal year 2000 President's Budget reductions in the Air Force Science and Technology (S&T) Program were taken as part of the Air Force restructuring of its S&T Program to focus on the Air Force vision of an Expeditionary Aerospace Force (EAF). Rather than shortchanging the future, this restructure will ensure the Air Force is positioned to meet the challenges of the 21st Century. While portions of the S&T Program will be redirected, the overall program remains focused on the most critical technologies needed to perform our national security mission in the future, including human effectiveness technologies currently under development such as laser eye protection, panoramic night vision goggles, helmet-mounted displays, and ejection seats.

Senator HUTCHISON. We in fact looked at all of our programs, and we tried to prioritize them based not only on what we were doing, but what others were doing. And also, in the case of F–22 and Joint Strike Fighter (JSF), there is some human factors work that is carried within the budget lines of those programs.

As you may be aware, our Air Force Research Lab actually executes a total budget that is about two-and-a-half times what its appropriated funds are, because it does a great deal of work for programs where the actual dollars do not appear in the Air Force Research Laboratory (AFRL) budget but appear in the programmatics

of the F–22, the JSF, and some of the other programs. I believe that is the case here, that there is some work coming out of those programs.

As General Ryan alluded to, we did put money back in our unfunded priority list, because there is unquestionably some good science that we could and should be doing. And we have no problem with, if there are additional funds, going back up the priority list to try to fund some of those programs.

So there is no question that there is some benefit that we could get, if we had additional money.

TRICARE

Senator HUTCHISON. If you had additional money. OK.

My second question is on TRICARE. You mentioned in your opening statements that pay and retirement were number one and two for retention and recruitment. I would add number three is medical care.

I put an amendment on the authorization bill that has gone through the Senate that actually you could do without legislation. And it is fairly simple.

It would allow you to expedite claims processing, expedite payments. And it would authorize you to make larger payments where your military personnel cannot get service in a particular category. It also requires portability, so that a plan can go from one region to another.

Would you look at putting those in force before the legislation goes through?

Secretary PETERS. Both General Ryan and I regularly meet with our Surgeon General on TRICARE. And you are right, it is a major issue. In fact, in my estimate from going around bases, it certainly is one of the top five. And if we were actually able to alleviate pay and retirement concerns, it would quickly become number one.

We have tried to both enforce our contractual obligations to get more prompt claim payment and also to struggle with our contractors to get that to happen. When I was recently out at Cannon Air Force Base, which draws on its medical care from Lubbock, Texas, as well as from the New Mexico area, I became aware that we are not in fact reimbursing people for the cost of driving from Cannon to Lubbock to get medical care.

And that in fact, while they were quite proud of their claims payment rates, they were in fact outside of the contractual spec. They were not doing as well.

So our belief is that we need to work all of these things. The portability, in particular, was supposed to have been achieved by now. It is struggling into existence, and it is certainly something we want. But the computer systems still are not giving it to us.

So we are in heated agreement with you that these are key areas we need to resolve. The Surgeons General, I think, are working this as hard as they can. But there are certain computer glitches that seem to continue to happen, which is unfortunate.

And frankly, the funding levels, I think, are a bit low. And we are actually having trouble in many areas getting providers at the funding levels we have.

Senator HUTCHISON. That is a real issue.

Secretary PETERS. So we will continue to work this. It is an extremely high priority. I have a meeting about every other month on TRICARE with the Surgeon General to try to see how we are doing. There are some lights at the end of the tunnel in areas like California and Hawaii, I am told, where our TRICARE is built on an established health maintenance organization (HMO) base.

But that is certainly not true in a number of other areas of the country. And one of the areas of the country that it is not true is in West Texas, among other places.

Senator HUTCHISON. Right. It is very spotty. I find some are very happy with TRICARE, and others just cannot get service at all, because that specialty will not be treated in a certain plan——

Secretary PETERS. Absolutely.

Senator HUTCHISON [continuing]. Because of the problems with payment and reimbursement.

Secretary PETERS. One of the things that we have tried to emphasize also, although we do beat our surgeon regularly, this is also pretty much of a command issue. And that is, that the command elements at all of our installations have to be engaged with the local community to get the trust and confidence of the care providers in that area, along with being able to leverage in some way our clout over the administrative mechanism of this, to make sure that the payments are on time, so that we continue to build on that trust.

So there is a whole dimension of interaction with the local community that is so important to make this TRICARE business work. We do not see any substitute for TRICARE. TRICARE is where we are, and we are going to have to stay. Now we have to make it work for our folks.

Senator HUTCHISON. And I think you can make it work with some tweaking.

Secretary PETERS. Yes, ma'am.

Senator HUTCHISON. But I wish you would tweak before legislation goes through.

General RYAN. Absolutely.

Secretary PETERS. OK.

REAL PROPERTY MAINTENANCE

Senator HUTCHISON. A third question. You said, General Ryan, that real property maintenance is a real problem for you. Have you looked at your overseas deployments, particularly where there are problems with air space for training and continuing proficiency?

And have you determined that you have the right mix of U.S.-based and foreign-based personnel so that we do not close a base, Reese for example, and then find out we need it? Then we do not have the capability to do whatever it is that is needed because we closed one before we had our force strength settled based on the kinds of threats that we are trying to be prepared for?

General RYAN. Yes, ma'am. We continually look at that every year, at our overseas-to-CONUS ratio, the kinds of equipment that we have at those bases, the need of the area for the rapid response and forward basing requirement. We look at that very hard.

On the Reese——

Senator HUTCHISON. Well, you do not have to comment on Reese. We all know it was a mistake. But the issue is, if you say you look at it every year and we close a base, you either cannot reopen it or it is very expensive to reopen it.

General RYAN. Right.

Senator HUTCHISON. So have you come to terms with where we are in the world and what our needs are going to be and what is the best allocation before we go closing more bases? That is a great concern of mine, not only for the Air Force but also for the Army and Navy. But I would like to ask you if you have looked at that in terms of what you think is a realistic long-term force structure and division before we go close a base that we cannot reopen?

Secretary PETERS. We have looked very hard at that. And General Ryan and I actually raised a series of questions in the last budget cycle by inserting the number zero in the funding for a number of overseas bases to start a conversation about whether we really needed the force structure. And at this point, basically where we are is, we feel that we are committed through international agreements or the requirement of the two major theater wars to be at the permanent bases where we are.

We are very much interested and continue to urge that some of the smaller bases that have specific functions be closed, because we do not think the function is a long-term function. But at this point, basically our agreements with our allies are preventing any real change in that infrastructure.

General RYAN. We are also forward based for operational reasons. Korea, for instance, in our Asian beddown is very much driven by the threat that we see there. If that changes in some ways, then we want to be capable of changing the force structure there.

We have drawn down overseas in the draw down over 60 percent of our overseas locations, while we drew down the total force only 40 percent. We are fairly thin overseas, and we continue to rotate to areas that we never expected we would rotate to. So we take that into the equation for the responsiveness within theater that we need.

We had a very good, as the Secretary said, very good conversations with our overseas CINCs about the need for those forces. And we continue that dialogue all the time.

Senator HUTCHISON. Thank you, Mr. Chairman.

Senator STEVENS. Thank you. I was saddened to learn about the crash in Alaska of—it was an F–18, was it not?

General RYAN. Yes, sir.

NIGHT VISION

Senator STEVENS. It raised the question in my mind about orientation of pilots flying in total darkness. Do we have a special program for that?

General RYAN. Yes, sir. In fact, we are moving in the Air Force to an all day/all night Air Force. I mean, we must be able to operate around the clock. We have made some very good progress in night flying, making it safer, through the use of LANTIRN pods that light up the day, put it on the HUD.

Use of night vision goggles are proliferating throughout the Air Force and almost every one of our weapon systems. They give you

such a better capability to deal with the environment at night. Once you fly with them, you say, why have I not done this before, and let us get on with it.

There are some problems with night vision goggles that have to do with depth perception and——

Senator STEVENS. That is what I was going to go into, because this plane apparently hit the side of a hill. That raised several questions in my mind, as a former pilot, as to what was going on. We are going to get a lot more of those people coming up and using those ranges at night. It is a grand place to exercise Air Force and Army units together. And that was a night maneuver, as I understand it.

General RYAN. Yes, sir.

Senator STEVENS. I was happy to hear about the Third Wing, Mr. Secretary, being designated as one of the lead air expeditionary force wings, but I am unclear how that force structure helps the commander-in-chief of the Pacific in his Air Force contingent under General Gamble. What does this mean to have a wing like that in your command?

Secretary PETERS. It means several different things. First, we have been deploying forces from Alaska, and actually from Japan as well, to Southwest Asia and to other contingency operations. So that merely being in the Pacific theater does not exempt you from duty in other theaters. It recognizes first that we have a real depth of command knowledge in that wing.

It is a commitment, basically, to make sure that that wing remains properly staffed at the operational level, so that they can deploy pieces. As leaders of these units, they have to go into contingency operations.

It also means that there has been some plus up in the supporting infrastructure. As I said in my opening statement, we put just over 2,600 additional people into the base support role. We have put those out in a total of 46 bases in the United States. There are another 3,000 of those authorizations which we want to move, and there will be some additions to the lead wing.

So what we are trying to do with EAF and with the lead wing concept is to regularize what we have been in fact doing in the past, which is pulling units out to have them go to Bosnia or Southwest Asia, and that if there is a contingency in the Pacific theater, obviously—and if that wing is on the duty that 90 days, that would take care of the contingency.

Senator STEVENS. Well, when we were in the Persian Gulf last year, we got a lot of comments about the tempo of operations. General, will this help alleviate that? Does this mean that they are going to—I gather that was caused by the people from the same units being sent back to the Persian Gulf over and over again.

General RYAN. Right.

Senator STEVENS. Is this going to meet that contingency?

General RYAN. Yes, sir. We think that this EAF structure will allow us to use some units that we had not used before, particularly on the support side, to be able to fill some of those known contingency places that we have to rotate to for the foreseeable future.

So we think that adding these additional billets allows us to continue to do that without taking away the support from the wings

that need it on a day-to-day basis. We were shorting ourselves, quite honestly, in many of our support functions, because we never planned to have these contingency locations open.

This acknowledges that we will probably do this into the 21st century. And it will take some of the onus off the bases that were supplying that out of hide.

SPARE PARTS

Senator STEVENS. Mr. Secretary, you mentioned, and I have mentioned, the General has mentioned, the spare part problem. But from this committee's point of view, does your budget contain enough money to do what you have just suggested, so you need money to plus up to put some of these spare parts on the shelf overseas?

Secretary PETERS. No, it does not. What the funded portion of the budget has is 100-percent funding for the parts that we predict will be consumed by the flying hour program and by what we have programmed for contingency operations.

Also in the modernization accounts it buys a number of additional engines and engine parts so that there is some additional inventory being built. However, this is primarily replacing things that have worn out so badly that it is time to replace them.

Senator STEVENS. The EAF concept will function only if the units that have that designation have the spare parts on hand, right?

Secretary PETERS. That is correct.

Senator STEVENS. Are you going to prioritize them for spare parts?

Secretary PETERS. We are—at this point, the answer is no, because there are so many units that actually participate, that it is not much different than what we are doing today. Not only do the lead units go, but units from the other 46 bases which have these elements will go as well.

So our current prioritization is Southwest Asia, and then we are looking now at reprioritizing so everybody will probably have the same priority outside of Korea and Southwest Asia.

Senator STEVENS. Well, what about maintenance programs, depot maintenance? Is EAF going to affect that all?

Secretary PETERS. We have funded programmed depot maintenance spares at approximately 90 percent, so we think we are where we need to be. EAF will not alleviate any of the depot issues that we know of, nor do we think it will increase, because we will in fact be adding to the flying hours of some units and taking away roughly an equal amount from others.

Senator STEVENS. Well, we need to find you another $200 million at least for spare parts inventory and eliminate that backlog.

Secretary PETERS. Yes, sir. That is right.

Senator STEVENS. Incidentally, during his questions, Senator Bond talked about the C–20 maintenance program. I would like to make sure that the staff works with your people on that to make sure that that is something that we monitor as well. We will monitor the spare parts program, but I would particularly monitor that issue that he raised.

KOSOVO

General, we talked briefly personally about the Kosovo situation.

Can you tell us, Secretary Peters, how much have we spent so far from the Air Force point of view on Kosovo. Have you kept track of that at all?

Secretary PETERS. Yes. It is about $18 million on the deployment that we have done to date.

Senator STEVENS. And do you have an estimate of what the air operations are going to cost us, if we go into them?

Secretary PETERS. I do not think we do, because at this point I do not think we have enough definition to know really what that is going to be.

Senator STEVENS. This is going to be another increased deployment, or do you have the people there now, General Ryan, that could carry out the threatened attacks in Kosovo?

General RYAN. We have already deployed most of the force that needs to be in place to execute the contingency operations.

We have deployed B–52s to the United Kingdom in Fairford. We have deployed in-theater assets, F–16s and F–15s, from internal in Europe down into Italy. We have deployed the F–117s out of Holloman, 12 of them, to Aviano. We have deployed additional reconnaissance and tanker assets.

So the deployments for the most part, there are just a few that are still on call, are already there in place.

Senator STEVENS. We had an estimate from the Army what it would cost for its deployment, in the event there is an agreement. Do you have an estimate of what it would cost the Air Force if there is no agreement——

General RYAN. No, sir.

Senator STEVENS [continuing]. If there is an ordered strike, as indicated?

General RYAN. Right. Because we do not know the length of the operation, I do not have an estimate. I will get back to you, though, with one, given the length of period that it might go on.

[The information follows:]

COST OF KOSOVO OPERATIONS

The estimated costs for fiscal year 1999 Air Force O&M, Milpers, and munitions total $5,926,100,000. This supports O&M and Milpers requirements for Kosovo Diplomatic Observer Mission (KDOM)/Air Verification Missions ($17,900,000) and the air campaign ($1,854,200,000). Additionally, current estimated costs of munitions expended through September 30, 1999 are $3,397,000,000 with an estimated replacement cost of $4,054,000,000.

Senator STEVENS. I intend to go to this bill for supplemental on the floor and ask the Senate to agree to an amendment which will require that we are consulted with regard to the air strikes. We have been consulted about the possibility of what happens with ground forces, if there is an agreement. I do not think we have been adequately consulted about what is going to happen in terms of air strikes in the event there is no agreement.

And I would very much like you to convey that to the Secretary. I intend to call him myself. But I do think we ought to know more about these air strikes. We had air strikes going on against

Sadaam Hussein for, what, nine months, and I do not remember him saying, I am willing to change my mind.

This concept of bombing people to the point where they say "uncle" is sort of juvenile, as far as I am concerned. I think we ought to be consulted before that happens.

Mr. Secretary, in terms of the budget, we have about a $8.3 billion gap in this budget as far as this committee is concerned. I hope you realize that. We have $1.65 billion for unspecified rescissions, $3.1 billion for incrementally funding military construction, $2.2 billion credits for real estate investment tax revenues, and $6.6 billion for military retirement fund payments. That is, if you pardon the phrase, smoke. I cannot spend that, and the committee cannot allocate it. What do you suggest we do about that? You must be aware of it.

Secretary PETERS. We are generally aware of it. With respect to the military construction financing, we have in fact asked for an advanced appropriation. If that is not—I know the custom. It is in general—it has been used before. This is a one-time request to try to get the money we need to execute the 2000 program within what is my understanding was the constraints of the budget caps, as they were seen at the time this was put together.

Senator STEVENS. I really do not think you expect us to do that. We are liable to be forced to do it because of the structure of this budget. And I think if we do do it, we are all going to learn another terrible lesson again. We learned it once before.

Secretary PETERS. It is not my——

Senator STEVENS. Costs will go up, and the delays will go up. And your program will be totally out of whack, and we will have to try to get it back into balance when budgets are even more constrained.

Secretary PETERS. Under the program as it is currently laid out over the FYDP, the budget does in fact become less constrained in the out-years—but, of course, you never spend the out-years, and sometimes that extra money does not show up when you get to the out-years.

But our sense was that we absolutely needed the $2.4 billion, $2.5 billion, that we got, in addition to the pay and personnel fixes. That is certainly true of the other services as well.

We could not come up here and tell you we could execute a 2000 budget with reasonable readiness unless we were able to come up with the amount of program that we got. So these are very hard choices, but that is where we were left.

Senator STEVENS. Senator Specter, I—this was my first time around. But you are here, so I want to yield to you now, if you have questions.

Senator SPECTER. Well, thank you very much, Mr. Chairman. I do have a few questions. I regret not being here earlier. We have had Attorney General Reno testifying at the Governmental Affairs Committee on independent counsel.

Picking up on what Senator Stevens had asked about, with respect to the proposed air strikes in Kosovo, General Ryan, to the extent that you can answer in a public session, what is contemplated, and what is the likelihood of being determinative or successful? We know the experience in Iraq.

What are the prospects of the air strikes being able to be a decisive factor in bringing Milosevic and his confederates to the bargaining table?

General RYAN. Senator, I have seen no indication that the threat of air strikes has improved the cooperation in the ongoing deliberations over there.

Senator SPECTER. Beyond the threat, if there are air strikes, to the extent you can tell us what they involve and give us a judgment as to whether they would be likely to induce Milosevic to respond.

General RYAN. I would like not to go into that in open session. If you would like to, I could speak to you afterwards on that, sir.

Senator SPECTER. The issue of ground forces in Kosovo poses a very, very different consideration. I believe it is very important for Congress to take up the subject, because I believe air strikes are acts of war, and only the Congress under the Constitution has the authority to involve the country in war.

I recognize the many instances to the contrary, but where there is time for a deliberation, we very frequently in the Congress candidly duck the issue. We did last February of 1998, when we did not take the matter up, and it looked like air strikes would be imminent. At that time there were no air strikes, but we did not take it up afterwards. We now have time.

And my instinct on this stage of the record is to support air strikes, if they are realistically calculated to bring Milosevic to the bargaining table. Ground forces are very different from our experience in Bosnia, where there is much more risk. There is at least a sense that missile strikes and air strikes do not subject U.S. personnel to grave dangers in harm's way.

To what extent, if you can give some overview or some response, are our pilots in harm's way, substantially in harm's way, by the air strikes?

General RYAN. The air defense system in Yugoslavia is a very mature and professional and robust system. I would not say that that is a low threat area at all. In fact, I think there would be some losses in trying to take down that system, or we could not—no operation is clean, and particularly against a determined and very capable foe.

I ran the air operation in Bosnia. We lost a French aircraft. And previous to that, we lost a United Kingdom airplane. And they were not half as good as the Yugoslav Army (VJ) with the equipment and capability they had. So——

Senator SPECTER. Can we accomplish the strikes with missiles and not air power?

General RYAN. I would like to defer that question, sir.

MISSILE DEFENSE

Senator SPECTER. OK. We are debating right now a missile defense system. And that has implicated the strategic defense initiative.

Could you give us a brief summary as to where we stand on the strategic defense initiative, how much money we have spent, what our success line has been, Secretary Peters?

Secretary PETERS. Let me get that for the record for you. That is not primarily out of the Air Force budget. The Air Force piece of this is primarily the space-based infrared program. And I can get you those numbers on that program for the record. And I can probably get you the other numbers, as well. But it has been in the tens of billions of dollars up until now.

[The information follows:]

MISSILE DEFENSE

President Reagan directed the nation's ballistic missile defense (BMD) research and development efforts to counter a growing U.S.-Soviet ICBM/ballistic missile defense imbalance. The Strategic Defense Initiative Organization (SDIO) was created as the U.S.'s first joint acquisition organization dedicated to the research, development, and ultimate deployment of a viable, global BMD capability. Initially, under SDIO's leadership, and today, that of the Ballistic Missile Defense Organization (BMDO), the U.S. scientific community and military Services have explored, prototyped, and begun development of both national and international BMD systems to counter the full spectrum of ballistic missile threats. The efforts started as a directed response to a massive Soviet attack by intercontinental thermonuclear missiles on the United States and then evolved, with several intermediate steps, into a response against a growing number of less sophisticated medium range ballistic missiles, potentially with chemical or biological warheads as well as nuclear, targeted against the United States, our deployed forces, or our allies and friends.

Since 1984, approximately $50,000,000,000 has been spent on ballistic missile defense. Technological possibilities have been examined and reduced to those deemed feasible and acceptable. Dozens of ideas, systems concepts, and draft architectures have been analyzed, modeled, modified, tested, consolidated, rejected, or transformed into a few formal development programs judged to be affordable and executable. Recent successful interceptor flight tests, such as the PAC–3 intercept on March 15, 1999 and the THAAD intercept on June 10, 1999, and other successful system component tests prove the viability of the investment and acquisition strategy, recommended by BMDO and approved by the Administration and the Congress.

Within the next decade, five separate theater missile defense systems are scheduled to emerge from development into deployment along with the Air Force's Airborne Laser Program. In addition, we are developing a National Missile defense system for deployment. Once operational, ballistic missile defenses will form the key active element of our counterproliferation strategy, which includes arms control, deterrence, intelligence, and passive defense.

Senator SPECTER. Do you have any sense, General Ryan, as to how close we are to having a system which would provide some shield?

General RYAN. A limited system. I think Les Lyles of the Ballistic Missile Defense Organization (BMDO) office has testified. At a fairly high risk, we could probably get something out there in the 2005, 2006 time frame.

Senator SPECTER. It seems to me we did hear from a three star Air Force general some years ago, who was in charge.

General RYAN. The Ballistic Missile Defense Office is actually run by General Les Lyles, who is a three star Air Force general, but it is totally funded through OSD and controlled through Office of the Secretary of Defense (OSD).

Senator SPECTER. But he must be under the control of the Chief of Staff and the Secretary.

General RYAN. I just pay his salary. He really is not. He is detached to OSD for these purposes.

Senator SPECTER. You just pay his salary. Well, that implies some control.

OFFICE OF SPECIAL INVESTIGATIONS

One final question. How is the Office of Special Investigations (OSI) doing, General? I ask that question because I was in OSI when you were in grade school.

General RYAN. Yes, sir. It is very good. In fact, we have integrated them into the role we perform in making sure that we have the best self-protection for our forces when we deploy them overseas. They are a very necessary link to the local constabularies and the local investigative arms of other nations. So we use them very, very much in this deployed mode we are in right now.

Senator SPECTER. Well, the investigative techniques I learned in OSI have been very helpful to me on this committee. I was one of some 2,000 cadets between our junior and senior years going to Lowry Air Force Base on a very unique day in American history. It was June 25, 1950, the day the Korean War started.

We are all in khaki, and we were sure we were heading straight for Korea. And after they saw us for six weeks, they sent us back to school. They wanted to win the war. [Laughter.]

Thank you very much, General and Mr. Secretary.

Thank you, Mr. Chairman.

Senator HUTCHISON. Mr. Chairman, are you going to do a second round?

AIRCRAFT ENGINES

Senator STEVENS. I am going to start one now, if that is all right. I do not know how much longer the general has, but I do have a couple more questions I want to get into.

Mr. Secretary, I remember Senator Andrews of North Dakota sitting here on this committee one day and saying to some of the aircraft engine manufacturers that, as a farmer, he got a guarantee on the number of hours in operation of his tractor. And he did not understand why we could not get a similar guarantee on the engines.

As a matter of fact, I think that dialogue led to really revolutionize the aircraft engine manufacturing business. And now I think we are at the point where we really ought to think about going much further. I understand you are exploring this, as we have, and that is the releasing of basic non-combat equipment, in particular the engines, for our aircraft.

I congratulate you on what you are doing, requesting proposals for at least the re-engining of the joint surveillance target attack radar system (JSTARS). But are you looking into the total subject that I have raised before, and that is leasing aircraft and aircraft engines?

Secretary PETERS. Yes. We are looking at two things. The JSTARS obviously is one of them. We also have given—we intend right now to give bidders on the C–5 re-engining the option of proposing leased engines with respect to that.

On the aircraft side, we have just received what I think are really kind of path-breaking leases from both Gulfstream and Boeing for the G–5 and Boeing business jet, 737, respectively. These leases, I think, conquer many of the problems we have had in the past about indemnification and liability for termination.

I mentioned to your staff yesterday that we would like to come up and brief your staff on a potential use of these leases.

Senator STEVENS. Thank you.

Do you have the authority now, if we give you additional money or allocate additional money for this process, do you have the authority now to go forward with a leasing of aircraft and/or aircraft engines program across the board?

Secretary PETERS. We do not believe we do. We think we need—the problem that I think we still have is we need to understand how to put up what I would call a security deposit. And it is really in a way a budgeting issue.

Senator STEVENS. I think it is a money issue. I think it is part of our committee's authority to get into that one.

Secretary PETERS. It is.

Senator STEVENS. Because I think in the long run we will save money if the Air Force, and the department generally, leases noncombat equipment and uses it for a period of time, turns it back, and let it go into the general economy, and we get another piece that we are not paying for so much maintenance and repair.

Now, I would urge you to give us language that would at least give you the opportunity to proceed with a pilot program in specific areas and try to stretch this money out. It has a lot to do with the availability of money for those next generation fighters and bombers that we are talking about, if we can find some way to not stretch out the ownership.

It is nice to have a B–52 that can fly for 80 years, but I would much rather have had in 1981 and 1982 and 1983 and 1984 and have those other things out somewhere being converted into something. If they can fly that long as military planes, they would have made tremendous cargo planes before they are through, as far as I am—and they should have been.

I do not want to criticize the B–52, because it is a wonderful plane, but the concept of building a force that is going to last for 80 years does not mean to me that we would be a super power in 80 years. If we are flying 80-year-old equipment, someone out there is going to build something sooner.

Secretary PETERS. Right.

Senator STEVENS. So I would like to get us onto the leasing concept as far as possible, because I think it—particularly in the noncombat area and the cargo plane and passenger transportation areas. We should find a way to turn that over as rapidly as possible and to have equipment that does not require the massive costs of maintenance that these engines cost, if they are held too long.

General Ryan, do you agree?

General RYAN. Yes, sir, absolutely. I think power by the hour is a mechanism that we should go forward with. We ought to do it on those kinds of things that have commercial applicability. I think we can drive down the costs so that we are interoperable with the commercial——

Senator STEVENS. Absolutely. An engine manufacturer ought to have an agreement that if something goes wrong with that engine within the guaranteed hours, that they have an engine for that airplane within *x* hours, no matter where it is in the world.

General RYAN. Yes, sir.

Senator STEVENS. And that is the legacy of Andrews' concept. That is what the farmers get. I do not know why we cannot get them for you.

General RYAN. In commercial, that seems to be where the world is going as well. So the major problem—we would be happy to come in and talk with the staff and provide legislation—is that we need to get past the problem of having to budget the whole amount up front, even if we do not spend it all.

Senator STEVENS. I agree. That is our problem.

General RYAN. That is the key issue.

Senator STEVENS. We can show you and work with you, I think, to at least put in a pilot project for specific engines we are in the process of acquiring and making certain that we lease them and we have the commitments and we have the up front money that you need, and the legislation spells out what happens if you want to cancel it. You have to have a cancellation clause, too.

Secretary PETERS. The cancellation clauses that the manufacturers are proposing are getting better and better and are becoming less of a problem. The fundamental problem still remains that we—in some instances, we have to essentially put up a security deposit. The transportation working capital fund has been proposed, and that may be a good solution.

But we would very much like to come in and talk to you about that. We think that in particular the most recent Gulfstream and Boeing proposals offer a real opportunity to try to do some proof of concept in a pilot project.

JOINT AIR-TO-SURFACE STANDOFF MISSILE

Senator STEVENS. Let me go to one thing. I have two other things that I would like to go to and then I will yield.

What about the Joint Air-to-Surface Standoff Missile, JASSM? We are looking at a request to start a conventional air launch cruise missile, as I understand it. My staff tells me that we might have a less costly alternative, if we bought more JASSMs. Do you have a feeling about that, Mr. Secretary?

Secretary PETERS. Let me, if I may, give this to General Ryan, who is much more expert on this than I am.

Senator STEVENS. Well, I was going to pass it to him, too. Because I think that we have gone through at least two operations in the Persian Gulf where they would have been helpful. I do not know whether they would be helpful in a Kosovo operation or not. But certainly we are going into an area where I think we will have greater exposure for air forces than any time since World War II.

General RYAN. Yes, sir. I think the air forces will always be on the front end of most of the operations that occur. It has been that way in the past, and it seems to be holding for the future.

We have used the conventional air launched cruise missile (CALCM) very effectively, I think, in past operations. We are coming over to ask that we get some appropriation to replace 92 of the CALCMs that we used in this last operation, Desert Fox.

Senator STEVENS. Well, would not the other one be a better missile and at less cost?

General RYAN. Sir, they have—the CALCM has a longer range than the JASSM. So they fall into two different categories. It also

has a much larger warhead than the JASSM is going to have on it. They are a complementary kind of capability, rather than a substitute for one or the other.

Secretary PETERS. Let me say for a moment on cost, it looks——

Senator STEVENS. Pardon me just a minute. But if you are looking for air to surface in an area like Kosovo, you are looking to a lot shorter range.

Secretary PETERS. Yes, sir.

General RYAN. Yes, sir. But we do not get our first JASSMs now until 2002.

Senator STEVENS. I see.

General RYAN. They are not available.

Secretary PETERS. The remanufacturing cost of the CALCM is actually, we think, in quantity is pretty reasonable and down maybe even below the JASSM range. But, of course, we do not have that many CALCMs left to convert. So our belief is it would be cost effective to convert the roughly 250 to 300, I think, are going to be available, because the remanufacturing cost is in the same general category as JASSM.

Senator STEVENS. I thank you for that. And I just learned something I did not know, or I probably would not have asked the question.

I appreciate what you both already said about pilot shortage. I understand you have a new schedule for increase in pilot availability. I still would like to see us explore the concept of some additional stimulus to pilot availability through the Reserve Officer Training Corps (ROTC). Would you object to our trying to at least have a pilot program in that area?

General RYAN. Absolutely not, sir. I think that the pilot problem is a national problem, not just a military problem or commercial problem.

Senator STEVENS. But the problem is that because of the shortage generally, the industry is offering more and more to your pilots to leave.

General RYAN. Yes, sir.

Senator STEVENS. Because they have a shortage, and they have an enormous demand coming on them, too, for a buildup. The global concepts of our express service is taking an enormous number of people.

But I envision using the ROTC to stimulate a return to pilot training for people in college. And then let us see you and industry bid for them, rather than having industry bid for yours.

General RYAN. Yes, sir. We could not agree more.

Senator STEVENS. OK. Thank you.

Do you have any second questions?

C–17

Senator INOUYE. Mr. Secretary, I gather that you are planning to purchase additional C–17s beyond the planned 120.

Secretary PETERS. Yes.

Senator INOUYE. I hope that at some point you will consider Alaska and Hawaii as places to—put some of these aircraft there.

General RYAN. We certainly will.

Senator INOUYE. We do have forward deployed troops there.

Secretary PETERS. We understand that. Right now the ones we have added were specifically for the special forces mission, where we know we have a shortage. Once we get the mobility requirements study done this year, we will be trying to come up with a better fleet size. It will probably take us about another year to come up with a better estimate of what we are really going to need.

Senator STEVENS. Can I add to that?

Senator INOUYE. Sure.

Senator STEVENS. You mentioned the mobility factor and the need for additional transport. We have two of the advance deployed groups in Alaska and Hawaii, and they are going to have to wait for C–17s to come in from Omaha, I guess, to pick them up.

We both share that feeling that those C–17s ought to be available, if our rapid deployment and reinforcement for Korea mean something. It ought to go now, when they have to go, rather than wait ten hours for airplanes, maybe longer.

But is that number enough? We are looking at 20, an increase of 20 in C–17s.

General RYAN. Right. We have programmed 14. We think 15 is the requirement for our——

Senator STEVENS. Well, we are programming 20, if my numbers are right. We just want you to know where we think those five are going to go. [Laughter.]

Secretary PETERS. Yes, sir. We got it.

Senator INOUYE. You are on target now.

Secretary PETERS. We will know more when we finish this mobility study what the big requirement is.

Senator INOUYE. I have a question, Mr. Secretary. It has to do with the airborne laser. And I know that there is some question as to classification and such. So I think I should submit that to you.

Secretary PETERS. That would be fine. You will get a better answer, if you submit it for the record.

Senator INOUYE. This is on the investigation that has been carried out by the Congressional Research Service (CRS). So——

Secretary PETERS. Let me just say a couple words about that. When CRS came out and did the study, as I understand it, they sent out investigators who do not have security clearances.

I heard this when I was out in New Mexico about a month ago. And at that point, I said, well, that is just really not satisfactory. We cannot leave these questions in their minds. Let us call back and talk to CRS.

Congresswoman Heather Wilson was with us. And she in fact has done that and said: Get someone with a clearance out so we can brief them on the cleared stuff.

So my sense is that that report is going to be substantially different once the folks who have security clearances go out and hear the cleared material. It is a preliminary report.

Senator INOUYE. I thank you very much, Mr. Secretary. This is one of the better hearings that I have participated in. It has been very helpful.

And, General, thank you.

General RYAN. Thank you, sir.

Senator INOUYE. Always helpful, sir.

Senator STEVENS. Senator Hutchison.

TWO MAJOR REGIONAL CONFLICTS

Senator HUTCHISON. I just have one last follow-up question. General Ryan, in light of your answer to the question from Senator Inouye, do you think the near simultaneous policy is sufficient for our country with the threats we face?

General RYAN. I think so. I think it is a good construct for gross sizing of your force. But I think you also have to use the day-to-day OPSTEMPO measurement, also, how much can your force sustain on a day-to-day basis, just not construct for force structure that has two near simultaneous major theater wars.

And we are trying to do that in our EAF concept. We are structuring ourselves in a day-to-day mode to be able to roll into a two MRC construct, if we need to.

So I think you have to measure it both two MRCs in day-to-day OPSTEMPO.

Secretary PETERS. Let me just add to that, if I may, Senator. I think in many instances the day-to-day tempo is actually more demanding on our forces than two major theater wars. For example, on our U–2 forces, it is easier to support two major theater wars with U–2s than it is to have them flying in the roughly half a dozen places they are flying today.

Similarly, our transport pilots are much more in demand as they deliver humanitarian supplies down in Central America. They deliver supplies to Bosnia, Kosovo, Northern Watch, Southern Watch, and the Korean Peninsula.

So I think, as you noted in your opening statement, this fatigue is a very serious problem. And it is something we need to combat, because that is what is making the Air Force not a long-run institution. It is what is causing us the loss of people. It is causing us the wear and tear, which is making it so difficult to make sure we have forces that are ready for the two major theater wars.

So as we go through this, and particularly in understanding our Guard and Reserve requirements, I actually think that that is more stressing than two major theater wars. And we are going to try in the future to look at that very carefully, as we have done this year, to try to properly size for the day-to-day, as well as the two major theater wars.

Senator HUTCHISON. I appreciate your saying that. I think that this is absolutely true from my experiences in visiting with our troops. And it is also psychological. Every one of them is ready to go when there is a major regional conflict.

But there is a different question when they are not sure that their deployment is really a security threat. So there is a psychological reason there, too.

Secretary PETERS. Yes, ma'am, absolutely.

Senator HUTCHISON. Thank you very much.

Thank you, Mr. Chairman.

ADDITIONAL COMMITTEE QUESTIONS

Senator STEVENS. We are just arguing about how to flesh out your program on pilot training. Thank you very much, gentlemen. It is nice to visit with you, and I look forward to talking to you further about some of the things we have discussed.

I would like to arrange for a classified briefing for our committee on the status or the reality of the air defense problem in Kosovo. I think they should know that.

Secretary PETERS. We will get that over to you.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO SECRETARY F. WHITTEN PETERS

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

FUNDED PROGRAMS

Question. Secretary Peters, the Air Force's pro rata share of the $1.65 billion rescission would be $488 million. Do you support the budget assumption that the Air Force can make a cut of this magnitude to currently funded programs?

Answer. The Department has not decided on the specifics of the proposed rescission and has asked to work with the Congress on the issue. Because no decisions have been made, the Air Force has no indication that any of the rescission is targeted toward Air Force programs. Obviously, a rescission of Air Force programs could force difficult choices and might further constrain modernization and infrastructure accounts.

JASSM

Question. Secretary Peters, can you tell us about the progress to date on the JASSM program and give us an update on the projected capability and cost of the JASSM missile?

Answer. Progress to Date: Program progress is acceptable against its cost, performance, and schedule commitments. The JASSM program is 6 months into its 40-month Engineering and Manufacturing Development (EMD) Phase. Early insight into Carrier Operability occurred in 1998, when JASSM successfully demonstrated 6 catapult launches and 15 arrested landings on an F/A–18C. Mission planning activities to support route plans and terminal plans are on schedule with early training ahead of schedule. Over 100 missions have been flown with the Flying Test Bed, a pod with missile processor, seeker, inertial and GPS hardware and software mounted on a helicopter, to measure terminal accuracy of the missile system. The first 2 EMD test units have been manufactured and delivered. Flight test vehicle number 1 (FTV–1) was released from an F–16 at White Sands Missile Range on April 8, 1999 and although it crashed, achieved 4 out of 6 test objectives. Expect next flight test around late July.

Projected Capability: JASSM projected capability meets or exceeds the operational requirements document threshold requirements. Demonstration of projected capabilities begins in fiscal year 2000 with contractor development test and evaluation and combined development test/operational test, and concludes in fiscal year 2002 with the completion of initial operational test and evaluation. Low rate initial production approval is scheduled for January 2001. Required Assets Available (RAA) is planned in fiscal year 2002 for the B–52 and in fiscal year 2004 for the F–16.

Costs: The Lockheed Martin EMD contract includes firm fixed price options for the first five lots of production. The Air Force currently plans to procure 1,106 missiles in Lots 1–5. The missile average unit procurement price for Lots 1–5 is $279,000 (BY95$) and includes a 15-year bumper-to-bumper warranty, well below the threshold and objective prices of $700,000 and $400,000 (BY95$), respectively.

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

C–17

Question. What is the Air Force's plan for the conversion of Air National Guard units from the C–141 to the C–17? How many C–17s would be required to make this conversion and when would they need to be funded to most efficiently make this conversion?

Answer. In fiscal year 1995, the Air Force selected the 172 Airlift Wing, a Guard unit, Jackson, Mississippi for beddown of the C–17 Globemaster III for fiscal year 2004. The number of aircraft currently programmed and funded, beginning in fiscal year 2002 are adequate to support this conversion. The ultimate force structure re-

quirement for C–17 aircraft—and the division of these aircraft in Active, Guard, and Reserve units—cannot be determined until the Joint Staff has concluded its Mobility Requirement Study 2005 (MRS 05). We anticipate that this study will conclude late this calendar year.

Question. Mr. Secretary, as you know, the 172nd Airlift Wing of the Mississippi Air National Guard in Jackson, Mississippi will be the first Air Guard unit to convert to the C–17. What is the current plan for the procurement of the additional C–17 aircraft needed to complete the 172nd Airlift Wing's conversion? If additional C–17 aircraft become available in this budget (i.e. a total of 20 C–17s), which Air Force and/or Air National Guard units will receive those aircraft?

Answer. The programmed conversion of the 172nd Airlift Wing is fully funded in the current Air Force Program. In the event that additional C–17 aircraft become available to the Air National Guard, with no offsets to current program funding, possible increased production rates may allow a more expeditious conversion of the 172nd Airlift Wing. The Air National Guard's next priority would be to convert another experienced strategic airlift unit, currently equipped with aging aircraft programmed for retirement within the FYDP.

Question. With recent reports that delivery of new C–17s is running approximately 200 days ahead of schedule, what are the Air Force's contingency plans that will ensure the 172nd is supported for early deliveries? Do any MilCon projects need to be brought forward, such as the construction of the flight simulator facility, or other support shops?

Answer. All projects supporting the C–17 beddown at Jackson, MS are in the out years of our FYDP. If delivery of the aircraft were moved up 200 days we would need to move most projects forward one year. The simulator project is based on delivery of the simulator equipment and should be constructed starting in fiscal year 2001. The delivery date was not known until after the fiscal year 2001 program was established, so as we make program adjustments in the coming months, we will work to move that project forward from it's current position in fiscal year 2002.

Question. I'm advised that the two designated Active Air Force C–17 flying units, located at the Charleston and McChord AFBs have Maintenance Field Training devices. What are the Air Force's plans to ensure that the 172nd has these field training devices, when the C–17s arrive in Jackson. Wouldn't it be appropriate for the Air Force to go ahead and include this equipment in its Future Year's Defense Plan?

Answer. There is currently no plan to procure Maintenance Training Devices for the 172AW at Jackson ANG Base. The cost of a suite of trainers currently located at Charleston AFB and the one being shipped to McChord AFB is approximately $70,000,000–$75,000,000. An additional suite of training devices for Jackson would be considerably more since the manufacturing dies are no longer available and would have to be constructed. Additionally, a formal training detachment would have to be established by AETC to support training activities. Charleston and McChord are scheduled to receive 48 aircraft each and establishment of a formal training detachment is already in place. Since Jackson is only scheduled to receive six aircraft, providing separate training devices and a training detachment is not cost effective. Based on current delivery schedules, student throughput on the devices at Charleston AFB will be considerably less than the present student throughput and can accommodate training for maintenance technicians at Jackson. This will ensure the 172AW will be provided formal training required to effectively maintain their aircraft.

Question. The 183rd Aeromedical Evacuation Squadron, associated with the 172nd Air Wing, is the only Air National Guard unit with a regularly scheduled operational aeromedical evacuation mission and the only aeromedical evacuation unit with the C–141 as its primary aircraft. Will the 183rd retain its critical mission requirements in time of war and natural disaster, with the 172nd transition to the C–17 aircraft?

Answer. The fact that the 172nd Airlift Wing is transitioning to the C–17 aircraft does not impact the 183rd Aeromedical Evacuation Squadron's (AES) wartime mission. The Squadron can train to meet its mission requirements regardless of the airframe assigned to the Wing. Traditionally, the C–141 was designated as the primary airframe for inter-theater aeromedical evacuation but the present airframe designated to support inter-theater patient movement, in time of war, is the Boeing 767. The 183rd AES will continue to be tasked to support inter-theater patient movement. Its wartime mission and training requirements will not change.

Presently the 172nd Airlift Wing supports peacetime day to day aeromedical evacuation missions. Although the C–17 has been designed to support aeromedical evacuation missions, use of the C–17 for peacetime AE may not be practical in light of multiple C–17 mission requirements. Whether or not the 183rd AES and the 172nd

Airlift Wing will continue to support routine patient movement will depend upon C–17 availability.

C–130JS

Question. Mr. Secretary, the "Hurricane Hunters" of the 403rd Wing based at Keesler AFB are vital to the safety of the people of Mississippi and the other Southeastern states. They are scheduled to receive 9 C–130Js (modified for weather reconnaissance) during the September 1999 to February 2000 time frame, providing a significant upgrade to their mission capabilities. The 403rd is also scheduled to receive a C–130J simulator, best estimate for delivery is early to mid fiscal year 2001; however, the MilCon for the simulator building is currently scheduled for fiscal year 2002.

What is the Air Force's plan for setting up the simulator if the simulator building has not been built?

Answer. A definite plan has not been established since the simulator is not yet on contract. The simulator will be part of the C–130J Maintenance and Aircrew Training System (MATS) contract which will be a full and open competition. Contract award is projected for 2nd quarter fiscal year 2000. Since none of the existing facilities at Keesler AFB can accommodate the simulator, the MATS contract will include provisions for the use of the contractor's facilities to house the simulator in the event the simulator building is not ready.

Question. How much would it cost to set the simulator up in a temporary facility and then move it to the permanent facility once that facility is built?

Answer. Costs to set up the simulator in temporary facilities are unknown at this time. Cost estimates for a temporary set up and move of a simulator will most likely be priced options on the Maintenance and Aircrew Training System (MATS) contract. Identification of a temporary location for the simulator (if necessary) could be determined once the simulator contract is awarded.

Question. Shouldn't the MilCon funding be brought forward so the facility is already built when the simulator is ready for delivery?

Answer. Yes. Based on projected training requirements, the simulator facility should be brought forward to better align construction completion with the proposed arrival of the simulator.

Question. In which fiscal year would the simulator building need to be funded in order to ensure that it is built before the simulator is ready for delivery?

Answer. Funding the facility in fiscal year 2000 will ensure that it is available prior to the earliest possible delivery date for the simulator.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

DECREASES IN RDT&E AND SCIENCE AND TECHNOLOGY BUDGETS

Question. Given the long-lead time to develop new weapons and information systems, how does the Air Force plan to maintain U.S. technological supremacy while reducing defense-wide RDT&E budgets?

Answer. The Air Force has maintained its overall S&T investment at last year's level. In fiscal year 2000, the Air Force's S&T Program has been restructured to provide the research essential to the Air Force vision of an Expeditionary Aerospace Force (EAF). Achieving this EAF vision requires increased emphasis on space technologies and the integration of air and space technologies. While portions of the S&T Program will be redirected, the overall program remains focused on the most critical technologies needed to perform our national security mission in the future.

Question. Do you believe that you can maintain the scientists and infrastructure required for success at the present level of resources?

Answer. The S&T Program provides for the most critical technologies needed to perform our national security mission in the future, including the necessary scientists and infrastructure. In fiscal year 2000, the Air Force's S&T Program has been restructured to provide the research essential to the Air Force vision of an Expeditionary Aerospace Force (EAF). Achieving this EAF vision requires increased emphasis on space technologies and the integration of air and space technologies. As the Air Force increases its emphasis on space, the content of the S&T Program migrates from 6.2, in-house efforts, to more than 6.3, contracted efforts. As a result, there will be less in-house or manpower-intensive work.

Question. The Air Force has announced their intention to reduce Air Force Research Laboratory personnel. There will be a loss of 43 civilians at Kirtland. Precisely which programs were reduced or cut and how many people were connected with each program?

Answer. In fiscal year 2000, the Air Force Research Laboratory at Kirtland AFB, New Mexico, will reduce laser imaging technology, space technology demonstration, and space thermal management efforts, resulting in the elimination of approximately 14 civilian positions. Elimination of another 29 civilian positions stems from previous manpower reductions including "Dorn" reductions, the Federal Workforce Restructure Act of 1994, and Congressionally-directed acquisition workforce reductions.

Question. What criteria did the Air Force use to make decisions regarding these changes in its research laboratories?

Answer. The decisions made regarding various elements of the Air Force Research Laboratory were based on the Air Force vision of an Expeditionary Aerospace Force (EAF). In fiscal year 2000, the Air Force's S&T Program has been restructured to provide the research essential for the Air Force EAF vision which requires increased emphasis on space technologies and the integration of air and space technologies.

AIR FORCE PLANS FOR DIRECTED ENERGY

Question. As you know, the Air Force is now considering its plans to centralize and consolidate its directed energy programs. At present, I believe that Albuquerque is viewed as the best location for this initiative in light of Air Force resources, assets, and capabilities already at Kirtland. I would be interested in learning from you the most recent plans for directed energy within the Air Force.

Answer. Directed Energy (DE) research has been in progress for many years, and several recent studies have shown the significant potential for DE products to benefit the war fighters of the 21st century. The Lasers and Space Optical Systems (LASSOS) study led by General (ret) Piotrowski identified weapon and nonweapon mission applications for the warfighter that can be most effectively accomplished using either lasers in space or terrestrial-based lasers whose beams transit space. In addition, the Directed Energy Applications to Tactical Airborne Combat (DE ATAC) study, led by General (ret) Fogleman identified promising airborne tactical applications using directed energy (lasers and microwaves) technology. Both studies were conducted through the Air Force Research Laboratory's Directed Energy Directorate at Kirtland AFB. The Air Force is currently conducting ground and space based laser technical developments and the airborne laser weapon program. The Airborne Laser (ABL) is on schedule to achieve IOC in 2007. Additionally, the Space Based Laser (SBL) Integrated Flight Experiment (IFX), a technology experiment to provide information needed to make sound decisions on future of SBL, is being developed for a launch in 2012. The Air Force is also developing and testing a wide range of High Power Microwave (HPM) devices. The Air Force believes it is important to establish a technology link between ABL, SBL, GBL, HPM, and other efforts.

While several options are available for future directed energy program management—including centralization and consolidation—no decision has been made to alter the current organization structure.

Question. Does the Air Force currently desire to create a centralized facility for all of its efforts in directed energy? What sort of synergies could be leveraged or advantages could be derived for directed energy programs?

Answer. The Air Force understands the synergy of establishing a technology link between Airborne Laser (ABL), Space Based Laser, High Power Microwave (HPM) technology, and all Directed Energy (DE) efforts. DE is an evolving technology that enables revolutionary military concepts; however, this cross-cutting technology requires substantial engineering and a government team to guide industry and academia toward fulfilling military missions. It is critical to insure that maturing technologies address the system engineering required for military applications through the existing AF and other service Product Centers for multiple customers. These technologies include target vulnerability and assessment, large optics and space structures, beam control, high and low energy laser systems, acquisition and tracking, and high power microwave sources and antennas. AFMC is exploring better ways to transition DE technologies from the labs to the product centers, but at this point no recommendation or decision has been made to create a centralized organization for directed energy.

Question. What weaknesses or strengths does Albuquerque provide as a location for a directed energy "Center of Excellence?"

Answer. Air Force Research Lab (AFRL) Directed Energy Directorate at Kirtland AFB, NM, conducts most Directed Energy (laser and high power microwave) S&T. Both the SBL and ABL programs leverage heavily off of AFRL technology and experience in key DE technology areas, such as target vulnerability and assessment, laser systems, and acquisition and tracking. AFRL has world class facilities and employs scientists, engineers, and several key support contractors with years of experi-

ence in beam control, acquisition, tracking, and pointing, and optics gained through work done on the Airborne Laser Laboratory (ALL), Airborne Laser (ABL), the Relay Mirror Experiment (RME), and the High Altitude Balloon Experiment (HABE), among others. Further, all of the HPM development work for the Air Force is accomplished at Kirtland AFB. The majority of work in this arena is done by the Air Force Research Laboratory.

If a directed energy "Center of Excellence" were located in Albuquerque, it would benefit from the area's mature work force and leverage off an already established relationship with the University of New Mexico. Several contractors supporting acquisition, tracking, and pointing and Boeing's Rocketdyne division are located in Albuquerque. Additionally, certain employees from Lockheed Martin and TRW are already working in the area on the ABL program. Albuquerque's moderate weather allows year-round testing at the Starfire Optical Range (SOR), which currently tests lasers and optics in support of atmospheric compensation experiments. Sandia National Laboratories' main site is also located in Albuquerque, providing another source of technology expertise.

Unfortunately, much of the contractor workforce involved in directed energy is not located in Albuquerque. Major divisions of Boeing, TRW, and Lockheed Martin in addition to the Capistrano Test Site are located in California. The problem is magnified by the lack of major airline traffic through the Albuquerque airport. Though Albuquerque is a hub for Southwest Airlines, arranging flights from the East Coast for government TDYs can be difficult. For example, there are no direct flights from the Washington, DC area to Albuquerque.

Prior to embarking on a potential plan for a Directed Energy Center of Excellence, site selection evaluations should be performed on possible locations.

MILITARY CONSTRUCTION FUNDING (NO MILITARY CONSTRUCTION BUDGETED FOR NEW MEXICO)

Question. Cannon Air Force Base received no military construction money in fiscal year 1999 or in the President's fiscal year 2000 budget. The Air Force recently designated Cannon's 27th Fighter Wing as an Aerospace Expeditionary Force (AEF) lead wing. In addition, Cannon is now the base for Singaporean Air Force training operations. For these reasons, the adequacy of the runways and air control tower at Cannon are of utmost concern. What are the Air Force's standards for runways at its installations? How many runways at Cannon do or do not meet those standards?

Answer. The Air Force standard for runways is to have an adequate structural foundation to support assigned aircraft and a surface condition that prevents foreign object damage (FOD) to aircraft. A pavement condition index rating system is used to evaluate the condition of airfield pavements. Both operational runways at Cannon AFB are rated "degraded" due to continuous cracking and breaking of slabs, deteriorated joint seals, and spalling.

Question. What standards does the Air Force have for control towers? Does the existing control tower meet those standards?

Answer. Control towers must provide adequate space for functional requirements and must be sited to provide air traffic controllers a clear, unobstructed and direct view to all operating portions of the airfield traffic area. The existing control tower at Cannon Air Force Base is undersized, providing only 25 percent of the required space, and the air traffic controllers do not have a clear view of all taxiways and runways.

Question. Do either the runway conditions or control tower at CAFB present a safety risk? What about efficiency of operations at the base?

Answer. The 27th Fighter Wing safety office considers the need for tower improvements one of its top three risk areas. This project has been programmed for fiscal year 2003 in the Air Force's MILCON Future Year Defense Plan. For the present, local commanders are fully aware of the challenges posed by the current limitations to ramp visibility and are placing great emphasis on positive radio contact during ground movements in the out-of-sight area. This has also had the effect of keeping operations moving smoothly, and should continue to do so until the MILCON project is complete.

LOW-COST LAUNCH PROGRAMS

Question. You are, of course, aware that the U.S. spends about two billion defense dollars annually for space launch. In light of the transfer of sensitive technical information to China by U.S. satellite companies, the Cox Commission has recommended increased attention to achieving reduced costs for U.S. launch capabilities. What programs does the Air Force currently support to reduce launch costs?

Answer. The Evolved Expendable Launch Vehicle (EELV) program is designed as the answer to reducing the cost of access to space for the 21st century. The EELV program has partnered with industry to develop a national commercial launch capability that satisfies both government and commercial user requirements for medium and heavy lift. The program will replace the current Titan II, Titan IV, Delta II, and Atlas II launch vehicles with two new competing families of vehicles. The EELV program has a requirement to reduce launch costs by at least 25 percent below what it would cost to launch future missions on the present launch systems. EELV development and launch service contracts were awarded on October 16, 1998. The Boeing Company and Lockheed Martin Astronautics were each awarded $500 million Other Transaction Agreements (OTAs) for EELV Development, with the balance of the Development cost to be borne by each contractor. Additionally, two contracts were awarded for Initial Launch Services (ILS) for the first 28 launches between fiscal year 2002 and fiscal year 2006. Boeing received 19 launches for a contract value of $1,380,000,000 and Lockheed Martin received 9 launches for a contract value of $649,000,000. In addition to establishment of two internationally competitive commercial families of launch vehicles capable of meeting all Government and commercial needs, EELV's benefits include a 31 percent life cycle cost reduction over current Delta, Atlas, and Titan launch systems and $6,200,000,000 in estimated savings.

Question. Does the Air Force plan to increase resources devoted to achieving low-cost launch capabilities? Why or why not?

Answer. The Air Force believes investment in low cost launch research could lead to improved capabilities. The Air Force is funding advanced low cost rocket engine technology development with $16,500,000 in fiscal year 1999 and $7,500,000 in fiscal year 2000. The goal of this effort is to develop rocket engines with increased simplicity and improved operability. If successful, this has the potential of dropping the cost of space launch by more than 50 percent. Based on the results of these efforts, the Air Force will consider additional investment.

In addition we are assessing two high risk "minimum cost design" concepts (Scorpius and Excalibur) funded by Congress. Both are low-cost, liquid fueled expendable launch/upperstage vehicle technology concepts. Scorpius is funded at $3,000,000 in fiscal year 1997, $5,000,000 in fiscal year 1998 and $2,500,000 in fiscal year 1999. Excalibur is funded at $1,830,000 in fiscal years 1998/1999 and $4,000,000 in fiscal year 1999. Propulsion analysis in conjunction with launch vehicle analysis is underway to determine the relative merits of these concepts. Although progress is being made, the results do not yet warrant Air Force investment.

X–34 TESTING AT HOLLOMAN

Question. As you know, concerns have been raised about environmental, safety, and operational issues related to the plans for continued X–34 testing. I would like your comments for the record as to what actions the Air Force will pursue regarding X–34 tests. How long will this assessment take? What issues are you pursuing in the scope of your evaluation? Do you believe that the Air Force's concerns can be adequately addressed in order for tests at Holloman to proceed?

Answer. The Air Force has discussed the X–34 Test Program with NASA, and they have agreed to look at alternative locations for the recovery of the X–34. Safety, environmental and operational issues are being considered. NASA has not indicated any delays in the test program due to changes in the recovery site. The Air Force will announce the resolution as soon as possible.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

OFFICER TRAINING

Question. Secretary Peters, it has been reported over the last year that the military services including the Air Force, are experiencing shortages in their officer corps. Would you agree that one way to combat this shortage is to provide officer candidates with the best and most efficient training facilities available?

Answer. Yes. It should be noted, though, that the Air Force has been meeting its officer accession goals. However, the limited lodging capacity for the officer training facility at Maxwell Air Force Base will restrict the flexibility to increase accessions as required in future years. To solve this problem, the Air Force has proposed military construction projects for funding in the future years defense program.

Question. Mr. Secretary, I have been told that the number of officer candidates scheduled to train at Maxwell Air Force Base will continue to rise. In light of that

fact, would you agree that the Air Force should place a priority on the completion of the Officer Training School's campus?

Answer. Yes, we need to complete the campus as soon as possible to meet officer production. The Air Force did not accelerate the new OTS requirements into the fiscal year 2000 budget because the validated increases came too late in the fiscal year 2000 budget process, but we were able to include a line item for an additional dormitory in the Future Years Defense Plan (FYDP). The Air Force's earliest opportunity to address these critical facility requirements supporting increased officer production will be in its budget adjustments for the fiscal year 2001 President's Budget submission next year.

KC–135

Question. Secretary Peters, in Birmingham, Alabama, the PEMCO Aeroples Corporation rebuilds KC–135s for the Air Force. The Air Force recently began bundling its maintenance contracts in the name of readiness. This has hurt PEMCO's business. What is your opinion of the bundling process?

Answer. I support the decision to consolidate workloads. Consolidation of workloads is based on military judgment of sustainment requirements and the Government's ability to meet operational requirements. Consolidation also maximizes the opportunities for offerors to achieve cost reductions resulting from the inherent economies of scale, and to achieve economies of production through shared backshop support, multi-skilling, and facility utilization across numerous workloads.

Question. Has the readiness of the KC–135 fleet been enhanced or damaged by this process?

Answer. Readiness of the KC–135 fleet, as measured by aircraft availability and mission capable rates, has remained relatively unchanged since contract award.

Question. How do we as a country protect the vital industrial base which repairs and refurbishes military aircraft?

Answer. The Air Force regularly reviews the adequacy of the industrial base for repair and refurbishment of the KC–135 and other military aircraft. The KC–135 is currently being supported through multiple sources of repair (Oklahoma City Air Logistics Center, Boeing, and PEMCO). In the current environment, three sources of depot maintenance provide the Air Force the needed flexibility to sustain the readiness of the KC–135 fleet.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

F–22 AND C–130 COST RELATIONSHIP

Question. Mr. Secretary, I understand from the contractor that there is a direct relationship in the number of C–130's that are purchased and the cost of the F–22 program. One estimate indicates that the F–22 program might increase by $2.5 billion if the C–130 program were canceled. Can you explain the relationship between the cost of F–22 and C–130 production and verify the cost increases that have been mentioned?

Answer. The exact cost to the F–22 program due to reduced C–130J deliveries is difficult to quantify at this time. The F–22 Engineering and Manufacturing Development (EMD) program is phasing down and is planned to complete in fiscal year 2003. Any increase in overhead rates resulting from changes in C–130J procurements will have minimal impact to the remaining EMD effort. In the production phase, there is no short term impact due to firm fixed price contracts for the Production Representative Test Vehicles (PRTV) and Lot 1 (fiscal year 1999–2000) buys. However, significant decreases to previously anticipated C–130J production volume could potentially have adverse impacts to the F–22 program in the outyears. Although it's too soon to predict the exact long term impacts, the Air Force plans to buy approximately 150 C–130Js.

In addition to the C–130J and F–22 programs, overhead cost at the Lockheed Martin, Marietta facility is impacted by other programs such as: C–5 avionics modifications, S–3/P–3 modifications and spares, C–130X modifications, C–5 re-engining and reliability improvement programs, and potential international commercial sales of the C–130J. Lockheed recently won a competition on the C–5 Avionics Modernization Program and is performing the work at the Marietta, Georgia facility. The Air Force, along with Lockheed Martin, is aggressively working to identify and exploit cost reduction methodologies on the F–22 program.

The Air Force's production contract with Lockheed Martin will not tie the unit price of the F–22 to production rates of the C–130J.

QUESTIONS SUBMITTED BY SENATOR BYRON L. DORGAN

EAF CONCEPT

Question. What is the department doing to ensure that Air National Guard and Reserve forces have the proper equipment and training needed to support the EAF concept?

Answer. As the AF evolves into the EAF concept and incorporates Air Reserve Component (ARC) units into the 10 AEFs, they must be trained, properly equipped, and ready. Otherwise, they would be unable to make the contributions we require of them. We have taken several steps to ensure this occurs. First, the ARC, both the Air National Guard and Air Force Reserve forces, are full members in the EAF implementation processes. ARC representatives have been integral players throughout the on-going EAF planning effort. In fact, the ARC was given the opportunity to designate those commitments they could fill before most of the active force was scheduled, thus giving the ARC maximum flexibility and opportunity to contribute with their available forces. Second, while complete details are still in development, the EAF concept calls for each element of the Total Force to undergo "spin-up" training and readiness assessments prior to deployment. The ARC is being addressed through this process along side of the active forces. Finally, our ongoing planning, programming and budgeting activities are addressing equipment, readiness and training as a "Total Force" solution.

AIRCRAFT PROCUREMENT RATE

Question. Is the aircraft procurement rate at levels you'd like to see to facilitate getting newer aircraft to the Guard and Reserve?

Answer. No. The fiscal year 2000 President's Budget submission funded procurement of 30 F–16 Block 50 aircraft at the following rates: fiscal year 2000=10, fiscal year 2001=0, fiscal year 2002=10, and fiscal year 2003=10. Available funding within the Air Force budget precluded purchase of aircraft in fiscal year 2001. However, to fund shortfalls in Space Based Infrared System (SIBRs), we were required to restructure the procurement schedule to fiscal year 2000=6, fiscal year 2001=0, fiscal year 2002=6, fiscal year 2003=6, fiscal year 2004=6, and fiscal year 2005=6.

The purchase of new Block 50 aircraft, along with Active Duty force structure consolidations, will enable us to retire our aging ANG F–16As and replace them with F–16C Block 30s. The retirement of F–16As is purely a function of how quickly we procure new aircraft, which in turn, is an affordability issue for the Air Force. Acquiring new F–16s sooner would accelerate the conversion of Guard and Reserve units, but is not affordable within current approved funding levels when considering overall service priorities. Earlier conversion would require funding increases even above the Air Force's Unfunded Priority List request and must not be at the expense of other funded programs.

EAF CONCEPT

Question. Is there a need for faster refitting of the Reserve and Guard under the EAF concept?

Answer. The EAF concept does not require faster refitting of the ARC. We are in an evolution to the EAF concept. Our current efforts are focused on filling known rotational requirements with known forces but are overlaying a more predictable and equitable schedule. In doing so, we are shaping our capabilities for better use in Small Scale Contingencies while maintaining our Major Theater War capabilities. At the same time, we are working our readiness investment strategy which is a "Total Force" strategy. It focuses on improving the capability of all our forces in an orderly, predictable manner. This includes the ability to train and become proficient on any new capabilities. Finally, as we work through the initial rotations, specific EAF related deficiencies in both the active and Air Reserve Component (ARC) forces will be identified and worked. A broad program of faster refitting is not the answer.

BALLISTIC MISSILES

Question. Assuming further reductions in our nuclear force structure, what criteria will be used to determine the mix of bomber, land based and sea based ballistic missiles?

Answer. Working with U.S. Strategic Command, Joint Staff, and OSD, the Air Force will assist in determining the proper capabilities to ensure that a strong deterrent force is available to the national command authorities. The Air Force believes to best meet our nation's needs, a TRIAD of bombers, ICBMs, and SLBMs is required. The requirement to maintain a strong, effective and credible deterrent

is consistent with our national security requirements. A complementary force of bombers, intercontinental ballistic missiles and submarines will provide our nation the necessary flexibility, responsiveness and survivability to respond to a myriad of threats.

ICBM

Question. Would you characterize ICBMs as more stabilizing than submarine launched missiles since they present a known quantity to other nuclear powers?

Answer. The Air Force believes that a TRIAD of land based ballistic missiles; sea-launched ballistic missiles; and, manned bombers will be required for the foreseeable future. Each leg of the TRIAD possesses stabilizing characteristics. During negotiations of the START II agreement, the United States supported the "De-Mirving" of ICBMs in order to enhance their stability in both peacetime and crisis. As the number of strategic weapons is further reduced, and ICBMs are deployed with single warheads, we believe they become more stabilizing (than the previous MIRV'd configurations) because it requires more than a 1:1 ratio for an attack to seriously attrit or negate that force. Consequently, the contribution of the ICBM force, especially with single reentry vehicles, to stability and deterrence, increases as total numbers of warheads decreases.

Question. Would you characterize the ICBM force as being more cost-effective than the submarine launched missile force?

Answer. The Air Force continues to believe that a TRIAD of land-based ballistic missiles, sea-launched ballistic missiles, and manned bombers are essential for credible deterrence. While the ICBM force has historically been considered the most cost-effective leg of the TRIAD, it's difficult to substantiate this assertion without identifying corresponding assumptions and measures of merit. The United States continues to rely on all three legs of the TRIAD to provide a credible deterrent force. Each leg of the TRIAD has unique characteristics that will become even more important in a further reduced warhead environment. The SLBMs will continue to provide the most survivable leg of the TRIAD. ICBMs provide a land-based, day-to-day deterrent with a high cost to attack. Manned bombers will continue to provide flexibility necessary to meet national objectives. The total cost to maintain the Minuteman III force and extend the life (including the Guidance Replacement and Propulsion Replacement Programs) is approximately $5,000,000,000 in fiscal year 2001–2005.

BALLISTIC MISSILES

Question. Given the past criteria, do you perceive a future missile force structure that is predominantly land or sea based?

Answer. Under the 3,000–3,500 accountable strategic weapons allowed by the START II Treaty, we would maintain a strategic deterrent force that included 14 Trident II SSBNs and an ICBM force of 500 Minuteman missiles. The Department of Defense has not yet decided upon the composition of a deterrent force under a 2,000–2,500 accountable warhead limit. The Air Force is committed to working with U.S. Strategic Command, the Joint Staff and OSD to determine the proper force mix to ensure a strong deterrent force is available to meet our national objectives.

B–52

Question. Do you think that operation "Desert Fox" is representative of the type of engagements the Air Force will be called upon in the future—will the B–52 continue to carry the brunt of the bomber mission for the Air Force?

Answer. The bombers are capable of employment across the spectrum of conflict. Each of the bombers has unique characteristics that are synergistic, providing flexibility and versatility for the bomber force. Additionally, the roles and missions of the bomber fleet will become additive as the Air Force continues to upgrade the different bomber aircraft. The B–52, in conjunction with the B–1 and B–2, will provide the range of unique capabilities that the total bomber force provides—long range, large payload, and rapid response.

AIRCRAFT PROCUREMENT PROGRAMS

Question. Given typical lead time for aircraft procurement programs, when would you expect needing to start a replacement system for the current bomber force?

Answer. As outlined in the recently released U.S. Air Force White Paper on Long-Range Bombers, the initiation of the replacement process should occur no later than 2013. This will allow the fielding of a replacement capability by 2037.

F–16S

Question. What is the timeline for the cascade of F–16s to reach Guard units such as Fargo? When will they get F–16s?

Answer. There are four ANG combat coded units flying the F–16A. The purchase of new Block 50 aircraft, along with Active Duty force structure consolidations, will enable us to begin retiring our aging ANG F–16As starting in fiscal year 2001, and replacing them with newer F–16C Block 30s. The retirement of our last F–16As is purely a function of how quickly we procure new F–16 Block 50 aircraft, which in turn, is an affordability issue for the Air Force. Acquiring new F–16s sooner would accelerate the conversion of Guard and Reserve units, but is not affordable within current approved funding levels when considering overall service priorities. Earlier conversion would require funding increases even above the Air Force's Unfunded Priority List request and must not be at the expense of other funded programs.

QUESTIONS SUBMITTED TO GEN. MICHAEL E. RYAN

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

PILOT SHORTAGE

Question. General Ryan: I know you have said that you are about 1,000 pilots short—but this shortage is showing up in non-flying, staff jobs at headquarters that are supposed to be filled by a pilot. Is that correct?

Let me be sure I understand: your plane cockpits are manned at nearly 100 percent, right? If we are short pilots, why don't we continue to ramp up production of new pilots?

Answer. Based on current retention trends, the Air Force will be more than 1,300 pilots short by end of fiscal year 1999. By fiscal year 2002, that shortage will increase to between 1,500 and 2,000 pilots. In order to protect our combat capability, pilot shortfalls are impacting staff positions and we are attempting to keep our manning in our combat and training squadrons at mission capable levels. Active duty pilot production is also being increased; reaching 1,100 active duty pilots per year beginning fiscal year 2000.

In light of our pilot shortage, increasing pilot production beyond 1,100 sounds like an attractive option. However, there are significant limitations to how many pilots we can produce and still remain a viable combat force. The single biggest limitation is our ability to accept these newly produced pilots into a major weapon system. Currently we have just enough combat and combat support aircraft to accept the 1,100 pilots per year we are producing. If we exceed 1,100 per year, the majority of pilots in our squadrons will be inexperienced, putting us in a situation of not having enough aircraft commanders or fighter flight leads to meet mission taskings.

JASSM

Question. General Ryan, would JASSM capabilities have been useful to the Air Force in planning and executing Operations Desert Fox and Desert Thunder?

Answer. We were able to achieve our objectives with inventoried weapons. However, projected JASSM capabilities of standoff and lethality would have enhanced the effects of these operations. Additionally, JASSM's projected adverse weather capability would have greatly added to planning flexibility.

Question. General Ryan, are there operational scenarios where JASSM capabilities are not adequate to meet Air Force needs?

Answer. JASSM is projected to be an extremely capable and effective weapon. Current estimates are that it will exceed most, if not all, operational requirements as set forth in the JASSM operational requirements Document (ORD). Cost is a requirement in the JASSM ORD, and JASSM is currently under the cost threshold set by the JROC.

JASSM is a precision weapon ensuring much needed flexibility since it can be carried on both fighters and bombers. Due to a relatively low projected cost, we hope to procure large numbers to better arm our warfighters. JASSM standoff range is a key capability. It is projected to exceed the threshold range requirement, and current estimates predict JASSM standoff range will approach the objective requirement.

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

PILOT TRAINING

Question. Will the production of 1,100 pilots a year maximize the current infrastructure capacity of the Air Education and Training Command's bases?

Answer. It is important to remember that the 1,100 number applies only to the number of active duty pilots being produced at the AETC training locations. In addition to the active duty production, AETC is charged with training Air National Guard (ANG), Air Force Reserve Command (AFRC), and international students, as well as students from sister services. Further complicating the capacity issue is the fact that other training programs conducted at these bases also consume base and infrastructure capacity. Assuming these other training programs also stay at programmed levels, then when we reach the steady state production level of 1,100 active duty pilots in fiscal year 2000 we will be operating at the maximum sustainable capacity with the existing base structure.

Question. Is this why the Introduction to Fighter Fundamentals training is being consolidated at Moody AFB?

Answer. Yes, this is why the AT–38/T–38Cs are moving to Moody AFB. By moving these aircraft to Moody, Columbus AFB and Randolph AFB can increase their training capabilities to help meet the pilot production of 1,100. The T–6s are also being added at Moody to increase primary pilot training.

Question. Is Moody AFB being converted to a training base?

Answer. No, Moody AFB will remain under Air Combat Command. However, significant pilot training will be accomplished in the primary phase of Specialized Undergraduate Pilot Training (SUPT) and the Introduction to Fighter Fundamentals (IFF).

Question. If Moody AFB is converted to a training base, will it stay under the command of the Air Combat Command or will it come under the command of the Air Education and Training Command?

Answer. The flight training operations at Moody AFB will be a tenant on Moody AFB. Moody will continue under the auspices of Air Combat Command.

Question. What is the Air Force's long range plan for training and other operations at Columbus AFB?

Answer. The Air Force's long range plan is to continue primary and advanced pilot training at Columbus AFB.

Question. What is the plan if the Air Force decides it must produce over 1,100 pilots a year?

Answer. When we reach the steady state production level of 1,100 active duty pilots in fiscal year 2000 we will be operating at the maximum sustainable capacity with the existing base structure.

The current AF plan that expanded capacity enough to allow us to sustain the 1,100 rate (along with the expanded ANG, AFRC and other production requirements) involved the decision to move Introduction to Fighter Fundamentals (IFF) to Moody AFB, GA and to add a primary pilot training operation to that location. This plan does not provide capacity for additional growth beyond the currently programmed taskings.

The fiscal constraints and unique facility and airspace requirements needed to support an undergraduate flying training operation limit the ability to expand capacity beyond the current levels.

Question. What is the official basing plan and schedule for the JPATS (T–6A) aircraft?

Answer. The basing plan for USAF T–6A aircraft is as follows:

Base	Number of Aircraft	First Aircraft Delivery Date
Randolph AFB TX	30	June 1999.
Moody AFB GA	39	April 2001.
Laughlin AFB TX	83	January 2002.
Vance AFB OK	77	November 2004.
Columbus AFB MS	74	April 2006.
Sheppard AFB TX	69	May 2007.

QUESTIONS SUBMITTED BY SENATOR CHRISTOPHER S. BOND

NATIONAL GUARD GENERAL PURPOSE SQUADRONS

Question. General Ryan would you please address the issue I raised concerning our National Guard General Purpose squadrons, I understand the procedural restrictions placed upon upgrading F–15A's (they are limited from other than safety upgrades because they are to be retired—the same thing happened to the Navy A–6's) but there are A's out there which still have a lot of life on them, even more life than some of the early model F–15C's. And now, I understand that the Air Guard F–15A to F–15C replacement program the Air Force anticipates will be forced to the right extending the "sunset" date of the F–15A, because of other procurement problems. General, Mr. Secretary, Air Guard units are out there right now and will be for the foreseeable future. Is there anything we can do to help with an F–15A system upgrade such as accelerating the installation of Fighter to Fighter Data Links to bring them up to tactical parity with the rest of the Air Force TACAIR inventory. Specifically, do you see any way to speed up the process to take advantage of the experience of the Guard pilots when they are asked to integrate with other deployed units of the Total Force?

Answer. The retirement of the ANG F–15As and Bs is predicated upon the fielding of the F–22A, which is on schedule for IOC in 2005. We currently plan to retire the F–15A/Bs and replace them with F–15 C/Ds from the active force as we bring the F–22A on board. All 116 F–15A/Bs in the ANG should be replaced by the end of 2009 provided current planning factors don't change. Our goal is to equip all ANG F–15 squadrons with aircraft that have the latest modifications in radar, engines, electronic countermeasures and datalink.

Over the last few years, efforts have been made to upgrade the ANG F–15 fleet. All ANG F–15s have been through the Multi-Staged Improvement Program (MSIP), an avionics and weapons improvements program significantly increasing the aircraft's capability. The fleetwide PACER TURBO modification has improved capability and reliability of the radar warning receiver on the aircraft. Additionally, 51 ANG F–15A/Bs are being modified to accept the new Fighter Data Link (FDL) system using fiscal year 1999 National Guard/Reserve Equipment Account (NGREA) funding. The remaining aircraft will be modified with FDL as additional funding becomes available and within acquisition constraints. The "Sunset" rule presents us with unique modification challenges and we are trying to balance those challenges based upon current F–15A/B retirement plans.

These system upgrades directly enhance the ANG's ability to seamlessly integrate with deployed active units as part of the Expeditionary Air Force and within the Total Force team concept.

C–17

Question. Sec. Peters, Gen. Ryan, what is the Active Air Force requirement for C–17 lift platforms? Considering the fact that the National Guard performs a major portion of the lift requirements of the nation would you not think it would be a good idea to contemplate a follow-on procurement of C–17 aircraft for National Guard lift squadrons and do you not think that additional C–17s would be the most long term cost effective method of answering the problem we face because of an aging fleet?

Answer. We need 135 C–17s to meet the strategic airlift capacity requirements identified to date associated with a dual MTW scenario and concurrent SOF missions. We are replacing retiring C–141s with C–17s at active/reserve associate wings at Charleston AFB, SC and McChord AFB, WA and the guard wing at Jackson ANG, MS. Beddown for aircraft beyond 120 has not been determined. The on-going Mobility Requirements Study 2005 (MRS–05) conducted by the Joint Staff and the Air Force's Analysis of Alternatives will identify any additional strategic airlift requirement and the most cost effective fleet (mix and size) to meet that requirement. The results of MRS–05, which is due for publication in December 1999, will help the USAF determine appropriate follow-on missions for ANG C–141 squadrons.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

AIR EXPEDITIONARY FORCE UNITS

Question. General Ryan, the Air Force continues its force modernization and formation of Air Expeditionary Force units. In keeping with the spirit of the total force concept, does this process include modernizing Air National Guard F–16s for future deployment with the Air Expeditionary Force? If so, will this modernization be ac-

complished by procuring more modern F–16 aircraft, or by installing precision bombing package upgrades on existing aircraft?

Answer. In the fiscal year 2000 President's Budget, the Air Force requested funding to purchase precision attack targeting pods for the Air National Guard F–16 fighters. We are continuing modernization plans for upgrading the F–16s flown by the Guard and expect the Air National Guard fighter units to be an integral part of the Air Expeditionary Force and a total force partner.

Question. General Ryan, is there an active duty Air Force KC–135 unit leaving the force structure in the near future? If so, does the Air National Guard's 117th Air Refueling Wing in Birmingham have a chance of getting additional aircraft to ensure the Wing's deployability with the AEFs?

Answer. There is no change forecast for the KC–135 force structure. The 117th Air Refueling Wing currently has adequate primary aircraft assigned (PAA) to complete its portion of the AEF.

GLOBAL COMBAT SUPPORT SYSTEM

Question. General Ryan, please discuss the necessity for the Global Combat Support System and its importance in Air Force management of battlefield and support information technology?

Answer. In today's business environment, success is dependent on an organization's ability to efficiently manage information. Similarly, modern warfare requires the same efficient management of information. The ability to get the right information to the right players at the right time can spell the difference between victory or defeat on the battlefield. This ability requires a robust, secure and adaptable communications and information infrastructure that can be utilized worldwide under numerous operational scenarios.

The Global Combat Support System (GCSS) is one of four key pillars of the Joint Staff's C^4I for the Warrior (C^4IFTW) initiative. The other three pillars are the Global Command and Control System (GCCS), The Defense Information System Network (DISN), and the Defense Messaging System (DMS).

For the Air Force portion of GCSS (GCSS–AF), the primary goal is to provide interoperability across all Air Force Combat Support Mission Applications as well as among the combat support mission applications of the Commanders in Chief (CINCs) and other Services. In this way GCSS–AF provides the information conduit through which the warfighter can efficiently manage the allocation and disposition of resources needed to maintain the necessary level and duration of operations required to meet military objectives.

GCSS–AF is accomplishing this through the modernization of existing combat support information systems. These systems have evolved over many years and along separate paths to form the present Air Force information infrastructure. As a result, these systems are often characterized by increasing obsolescence, limited interoperability, and high maintenance costs. GCSS–AF provides an umbrella architecture for incrementally modernizing combat support information systems that are responsive during peacetime and provide the winning edge for war. This architecture, based on the Defense Information Infrastructure/Common Operating Environment (DII/COE), facilitates the efficient and robust intercommunication capabilities needed to meet today's military requirements as well as those of the next millennium.

QUESTION SUBMITTED BY SENATOR DANIEL K. INOUYE

AIRBORNE LASER

Question. There have been press reports, based on research conducted by the Congressional Research Service, that the Airborne laser might have trouble hitting targets at long ranges. General Ryan, can you dispel this notion?

Answer. All modeling and simulation and testing to date indicates ABL will exceed its Operational Requirements Document (ORD) threshold range requirements. This capability will enable ABL to engage theater ballistic missiles at long ranges (i.e. hundreds of kilometers). It is also important to note the CRS report is still a draft document. As is often the case with draft documents, the Air Force has issues with the analyses supporting the report's conclusions. Air Staff and ABL program representatives met with CRS on both March 8, 1999 and March 18, 1999 to go over the draft report in detail. The two issue areas the Air Force has with the report deal with: (1) technical concerns (specifically, assumptions about threat missile boost durations, use of a laser radar equation to estimate the performance of ABL's tracking subsystem, and the estimated size of ABL's laser beam on target); and (2)

programmatics (specifically, whether CRS had the most up-to-date ABL schedule information upon which to base their findings and conclusions). The meetings were cordial and productive. As a result of these meetings, the Air Force has provided CRS with additional data, i.e., a contractor analysis of ABL's tracking subsystem and an updated threat missile table. This information will help expedite publication of CRS' final report.

SUBCOMMITTEE RECESS

Senator STEVENS. We will reconvene on April 14 in this room to hear testimony on the Army's fiscal year 2000 budget request for current operations.

Thank you all very much.

Secretary PETERS. Thank you.

General RYAN. Thank you, sir.

[Whereupon, at 11:52 a.m., Wednesday, March 17, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, April 14.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2000

WEDNESDAY, APRIL 14, 1999

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:58 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Shelby, Hutchison, Inouye, Hollings, Leahy, and Dorgan.

DEPARTMENT OF DEFENSE

BALLISTIC MISSILE DEFENSE ORGANIZATION

STATEMENT OF LT. GEN. LESTER L. LYLES, DIRECTOR

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. I do not normally do this, but because we have already delayed this hearing for an hour, I do want to proceed. I would ask members to agree that we will just keep our opening statements to two minutes or less and have the questioning round be just five minutes each, so we can try to get back on schedule, if we can.

First, congratulations, General Lyles. We welcome the announcement that you will be promoted. And I know you will be an excellent vice chief of staff for the Air Force.

General LYLES. Thank you, Mr. Chairman.

Senator STEVENS. I have already told you you have my strong support. And I am sure we will look for anyone that is not ready to give you strong support. Let us put it that way.

General LYLES. Thank you, sir. I appreciate that. Thank you.

Senator STEVENS. I do think that we have had a very positive success in the Patriot advanced capability-3 (PAC–3) hit on the ballistic missile. We are looking forward to learning from you what has happened with theater high altitude area defense (THAAD). We are anxious to hear about the National Missile Defense (NMD) program and the test plan this year.

I will make your statement, your full statement, a part of the record. And I hope you will summarize your comments, as I just have mine.

Senator Hollings.

STATEMENT OF HON. ERNEST HOLLINGS

Senator HOLLINGS. Well, General, I have committed to Senator Stevens to support you and I am very interested in this particular program. I have not been able to attend all the hearings because of conflicts. However, I would like to find out where we are and where we are headed.

Thank you, Mr. Chairman.

General LYLES. Thank you, sir.

Senator STEVENS. Senator Leahy.

STATEMENT OF HON. PATRICK LEAHY

Senator LEAHY. Mr. Chairman, I also will be supporting the general. I do not think he has to worry too much about being confirmed in the Senate.

But I do want to state just briefly, that on March 17 the Senate committed the country to a National Missile Defense system, whose technology is unproven, a cost that no one can estimate with certainty. It has an overwhelming vote. Only three Senators voted against it. I was one of them, primarily because I believe their collective political willpower will not have any effect on the daunting technology involved in getting these systems to work.

I came down from a hearing we are having down the hall in judiciary to say that it seems to me the Pentagon has unending patience and unlimited resources for missile defense, in contrast to other military necessities that are evident today in the Balkans, Iraq.

The chairman has seen briefings, as we all have, that we are running low on precision munitions. We have only a few of the cheap unmanned drones that can get below the clouds and see what is going on in Kosovo. There are other such shortfalls.

This is not your fault, General, but we have to have some priorities here. When it comes to missile defense, I read the headlines. It seems like nearly every missile defense program is running over budget and having technical problems. April 6 in the Washington Post says "Navy anti-missile program overshoots budget by 50 percent." April 5, Defense Week, "Pentagon criticizes $11 billion airborne laser program." March 30, the Washington Post, "Anti-missile system misses again, clouding larger plans." That was the sixth consecutive failure of the Army's theater high-altitude area defense system, that has cost taxpayers $4 billion so far.

General, your testimony shows that our modestly improved version of the Patriot missile, the PAC–3, is also experiencing significant cost overruns. Now I have never opposed research on these. I have always supported that. I always hope for success. But we spent $50 billion on ballistic missile defenses (BMD) since 1983. I am concerned that we do not have a great deal to show for it.

In my view, we have too many missile defense programs, and not enough technical progress on them. And I think that we are going to have to make some tough decisions here, especially if we are going to be asked to replace some of our conventional munitions and systems that are running perilously short.

With that, Mr. Chairman, I must go to another hearing.

Senator STEVENS. Thank you very much.

INTRODUCTION OF GENERAL LYLES

We are ready to listen to you, General, and I hope you will give us some of the information that Senator Leahy indicates he would like to hear, but not all the answers he wants. [Laughter.]

General LYLES. Well, thank you, Mr. Chairman.

Senator LEAHY. Maybe I did not convince him. [Laughter.]

STATEMENT OF GENERAL LYLES

General LYLES. Well, Mr. Chairman and members of the committee, it is always a pleasure to appear before you. I will submit my statement for the record and briefly outline a few key points about our missile defense programs. And I will sort of abbreviate my statements to allow us to get to the critical questions and answers.

Mr. Chairman, I consciously refer to missile defense as our program, because the Congress, and this committee particularly, have played a crucial role in assuring that the program is robustly funded and is oriented towards the important goal of fielding systems to support the warfighter and also our nation.

And, Mr. Chairman, your personal leadership and the leadership of this committee and strong support resulted in the $1 billion emergency supplemental for missile defense that we received last year. This important funding source provided a critical jump start to the administration's revised National Missile Defense program strategy. And we plan to use some other parts and allocate parts of that $1 billion supplemental to making sure we stay ahead and jump start all of our missile defense activities.

So on behalf of the department and my team, Mr. Chairman, I want to start my remarks by giving a very sincere thank you to you and the committee for the support that you provided us.

MISSILE DEFENSE FUNDING

Those funds that have been appropriated have been absolutely critical to the continued development and a demonstration to the systems we are close to fielding today. For instance, our Navy Theater Wide program is progressing thanks to this committee, particularly in the funds you have provided us each year.

And now we have fully funded that program for the first time in the President's budget. We now have an actual fielding date for our Navy Theater Wide program, and we have fully funded that particular effort.

Another example, last year's Iran Missile Protection Act (IMPACT) 98 legislation that you provided us, Mr. Chairman, will allow us to fund critical tests to demonstrate whether or not the lower-tier systems that we have today, that we are planning today, will have the capability against longer range theater missile class threats. This could give us a hedge against those emerging medium range threats that we know are being developed by adversaries and are proliferating. And we could not have done these critical tests that are planned for the next couple years without the support of this particular committee.

NATIONAL MISSILE DEFENSE

Mr. Chairman, to get down to specifics about our current President's budget, as you know, on January 20, Secretary Cohen announced our revised National Missile Defense program. That program included providing an additional $6.6 billion to the program through fiscal year 2005. And for the first time, Mr. Chairman, we put money into the program to support deployment of our NMD system.

EXPECTATIONS

The other key element that the secretary announced was our expectation—and I want to emphasize the word "expectation"—that the likely deployment date could be 2005 for the system. But we specifically are preserving the option and making sure we do not do anything in our testing and our programs in the next couple years that would prohibit us from fielding the system earlier, if the threats warrants and if we have made good technical progress. That is a mandate to my organization, a mandate to the program. And we are doing everything we can to preserve that particular option.

LESSONS FROM THEATER MISSILE DEFENSE

We have incorporated some lessons learned from our theater missile defense (TMD) program. Senator Leahy talked about some of the problems we have had in our TMD programs. And we have learned some critical lessons that we have applied to our NMD system.

We have revised our program as part of the activity we have done this year by adding additional ground tests, added more modeling and simulation, and adding critical flight tests to this program to make sure we can demonstrate and prove to ourselves that the system is technically ready and to support the key decisions that are going to be made about 18 months from now in the summer of the year 2000.

We have done a lot of testing to date. We have done a lot of activities that have not received visibility, both in terms of software development and the battle management command, control, communications (BMC^3) development, radar development, preparing for deployment, site-related work and activation and study work. We have done a lot of things to prepare for the eventual decision to deploy a National Missile Defense system.

DEPLOYMENT DECISION

The proof of all this, however, is going to come within the next 18 months, in the summer of 2000, when we will be making a decision as to whether or not we are ready to deploy a system, and we have demonstrated we have the ability to intercept and counter an intercontinental ballistic missile (ICBM)-class target. And the tests that are coming up this summer will be the first beginning activities towards making that proof and determining whether or not we are technically ready.

Mr. Chairman, the combination of additional resources, those provided by the Congress in your supplemental and the money we

have added from the department, have made it possible for us to structure a realistic NMD program and one that I am confident will prove that we had the capability of meeting this very, very daunting task.

THEATER MISSILE DEFENSE

Let me switch very quickly to theater missile defense. Again, in the interest of time I will keep my remarks very, very short. I regret, as Senator Leahy talked about, that we have not experienced all the success that we wanted in our theater missile defense systems. We have had some test failures. We have experienced some cost growth. But let me sort of put those into perspective, if I can.

During the past two years, I and others have directed the implementation of independent assessments of our theater missile defense program and our whole acquisition and management approach. We wanted to make sure we were doing the proper thing towards providing good stewardship of the money that you provided us and that we are managing these programs properly.

WELCH PANEL LESSONS

One of the results of those independent assessments was what was called the Welch Panel study, one that came up with the term that we call "rush to failure" that really sort of gave us a wake-up call to make sure that we are doing the proper things towards managing our programs.

The key lesson learned from that particular study was that you cannot skip critical engineering and testing steps in order to try to fill an effective system quickly. And we have applied that lesson learned now back to all of our programs, including our National Missile Defense program. The result of that kind of mind set in the past has led to the kind of quality problems that we have experienced, both in terms of test failures and delays in our THAAD program.

And in some cases, the emphasis on trying to rush to get a capability out has also led to some of the delays which resulted in cost increases in our program. So we put a premium on making sure that we are controlling the cost as much as we are trying to control the performance and the schedule of our systems.

COST CONTROL

Mr. Chairman, I want you to know that my staff and I are fully committed to controlling the cost of our programs, as well as we are the schedule and performance. And as a result, we have taken some very tough, serious actions to make sure we have the proper management controls and we are doing the right thing towards addressing the management of these particular efforts.

We are establishing firm cost baselines for the first time, based on actual experience over the last couple years. We are working closely with the system contractors to verify and validate their cost estimates. We are working with the contractors to identify opportunities to maintain the costs for development of the systems and, more importantly, initiatives to allow us to reduce the production

and unit costs. And I will talk at the very end as to why I think that is very, very critical to us.

And we are trying to make sure we have the proper leverage on the contractors, proper incentives, proper motivation for them in terms of award fees, profits, et cetera, to ensure they are working closely with us, not only in terms of performance and schedule, but maintaining the cost of these systems.

This has to be a joint effort. We cannot do it alone within the government. There has to be close cooperation and teamwork of industry, with the services, with my organization and, indeed, with the Congress. What I really want to create, Mr. Chairman, is what I call a lean missile initiative and initiate them to make sure that we are maintaining schedules as much as possible, certainly maintaining performance, but getting the cost down to where these systems can be affordable, in addition to being effective.

PAC–3 FLIGHT TEST

I am confident that the latter is going to be the case. We know the systems, I think, are going to be effective. One proof of that was a test we did on March 15 with our PAC–3 program, the first intercept attempt for the PAC–3 system, and the test was an unqualified success. Every aspect of the PAC–3 missile, the entire system, radar, battle management, command and control, and the missile itself, worked extremely well.

There were some minor things that we learned, which is exactly why you want to do tests, to understand exactly the kind of little tweaks you have to make before you field the system. And I am convinced that we will have another successful intercept within the next 60 days. And then we can proceed into low rate initial production on the PAC–3 program and field that system within the next two years.

Mr. Chairman, I will be happy to talk to any of you or any of the other members to show you the results of that PAC–3 test. Our eyes were watering with how well it actually did work in that first intercept attempt.

THAAD FLIGHT TEST

Similarly, however, we tried to conduct a THAAD flight test, our sixth attempt to have an intercept with the THAAD program on March 29. As you know, unfortunately we did not have a body-to-body intercept of the THAAD system. And so we consider it to be another failure.

As a result of that failure and the controls we have now established with the contractor, the prime contractor owes the government roughly $50 million as a result of the penalties for not making an intercept. We will not be getting a check from the prime contractor. He will not bill us for that amount of effort. And we can use the resources we already have planned to support other activities in our missile defense programs.

However, in looking at the results of that particular attempt, we found that we came very, very close. We did get into the critical end game, which is something we really wanted to do for the THAAD program. We determined that the most likely cause of the problems we had was the failure of one of our small attitude con-

trol motors, one of four critical ones, that we have on the THAAD system.

We are looking at the actual cause as to what happened, but we think that this attitude control motor alone not functioning properly could account for the roughly 12 to 30 meters miss distance that we experienced on that particular flight test.

We lost telemetry as a result of also having that one thruster failure, so we did not get all the data we really wanted. But with the data we do have from both the THAAD radar, which performed flawlessly again, and the radars out in the White Sands Missile Range, we were able to determine that we did come very, very close to having an actual intercept.

As a result of that, I am confident that we are getting close and that we are going to prove very, very quickly, hopefully within the next 60 days, when we go back to have our next intercept attempt on THAAD, that the system design is proper and that we can proceed with the program.

Mr. Chairman, I want again to keep my remarks somewhat short. So I will abbreviate the rest of my comments.

MISSILE DEFENSE INTEROPERABILITY

I said earlier that I want to make sure that our systems are affordable, as well as being effective. One of the things towards being effective is to make sure we do not lose track of the key issue of interoperability by making sure that all of our systems that we are developing, all the theater systems, and indeed even our National Missile Defense elements, are interoperable.

They all can work together with each other, provide queuing information to each other, and even provide fire control solutions in some cases for each other, particularly in the theater missile range. That will provide us the kind of interoperability we need for our theater missile defense systems.

COST CONTROLS

But I come back to the issue of affordability. The emphasis that I place on cost controls in the program, making sure we get cost under control, not only in development but also production, is really brought home by an example that came from one of our warfighting commander in chiefs (CINCs) last fall. During a meeting of the CINCs with President Clinton and Secretary of Defense Cohen, General John Tillelli, who was in Korea, made a comment that he needs missile defense systems today to counter the some 600 North Korean theater ballistic missiles that are facing South Korea today.

While I am confident that we can provide General Tillelli and all the other warfighters effective systems in terms of performance and do it very, very soon, what I am not confident about, unless we can get our arms around controls of cost, is that we can provide the quantities he needs to counter those 600 systems that are facing him today. And other CINCs are facing similar numbers, or will be facing similar numbers, in other theaters.

AFFORDABILITY

So cost control and affordability is a very, very big thing with me personally and my organization, and we are working diligently to ensure that when we say make missile defense a reality, we are not just talking about in terms of performance. We are talking about in terms of affordability so we can get the quantities we need to support our warfighters and support our nation's needs.

PREPARED STATEMENT

Mr. Chairman, I am going to close my remarks at this point. And I will be happy to address any questions and answer anything that you and the other members would like to address to me.

[The statement follows:]

PREPARED STATEMENT OF LT. GEN. LESTER L. LYLES

Good morning. Mr. Chairman and Members of the Committee, it is my pleasure to appear before you today to present the Department of Defense's fiscal year 2000 missile defense program and budget.

The Ballistic Missile Defense Organization (BMDO) is chartered within the Department of Defense to manage, direct and execute the BMD program in order to achieve the following objectives: enable deployment of effective, rapidly relocatable Theater Missile Defenses to protect forward deployed and expeditionary U.S. armed forces as well as friends and allies; develop options for, and deploy when directed, an antiballistic missile system to defend the U.S.; demonstrate advanced technologies to enhance initial BMD systems; and continue basic applied research to develop follow-on technologies.

BMDO is developing and demonstrating systems which integrate the missile defense weapons systems of each Military Service to provide a highly effective, total defensive capability for the joint warfighter. This is a concept we call joint mission area acquisition. BMDO is unique in this regard. We do not manage a particular weapon, or even a class of weapons. We function as the "integration systems architect" for an entire mission area—one that cuts across all of the Services. BMDO directs a joint "family of systems" approach for theater air and missile defense—a multi-tier, multi-platform architecture that utilizes ground-, sea- and air-based missile defense systems in order to provide defense in depth against a wide range of ballistic and cruise missiles carrying conventional and unconventional warheads. This also entails a system of systems approach for National Missile Defense—a mission for which there is not a single Service solution. The NMD system approach will utilize Air Force space- and ground-based early warning and tracking sensors; Army ground-based systems to engage and destroy the target; and a battle management/command, control and communications system to tie all the system elements together. Finally, we are conducting a joint technology program that coordinates the technology needs of systems under development and invests in the technologies that can address those needs. In addition, we are jointly planning and exploring technology responses to evolving threat scenarios.

In order to coordinate the Department's efforts in missile defense, BMDO has institutionalized three important processes. First, in order to assess architectural effectiveness and the performance of individual systems, BMDO's chief architect and engineer conducts architectural studies and analyses in coordination with the Joint Theater Air and Missile Defense Organization (JTAMDO), the Military Services and other key stakeholders. Second, recognizing that limited resources exist for missile defense programs, this same team works together to allocate resources to missile defense programs and projects in a manner that prioritizes efforts within the overall joint mission area. JTAMDO leads the effort to validate theater air and missile defense (TAMD) operational requirements through the Joint Requirements Oversight Council (JROC), while BMDO leads the architecture development, integration and systems engineering. Lastly, looking toward the future, BMDO's joint technology program plays a key role in ensuring we continue to invest in future technologies which can help us address future threats. This joint technology approach coordinates the technology needs of systems currently under development and invests in those technologies that can address those needs. To institutionalize this, BMDO's Joint Technology Board includes the Services to jointly plan and explore technology

responses to evolving threat scenarios—and to leverage one another's financial investments in this area.

The Department has made a series of substantial changes to our approach to missile defense and increased the resources available. In order to address the missile threat and fully execute the Department's plans for missile defense, we have structured a sound and affordable program for fiscal year 2000 and beyond. I would like to take a few moments to outline specifically the status of our programs and how we intend to proceed over the next few years to demonstrate and field these systems.

Fiscal year 2000 Program and Budget.—The total fiscal year 2000 budget request for the Ballistic Missile Defense Organization is $3.3 billion. This includes $2.9 billion for RDT&E, $355.9 million for procurement, and $1.4 million for military construction activities. Combining these three budget categories, Theater Air and Missile Defense programs account for $1.9 billion or roughly 60 percent of the budget. National Missile Defense represents $836.6 million or 25 percent of the budget. We are requesting $65.3 million for Applied Research and $173.7 million for Advanced Technologies, together; these represent about 7 percent of the budget. BMD Technical Operations accounts for $192 million and is about 6 percent of the budget. We will ask for $16.5 million for Threat and Countermeasures efforts and $36.7 million for International Cooperative Programs. Together, these represent 2 percent of our overall budget. The chart that follows provides a break out of the fiscal year 2000 budget request by program element for BMDO-managed programs.

[TY$M]

	Fiscal year—	
	1999	2000
Theater Air and Missile Defense:		
PAC–3 EMD [1]	320.842	29.141
PAC–3 Procurement [1]	245.494	300.898
Navy Area EMD	242.597	268.389
Navy Area Procurement	43.189	55.002
THAAD Dem/Val	433.922	527.871
THAAD EMD	.....	83.755
THAAD Procurement	.....	.....
Navy Theater Wide Dem/Val [2]	364.284	329.768
TAMD BMC/3 Procurement	22.759	.....
Joint TAMD Dem/Val	200.133	195.722
Joint TAMD Milcon	0.331	.....
FoS E&I	95.721	141.821
MEADS Dem/Val (ADSAM in fiscal year 1999 and MEADS PDV in fiscal year 2000)	9.915	48.597
National Missile Defense:		
NMD Dem/Val [2]	1,533.532	836.555
NMD Procurement	.....	.....
NMD Milcon	9.669	.....
Support Technologies:		
Applied Research	97.436	65.328
Advanced Technology Dev	272.82	173.704
BPI	6.426	.....
BMD Technical Operations:		
BMD Tech Ops	184.842	190.650
BMD Tech Ops Milcon	.....	1.372
International Coop Pro	58.903	36.650
Threat & Countermeasures	23.263	16.497

[1] Funding shown is consistent with the February 1999 President's Budget request and does not include pending reprogrammings. The budget assumed $140 million from the fiscal year 1999 emergency supplemental appropriation would be applied to PAC–3. DOD plans to work with the Congress to address concerns about using the supplemental for PAC–3.

[2] Funding shown on fiscal year 1999 includes funding from the fiscal year 1999 Supplemental that will be executed in fiscal year 2000.

Theater Air and Missile Defense—the Family of Systems Approach

The Family of Systems (FoS) concept is a flexible configuration of highly interoperable theater air and missile defense systems capable of joint operations, which allows the joint force commander to tailor the right mix of systems and capabilities according to the situation and threat. This FoS must be able to counter a wide range of threats providing a robust defense for U.S. forward-deployed forces, our friends and allies. This mission cannot be accomplished with just one or two systems; it requires multiple systems designed to counter an ever-growing and diverse missile threat during all phases of flight. The Department's recent missile defense program review again endorsed this TAMD family of systems approach as the most effective means to provide highly effective defenses to protect our interests.

Our analyses continue to conclude that one system cannot do it all. The mission of TAMD requires a layered defense allowing for multiple shot opportunities. The threat is so varied, and the mission demands so complex, that we do not currently have the technology to allow us to develop a single weapon system that can meet all of the mission requirements. In short, there is no single "silver bullet" in theater missile defense. Multiple systems working in unison greatly enhance the probability of destroying incoming missiles before they can hit U.S. or coalition forces, critical assets, or population centers.

For these reasons, BMDO is working to acquire and integrate land- and sea-based systems that will effectively counter current and rapidly emerging theater missile threats. This strategy includes pursuing four major defense acquisition programs (MDAP's) within BMDO, with Service execution. These include the Patriot Advanced Capability-3 (PAC–3), Navy Area, Theater High Altitude Area Defense (THAAD) and Navy Theater Wide (NTW) systems. In addition, the U.S. Air Force is managing and executing the Airborne Laser (ABL). While this program is not funded or managed by my organization, the ABL remains a critical part of the FoS architecture. The ABL system will provide a critical boost-phase intercept capability in the theater of operations, thereby extending our layered defense approach to the earliest stages of missile flight.

In the context of the Department's program review, let me summarize the status of these theater air and missile defense major defense acquisition programs (MDAP's) and address our direction on the cooperative TAMD program known as Medium Extended Air Defense System (MEADS).

Lower-tier TAMD systems.—Fielding both the PAC–3 and Navy Area systems remains our highest near-term TAMD program priorities. Our goal is to press on with those activities, which will allow us to achieve first unit equipped (FUE) dates of fiscal year 2001 for PAC–3 and 2003 for Navy Area. Unfortunately, these represent a slip from last year's projected FUE dates. I would like to explain why these programs are delayed and what, specifically, we plan to do in the next fiscal year on these programs and fact of life changes.

Patriot Advanced Capability 3 (PAC–3).—In the case of PAC–3, the first intercept flight test has been delayed by about a year because of software and seeker integration setbacks. Moreover, a planned seeker characterization risk reduction flight test did not take place in December because of a failure of the test target. This was a target that we have reliably flown many times before. I am delighted to report that we conducted a successful seeker characterization flight test on March 15 at White Sands Missile Range. Objectives included the collection of data and analysis of the system/missile capability to detect, track, and close with the target, the PAC–3 missile seeker data in a flight environment, and the missile closed-loop homing guidance performance in flight. While not a specific objective of the SCF, the PAC–3 missile intercepted the HERA reentry vehicle target.

Despite this successful test, flight test delays have resulted in a one year slip to Developmental Test & Evaluation and a comparable slip to Milestone III—full rate production authority. In addition, the fiscal year 1999 Defense Appropriation bill specifically directed that PAC–3 may not enter low-rate initial production until two successful intercept flight tests have taken place. In hindsight, I think that was a very prudent move. Based on these issues, the planned PAC–3 FUE is now targeted for fiscal year 2001.

In addition to the delay in the program that I have already mentioned, the Committee should know that there is substantial cost growth in the PAC–3 program. This is not a good news story. It is a serious matter that concerns me greatly. In order to cover this cost growth, the Department has sent a reprogramming action to Congress to move $60 million of fiscal year 1999 funds from the Procurement account to Engineering, Manufacturing and Development (EMD). We will also need to work with Congress to adjust the budget in fiscal year 2000 to ensure the program remains on track.

I appreciate that such transactions do not increase one's confidence that the program is well-executed. But, I want to make certain that we are in the best position to field PAC–3 as soon as possible. I regret that we are in the position of either covering this cost-growth at this time or accepting further delays in fielding the system. These resources are absolutely necessary for us to keep PAC–3 on track.

In concert with our Army executing agent, I have commissioned a comprehensive review of the entire PAC–3 program. Additionally, we have asked the Defense Contracting Management Command (DCMC) and the Defense Contract Auditing Agency (DCAA) for assistance. We are examining all aspects of cost growth, technical and program management, and the fundamental assumptions behind the schedules that the contractor has proposed. I have also requested a team of senior-level acquisition leaders—to include retired general officers—for their assessment of the program. Based upon my initial findings, I have already reviewed some initiatives aimed at reducing the unit cost of these missiles. While I am very concerned about the cost aspects of the program, I cannot ignore the need for a realistic schedule, performance and timely deployment for the warfighter. I have met with the prime contractor at the CEO level and have expressed my concern about the program and desire for corporate commitment to a realistic program baseline, a realistic schedule and real cost-reduction efforts. This should include cost-sharing arrangements to reduce Government liability. I am committed to coming back to the Committee and reporting on our progress before you complete action on the Defense Appropriations Bill.

Ultimately, I want to reduce the unit costs of PAC–3 so we can procure more inventory for the warfighter with the same level of funding. This must always be our bottom line—more inventory and defensive protection within the budget allocated.

Navy Area.—The Navy Area program builds upon the legacy of success found in the AEGIS program. This sea-based missile defense capability consists of modifications to the AEGIS combat systems and the SPY–1 radar to enable the ship to detect, track and engage theater ballistic missiles using a modified Standard missile. There are over 50 AEGIS destroyers and cruisers, which will eventually constitute a fleet of forward deployed, multi-mission platforms—including theater missile defense. The Navy Area program is currently in the engineering and manufacturing development phase. We have successfully developed and demonstrated this system—including a successful series of flight tests. However, the program's progress has been slowed by the Navy's AEGIS Weapon System (AWS) Baseline 6 Phase III software development—not missile defense development issues. This has resulted in an eighteen month slip to ten developmental/operational assessment tests that were scheduled to occur in fiscal years 1999 to 2000. This slip has caused a six month delay to initial EMD testing and a one year delay in the FUE status for Navy Area. BMDO and the Navy are currently working to address an emerging cost-growth issue for the EMD phase of the Navy Area program. We will attempt to work this issue inside the Department during the Summer budget cycle. We are requesting $268.389 million in EMD and $55.002 million in procurement funds for Navy Area in fiscal year 2000.

In light of the emerging missile threat, we are endeavoring to provide a capability to the fleet as early as possible. Our plan includes providing a User Operational Evaluation System (UOES) that we call "Linebacker" for fleet use. "Linebacker" will be a single mission ship capable of performing TBMD or Aegis multiple missions. Two AEGIS cruisers, the U.S.S. *Port Royal* and the U.S.S. *Lake Erie*, are at sea now providing critical feedback to influence the tactical design improvements and modifications to the AEGIS combat system. They will conduct a variety of at-sea tests, develop core doctrine and tactics, and serve as a focal point for getting our theater missile defense capability to sea. In a contingency, the warfighting CINC's can call upon this Linebacker capability. I believe this is the most prudent approach to fielding our lower-tier naval TAMD capability as soon as possible.

Upper-tier TAMD Strategy.—We have revised our upper-tier strategy because we have found ourselves in a very tight spot. The medium-range ballistic missile threat is emerging very rapidly. More countries are acquiring ballistic missiles with ranges up to 1,000 kilometers, and more importantly, with ranges between 1,000 and 1,300 kilometers. North Korea has developed the No Dong-1 missile. Last July, Iran conducted a partially successful flight test of its Shahab-3 missile. With a range of 1,300 kilometers, the Shahab-3 significantly alters the military equation in the Middle East by giving Iran the capability to strike targets in Israel, Saudi Arabia and most of Turkey.

The emergence of these missile capabilities is important because our upper tier systems—THAAD and Navy Theater Wide—are designed to specifically take on these medium-range theater-class missiles. The dilemma we face, however, is that we continue to have problems demonstrating the THAAD interceptor. Each of our

six intercept test failures was caused by a different problem with a different missile component. This leads us to believe there are problems with the quality of the interceptor's components, but not the overall interceptor design.

At the same time, Navy Theater Wide has experienced development problems of its own—even though it is not yet at the same level of testing as THAAD. In September 1997, the initial Control Test Vehicle flight test was unsuccessful due to a steering component failure. The follow-on flight test is scheduled for later this year and will use improved Standard Missile-3 components. The first Navy Theater Wide intercept attempt is currently scheduled to take place during the third quarter of fiscal year 2000.

Based on a review of program performance—test results, schedule, cost, program risk, and projected performance—we will propose by December 2000, that either THAAD or Navy Theater Wide be deployed first. The system that is not selected will continue to be developed and will be fielded as soon as practicable. Therefore, instead of a competition, I really see this more akin to a "leader-follower" approach.

The fundamental reason why we are compelled to follow this approach is that the threat is rapidly expanding and we have not made substantial progress in demonstrating these systems. I think in this area—because of the pressing threat—a little "sibling rivalry" can go a long way within our family of systems.

I realize there has been a lot of concern that we are directly competing the two Upper Tier systems. Some Members have pointed to language in the fiscal year 1999 National Defense Authorization Conference Report as direction that these two systems should be seen as "complementary" versus "in competition." While we have referred to our revised TAMD upper-tier approach as a "competitive strategy," we are not directly flying one system off against the other.

Theater High Altitude Area Defense.—So, with the threat rapidly expanding and our upper-tier programs experiencing development setbacks, we have devised an approach that will challenge us to field an upper-tier system as early as possible in order to meet the threat. As part of this approach, we will continue to fly THAAD. The most recent flight test that was conducted on March 29, 1999 did not achieve an intercept. While we are still analyzing the data, the miss distance estimate is between 10 and 30 meters. We were very close and we have evidence that the interceptor was actively firing its divert motors to steer into the oncoming target missile. Although it will take some time to analyze the cause for the failure of the missile to intercept the target, we still plan to conduct four more flight tests this year. The cost-sharing agreement we have worked out with the prime contractor requires that the program achieve three flight test intercepts by the end of this year. The three intercepts are required for the missile and system to demonstrate sufficient design maturity to proceed into the next phase of development. The cost-sharing agreement provides that the contractor shall be responsible for up to $75 million of negative cost incentives should these intercepts not occur.

It is important to note that the rest of the THAAD system has performed remarkably well during all flight tests. We have successfully demonstrated the THAAD ground-based radar, the launcher, and the battle management, command, control and communications system. Overall, the THAAD system has performed well, but the critical element—the interceptor—still needs to demonstrate its technical maturity. The Department has made the right decision by continuing to fly the THAAD interceptor. We must get the missile in the critical "end game" and learn from that vital test experience. I am confident that the THAAD team can shake out all the various "bugs in the system" and THAAD will successfully intercept its target later this year.

I would like to note that Lockheed Martin's senior leadership has demonstrated to me that it is fully committed to the success of the THAAD program and that it has devoted the resources necessary to ensure success. I believe the cost-sharing plan that we have agreed to is a clear indication of the contractor's commitment to the success of the program. I continue to meet frequently with their leadership and remain very impressed with the quality of the people they have working on this program. They clearly have put the "A plus" team on the program. In light of this and the considerable progress I have observed over the last year, I am confident that the program will successfully engage its target during the upcoming flight tests.

If the next flight test, however, should fail to fully meet its objectives and successfully engage and intercept the target, I hope the Congress will recognize that this remains a program in the demonstration/validation phase. This is the phase when we want to learn from our mistakes and failures. This is the phase when we can still fix the system and have it properly aligned for acquisition. I confess that no one is more frustrated with our progress to date than me, but we need to be patient and to work the "bugs out of the system." THAAD is a critical element of our family

of systems. We need to successfully develop, demonstrate and field a ground-based upper-tier system.

Navy Theater Wide.—The Department is following the Congress' recommendation that we allocate the full funding required to make Navy Theater Wide an acquisition program. In fiscal year 2000, we will request $329.768 million for Navy Theater Wide. Over fiscal years 1999–2001, we will increase Navy Theater Wide funding by about $500 million, including funds added by Congress. This increased level of funding will allow the Navy Theater Wide system to conduct ground and flight tests to demonstrate its capabilities. The Navy Theater Wide AEGIS-LEAP Intercept Program now in progress is a series of progressively more challenging flight tests culminating in a demonstration of the Navy's ability to hit a ballistic missile target above the atmosphere. A Control Test Vehicle flight test is planned for the fourth quarter of this fiscal year to test the flight characteristics of the SM–3 missile. Following this, we plan to fly seven Flight Test Round shots—one per quarter—through the third quarter of fiscal year 2001. The last five flight tests will attempt to intercept their targets. The first intercept flight test will now take place in fiscal year 2000.

In acquisition programs, we have seen how competition has encouraged technological progress, reduced system costs and provided the Department with more than one program option to address a threat. My hope is that this competitive approach to the upper-tier strategy will also provide a positive incentive for both the THAAD and Navy Theater Wide teams to succeed.

Personally, I want both programs to successfully demonstrate their readiness to be fielded. Both THAAD and Navy Theater Wide will play vital roles in protecting our forward deployed forces, friends and allies against the existing and emerging theater-class missile threat. We need both THAAD and Navy Theater Wide in our TAMD family of systems architecture.

Medium Extended Air Defense System.—As a result of resource constraints, especially in the years when we intend to field our core TAMD systems and develop and deploy NMD, the Department recognized that it could not afford to proceed with the Design and Development phase of the MEADS program as originally planned. We made this decision even though there remains a valid military requirement for maneuver force protection and a compelling case for armaments cooperation with our allies.

The Department proposes using about $150 million over the next three fiscal years to demonstrate critical technologies—such as a fire control radar and mobile launcher—we need to satisfy the MEADS requirement. This restructured MEADS program allows us to explore less costly program options by leveraging developments in existing missile defense development programs, such as PAC–3. This approach will hopefully enable us to continue cooperation with our allies in this important mission area. As we solidify our approach with our allies, we intend to capitalize on the concurrent Air Directed Surface-to-Air Missile proof-of-principle activity as well.

On Dr. Gansler's behalf, I met with our German and Italian partners in March to discuss the future of MEADS. I must report that they were concerned about the commitment of the United States to this program. However, they recognized the resource constraints we faced in missile defense and support our overall approach. They would, however, like for the Department and Congress to express our commitment to following the three year technology demonstration with an affordable restructured program to field a MEADS system. Quite frankly, they are concerned that the Congress will not support the program in fiscal year 2000. I know that both the Secretary and Deputy Secretary are looking to Dr. Gansler and me to work with the four defense committees to secure a stable future for our MEADS technology development program. I realize that especially in a tight budget environment $48.6 million is a very substantial amount of money. I hope to work with the Committee, and the other three defense committees, to lay out how we intend to proceed with this program, demonstrate that we have clear end-products for our investments, and also outline how our German and Italian partners will play in this cooperative venture.

Joint TAMD Programs

Several research, development, test and evaluation efforts—which effectively support multiple theater air and missile defense system development program requirements—are managed and funded under the Joint TAMD program. Joint TAMD requirements and supporting tasks include development of target missiles, collection and analysis of target signature and discrimination measurements, and funding of CINC-level planning and participation in wargaming exercises that maximize the consideration of theater air and missile defense requirements and systems capabilities.

BMDO funds the development of the Extended Air Defense Testbed (EADTB), an object-based simulation and analytic tool which supports architecture analysis and system performance, and supports the theater air and missile defense community through distributed interactive simulation (DIS) connectivity. An important element of Joint TAMD is the TAMD Critical Measurements Program (TCMP), which provides tactical ballistic missile target signature and related discrimination data. Collected data from recent test flights will be used to characterize potential countermeasures and to develop and test algorithms designed to mitigate their effects. Programs that are expected to directly benefit from EADTB and TCMP include all theater air and missile defense MDAP's and the U.S. Air Force Space-based Infrared System (SBIRS). The Joint TAMD program element includes a requested $195.7 million in fiscal year 2000.

Family of Systems Engineering and Integration

Each member of the family of systems will contribute what it sees to a common picture of what is occurring in the battlespace, and then based on that picture, the warfighter will launch the most effective and efficient missile defense response. All theater air and missile defense systems must be capable of joint or autonomous operations. For example, based on cueing from a space-based sensor and target detection and tracking by the THAAD ground-based radar, a Navy Theater Wide interceptor could be launched to counter a ballistic missile threat. This system will be demonstrated through a series of systems integration tests. We are currently planning such an integration test for fiscal year 2002. That test will fly targets that realistically simulate medium-range ballistic missiles against both the PAC–3 and Navy Area systems. Our intent is to calibrate how well our lower-tier systems can protect their defended areas against these longer-range targets. Our fiscal year 2000 budget request for FoS E&I is $141.821 million.

Theater Missile Defense Challenges.—Mr. Chairman, missile defense is one of the most technically challenging projects the Department has ever undertaken. The urgency to develop and deploy a highly effective TAMD system grows directly out of our experience in the Gulf War. We recall that the largest single loss of U.S. servicemen was the result of the SCUD missile attack on our barracks in Dharan. And we see how the threat is growing in both numbers and capabilities. The Gulf War experience and emerging threat drove us to make TAMD a schedule-driven effort that has stressed the Department's most technically challenging projects.

Missile defense requires the integration of many new technologies into a system that must perform in a very dynamic threat and operating environment. For instance, TAMD systems must operate largely inside the atmosphere at very fast speeds against targets that are traveling several kilometers per second. TAMD systems, such as THAAD and PAC–3, use hit-to-kill technologies and must literally "hit a bullet with a bullet." This is a technical and engineering challenge—but it can be done.

We have other substantial programmatic challenges as well. For instance, we must develop and test TAMD systems and demonstrate they are highly interoperable—to ensure that the whole architecture is greater than the sum of its parts. And finally, we must ensure these systems are affordable—because we want to maximize the inventory we can buy for the warfighter. Despite our recent program and cost setbacks, I believe we are up to these challenges.

We must continue to press on with these TAMD systems because the threat is there and it is growing. I pledge to keep the pressure on our Government and industry team to deliver highly effective and affordable defenses as soon as possible. For the sake of our servicemen and women, we cannot afford to fail.

National Missile Defense

The Department has dedicated the funds necessary to develop and deploy NMD. We have worked to ensure that our NMD development program was properly funded. But until now, we had not budgeted funds to support a possible NMD deployment that could protect us against a limited missile attack. In fiscal year 2000, we are requesting $836.555 million for NMD. In addition, we propose to use for NMD roughly $600 million from last year's $1 billion emergency supplemental appropriation. Between fiscal years 1999 through 2005, we intend to allocate $10.504 billion (in then year dollars) for the NMD program.

The Secretary's January 20, 1999, announcement acknowledged and affirmed the rogue nation strategic missile threat is emerging. In addition, he announced the dedication of an additional $6.6 billion for NMD during fiscal years 1999 through 2005. He also noted that the Administration had begun a dialogue with Russia about the development related to our NMD program and ABM Treaty. Lastly, he

recognized that the program was now structured to work toward a key requirement—developing and demonstrating the technological readiness of our system.

Our challenge during the next few years is to make sure all NMD elements work together as an integrated system and that it can do exactly what the mission tells us we need to do. Success on the critical tests and execution of the element schedules, which constitute the NMD program, will provide the answer to the question: are we technically ready to deploy a capability?

I would like to lay out for the Committee the time line of programmatic decisions we will seek between now and 2005. I will also review our plans to develop and test the NMD system elements and to demonstrate the effectiveness of the integrated NMD system.

NMD Decision Time Line.—In order to be able to deploy a ground-based NMD system by 2005, we have developed a detailed plan of program activities to ensure success. The proposed changes to the NMD program I will address today will ensure that we fully develop, test and demonstrate the system elements in an integrated fashion before we begin to deploy. This will significantly reduce the program risk associated with our previous "3 plus 3" program approach.

We still plan to conduct a Deployment Readiness Review (DRR) in June 2000. This DRR will take place at the defense acquisition executive level—with full participation from all key Department of Defense stakeholders. The DRR will not constitute the actual decision to deploy the NMD system, rather it will assess whether or not the technical progress has been made which would allow the Administration to decide whether and when to deploy. At this time, the Administration will also assess the current state of the threat, the affordability of the system, and the potential impact on treaty and strategic arms reduction negotiations. When a decision is made to deploy, we will seek commitment to several key elements of the program. First, we would seek approval of the recommended NMD site—either in North Dakota or Alaska. Similarly, we would seek approval to award the construction contract for the selected NMD site. And finally, we would seek a decision on whether to pursue deployment sooner than the proposed deployment of 2005, if it is both warranted and technologically possible.

In fiscal year 2001, we would conduct a Defense Acquisition Board review to assess the status of the program. Based on program performance, we would seek approval to initiate upgrades to the current early warning radars; begin building the X-band ground-based radar and start integrating the battle management, command, control and communications into the Cheyenne Mountain complex.

In fiscal year 2003, we would conduct a second Defense Acquisition Board review to seek approval to build and deploy the weapon system—the ground based interceptor. At this point, we would seek authorization to procure 61 GBI missiles—this would include deployment interceptors, spares and test rounds. Based on this schedule, if the program proceeds as we anticipate, we would deploy in late 2005.

In order to meet this schedule, we plan to conduct a series of 19 more flight tests between now and 2005 to demonstrate the technical maturity of the system. As the Committee is aware, in June 1997 and January 1998, we conducted two very successful seeker "fly by" tests that allowed us to demonstrate key elements of the kill vehicle—namely the "eyes" that will allow the weapon to move into the end game, discriminate the warhead from decoys and intercept the target. In the remaining 19 flight tests we will attempt to intercept the target. In addition, we will conduct major ground testing of hardware and demonstrate the integration of system elements. Let me briefly outline our test program.

NMD Flight Testing.—The proof of the NMD system's maturity literally will be "put to the test" over the next 18 months in a demanding series of system tests. In summer 1999, the performance of the exoatmospheric kill vehicle will be demonstrated for the first time as we attempt to intercept a target. We have a lot to learn in this first intercept test. Later in the fall, we plan to conduct a second intercept flight test. Both flight tests will use the developmental version of the kill vehicle produced by Raytheon. We will fly these interceptors against threat-representative target warheads launched from Vandenberg AFB, California. We will launch the kill vehicle on a booster from the Kwajalein Missile Range in the Pacific Ocean. The actual intercept will take place outside the atmosphere over the Pacific Ocean. We intend to demonstrate the continuing development of our non-nuclear kill vehicle, its sensor, software and discrimination capabilities.

In fiscal year 2000, we plan to conduct two full integrated system tests—one in each of the second and third quarters. This will allow us to conduct four intercept opportunities prior to the Deployment Readiness Review.

Starting in fiscal year 2001, we plan to fly three intercept flight tests each fiscal year through 2005. This will allow us to gradually demonstrate the increasing sophistication of our kill vehicle and ultimately the integrated ground-based inter-

ceptor weapon system. Flight test 7, scheduled to take place in fiscal year 2001 after the DRR, will be the first flight test to incorporate both the exoatmospheric kill vehicle and the proposed operational booster. Flight test 13, scheduled for 2003, will fly the production-quality ground-based interceptor—including both the kill vehicle and booster.

The revised program follows a very specific path to reaching the initial operational capability by fiscal year 2005. This path includes two key milestones that, in effect, postpone the need to freeze the interceptor design until the latest possible time dictated by lead time to the 2005 deployment date. The interceptor remains the least mature element of the NMD architecture. Therefore, by waiting to lock in the interceptor design until after we have tested the production-quality "round," we add confidence to the system we will ultimately deploy.

We have done nothing in the NMD program that would result in a delay as a result of the Secretary's announcement. Between now and the DRR in June 2000, nothing has been slowed down. In fact, we have actually added modeling and simulation efforts in the next two years that will help us develop and demonstrate the system further, as well as reduce flight test risks.

To prove out the system's readiness for deployment, we have chosen 2005 as the deployment date for NMD to avoid rushing to failure. I have testified on several occasions that I felt the NMD program was being executed along a very high risk schedule. Our recommended approach will reduce schedule risk by taking the time to develop, demonstrate and, ultimately, deploy the system in a more prudent manner. However, the program schedule, albeit less risky, still has significant concurrency. In the meantime, if the testing goes flawlessly, we may be able to deploy a system on an accelerated basis. However, such acceleration would be a very high-risk approach that we would only pursue if our assessment of the technological maturity and threat indicate it is warranted.

Given the reality of the threat, the NMD program cannot afford to fail. The funds provided by the Congress in last year's Emergency Supplemental Appropriation, combined with the programmatic adjustments proposed in our current budget, enable us to deliver the defensive protection as soon as practicable against the emerging rogue nation limited threat.

NMD Concept of Operations.—I would like to take a moment to explain how we envision the individual NMD system elements will operate when combined as a fully operational and integrated system. A hostile launch from a rogue state begins the engagement process. Space-based sensors make the initial detection and report a threat launch. DSP, and ultimately SBIRS high, will alert the entire system of a potential ballistic missile attack; cue the radars to erect "search fences" to detect the incoming missile and start the battle management centers to evaluate engagement options. When the threat missile crosses into the range of ground-based early warning radars, these radars confirm flight and tracking information on the target missile. Upon data confirmation, the battle management, command and control center directs the launch of a ground-based interceptor. A ground-based X-band radar will provide high resolution target tracking data to the interceptor in flight through an In-Flight Interceptor Communications System—IFICS. This data will be used by the interceptor to maneuver close enough to the target missile for the on-board kill vehicle sensor to discriminate the warheads from potential decoys. Sensors on the kill vehicle provide final, precise course corrections to enable the kill vehicle to destroy the target with a direct hit—or "kinetic kill."

We have already made progress in demonstrating some elements of the system. For instance, some hardware and software upgrades to early warning radars have been incorporated into an existing radar and are being tested. A prototype X-band tracking radar has been built at the Kwajalein Missile Range and has successfully tracked test launch vehicles out of Vandenberg AFB, California, including the most recent Air Force operational test on February 10, 1999. Both the upgraded early warning radar and prototype X-band radar will support the intercept flight tests this year.

The ground-based interceptor (GBI) weapon is the least mature element of the system and entails the highest technological development risks. The GBI consists of the exoatmospheric kill vehicle (EKV) launched by commercial-off-the-shelf boosters. As I noted earlier, we have already flown two successful EKV sensor flight tests. Our next 19 flight tests will build upon these two sensor tests and demonstrate our kill vehicle's capabilities.

The battle management, command, control and communications system links the NMD system elements to the warfighter. The BMC^3 development is a continuous effort. Our capability will be increased on an incremental basis as we progress toward system deployment.

While we have been developing and testing the system elements, we also have been proceeding vigorously on deployment planning activities. We have conducted fact-finding and siting studies in two potential site locations—North Dakota and Alaska. We have initiated site designs for the X-band radar and weapon sites. We will start the design of the BMC^3 facilities later this year. On November 17, 1998 we published in the Federal Register a Notice of Intent, announcing the beginning of the NMD Program's Deployment Environmental Impact Analysis process. We held public scoping meetings in North Dakota and Alaska in which over 650 people attended. We are in the process of preparing a draft Environmental Impact Statement. We plan to return to North Dakota and Alaska this fall to conduct public hearings on the draft Environmental Impact Statement. As required by law, the results of the EIS will represent one of many inputs into the deployment decision process.

I believe that we have structured a prudent NMD program and we are moving out smartly to execute it. We have made important technical progress to date. While we have important challenges still ahead of us, I believe we can meet those challenges and field an NMD system in a timely manner.

International Cooperative Programs

Our International Cooperative program element contains two project areas. First, our cooperative programs with Israel. Secondly, our cooperative efforts with Russia. I would like to outline briefly our efforts in both areas.

Cooperative Programs with Israel.—The U.S.-Israeli cooperative Arrow Program continues to make progress toward the deployment of a contingency capable Arrow Weapon System (AWS) later this year. On September 14, 1998, Israel conducted a successful fly-out test against a simulated ballistic missile target. For the first time, the Arrow II interceptor was controlled throughout the flight by the other system elements of the Arrow Weapon System; for example: the surveillance/fire control radar (Green Pine), fire control center (Citron Tree) and launcher control center (Hazel Nut Tree). The integrated AWS flight test was a combined Phase II/III test that served to complete the Phase II Arrow Continuation Experiments (ACES) program and to begin the integrated flight tests under the Phase III Arrow Deployability Program (ADP). The next ADP flight test is scheduled for this summer and will be an intercept test against a ballistic missile target. If successful, the Israeli Air Force will declare the Arrow Weapon System to be initially operational, as a limited contingency capability.

Several proof-of-concept tests have been conducted toward achieving Arrow interoperability with U.S. theater missile defense systems. The Arrow Link-16 Upgrade Converter is in final development and will be delivered to Israel later this spring. This device is a two-way translator that will convert U.S. Link 16 TADIL-J formulated messages to the Arrow-formatted protocols, and vice-a-verse. Once the Foreign Military Sales case is concluded for Israel to purchase a JTIDS 2H terminal, with delivery anticipated in late 1999 or early 2000, Israel will have the full capability for Arrow to "interoperate" with U.S. TAMD systems.

We are continuing our efforts that use both the Israeli Test Bed (ITB) and the Israeli Systems Architecture and Integration (ISA&I) analysis capabilities to assist with the deployment of the Arrow Weapon System. In addition, we are working with Israel in the ITB and ISA&I to refine procedures for combined operations between USEUCOM and the Israeli Air Force, and to examine future missile defense architectures that consider evolving regional threats. Recent contingency operations with Israel have benefited greatly from the work conducted bilaterally in the ITB and ISA&I.

We continue to reap benefits from our cooperative missile defense programs with Israel. In one specific case, the Arrow seeker technology flown by Israel is the same seeker planned to be flown aboard THAAD. Similarly, the lethality mechanism used in Arrow will greatly assist us as we develop the Navy Area system that also employs a fragmentation warhead. Additionally, the experience gained with the cooperative Arrow flight tests will provide many benefits as we begin a very robust flight test program for our TAMD systems this year.

Cooperative Programs with Russia.—The Russian-American Observatory Sensor (RAMOS) program has been our cooperative effort with Russia on space-based surveillance technology. The program was conceived as a way to jointly develop and test these technologies. The projected budget to complete this program over the next few years is about $250 million. After very careful scrutiny we decided that the technical merits of the program did not warrant that level of funding—especially in light of the limited resources available for technology programs that directly benefit the missile defense mission.

While I appreciate the importance of cooperative programs with Russia, I cannot recommend continuation of the RAMOS project as it existed. However, in the spirit of cooperation with Russia, we are considering two other cooperative programs with Russia that promise similar benefits but at a substantially reduced cost. Both will ensure that the Russian scientific and technical community is engaged in a funded endeavor with America research interests. For instance, we will continue to work with several Russian research institutes (through the Utah State University Space Dynamics Lab) to cooperatively research space surveillance technologies of mutual interest. As the Committee recognizes, it is in our collective interest to work cooperatively with Russia's technical and scientific community on a wide-range of mutual interests. Together, we can build a bridge of technical and political understanding, while lessening the opportunity for rogue states to gain access to Russian space and missile expertise.

I will personally ensure that we keep the Committee and interested Members fully informed as we proceed with our plans.

Threat and Countermeasures Programs

BMDO's Threat and Countermeasures program provides intelligence and threat support to all aspects of the missile defense program. The efforts covered under this program element directly support our TAMD and NMD acquisition programs by providing potential threat and countermeasures information central to the planning and execution of those programs. In addition, it also supports our Advanced Technology Development program by providing information on future threats and the time lines associated with their emergence. Our efforts draw heavily on the Intelligence Community for analysis, reports and, in some cases, collection of technical data in the field. It also sponsors threat work tied directly to the performance parameters of BMD defense systems, exploring possible vulnerabilities as they may be perceived by potential adversaries. This countermeasures-oriented work is conducted in a systems-engineering context by means of a newly developed threat risk assessment methodology that is supported by selected hardware-oriented experiments. For example, we work very closely with the U.S. Air Force Phillips Laboratory's Countermeasures Hands-on Project (CHOP) to assist us with such hardware-oriented efforts. Lastly, the BMDO Threat and Countermeasures program produces a series of carefully constructed and documented missile attack scenarios—including simulated flight trajectory information—for use in many forms of missile warfare engagement modeling and simulations. These include wargames conducted at the Joint National Test Facility in Colorado Springs, Colorado. We propose $16.5 million for these activities in fiscal year 2000.

Ballistic Missile Defense Technical Operations

The BMD Technical Operation program element contains the centrally-managed activities that provide functional expertise (i.e., systems engineering), analytical tools and support (i.e., the Joint National Test Facility) and test resources (i.e., data collection assets and test ranges) for theater missile defense, FoS engineering and integration, national missile defense and advanced technology efforts. Technical Operations truly provides a common, critical base of economical support for the entire BMD program.

This program element specifically provides funding for the activities of the Chief Architect/Engineer office that is responsible for the joint system mission area architecture, integration, interoperability, and engineering. The Chief Architect/Engineer provides the technical foundation for program acquisition decisions at the architecture level and leads the BMDO process for development, integration, and upgrade of mission area requirements with the military users and systems engineers for NMD and TAMD. Within BMDO, the Chief Architect/Engineer leads the implementation of Department of Defense architecture and engineering initiatives, such as Open Systems, Value Engineering, and Cost as an Independent Variable (CAIV) from an engineering perspective.

Advanced Technology Programs

Advanced Technology programs underlie the success of our current MDAP's and remain a critical component of the overall BMD program. Our Advanced Technology program's objective is to enhance the effectiveness of our current MDAP's and reduce their costs while simultaneously investing in future technologies that that could serve as our nation's "insurance policy" to protect against future missile threats.

In recent years, we have found that it has become increasingly difficult to maintain our technology programs in the face of competing demands presented by the MDAP's. Therefore, it is not as robustly funded as in previous years. Although our annual Advanced Technology request has remained constant, investment has de-

clined from the last several years appropriated levels. However, the program continues to focus on providing some of the critical capabilities needed across the current missile defense architecture.

Our Advanced Technology program has become more focused through a new, more formal technology planning process which we implemented last year. This process builds upon the technology needs identified by our system architect in coordination with the MDAP's based upon current system performance, emerging threats, and cost drivers. Working with the Services, we have tailored our technology programs and leveraged Service technology programs to meet many but not all of our highest priority needs. This process has helped us maximize benefit from every technology dollar through harmonizing the Services efforts in the areas of interceptors, surveillance, and ballistic missile C^4I technology to provide advanced technology performance enhancing and cost reducing components and software, as well as critically needed phenomenology data, for as many MDAP's as possible with limited funding. This ensured these efforts benefit the Services' MDAP's as much as possible.

I would like to provide you with some specific examples. Our Atmospheric Interceptor Technology program is currently developing an advanced interceptor seeker and a solid propellant divert and attitude control system to enable block upgrade capabilities for our current generation of endo-atmospheric interceptors. Concurrently, the AIT program, along with other BMDO technology programs, is developing cost saving components for both PAC–3 and THAAD. Our Exo-atmospheric Interceptor Technology program is developing an advanced active and passive seeker system to enable future block upgrades for our Upper Tier and National Missile Defense interceptors to counter a potential growth in the threats those systems must address.

Finally, in our fiscal year 2000 program, we will begin to more robustly fund a program to develop advanced radar technologies to support cost reduction and performance enhancements for all of our ground- and sea-based radar systems. Unfortunately, because of our fiscal constraints, we were able to provide funding for this advanced radar technology program only through reducing our funding for other important technology programs.

Our concern about the Advanced Technology program remains. In the past, we were able to fund more robust technology programs, such as LEAP which is now the basis for both the Navy Theater Wide and NMD interceptors. At the current funding levels, we are unable to fund programs such as this for next generation weapon systems. We are concerned about our ability to keep pace with the emerging threat through our Advanced Technology program. We continue to examine ways we can increase technology funding in the future.

Space-based Laser Program.—The key focus of our Advanced Technology directed energy program remains the chemical Space-Based Laser (SBL). SBL is a high-payoff, next generation concept for a missile defense system. The SBL concept we envision would provide the Nation with a highly effective, continuous boost-phase intercept capability for both theater and national missile defense missions. In addition, SBL could perform non-missile defense missions, such as aerospace superiority and information dominance. Working with ground-, sea- and air-based missile defenses, the SBL's boost-phase intercepts could "thin out" missile attacks and reduce the burden on mid-course and terminal phase defenses. The SBL will be instrumental in protecting airfields and ports in the early stages of the conflict. Additionally, because of its global presence, SBL will be available to protect U.S. Allies and coalitions that may be threatened by inter-theater ballistic missiles.

The SBL program is managed by BMDO and executed by the U.S. Air Force on our behalf. Both BMDO and the Air Force are requesting funds in the fiscal year 2000 budget for the SBL program. We are working jointly on this very important program, pooling resources and ensuring the program is following a clear direction. The BMDO budget contains $75 million and the Air Force budget has $63.8 million, for a combined request of $138.8 million. This level of funding on an annual basis will allow us to work on the program at a moderate pace while focusing our efforts on reducing the program's technical and engineering challenges.

In the near term, the SBL program will focus on ground-based efforts to develop and demonstrate the component and subsystem technologies required for an operational space-based laser system. These efforts will lead to the design and development of an Integrated Flight Experiment (IFX) vehicle to be tested in space. I believe this approach is a prudent, moderate-risk development program.

We recently sponsored the third Independent Review Team (IRT–3) as part of the ongoing assessment of technology readiness, role, and content for a meaningful Integrated Flight Experiment program for SBL.

Closure

Mr. Chairman, acquisition of joint missile defenses is not a simple mission. I think we all appreciate the technical challenges and experience the frustration of not moving as fast as we would like. We are now vigorously addressing the cost of these systems as well. An equal challenge is BMDO's continuous effort to ensure that the joint missile defense mission area is understood, adequately resourced and—working with JTAMDO and the Military Services—that the systems we are developing are fielded in a manner consistent with the needs of the joint warfighter. This means that we must develop missile defense systems that are effective, interoperable and affordable. My organization and I are addressing these issues across all our programs and we are working with our Executing Agents and industry partners to ensure we succeed.

I would like to express my gratitude for your continued support of missile defense. You and the Members of this Committee have steadfastly supported this program and have made very difficult funding decisions in order to ensure our programs succeed. Over the last few years, the additional funds provided by Congress have helped us in many areas to keep these programs moving forward, ensure additional test hardware could be procured, and in some cases accelerated our progress. Last year's IMPACT legislation, which was ultimately provided to the Department as a supplemental appropriation, helped us to gain momentum to do some vitally important activities which otherwise we would not have been able to afford.

Finally, last year the Congress authorized and appropriated an additional $1 billion for missile defense efforts. The Department looks forward to putting those additional resources to good use. Part of the billion dollars will be used to directly support our NMD program. Another portion will be used to posture the Navy Theater Wide program for acceleration.

Mr. Chairman, on behalf of the missile defense community, I want to thank you and the Committee for your leadership and support. Successfully developing and fielding missile defenses has been a joint goal of ours. Since we work hard everyday to make substantial progress in fielding these systems, we are often too focused to remember to acknowledge the partnership we form and to thank you for your leadership, support and continued confidence in this important mission area. Thank you.

I would be delighted to answer the Committee's questions.

PREPARED STATEMENT OF SENATOR INOUYE

Senator STEVENS. All right, General.

We have had Vice Chairman and Senator Cochran come in. Gentlemen, I announced at the beginning that we kept our opening remarks to two minutes, and the round will be five minutes.

You have not had your opening statements, Senator Inouye.

Senator INOUYE. I request that my statement be made part of the record.

Senator STEVENS. It will be made part of the record.

[The statement follows:]

PREPARED STATEMENT OF SENATOR DANIEL K. INOUYE

Mr. Chairman, I want to join you in welcoming our witness, General Lyles, here today to discuss this very important topic.

Our forces in the field are increasingly in range of ballistic missiles held by adversaries. For the past 15 years we have been working on developing systems under the old SDI and now BMDO programs to counter this threat.

None of the systems developed under either of those programs are yet in the field to protect our troops.

Even today we will hear about additional delays to Patriot and Navy missile defense programs as well as more bad news about the THAAD program.

General I know you are doing everything you can to get these programs under control and we sincerely appreciate your efforts.

However, it is hard not to get frustrated by the continued delays and failures.

General, in light of these facts, and the billions of dollars annually invested in missile defense, we really need to hear your candid views today on the status of our nation's missile defense programs. We need to know what we can do to help improve the situation.

I look forward to hearing your responses to this most difficult issue.

CONGRATULATIONS TO GENERAL LYLES

Senator STEVENS. Senator Cochran.

Senator COCHRAN. Mr. Chairman, thank you very much. I join you in greeting our witness and in congratulating him on being nominated for his fourth star.

General LYLES. Thank you, Senator Cochran.

Senator COCHRAN. I understand you have been nominated as vice chief of staff for the Air Force. So we congratulate you and look forward to working with you in those new capacities later this year.

General LYLES. Thank you, sir. And I support that, also. Thank you.

Senator COCHRAN. Thank you, Mr. Chairman.

Senator STEVENS. Senator Hutchison, we are limiting the opening statements to two minutes. Do you have an opening statement?

Senator HUTCHISON. No, thank you, Mr. Chairman, I do not.

Senator STEVENS. Well, thank you very much. We will run the clock five minutes.

General——

Senator DORGAN. Mr. Chairman——

Senator STEVENS. Pardon me, Senator Dorgan.

Senator DORGAN. That is all right. Let me just——

Senator STEVENS. I did not notice you. Someone else was in that seat the last time I looked over there.

Senator DORGAN. Mr. Chairman, I just wanted to add my congratulations to General Lyles. He is providing some very important leadership, and I am glad he is here.

General LYLES. Thank you, Senator Dorgan.

PROGRAM TRADEOFFS

Senator STEVENS. It is nice to see leadership recognized.

General, I want to make sure we understand one another, because we have a slip of two years now in the national program. I think we all understand that, and I understand your statement saying if we can do it sooner, we will do it. But I do not want to see any tradeoffs now in terms of monies that we have to have for Kosovo or Bosnia or Iraq or wherever it is in the world. I hope everybody understands that. We would really come up and roar if that happened. You will help us prevent that, will you not?

General LYLES. Certainly, Mr. Chairman. And I think in all the discussions I have heard, everybody is very, very sensitive to the need for this program, National Missile Defense, and our theater program. So I hope that is definitely not going to be something we even have to consider.

SPACE-BASED INFRARED SYSTEM

Senator STEVENS. Let me just ask a few short questions. I hope you realize our time limitations, and I would appreciate it if you can keep your answers as short as the questions.

Is the capability of the National Missile Defense system significantly enhanced by the addition of the space-based infrared system (SBIRS) high component?

General LYLES. Mr. Chairman, it is enhanced. I would not use perhaps the term "significantly." SBIRS high in terms of queuing

and warning, et cetera, provides some additional probability of success and probability of warning and confidence level for our National Missile Defense system. Our key determinant in terms of performance enhance for NMD will come from the SBIRS low component.

There is an increase, however, so I do not want to negate that. But it is sort of a few percentage points in terms of confidence.

Senator STEVENS. NMD is not the driver for SBIRS high. It is the other way around?

General LYLES. No, sir, it is not. SBIRS high does provide some additional defended area protection for our theater missile systems. And again, I do not want to mislead the committee. It does enhance our confidence level, probability levels, for our National Missile Defense, but we are talking the difference between a confidence level like 93, 92 percent versus our requirement for 95 percent.

And I have to emphasize that word "requirement." The user requirement is 95. So we do not actually meet that 95-percent confidence level unless we have SBIRS high. But we are talking just a few percentage points difference.

NMD MILITARY CONSTRUCTION FUNDING

Senator STEVENS. My staff tells me there is an unfunded requirement for National Missile Defense planning and design funds for the year 2000 of approximately $15 million. Is that right? And how would this funding be used to develop and field the NMD?

General LYLES. Sir, there is military construction (Milcon) money specifically, Mr. Chairman. And it is one of the key things we want to do to make sure that we are protecting the option to field the system as early as possible. What we would like to have is 100-percent design for all the different options and all the different sites that we are looking at.

And in order to protect—provide that 100-percent design level, we need $50.7 million in 2000 in Milcon money to really preserve the option to be able to field the system and get to a site as quickly as possible.

Senator STEVENS. If that is that essential, why do you not reprogram part of the billion dollars and take it now and go?

General LYLES. Actually, Mr. Chairman, what we were going to do is just reprogram existing research and development (R&D) money within NMD. Part of that is, of course, the supplemental. So we will probably not try to touch the actual supplemental amount. There are other dollars within the program that we can program.

Senator STEVENS. I urge you to proceed as rapidly as you can.

General LYLES. Yes, sir. And we are getting great support from all the committees in this regard.

FLIGHT TESTING FROM KODIAK, ALASKA

Senator STEVENS. I want to be a little provincial. The Air Force had a successful launch from Kodiak this past November. I understand there is going to be a second test now. Could you tell the committee about that?

General LYLES. Yes, sir, Mr. Chairman. We have, I think, now scheduled for August 15 the next series of tests coming out of Ko-

diak. We sort of euphemistically use the term small AIT, small atmospheric intercept technology program associated with the first test, because it was part of an Air Force-related effort.

The next test is going to be sponsored by my own atmospheric advanced interceptor technology program, Big AIT. We have a formal name for it. And we will be testing some shroud deployment capabilities, in addition to other things, as part of that activity. So I am very pleased that the Kodiak facility has now been certified by the Federal Aviation Administration (FAA) as a space launch facility as of last September. And it will really support our needs in the tests coming up this August.

Senator STEVENS. Will it be involved in the risk reduction tests, do you think?

General LYLES. To date we have used some of the activities coming out of Kodiak to support our risk reduction activities for National Missile Defense. Those risk reduction activities, for those who are not familiar, take advantage of the Beale radar, as an example, that we have on the west coast and other sensors to look at and check our software at battle management command and control for National Missile Defense.

So firing out of Kodiak, firing out into the Pacific, allows us to view those with that radar, test the software we have. So the answer is yes, sir, it has been able to help us in that regard.

Senator STEVENS. Thank you.

Senator Inouye.

Senator INOUYE. Thank you very much.

Welcome, General Lyles, and congratulations.

General LYLES. Thank you, Senator.

THAAD FLIGHT TEST RECORD

Senator INOUYE. You have told us of the most recent THAAD failure. That is number six. We have had six failures in a row. In a previous testimony, you spoke of random success, the possibility of approving a system that has one success.

Now with six failures, when do we say for THAAD, how many successful launches do we need?

General LYLES. Senator Inouye, what we have tried to do is to ensure we give the THAAD program an opportunity to succeed without being silly about it in terms of having a success. We have examined all of those failures that we have had in the past, all the previous five and even this one. And we have determined that they are primarily quality problems, not anything that is wrong with the design.

THAAD FLIGHT TEST FOLLOW UP ACTIONS

As a result of that, we have put some stringent penalty clauses in our next series of tests with the existing test motors and test missiles that we have. We had five, roughly, that we had planned to test. Now one is expended. So we have four left. And in those four tests we have some specific penalty clauses that apply to the prime contractor.

What we wanted to make sure is that we are incentivizing and motivating the prime contractor to solve those quality problems that have caused us to not have success to date. But we also want

to make sure that we recoup, if I can use that term, some of the money associated with the testing. I do not want to fool anybody in terms of the numbers.

We roughly expend about $25 million per test. And our penalty is roughly about $15 million that we get back from the contractor, if we are not successful. So we are not recouping everything. We are not recouping all of the government costs.

I guess the bottom line answer to your question, Senator Inouye, is that we are trying to give us the opportunity to at least get through that five series of tests, four remaining now, to see if the system will work. And we are hoping that the quality problems will get behind us, and we can prove that THAAD is going to be successful.

PENALTY CLAUSES FOR THAAD CONTRACT

Senator INOUYE. By establishing this penalty system, are you suggesting that you have limited faith in the outcome?

General LYLES. What I am suggesting, sir, is that we have five missiles, we had five missiles left. Before we commit dollars to building any other test missiles and ensuring that we are not wasting the government's and taxpayers' dollars, we want to make sure we get through these tests. And we wanted to provide the right motivation to the contractor.

So I personally have confidence in this particular contractor. I think we understand what has caused us to have these sort of quality failures. I know the contractor has done a great job over the last several months of trying to rectify the problems that led to this particular situation. So I was very disappointed that we had what may have been another quality problem on this most recent failure. But we have established this sort of mechanism to give us some protection, if you will.

FLIGHT TEST AT PACIFIC MISSILE RANGE

Senator INOUYE. Are all events proceeding on track for the testing of the Navy's area and theater-wide programs at the Pacific Missile Range?

General LYLES. Senator Inouye, they are. The Navy Area program, I think, as Senator Leahy mentioned before you walked in, has experienced some cost growth that we are now addressing with the Navy and with the contractor. But in terms of performance for the program, we have had some minor software delays and other things associated with the missile.

The biggest delay to the Navy Area program has been the AEGIS platform itself. There have been some significant delays independent from our missile defense needs relative to integrating all the capabilities the Navy needs to have with the AEGIS platform. That has led to a delay in our fielding date for the Navy Area. But for our testing and development program, we are just about on track for Navy Area.

Navy Theater Wide is still at the beginning stages of the program. As I mentioned in my opening statement, we have now fully funded the program, so it is a viable one with an actual fielding date. And we are looking forward to getting on with the test series

for Navy Theater Wide starting hopefully the end of this calendar year.

BALLISTIC MISSILE THREATS

Senator INOUYE. General, as you mentioned, a lot has been said about the possibility of rogue nations possessing these systems. But I gather from statements made by very high-ranking military officers that some are not too concerned. Can you explain why this lack of concern?

General LYLES. Senator Inouye, I am not quite sure which specific statements. I can tell you that the people that I deal with and leadership I deal with and certainly the information coming to us from the Defense Intelligence Agency, I think Mr. Tenet, George Tenet, the Director Central Intelligence (DCI) from the Central Intelligence Agency (CIA), has also made statements about the nature of some of these emerging proliferating threats. And I think we are all very, very concerned.

And hence, I think the strong support for adding additional money to our missile defense programs, like our National Missile Defense within the program. So I am not sure as to what specific statement has been made, so I cannot comment on that.

Senator INOUYE. I will share some with you later, sir.

General LYLES. OK. Thank you.

PAC–3 PROGRAM DELAY AND COST GROWTH

Senator INOUYE. On March 15, you indicated that PAC–3 scored a direct hit, but we were also told that the program is suffering from delays and significant cost increases. Can you explain how this program, which is basically a mature technology, is slipping and increasing in cost?

General LYLES. Well, Senator Inouye, the primary delay for the PAC–3 program were delays in getting literally to this first test that we just accomplished on the 15th of March. They were primarily software delays, software development delays. I think the contractor and the government mis-estimated the complexity and the difficulty of developing the software going into all the different elements of the program.

That is now behind us, obviously. Otherwise we would not have been able to accomplish the flight tests that we have had. And so I think those problems are behind us.

The cost growth problems are primarily associated with the slip in schedule. And as I mentioned in my comments, I now have a war, if I can use that terminology, a war on cost controls for all of our programs, starting with the PAC–3 program. We have worked very closely with the contractor.

I met with the CEO of the prime contractor on numerous occasions to talk about ways that we together can keep the developing costs under control, but, more importantly, get the production costs of the systems down. And we have some initiatives in front of us that we will be implementing within the next 60 days that I think will get the costs under control for PAC–3.

PAC–3 INTERCEPT TEST

Senator INOUYE. And you do not consider this recent success a random success.

General LYLES. No, sir, I do not. And the proof of that, I think, will come when we have our next test, which will be in the next few weeks for PAC–3.

Senator INOUYE. Thank you, General.

General LYLES. Thank you, Senator.

Senator STEVENS. Thank you, Senator.

Senator Hollings.

IS MISSILE DEFENSE A REALISTIC PROGRAM

Senator HOLLINGS. Thank you, Mr. Chairman.

General, that was a very, very impressive statement. I am equally impressed by our chairman's statement that we do not want to see any tradeoffs. Perhaps I have not kept as current as I could have because of conflicts and other duties here, but I am a longtime believer in what you are doing.

My question is, now that you are leaving, are you still as strong a believer? Is this really a realistic program? I ask because of the questions being asked here and in other forums. I go back 30-some years ago, when the challenge was to bring a missile submerged 500 feet beneath the ocean to the surface, ignite it, and then guide it down range 1,500 miles to hit a target. That was the Polaris.

Then, they had a fellow named Stan Burris out at Lockheed with what he called back planning or PERT (Projects Engineering Research Testing). Many at this particular level, said the Polaris would never work. Of course now the outcome is obvious.

I do not mind delays. I get a little disturbed when you say maintaining schedule, because if we put a schedule out for developing a cure for cancer, we never would have made it. Is this a realistic program? I want to hear you describe its reality and, in your tenure in charge, what advancements and progress can you point to.

THEATER MISSILE DEFENSE

General LYLES. Senator Hollings, let me take that question in two phases, if you do not mind. In terms of our theater missile defense programs, I think yes, indeed, they are. They are realistic, realistic in terms of the technology, realistic in terms of the challenges we are trying to meet.

And if there have been any questions about the reality aspect, it was with hit to kill lethality methodology that we have embraced for all of our programs. We do have hit to kill on our PAC–3, and we proved in that test on March 15 that hit to kill is not just something that you can do on paper, that you can do it for real. So I am very confident for our theater missile defense systems that we can get the job done.

NATIONAL MISSILE DEFENSE

In terms of National Missile Defense, I have that same confidence in terms of the technology. We do not have to invent anything new relative to accomplishing it. What we have to do is to make sure that all the different elements work together very, very

well and that they are performing and integrating properly. That is the challenge that we have, and making sure that we have enough testing to prove that we understand that those things do work well.

So the biggest challenge to us from a National Missile Defense perspective was the aggressive schedule that we put in front of us. Rightly so, given the emerging threat. But I think we are doing the right thing relative to the needs for our country.

QUALITY CONTROLS ON BMD CONTRACTORS

Senator HOLLINGS. Your statement, that testing failures have been caused by quality rather than design problems, is remarkable. In departing, do you have some recommendation to solve this, other than to hire a new contractor? Or, perhaps now you now have confidence in the current contractor? In any case, there should be a better approach than wasting $15 million trying a new contractor for each test. Contractors know how to speak convincingly, to sell. Can't you restructure the contract so that you require improved quality?

General LYLES. Yes, sir, Senator Hollings. And I think if there is a—if I can point to one benefit—somebody may question me for using this adjective—one benefit to the failures we had on our THAAD program, it was to cause us to go back and reflect and look very, very carefully as to what led us to this particular point.

The study that I mentioned earlier, the Welch Study, General Welch's study from the Institute for Defense Analyses (IDA), that coined the phrase "rush to failure," that is not to say you cannot do things quickly. I am a big believer that we can do a lot of our things in the department very, very quickly. But you have to do them right up front.

And what General Welch's study quickly and, I think, succinctly pointed out to us was that when you skip basic steps, basic engineering steps, basic integration steps, up front to try to save time, ultimately it is going to come back to haunt you.

So we have applied the lessons learned from the Welch Study, the Welch Panel, now back to all of our programs. It has been the primary precept for where we apply the money, the $1 billion supplemental, that we received from Congress to our National Missile Defense program and the key precept for how we re-look at all of our systems.

In some cases that means we have added a little bit of schedule to some of our programs, but we have reduced the risks significantly. And ultimately, to me, that results in saving schedule and even saving dollars.

So sort of a short answer to your question, Senator Hollings, I think the big lesson learned is to make sure you do things properly up front. If you do them properly up front, the rest of the things will sort of take care of themselves. And we did not quite do that in some of our existing programs.

NEW DIRECTOR OF BMDO

Senator HOLLINGS. Has your successor been chosen yet?

General LYLES. Yes, sir, he has.

Senator HOLLINGS. Have you fully briefed him so that he knows this program as well as you do?

General LYLES. He is getting fully briefed right now, Senator Hollings. I can tell you he comes from a major record of success. He was the Director for the C–17 program. This committee and others have dealt with the problems we have had in the past with C–17. He led the charge during all of the recovery activity on C–17. So he is very, very experienced in these kinds of problems.

Senator HOLLINGS. You stick with him, because the committee will want to see continuity of your outstanding leadership.

Thank you, Mr. Chairman.

General LYLES. Thank you, Senator.

Senator STEVENS. Thank you.

Senator Cochran.

FEASIBILITY OF NATIONAL MISSILE DEFENSE

Senator COCHRAN. Mr. Chairman.

General, it appears that some of the harshest critics of the National Missile Defense program are using the THAAD missile test failures as a reason to be pessimistic about the ability that we have technologically to develop a National Missile Defense system, saying that if you cannot have a theater system that works, how in the world are you going to have a National Missile Defense system that works? Is that not a fallacious argument? And if it is, could you tell us why it is?

General LYLES. Well, Senator Cochran, obviously we have some of the same basic physics, if you will, involved in the missile defense, whether you are talking theater or National Missile Defense. The elements are a little bit different. Obviously the environment is different.

And so I think we have been able to prove that the key thing, as I mentioned to Senator Hollings, of hit to kill for lethality is one of the key areas that people challenge. And we have been able to prove it for our theater system, like the PAC–3.

That is not to say we do not have still a daunting challenge with our National Missile Defense system. We are operating a different regime in space, if you will, much, much higher, much more stringent environment. You do not have to deal primarily with decoys and countermeasures with theater systems, today anyway, that we know we will have to contend with in the strategic ICBM-like systems. And so we try to make sure that we understand what the key differences are.

But I think we have proven that you can do it in theater, and you should be able to get around the key challenges in the national aspect, also.

THAAD DESIGN AND TECHNICAL APPROACH

Senator COCHRAN. Are you satisfied that the THAAD program technical approach is sound? If not, what are you doing about it?

General LYLES. Senator Cochran, I am satisfied that the technical approach and the design approach are sound. As a result of all the lessons learned, I mentioned the Welch Study—I did not mention the independent studies in addition to that that we both

led, from the government standpoint and the contractor, to really peel back the onion.

In addition to that, Lockheed Martin, the Sunnyvale group that leads the THAAD program, has made some significant management changes, even as recently as this week. And I think they have also brought in the right kind of talent to make sure that we are managing the program properly and doing all the right things.

And so I am confident that we are on the right track and obviously very disappointed we were not able to prove that with the THAAD test at the end of March.

SBIRS PROGRAM MANAGEMENT

Senator COCHRAN. There was a question the chairman asked you about the SBIRS program and funding. Let me ask you this: I understand that the Air Force at one time had said these were essential satellites to have in place in order to proceed with this program on a certain schedule.

And I think you had anticipated the year 2004 you would have that program in place. And now it is 2006. And you were asked about this in the authorizing committee recently, and you said you had really anticipated that it was going to be delayed two years anyway, that that was really an advertised date, not a real date, or something like that.

Could you explain what you meant by that? And are we dealing with a lot of fictitious target dates here that we are going to come along and then change and say this is what was advertised, but we really did not mean it?

General LYLES. No, Senator Cochran. The dates that the authorizing committee were addressing were the actual dates of the program. And my answer is, I subsequently explained in a personal letter to the committee and to Senator Smith. My answer dealt with the fact that I personally had known for several months that the program was about to slip two years. And that is the answer I tried to provide during that one particular hearing.

In terms of the formal dates for the program, it was originally 2004. It did slip to 2006 in terms of having a capability on orbit. And so that is an accurate statement.

IMPORTANCE OF SBIRS TO BMD PROGRAMS

Senator COCHRAN. Well, if those satellites were so necessary, as they were earlier thought to be, how can you continue to say that you are preserving an option for earlier deployment of National Missile Defense, suggesting, for example, that if we come up with some additional Milcon money for construction of facilities, that we might preserve an earlier deployment option? How can we deploy without these satellites, if they were at one point said to be so essential?

General LYLES. Let me just clarify, Senator Cochran. The SBIRS program has two different elements, SBIRS high and SBIRS low. The one you are referring to specifically is dealing with SBIRS high. As you well know, the defense support program (DSP) satellites we have today in orbit are a primary bastion of early warning and surveillance. We can still operate a National Missile Defense system and one that is fairly effective with just DSP.

SBIRS high, however, provides us that additional confidence level that we need to meet the full user requirement. As I stated in an earlier question, we would like to have a 95-percent confidence level, which is the requirement stipulated to us by the user community, U.S. Space Command. We cannot get quite that with DSP, the current DSP constellation. You need SBIRS high to get to the 95-percent confidence level.

Where we are with DSP alone and not having SBIRS high until 2005, 2006, we will be up to 93-or 92-percent confidence level.

Does that mean we do not have an effective system? I cannot quite state that. It is not as effective as we would like, but it certainly will be fairly effective in providing protection for the country.

RESOURCE CONSTRAINTS ON MISSILE DEFENSE

Senator COCHRAN. That leads to the other question I wanted to ask. If we add more money to the BMD appropriated accounts, will that help us develop and be able to deploy our systems sooner than staying with the administration's requested levels of funding?

General LYLES. You are talking about the National Missile Defense?

Senator COCHRAN. Yes.

General LYLES. The additional money received to date really is to help reduce the risk. That is sort of a pat term, and I want to make sure I state accurately what I mean by that. We would use the additional money to provide additional testing, robust testing, provide additional hardware to support testing, to make sure we can confidently say that the system is technologically ready at the time we have to make a decision.

We literally have our pedal to the metal, if I can use that term, in terms of all of the activities that are going on. The prime contractor stated, as an example, at that SASC hearing, the Senate Armed Services Committee hearing, that they are working two shifts a day, ten hours both shifts, six days a week, with people working on National Missile Defense.

Can we go a little bit faster with a little bit more people? I cannot say we cannot. But the primary need, if we had additional money, would be to make sure that we are prepared in terms of risk that we do not have any hiccups.

NMD TARGETS

Let me give you one example, a spare target. We have spare targets we are able to put into the program. But they are sort of a rolling spare. If we had a failure of one of our targets, we have a spare target in the barn, in the hangar, that we can then put online within another 30 to 60 days.

With additional money, perhaps we can build targets and have one sitting on a launch pad ready to go in weeks, instead of a couple months. So that is the kind of things that we would do with additional funding, to give us a hedge to make sure we can maintain the schedule that we currently have.

Senator COCHRAN. Thank you very much.

Senator STEVENS. Senator Hutchison.

PAC–3 LOW RATE INITIAL PRODUCTION

Senator HUTCHISON. Mr. Chairman.

General Lyles, in light of the recent success with the PAC–3 and what I am sure will be a success very shortly for the second test, how are you going to execute the low rate initial production this year? Do you feel that you have sufficient funding? And are you concerned about the layoffs in some of the subcontractors that have been announced for the end of the fiscal year, presumably because you have budget constraints?

General LYLES. Senator Hutchison, we are concerned about our ability to execute low rate initial production, assuming we do have a success with the next flight. And I feel very confident, like you, that we will. We have had to reprogram or plan on reprogramming. There is a reprogramming action on the Hill right now to reprogram dollars to allow us to accommodate some of the cost growth we experienced in development for the PAC–3 and the dollars that we are reprogramming are the kinds of procurement dollars that would support that low rate initial production.

So if we are successful and we are ready to pass into that next milestone of low rate initial production, we are frankly going to need some help from Congress to make sure we have the right amount of money and the right dollars to execute that. And we have ongoing discussions right now to make sure everybody is conscious of that.

PAC–3 LOW RATE INITIAL PRODUCTION FUNDS

Senator HUTCHISON. So you may be coming back to us in order to go into production for more money?

General LYLES. We certainly have to do so in terms of permission. We had a mandate from the appropriations language last year that we could not proceed into low rate initial production unless we did have two successful tests. So we certainly need to come and tell you where we are in implementing and executing the tests successfully on the program.

And then, because of our reprogramming action, we have had to initiate for fiscal year 1999, we will probably have to come back and ask for some additional support.

PAC–3 PRODUCTION SCHEDULE

Senator HUTCHISON. When would you be able to produce missiles that you could use, if you have the success in the next few weeks?

General LYLES. If we had the success in the next few weeks, the low rate initial production money will probably be needed by the end of this fiscal year. So certainly we will start production activity and start some of the subcontract activity later in this fiscal year, like the latter part of this summer, the early part of the fall.

That is just my guesstimate. I would love to get back to you, Senator Hutchison, and give you the specifics. But for my estimation, it would be roughly that time frame. We would actually start producing components and subsystems.

[The information follows:]

PATRIOT ADVANCED CAPABILITY (PAC–3)

To answer more fully your questions concerning executing Low Rate Initial Production (LRIP) and actually producing missiles that we could use, let me quickly review for you the process for entry into LRIP. Proceeding with an LRIP contract requires approval by the Defense Acquisition Board (DAB). This senior level review panel requires that the PAC–3 missile program meet six exit criteria before authorizing the start of LRIP. To date, five of the six exit criteria have been fully satisfied. The only outstanding issue is achieving a successful intercept against a threat representative target. While the successful Seeker Characterization Flight on March 15, 1999 satisfied this intercept requirement, Congressional language requires two successful intercepts prior to obligating procurement funds for missile production. The Department of Defense has therefore decided not to approve entry into LRIP until the program achieves a second intercept. The next flight test of the PAC–3 missile is currently scheduled for September 16, 1999. If this flight test is successful, the DAB process will culminate with an approval in mid-October 1999 to begin LRIP, followed by award of an LRIP contract.

Award of the contract to begin assembly of the first twenty PAC–3 missiles would take place in early November 1999. Long lead components have been procured for these twenty missiles, reducing the production leadtime for this lot to fourteen months. The first missile for this lot would be delivered in 2Q fiscal year 2001. First unit equipped will occur with the delivery of the sixteenth missile in 4Q fiscal year 2001.

FUNDING IMPACT ON PAC–3 PRODUCTION

Senator HUTCHISON. And you are not worried about losing some of your experienced people toward the end of this fiscal year in layoffs or losing them for good. Is that going to hurt you in production?

General LYLES. Senator Hutchison, I am worried about that. And we are trying to work with the contractor, the prime contractor, to see if there is some work arounds. There is some specific areas.

One specific subcontractor, who is obviously in your state, but in a territory of Representative Turner, we are trying to work with the prime contractor to see if there are some ways that they could help protect that workforce until we can proceed and be able to get additional money so we can start producing hardware. And I owe him a call today to talk about that particular initiative. We are concerned. Yes, ma'am.

MEADS PROGRAM RESTRUCTURE

Senator HUTCHISON. Let me ask you, it is my understanding that you are looking at restructuring the medium extended air defense system (MEADS) program and that you may have a mobile follow-on for the PAC–3. And I just wanted to ask you, if you do that, will it help alleviate some of the cost pressures that you are looking at? Or is cost a factor?

General LYLES. Two answers to that, Senator Hutchison. In terms of the MEADS itself, we restructured the MEADS program in part because of the issue of affordability. We have always been concerned within the department that the MEADS program we were originally embarking upon was going to cost more than the original estimates that some of our—that our two allies, Germany and Italy, had estimated for the program.

And we thought there was a better way in allowing us to use the existing PAC–3 as the missile for the MEADS mission. PAC–3 meets most of the requirements, if not 90 percent of the requirements, for what we wanted in a MEADS missile. And we thought it made good sense to do that so we do not have to go through the

expense of developing a whole new missile and keeping the cost down for MEADS.

Again, as a result of affordability, we were only able to put in $150 million over the next three years to support addressing the mobile requirements that we have for maneuver force protection and the kind of requirements that our European partners also have.

Working with that $150 million in a couple key areas and having a PAC–3 missile, we think we have set the stage for having a mobile sort of capability in the future that will be based on the PAC–3 missile.

Having the additional quantities for PAC–3 will automatically give us an opportunity to get the costs down for the PAC–3 system, also. So there is some synergistic benefit there.

DEPLOYMENT OF PAC–3

Senator HUTCHISON. You know, when do you think we can have PAC–3s in real action, if we needed them?

General LYLES. Senator Hutchison, our current——

Senator HUTCHISON. If success occurs in the next couple of weeks on the second test?

General LYLES. Our current plan is to have a fielding date of first unit equip date in 2001. I would like to make that as early in fiscal year 2001 as we possibly can. And obviously we are going to look at opportunities to see if we can make that any earlier. But our advertised date in our schedule is fiscal year 2001, two years from now.

Senator HUTCHISON. Year and a half.

General LYLES. Thank you.

Senator HUTCHISON. Thank you.

Senator STEVENS. Senator Dorgan.

EMERGENCY SUPPLEMENTAL

Senator DORGAN. Mr. Chairman, thank you. General, I have a slightly different take on some of this. I have certainly supported research on these issues and do support research and would support deployment when a system is evidently workable that provides a reasonable defense against a credible threat.

But I worry a bit about throwing money at things as well. And I worry a little about throwing money at this missile defense issue. Last fall, you were provided, DOD was provided, $1 billion in the emergency supplemental, $1 billion. And I think you have not been able to find a place to put that $1 billion for missile defense, have you?

General LYLES. We have. Not——

Senator DORGAN. All of the $1 billion?

General LYLES. Not all of the $1 billion, Senator Dorgan. The bulk of it, some roughly $600 million, initially and plan $230 million. So we are talking roughly $830 million will be applied to the National Missile Defense program. That is part of our strategy for parts of that.

The remaining money, obviously, we are looking at other good initiatives to meet the mandate from Congress that we jump start the programs, reward success, et cetera. And we have a large can-

didate list. I have a large candidate list and will be consulting with the Congress relative to how we spend the other $140 million, $160 million.

EMERGENCY SUPPLEMENTAL IMPACT ON DEPLOYMENT

Senator DORGAN. But that $1 billion will not enhance a deployment date, as I understand your testimony today.

General LYLES. It would enhance it from the standpoint of trying to protect it. And I am not trying to be cute about that answer, Senator Dorgan. As I stated earlier to Senator Hollings, we want to make sure that we have the right kind of testing, that we have the robust testing, to ensure that we have a system that is technically ready to proceed into deployment.

And so we have used that money to enhance primarily all the testing and backup activities we need for developing this system.

NMD SYSTEM TECHNICAL READINESS

Senator DORGAN. No such system now exists, one that is technically ready to proceed, is that correct?

General LYLES. For National Missile Defense, no, sir, not yet.

MISSILE THREAT TO THE UNITED STATES

Senator DORGAN. And let me ask a question about the threat, because we are spending a lot of money building to respond to a threat. If there were not a threat, we would not be trying to build a system to respond.

On an unclassified basis, what is the threat that you are building a system to respond to?

General LYLES. The National Missile Defense program mandate is to make sure we are providing the capability to encounter a threat to the United States from rogue nations, obviously be that North Korean, Iran, Iraq, Libya, nations of that type, from rogue nations, proliferation of missile systems.

We know what the North Koreans did last August, the end of last August, their three-stage—what they were able to fire. That system alone, though it would have a very small payload capability, but that system alone, if it were deployed, or if it is deployed, has some capability of reaching the further western-most parts of Hawaii and parts of Alaska. So we know there is an emerging threat there, and we know that it is growing.

We also—excuse me, sir, if you do not mind. We also, as part of our program have a mandate to protect against an unauthorized or accidental launch from an existing nuclear power.

MORE ADVANCED MISSILE THREATS

Senator DORGAN. Would a system like this, for example, defeat the launch of one aggressively—I do not know whether I should use missile. Use an SS–18 hypothetically, but an intercontinental ballistic missile loaded with ten warheads, would this system defeat that type of missile?

General LYLES. When we get the system deployed and in the inventory, in the field, with sufficient quantities, there should be a capability to address that. And I say that in part—I do not want

to get into any classified activities in this open hearing. Our design-to capability, what we are designing to, are the kinds of threats represented by some of the systems that you mentioned. And again, sir, I cannot get into the specifics here. But I would be very happy to come explain that to you.

DEFENSE AGAINST LIMITED MISSILE ATTACK

Senator DORGAN. I appreciate that. And the reason I ask the question is this: The importance of START II and the reduction of systems by, for example, the Russians, taking down some of their missiles that are the multiple independently targetable reentry vehicle (MIRV'ed) is critically important in the context of the kind of system we are building, because the system we are building—you were describing who and I was really asking what. The who is important as well, but the what I think is the opportunity for a nation to get a hold of one or two ICBMs.

Frankly, it is more likely they would get a hold of a cruise missile, I would think. But let us assume that they would get a hold of an ICBM, they are certainly testing them, and launch that ICBM at this country.

You are building a system that can go up and intercept a few of them. Is that not a good characterization of the system you are building?

General LYLES. That is accurate, yes, sir.

DEFEND AGAINST MORE COMPLEX THREATS

Senator DORGAN. But not a system that could protect this country against a commander in a submarine that has an authorized launch of all of his tubes.

General LYLES. Absolutely not, Senator Dorgan. That is not our specific requirement for this limited—and I probably should have used that adjective in front of it. This is a limited NMD system that we are developing.

NMD AND ARMS CONTROL INTERESTS

Senator DORGAN. And perhaps not a system that would defeat one aggressively MIRV'ed missile by a determined adversary, at least as I understand the system. And that brings me to the point that what we do here in creating a defensive system should not in any way be allowed to jeopardize our arms control agreements because part of protecting this country is also to bring down the number of MIRV missiles in arsenals around the world, particularly, of course, in the Russian arsenal.

So I want to make the point that I fully support work on these issues. Today we have news reports of another test of another ICBM. I note the test of Korea, the tests of Iran. I understand the potential threat.

The threat clock goes from a suitcase bomb at a dock in New York in the trunk of a rusty car to a deadly vial of biologic agents someplace to a dozen things that potential terrorist countries would want to do, including at the end scale of this threat achieve some sort of ICBM, tip it with a nuclear weapon, and launch it at this country.

I support the research necessary to try to find a way to defeat that. At the same time, it is critically important for us to support, as aggressively as is possible, the opportunity to bring down the threat by destroying potential adversaries' weapons before they are ever launched through arms control reductions. And the destruction of delivery systems and warheads has been enormously impressive, as we have gone along.

General LYLES. Yes, sir.

THREAT REDUCTION VIA START PROCESS

Senator DORGAN. I do not want what you do or what DOD does or what Congress demands you do to in any way threaten or thwart the opportunity for arms reductions from the arms control side.

General LYLES. Understand, Senator.

TECHNICAL CHALLENGE OF BMD

Senator DORGAN. But having said all that, now let me just turn back to say I think that the work you are doing is challenging and interesting. I know that you have experienced failures.

But I cannot think of anyone that is doing the kind of technological efforts you are doing, trying to hit a bullet with a bullet, that would not encounter failures.

My expectation is the testing of our advanced jet fighters and other things, early on you did have the same kind of record of failure. You are building towards success.

General LYLES. Exactly. Yes, sir.

Senator DORGAN. Let me thank you for your work and say that I continue to support your research. I do not want us, however, just to throw money at this whole system just to believe that somehow some of it will stick and will be helpful.

General LYLES. Understand.

Senator DORGAN. Do this in a thoughtful way to respond to a real threat.

General LYLES. Thank you, Senator.

Senator DORGAN. General, thank you.

General LYLES. Thank you, sir.

Senator STEVENS. Senator Shelby.

PREPARED STATEMENT OF SENATOR SHELBY

Senator SHELBY. Mr. Chairman, I ask that my opening statement be made part of the record in this fashion.

Senator STEVENS. Without objection.

[The statement follows:]

PREPARED STATEMENT OF SENATOR RICHARD C. SHELBY

Good morning General Lyles and thank you for appearing here today. I would like to take a moment to congratulate you on your selection as the new Vice Chief of Staff of the Air Force. I know that I and my colleagues wish you the best in your new position. As that Air Force recruiting ad says, "Aim High!" Well General, you certainly have "Aimed High," and I know that this Committee will continue to support you and our personnel who wear the uniform of the United States Air Force. Good luck to you General.

Today we are here to discuss an issue that is not only important to me, it is important to the members of this body and to the American people. It is no secret that

I have adamantly supported the efforts of this nation to expediently deploy and operate ballistic missile defense systems. We must continue these efforts. The threat from rouge nations and others is real and growing. Our efforts have met with successes and yes, some setbacks. However, we must keep test failures in perspective. The heritage of this nation is rich with high technology programs which overcame test failures. These programs went on to become the backbone of America's defense and space arsenals.

Additionally, our efforts must include investment in advanced support technology. This is technology that will ensure that a deployed ballistic missile defensive system remains effective against future unknown threats.

General Lyles, I have a few questions regarding these issues and I look forward to hearing your responses. Again, welcome sir.

Senator SHELBY. General Lyles, I want to congratulate you on your selection to be the vice chief of staff.

General LYLES. Thank you, Senator Shelby.

Senator SHELBY. That is a signal accomplishment, one you have earned and one I have total confidence that you will excel in.

General LYLES. Thank you, sir.

BMD TECHNOLOGY BASE

Senator SHELBY. Having said that, I am concerned to some extent about the technological development of ballistic missile defense in the budget. We know that you are moving toward success, or at least we have reason to believe that you are moving toward success I think as THAAD is concerned.

General LYLES. Yes, sir.

NEED FOR ROBUST TECHNOLOGY PROGRAM

Senator SHELBY. I believe that you will work out the problems. You have testified here before that it is good architecture, and you start with architecture. But we have to consider the future, too. Senator Dorgan mentioned that, I think, or at least alluded to it.

Do you share my concern that in our zeal—and we are all a little zealous here, for good reason, for protection—to get missile defense systems into the field that we may have in some ways short-changed the advancing technology side of the ballistic missile defense budget? In other words, that we may have begun, not totally, but begun to eat our technological seed corn? You know, you do not eat the crop of tomorrow. You save some of it.

General LYLES. Yes, sir.

IMPORTANCE OF BMD TECHNOLOGY

Senator SHELBY. And we may be, may be, short-changing the advanced technology side of the ballistic missile budget. In other words, what percent, General—well, do you agree? Do you have some concerns there?

General LYLES. Oh, I do absolutely, Senator Shelby. We really have sort of three missions within my organizations, I tell people. Obviously theater missile defense to get those systems out quickly, National Missile Defense to protect the nation, but also make sure we still have a robust technology program.

Senator STEVENS. Senator, would you yield just a second? I have to go immediately to the Library of Congress. I do want to congratulate you again. And I leave my trusty vice-chairman in charge.

General LYLES. Thank you, Senator Stevens. Thanks for your support, sir.

Senator SHELBY. Go ahead, Senator Lyles—General Lyles, I mean. You might be one day. Who knows?

General LYLES. That is a promotion. Thank you, sir. [Laughter.]

I am very concerned about technology because in some respects everything that we are doing today, everything we are planning to do today and all of our programs are based on the technologies that were started 10 to 15 years ago. Someone made a question earlier about legacy for my successor. One of my strongest concerns is that a legacy for future directors of the Ballistic Missile Defense Organization (BMDO) or whatever it might be here 10 to 15 years from now may not be as good, if we do not have the technology on the shelf. So I am very concerned about that.

You started to ask the question, Senator Shelby, about percentage.

PERCENT OF BMD BUDGET ALLOCATED TO TECHNOLOGY

Senator SHELBY. What percent of the total ballistic missile defense program budget in the best cases should be allocated for advanced technology in order to stop the erosion, the future, of our technological base and returning it to a sufficient level in five years? You just cannot do it all at once.

General LYLES. No, sir.

Senator SHELBY. You have to do it on an upward curve, do you not?

General LYLES. That is correct. Roughly about—we are—about six percent today of our total budget goes towards technology, research and development and technology. That happens to be equal to, maybe just a little bit better, than the department average. So I may get challenged in terms of what I am about to mention to you.

I have a strict goal within the organization that I would like to get that number back up to ten percent of our total dollars, just to make sure we do have robust technologies and development.

Senator SHELBY. How much money would that be?

General LYLES. We are roughly about $300 million today.

Senator SHELBY. That doubles it, does it not?

General LYLES. And I would like to, if not double it, certainly get it up significantly higher.

FUNDING INCREASE FOR TECHNOLOGY

Senator SHELBY. $50 million, $60 million, $70 million, $100 million a year would help, would it not?

General LYLES. It certainly could, yes, sir.

Senator SHELBY. And could be a tremendous difference in the future, because I know from your background, you believe investing in technological future is a lot of what it is all about, do you not?

General LYLES. That is correct. We have made some improvements and increases. The joint effort that we are doing with the Air Force in putting more money into a space-based laser program, that is certainly technology for the future. But there are some other technology efforts that also need additional robust funding. So that is an area that we are concerned about.

Senator SHELBY. That is an area that I want to work with you on or your successor.

General LYLES. Yes, sir. Thanks, Senator Shelby.

Senator SHELBY. Thank you. General Lyles, again, congratulations.

General LYLES. Thank you, sir. And thank you for your support.

Senator SHELBY. Mr. Chairman, that is all I have.

ISRAELI ARROW SYSTEM

Senator INOUYE [presiding]. Thank you very much.

General, I have a couple more questions, if I may. Last year Secretary Cohen visited Israel and expressed support for the Arrow third battery. In the fiscal year 1998 emergency supplemental, we provided $45 million to start this program.

I note that there is no additional funding for this program. Can you give us any reason why?

General LYLES. Senator Inouye, we certainly support the cooperative efforts that we have with Israel. As you know, Arrow is a co-development effort that we have with them. And we have identified the need for roughly about $40 million, $42 million, up to $45 million a year over the next three or four years in order to support helping them to procure a third battery of Arrow systems.

We support the need, because of the threats, environments, that they are facing. But we are literally having to depend on additional support from the Congress every year to help us to do that. We did get, as you mentioned, $45 million last year. We were looking to see if there was additional support we could get, both in 1999 for perhaps through the emergency $1 billion supplemental part of that, and then in the subsequent years to help us to support them with the need to procure this third battery.

ARROW PROGRAM FUNDING

Senator INOUYE. But you are not requesting any funds.

General LYLES. We had not requested funds certainly in 1999 or 2000 because of the dependence, if you will, in trying to get support from the Congress.

I can tell you, Senator Inouye, that is something we are re-looking at in terms of our future budgets, to see whether or not we should have a larger amount of dollars associated with our international support, particularly with Israel. But to date, we do not have anything in our current request.

Senator INOUYE. In other words, if Congress should initiate funding, you would not oppose it.

General LYLES. Absolutely not.

NMD PROGRAM POLICY

Senator INOUYE. And, my final question is on the National Missile Defense policy. As you are well aware, Senator Cochran and I cosponsored a measure, and the administration was initially not too happy with it. But, it announced a National Missile Defense policy and suggested a $6.6 billion appropriations increase.

When we debated the matter before the Senate, two amendments were presented. And all of us accepted it. Does it mean that you support this now?

General LYLES. Me personally? Obviously we support the National Missile Defense program and the initiatives we all have, Senator.

NATIONAL MISSILE DEFENSE ACT OF 1999

Senator INOUYE. The Cochran bill.

General LYLES. I think the Cochran bill will help send a signal relative to particularly—if I can use an example, Senator Inouye, the contractor team, the president of the contractor team, Dr. John Peller, testified before Senator Smith's committee that this will help send a signal to particularly the contractor community that the nation is indeed serious about missile defense.

Relative to us within my organization, I can tell you we have always been serious about it and assume that we were going to eventually deploy a system. So we have been working diligently in making sure that we are doing everything to support that.

So obviously there is some concerns about the two other elements about deploying a system, treaty implications, which is what Senator Dorgan talked about, and whether or not it is affordable. My mandate in my organization is to make sure we could provide back to the decision makers a system that is affordable and a system that works. And then the other issues will have to be dealt with by the decision makers who are going to make the final deployment decision.

ADDITIONAL COMMITTEE QUESTIONS

Senator INOUYE. I thank you very much, General, and we are most grateful for your very candid and very impressive testimony today. I hope that your organization will be able to provide reports of more successful flight tests as the year proceeds.

And also, and I speak for the chairman and for all of us here, prior to the committee's markup, I hope we can get your final views about any budget adjustments you determine are necessary in order to pursue success during fiscal year 2000.

General LYLES. Absolutely, Senator.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

NATIONAL MISSILE DEFENSE

Question. I have been very concerned about the high risk and uncertain cost of developing a sea-based National Missile Defense. Secretary Danzig seemed to agree, suggesting it was premature to look at sea-based NMD until the Navy Area and Theater Wide programs have demonstrated results. Would you agree with these perspectives?

Answer. I agree with Secretary Danzig that it is premature at this time to make any final decisions regarding sea-based NMD until significant success is achieved in the Navy Theater Wide (NTW) test program. Currently, the NTW Block I system (a configuration less capable than the one analyzed in the June 1998 report to Congress, "Utility of Sea-based Assets to NMD") has been assessed as a high technical risk program (although the Navy has laid out a sound risk mitigation/management plan for the program).

The configuration of NTW that was used in the analysis done for the June 1998 report to Congress used an NTW Block II interceptor which will have significantly greater speed, target discrimination and divert capabilities than the NTW Block I system. The NTW Block II system development is partially funded within the approved NTW Block I program. However, some critical NTW Block II development efforts are not currently funded and significant development work remains before the system can be tested in a theater ballistic missile defense (TBMD) mode, much less in the more stressing NMD mode where the targets are faster and harder to detect and discriminate.

In addition to the interceptor upgrades, conducting sea-based NMD requires at a minimum, integration with a set of external sensors similar to those being developed for the current NMD program (the SPY–1 radar has insufficient capability to track ICBM reentry vehicles from several likely threat nations). The NTW Block I and Block II systems are urgently needed to meet TBMD requirements, and we have a separate program funded to do the NMD mission. Therefore, the most pragmatic course of action would be to maintain the NTW program as a TBMD system while continuing the currently planned land-based NMD system and continue to entertain the potential of a future sea-based capability.

Question. Do you have estimates of the cost to develop, procure, operate and maintain a sea-based NMD system?

Answer. Rough order of magnitude cost estimates were done for various sea-based NMD alternatives that were analyzed for the June 1998 report to Congress "Utility of Sea-Based Assets to NMD". These sea-based alternatives ranged from stand-alone sea-based NMD with greatly enhanced interceptors to modifying the NTW Block II system to serve as an adjunct to the current land-based NMD system with a single interceptor launch site. All of the stand-alone sea-based NMD options (3 interceptor alternatives were studied) would cost between $16 billion and $19 billion (in fiscal year 1997 dollars) to develop and procure. Operating costs for a sea-based NMD system were not estimated. The cost drivers for any stand-alone sea-based NMD system would be the external sensors (similar to the sensors required by the land-based NMD system; specifically, nine x-band radars, six upgraded early warning radars, an L-band radar in South Korea, SBIRS High, and SBIRS Low) and the potential need for additional ships (required due to the full time nature of NMD in operating areas not typical of current Navy operating areas). These NMD ships could retain their multi-mission capability. Operational schedules and homeports would need to be reviewed to ensure the Naval NMD operational areas are patrolled. For the stand-alone sea-based NMD alternatives, fewer ships would be required as interceptor speed is increased. However, increased interceptor speed and improved kill vehicles requires greater development investment and greater per unit procurement costs. The net result is a similar rough order of magnitude cost estimate for any stand-alone sea-based NMD system.

The rough order of magnitude cost estimate of modifying the NTW Block II system to serve as an adjunct to the current NMD system was $1.3 billion (fiscal year 1997 dollars). The adjunct rough cost estimate includes the procurement of an additional 200 interceptors (400 NTW Block II interceptors currently required for theater ballistic missile defense plus 200 Block II interceptors for the NMD adjunct mission), and development and procurement of a BM/C^3 interface between the NMD BM/C^3 system and the AEGIS Weapon System to enable the land-based NMD sensor system to guide the sea-based interceptor to its target (the AEGIS SPY–1 radar has insufficient capability to track ICBM reentry vehicles from several likely threat launch locations). The $1.3 billion rough order of magnitude cost estimate does not include any of the NTW Block II development and procurement costs, nor any costs for the NMD external sensors (which were booked against the primary land-based NMD system in this case). Therefore, the $1.3 billion rough order of magnitude estimate represents a delta cost above and beyond all the costs associated with developing and procuring the NTW Block II system and the currently planned land-based NMD system.

Question. Would you agree that the cost to operate and maintain a sea-based NMD system would be substantially higher than the cost of a land-based NMD system?

Answer. The operating and maintenance (O&M) costs for a stand-alone sea-based NMD system would be expected to cost more than a land-based NMD system especially if additional ships were required for this mission and total ship costs were factored in. For slower sea-based interceptors, additional ships may be required which would contribute to increased O&M costs. Detailed O&M cost estimates have not been done for sea-based NMD. In our June 1998 report to Congress, the limited scope of the report forced us to use AEGIS ships as the operating platform. A more detailed study could surface other ship platform alternatives with lower acquisition

and operating costs. These operational costs may be contained within the current Navy operational budget if additional ships or at-sea time are not required to perform this mission. However, I would expect a fixed land site would generally have lower O&M costs than a stand-alone ship dedicated to this single mission.

Question. Can you provide us with an update on the pace and progress of NMD development?

Answer. The NMD Development Program is on track to conduct a Deployment Readiness Review (DRR) in 2000 and be able to meet a 2005 deployment if directed. The schedule compresses the typical 20-year development and deployment cycle into just over eight years.

In April 1997, BMDO established the NMD JPO and a year later awarded the Boeing North American the Lead System Integrator (LSI) contract to assume responsibility for the overall system development, integration and fielding. The LSI has established letter or definitized contracts with major subcontractors for the Exoatmospheric Kill Vehicle (Raytheon); commercial-off-the-shelf (COTS) Boosters (Alliant, et al); the X-Band Radar (Raytheon); Upgraded Early Warning Radar (Raytheon); and Battle Management, Command, Control and Communications (TRW). Previous Government contracts with Raytheon and Boeing for the EKV have been terminated and transitioned to Boeing responsibility. The previous Government contract with Lockheed Martin Missiles and Space Company for Payload Launch Vehicle (predecessor to the COTS Booster) will be transitioned to Boeing responsibility in the near future. The Government contract with Raytheon for the Ground Based Radar Prototype (GBR–P), the predecessor to the X-Band Radar, will continue to completion under Government management.

During the past year the program has been significantly restructured from a "3+3" acquisition strategy to a fully funded program focused on a deployment in fiscal year 2005. The Defense Acquisition Executive reviewed and approved the restructure. Specific program status follows:

—*Design Development*.—The booster and kill vehicle have been selected and the kill vehicle hover tested. Weapon System Requirement Documents have been updated. The System Functional Review and element Preliminary Design Reviews for the Weapon, XBR, BMC^3 and UEWR have been completed. The System Preliminary Design Review is underway.

—*Testing & Evaluation*.—The program has conducted two successful kill vehicle sensor discrimination tests. The first intercept test is scheduled for Fall 1999. The program has completed three integrated ground tests and five risk reduction flights. Prototype Ground Based Rad ars and Upgraded Early Warning Radars have successfully participated in Risk Reduction Flights. Development of comprehensive system models and simulations has begun.

—*Deployment*.—The program office has conducted site visits to Alaska and North Dakota, developed preliminary site designs and initiated the Environmental Impact Statement analysis. The JPO has formalized a partnering relationship with the U.S. Army Corps of Engineers to accomplish site construction activities.

Question. Is there a potential to accelerate the deployment date for an NMD system so that we achieve an initial capability earlier than 2005?

Answer. The NMD Program could conceivably accelerate deployment of a limited system under three circumstances: if the test program performs flawlessly, the threat warrants an accelerated deployment, and we are willing to accept the resulting very high risk program.

However, it must be noted that the 2005 deployment schedule was selected because it reduces both schedule and technical risk. The 2005 schedule enables the program manager to conduct seven more flight tests of the weapon prior to making a production decision. These tests are particularly critical because they include the first test of the Kill Vehicle with the deployable booster, six confidence-building tests, and a test of the production representative weapon. This additional testing of the system in general and the weapon, in particular, will significantly reduce technical risk and increase confidence.

Returning to an accelerated deployment timeline would return the system to an extremely high risk program. As such, any decision to implement an early deployment option should only be made in an emergency situation where the U.S. is facing an obvious and direct threat that warranted such a programmatic acceleration.

Question. Is the NMD Joint Program Office adequately manned to manage the aggressive schedule laid out for the NMD program?

Answer. Public Law 105–18 Section 305 limits the National Missile Defense (NMD) Joint Program Office (JPO) to 55 government (military and civilian) personnel located in the National Capital Region. The NMD JPO has faithfully operated under this provision for the past three years and has been able to execute the program to date. However, the program recently has undergone a significant re-

structuring, increasing its scope and funding. The NMD program is within 14 months of its Deployment Readiness Review (DRR), which will be a major milestone for the NMD program.

To meet DRR and continue system development in preparation for successive major milestones including a production decision, the NMD JPO in the National Capital Region will need the flexibility to add manpower. Increases are also anticipated at our sites in Huntsville, AL and Colorado Springs, CO. In July 1999, the U.S. Army Manpower Analysis Agency completed a review of the NMD Program and validated the need for these personnel increases.

Question. If $15 million of NMD planning and design funds are not provided in fiscal year 2000, what will be the impact to the development and fielding of the NMD system?

Answer. As BMDO formulated its fiscal year 2000 Budget Request, we had always intended to do facility planning and design with RDT&E funding for the NMD Program. The $15.7 million for planning and design was included as part of the NMD RDT&E funding line. It was recently brought to our attention that we must use MILCON funding for this planning and design effort. Therefore, we propose to move $15.7 million from the RDT&E account to the MILCON account. Consequently, moving the $15.7 million will not impact the RDT&E line. However, if this funding is not transferred to the MILCON account, then the necessary planning and design work on the ground based radar and the weapon field site will not be complete in time for the summer 1900 Deployment Readiness Review (DRR). A critical element of the NMD Program is the completion of 100 percent site designs for both North Dakota and central Alaska in preparation for the DRR. If fiscal year 2000 funds are not moved from RDT&E to MILCON essential MILCON project designs will be delayed until fiscal year 2001. This will impact needed information for the DRR (as this work has to be completed before construction begins) and could result in the loss of a construction season and system deployment opportunities which would considerably increase program risk. This delay in MILCON project design could delay a decision on the deployment of the NMD system.

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

NAVAL MISSILE DEFENSE

Question. Between the Navy Area program for lower-tier defense and Navy Theater Wide for upper-tier, it seems we are asking a lot of the Aegis weapon system and our Aegis-equipped fleet of cruisers and destroyers. Some are also suggesting that we should pursue sea-based national missile defense. Navy Secretary Danzig recently cautioned against trying to do too much at once with naval missile defense.

In light of the development problems we've encountered with various programs, is it your sense that the Navy should first get its lower- and upper-tier programs on track before turning its attention to NMD?

Answer. Yes. The AEGIS Weapon System has encountered significant development and integration issues, which will delay fielding of the Navy Area TBMD system until fiscal year 2003. The Navy Theater Wide (NTW) Block I program is currently assessed as a high technical risk program until the flight tests scheduled for 4Q fiscal year 2000 successfully demonstrate the capability to hit the target.

I believe that the sound risk mitigation plans developed for both Navy Area and NTW programs need to be executed. As risk is retired in these programs and we have demonstrated successes, we can begin to plan for the next step. It should be noted that the ABM treaty would have to be amended to accommodate a sea-based NMD option.

Question. If BMDO and the Navy were to focus their attention and resources now on sea-based NMD, do you believe a sea-based NMD could be fielded before a ground-based system?

Answer. No. In the 12 June 1998 report to Congress, "Navy Theater Wide TBMD Program Acceleration", the department's position was that acceleration of the NTW Block I program to a fielding date earlier than fiscal year 2005 would not be prudent from a technical risk standpoint.

Given a deployment decision by fiscal year 2000 the NMD program could begin fielding an NMD capability by fiscal year 2005.

It should be noted that the ABM Treaty would have to be amended to accommodate a sea-based NMD option.

Question. You have testified previously, as have Army and Navy officials, that THAAD and Navy Theater Wide are complementary systems. Is this still your view?

Answer. Yes, THAAD and NTW are considered complementary parts of a coherent TMD architecture. We have created common upper-tier program element beginning in fiscal year 2002 to pool funding to support acceleration of one of the two systems. The fundamental strategy revolves around a leader-follower relationship based on program success. Through the upper-tier acquisition strategy, we have sought to posture one of the two programs to field a capability as early as possible. Unfortunately, THAAD, our most mature upper-tier system, has yet to demonstrate success in flight testing, and thus the capability it is designed to provide continues to slip to the right. Conversely, Navy Theater Wide is still early in its development, and will not conduct its first intercept attempt until 4Q fiscal year 2000.

We are operating in a constrained fiscal environment, and we do not have sufficient funds in the theater ballistic missile defense mission area to concurrently fund and execute two upper-tier programs. The benefit to this approach is that it should provide the warfighter with an earlier upper-tier capability than would otherwise be possible given the funding available. Further, and I believe that this is important, the strategy should be an incentive for both programs and their contractors to strive for optimum programmatic performance. Our decision on the lead program will be made not just on flight test results, but also on factors such as cost, schedule performance, and risk.

It is my fervent hope that the Department is presented with the dilemma of having both upper-tier programs successful as we approach the lead select decision in fiscal year 2001.

AIRBORNE LASER (ABL)

Question. Is ABL our only BMD program that is meeting its schedule and cost plans?

Answer. The ABL program was restructured during fiscal year 1999 to accommodate additional risk reduction efforts and increased test activities to ensure the system's success. The ABL program continues to meet both its cost and schedule since the restructure.

It is true that all BMD programs have suffered some setbacks in the form of schedule difficulties and cost growths. All programs are still in the research, development and testing phases of system acquisition wherein problems are expected, especially given the unique and technically challenging nature of the BMD mission.

Several shortfalls in estimating the technical challenges of our BMD systems have been brought to light during the past year. The 1998 Welch Report on reducing risk in BMD programs identified the need for more rigorous and disciplined flight testing for BMD programs. These findings/recommendations resulted in BMD program adjustments that, while imposing schedule delays, greatly help to ensure an acceptable level of risk and system development/testing in the BMD programs and obviate a "rush to failure". Secondly, the submission by the NMD LSI of more detailed development requirements (testing, development, and construction) contributed to a move in the system's IOC from fiscal year 2003 to fiscal year 2005.

Question. Do you believe there is technological synergy between ABL and the Space-Based Laser?

Answer. Yes, the ABL program will provide important technological insights for SBL—it will continue to mature enabling technologies for SBL. Some examples include:

—Flight-weighting a weapons class, multi-megawatt laser
—Detection, acquisition, tracking, and kill techniques for high-velocity ballistic missiles at hundreds of kilometers using a Directed Energy (DE) weapon
—Development of lightweight, miniaturized beam control system, including large uncooled optics capable of handling multi-megawatt laser power
—Integration of complex laser and beam control systems
  —Compensation for imperfections in optics train (i.e., alignment)
  —Jitter reduction (vibration dampening) associated with moving platform
  —Multi-megawatt laser steering and firing control
—Improve reliability of DE weapon components

Historically, all the capabilities that have been moved into space (i.e., communications and surveillance) have first been demonstrated on airborne platforms. ABL will not only reduce technical risk for the SBL program from a technical perspective, it will also help the Department learn how to operate and employ DE weapons.

Question. Despite criticisms from various quarters, do you believe ABL is well-structured and has the potential to be a viable part of our BMD architecture?

Answer. Yes. The fiscal year 1999 program restructure added early risk reduction activities and greatly increased the amount of testing, especially flight testing.

ABL will make vital contributions to the BMDO "family of systems" (FoS). ABL is the only boost phase intercept system. Destroying enemy missiles in the boost phase is extremely important for several reasons:

—Deterrence: it presents an enemy with the possibility that missile debris, including the warhead, may fall back on their territory—in this way, ABL serves as a viable deterrent to use of weapons of mass destruction;

—Enhances FoS effectiveness: it reduces the number of missiles that the midcourse and terminal defense systems must engage, allowing these systems to focus on fewer targets and easing interceptor inventory requirements;

—Defeats terminal system countermeasures: it kills missiles with advanced submunitions, as it is a very significant challenge for hit-to-kill defense systems.

In addition to its role as a boost-phase "shooter," ABL will also possess significant sensing capabilities that will improve the performance of other FoS elements. ABL will provide quick and accurate missile launch point estimates which will cue attack operations assets. It will also pass trajectory data and impact point predictions on "leakers" to midcourse and terminal systems which will allow the terminal systems to narrow their sensor search patterns and extend their ranges. This will provide accurate and timely impact point predictions to enhance passive defenses in the target areas.

MEDIUM EXTENDED AIR DEFENSE PROGRAM (MEADS)

Question. You noted in your testimony that the approach to the MEADS program has been changed to try to leverage other missile defense development programs, such as PAC–3. Are you confident that this approach can produce a system that will meet the requirement to provide protection to maneuver forces in the field?

Answer. The original full Medium Extended Air Defense System (MEADS) program was very ambitious and expensive given available funding for Ballistic Missile Defense programs. Now the Department has identified a lower cost MEADS approach relying on the PATRIOT Advanced Capability-3 (PAC–3) interceptor. The three-year MEADS risk reduction effort will develop prototype hardware with the purpose of reducing the cost and technical risk for the full MEADS development. Prototype hardware will range in maturity from the use of surrogates to digital simulations to fully functional end items. The Department's priorities are to prototype a mobile 360-degree fire control radar, lightweight mobile launcher, and BMC^{4}I. The specific priority of elements to be prototyped within this effort is currently under discussion with our allies. While this strategy does not yield a MEADS prototype system ready for operational use that fully satisfies the MEADS requirements, it will allow us to identify and mitigate the risks of entering the full development of a system that will satisfy the MEADS requirements.

While, the strategy of incorporating a PAC–3 missile may limit the system's ability to prosecute some of the more stressing threats in the MEADS requirement, a recent examination of updated threat information shows that the MEADS architecture with the PAC–3 interceptor satisfies the majority of the near term threat requirements. Incorporating the PAC–3 interceptor into the restructured MEADS system should provide a system that satisfies the majority of the MEADS requirements providing a highly mobile tactically deployable system for protecting the maneuver force. I am therefore confident that this strategy can produce a system that will meet the requirement to provide protection to the maneuver forces in the field.

Question. What is the view of our allies in this project?

Answer. The original full Medium Extended Air Defense System (MEADS) program was very ambitious and expensive given available funding for Ballistic Missile Defense programs. Now the Department has identified a lower cost MEADS approach relying on the PATRIOT Advanced Capability-3 (PAC–3) interceptor. We have discussed this idea with our German and Italian allies and they have agreed to pursue a lower cost PAC–3 based system. On March 10, 1999, the U.S. Secretary of Defense signed a letter to his German and Italian counterparts proposing a restructured MEADS program beginning in fiscal year 2000 and expressing our intent to develop a MEADS capability. It also offered that we would sign an updated Statement of Intent (SOI) reflecting the revised program. Both German MOD Scharping and Italian MOD Scognamiglio have responded to the Secretary endorsing the U.S. proposal, expressing a willingness to participate in this restructured MEADS program. The MEADS Joint Steering Committee continues planning for this three-year effort which includes updating the SOI.

QUESTION SUBMITTED BY SENATOR JUDD GREGG

HIGH POWER DISCRIMINATOR PROGRAM

Question. I understand that one of the consistent bright spots in the Theater High Altitude Area Defense program has been the performance of the Ground Based Radar. The Navy is apparently capitalizing on this success and has recently awarded a contract to develop a High Power Discriminator radar prototype that uses much of the same technology that has already been developed, for ship board use. Would you give me your view on this effort?

Answer. The Navy is currently embarked on a radar roadmap study that will guide the sensor development for all Navy ships in the future. As part of that study the Navy has recently awarded two contracts for radar demonstrations/prototypes. The High Power Discriminator (Raytheon) prototype you mentioned and a solid state upgrade to the SPY radar (Lockheed Martin) are two alternatives the Navy is assessing to support the NTW program.

BMDO continues to support the leveraging of any technologies into and out of our programs that reduce program cost, risk and schedule.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

THEATER HIGH ALTITUDE AREA DEFENSE (THAAD)

Question. General, the recent flight test of the THAAD system narrowly missed its target. As I understand from your written statement, there were a number of positives which came out of this test. As the test program continues, how much confidence do you have that the THAAD program is on the right track and ultimately will be fielded?

Answer. Based on measures implemented by Lockheed Martin Missiles & Space Company (LMMS), following the FT–08 failure and even though FT–09 did narrowly miss intercepting its target, I am increasingly confident in the reliability of the THAAD missile and the probability of a successful intercept on subsequent flight tests. [Note: Corrective action was taken on the FT–10 vehicle to preclude a repeat of the FT–09 failure mode. FT–10 was conducted on June 10, 1999, and a successful body-to-body intercept of the target in the high-endoatmosphere was achieved. All system segments performed as planned and no major anomalies were experienced.]

LMMS has implemented recommendations from an internal senior review team, the government Project Office, and assorted independent review teams to improve system reliability and reduce flight test risk. This includes a detailed design review of the entire missile, increased ground testing in all phases of pre-flight readiness checks (at vendor facilities, Courtland missile assembly plant, and at the flight test range, White Sands Missile Range (WSMR)) and a complete reassessment of the acceptance test procedures and the environmental stress screening of the missile components. As a result, the ground test shock and vibration testing for several components was increased to more thoroughly test the packages and increase confidence going into the mission.

More broadly, as problems are discovered they are being corrected across entire lots of hardware. The planning and implementation of this new testing and the detailed pedigree reviews of missile sub-components has taken considerable time, but this is consistent with the event-driven nature of the test program. This disciplined approach is identifying discrepancies which may have gone undetected and which potentially could contribute to future flight test failure.

Other specific measures implemented are: institution of a Foreign Object Debris (FOD) Elimination Program (FOD was responsible for failure on FT–06 and FT–08 as well); expansion of the scope of the Detailed Test Readiness Investigations (DTRI) of key segments; increased attention to root cause analysis/corrective actions; and increased attention to subcontract management. This work has resulted in concrete measures that increase confidence in the missile's reliability. For example, LMMS replaced a contaminated operational amplifier in the inertial measurement unit, will transport the missile via air (vice truck) from Courtland to WSMR in order to reduce its exposure to high vibration levels, and switched-out the booster due to behavior of the thrust vector control system performance less than its sibling units, even though it was within specifications.

In summary, I support the measures being implemented by our Government-Contractor team; our success on FT–10 in June demonstrates clearly, I believe, that we are indeed on the right track. Support for THAAD within the Department of Defense and in Congress remains strong and I am confident that we will successfully

field the system to provide our soldiers, sailors, and airmen with the protection they need.

BALLISTIC MISSILE DEFENSE ORGANIZATION CHALLENGES

Question. General thank you again for your fine service to the Ballistic Missile Defense Organization. You've been there for the better part of three years. As you look back on your tenure, what do you feel has been your greatest challenge at BMDO? What recommendations will you make to General Kadish as he takes over?

Answer. When I look back, I see three major challenges. Program execution—fielding a missile defense program—is the premier challenge. Key elements to execution are instituting realistic cost controls and devising contract strategies that will incentivize improved contractor performance and accountability. We must also design affordable architectures for the future; missile defense architectures that are not affordable will not succeed in Congress or the Department. Even the perfect architecture is useless if it's not affordable. And then there is the perennial technology funding shortage. Technology funding often is curtailed in favor of more immediate issues even though technology provides the building blocks we must have in order to construct affordable architectures. Earlier this year, Dr. John Peller testified before the Senate Armed Services Committee that the robust support of technology by SDIO and BMDO in previous years had provided him the legacy of a solid foundation for a National Missile Defense program.

My first recommendation to General Kadish would be to use his many years of acquisition experience and manage BMD programs just like any other major acquisition programs. Viewing BMD as special has nurtured a government and contractor culture/attitude that has been the underpinning for today's problems. I would also urge bringing in fresh, smart, acquisition people. Along with building on experience, I would encourage General Kadish not to overlook the future but to seek innovative technology solutions for BMD questions. And finally, I cannot over emphasize frequent and open communication with everyone—especially the Congress.

PATRIOT ADVANCED CAPABILITY (PAC–3)

Question. General, I was pleased to see that PAC–3 scored a hit last month. I am hopeful that a second hit is in order later this spring. I realize that you touched on the PAC–3 funding issue in your statement, but I would like to give you an opportunity to further review the issue for the Committee. General, assuming that PAC–3 does achieve a second hit, what additional funding will be required to move the program into the production phase?

Answer. Patriot previously requested emergency supplemental funding to address cost growth in the missile development program that resulted from the delay in the start of flight testing. This emergency supplemental funding request was denied, consequently, the Department has requested additional RDT&E funding of $152 million in fiscal year 2000. An additional $60 million of procurement funding is requested for fiscal year 2000 to replace the $60 million which was transferred from fiscal year 1999 procurement to cover cost growth in the fiscal year 1999 missile development effort. This procurement funding is critical to the low rate initial production of the PAC–3 missile that will start in fiscal year 2000. The $60 million will restore initial production facilitation tooling, 11 launcher modification kits, and 7 fire solution computers lost as a result of the fiscal year 1999 reprogramming action.

MEDIUM EXTENDED AIR DEFENSE SYSTEM (MEADS)

Question. General Lyles, the Pentagon has requested $48.6 million this year for the MEADS program, yet it is my understanding that no funds have been identified beyond fiscal year 2002. What is your view regarding the future of MEADS?

Answer. The Department is committed to working with our German and Italian allies to develop and deploy a MEADS system. In a letter to his German and Italian counterparts, Secretary Cohen stated that the U.S. is committed to developing a MEADS capability. On May 7, 1999, Deputy Secretary Hamre sent a letter to the four Congressional Defense Committees stating that the Department "will program a MEADS development that goes beyond the 3-year technology program with a goal of fielding a MEADS system as a long-term replacement for PATRIOT." To that end, the Department is in the process of developing its long-term program and is evaluating options for continuing the MEADS program beyond fiscal year 2002.

We are currently working with our allies on a revised Statement of Intent that defines the way ahead for the development, production, and deployment of this system.

SUBCOMMITTEE RECESS

Senator INOUYE. And so the subcommittee will reconvene on Wednesday, April 21, in this room to receive testimony on fiscal year 2000 budget request for the defense health program.

We will stand in recess.

[Whereupon, at 12:06 p.m., Wednesday, April 14, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, April 21.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2000

WEDNESDAY, APRIL 21, 1999

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:05 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Shelby, Hutchison, Inouye, and Leahy.

DEPARTMENT OF DEFENSE

SURGEON GENERALS

STATEMENT OF DR. SUE BAILEY, ASSISTANT SECRETARY OF DEFENSE FOR HEALTH AFFAIRS

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. I apologize, Dr. Bailey and Admiral Nelson, General Blanck and General Roadman. I want to welcome you to your first appearance here today, Dr. Bailey and Admiral Nelson. We are glad to have you with us and look forward to working with you.

Today's hearing takes on particular significance as our men and women in uniform and the North Atlantic Treaty Organization (NATO) forces are engaged in combat in the former Yugoslavian Republic. Our mutual and solemn responsibility to ensure the health of our Armed Forces and their families should never be clearer than it is today. The Defense health program budget request is more robustly funded than it was last year, and I commend you for your efforts to make that a reality. However, we must continue to work together to ensure that the program is not minimally executable but, rather, is fully funded.

Unfortunately, I have to inform you that I do have to depart for a meeting with the Majority Leader and Speaker on the subject of our recent trip to Kosovo, and my great friend from Hawaii and vice chairman will chair the meeting in my absence. I hope to return before the conclusion of the meeting, but before I proceed, I will turn to the Senator from Hawaii who, as we all know, has really been the originator of many of the programs that you are involved in, and I am pleased to say he probably will contribute a great deal more to the hearing than I will if I were here.

Senator.

STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. With that, I will just say thank you. I wish to join you, Mr. Chairman, in welcoming Dr. Bailey, General Blanck, General Roadman, and Admiral Nelson, and I also want to join you in giving a special aloha to our Secretary and to the admiral for their first appearance before this committee. I have a rather lengthy statement, but may I submit this for the record?

[The statement follows:]

PREPARED STATEMENT OF SENATOR DANIEL K. INOUYE

Good morning. I join my Chairman in welcoming Dr. Bailey, General Blanck, General Roadman, and Admiral Nelson to discuss Military Medical Programs.

I would like to take this opportunity to especially welcome Dr. Bailey and Admiral Nelson in their first appearance before this committee. I hope you find this hearing to be a worthwhile experience and that it will be the first of many positive discussions. Dr. Bailey, I hope you will have the opportunity to visit Hawaii soon.

I recently returned from trips to Asia and Saudi Arabia. The conditions in these countries reinforced for me that this nation provides a far superior quality of life for our service members and their families. We do this because our service members and their families deserve the best that we can provide.

One of the most important aspects of high quality military medicine is the access to care provided to our beneficiaries. With TRICARE now available in all regions, and demonstration projects for our Medicare-eligible retirees being implemented, beneficiaries continue to express confusion and concern about the options available.

During my visits to my home state, many current and former members of the military frequently ask questions about the future of military health care. Those currently on active duty are concerned that their family members will not have easy access to the health care services they need. Soldiers, sailors and airmen who commit to a career of service to our nation worry that medical benefits will be inadequate when they retire. Retired military members are apprehensive about the changes to the availability of quality services for themselves and their family members. I can say with confidence, that the ready access to quality health care, wherever military members are living, is always of paramount concern to them.

I commend DOD for being a leader on the cutting edge of medical technology. The particular successes of Akamai in Hawaii are noteworthy, and I hope this technology will be shared with appropriate members of the public and private sector in the future. General Blanck, I appreciate your support of the Akamai project.

Today, as we address many of the issues facing our military health systems, I would like to focus on military medical readiness, the provision of health care services to our beneficiaries, new technology initiatives, and the President's fiscal year 2000 budget request.

I look forward to hearing your testimony this morning.

Senator STEVENS. I wish he would tell us what he is thinking, because with that we will know we will have to go back and read it later, but—Senator Shelby.

STATEMENT OF HON. RICHARD C. SHELBY

Senator SHELBY. Mr. Chairman, I ask that my entire written statement be made a part of the record.

But I want to welcome all of you here, as the chairman and Senator Inouye, the former chairman have done. I especially want to say hello again to my good friend, General Blanck, and to all of you. I think you are doing a good job. I think we need to furnish, I believe, more tools for you to do it, especially. It is a challenge. But with that, Senator Stevens wanted to hear from Senator Inouye. I think we want to hear from you.

[The statement follows:]

PREPARED STATEMENT OF SENATOR RICHARD C. SHELBY

Good morning Dr. Bailey and welcome to you and your distinguished panel members. It is a pleasure to see you all here today. Mr. Chairman, I will be very brief with my remarks. The quality of military medicine is essential to the viability and maintenance of our all volunteer armed forces in three areas. First, we must provide our combat forces with proper care so that they are physically prepared to go into battle and win. Also, our personnel must be provided with the finest medical care possible should they be wounded in action. I hope that this is the case today as our forces continue combat operations in the Balkans.

Second, military medicine must be prepared, through a variety of means, to care for the dependents of our military personnel. Without such care, this nation risks losing those highly trained personnel to the civilian sector.

Finally, to recruit, train and retain men and women for a military career requires an effective health care plan for retirees. Men and women who have made the military a career deserve nothing less.

Our military medicine programs are an integral part of this nation's total force. Without proper funding and implementation of those programs our all volunteer force will be difficult to maintain. Again, Dr. Bailey welcome to you and your colleagues.

Senator STEVENS. I think we all want to hear from you, too.

Dr. BAILEY. Mr. Chairman, thank you for having us here today. We in the military health care system are charged with two missions: We take care of the peacetime health care needs of our beneficiary service members and their families, as well as our wartime responsibilities. Our readiness and force health protection responsibility has grown. As you know, there are increased deployments. The nature of those deployments have shifted, and we now also encounter weapons of mass destruction on the battlefield and have concerns about that in terms of terrorism elsewhere.

With regard to peacetime mission we have completely stood up within the last year a managed health care system we call TRICARE. It provides to our beneficiaries world class health care but, as we know, we have had some business problems with TRICARE. We need to get our claims paid quicker and we need to make our appointment scheduling easier.

This year, we have had an unprecedented collaboration on our budget with the Surgeons General and I, the Under Secretary of Personnel and Readiness, the Comptroller, and Admiral Sears at TRICARE management activity (TMA). For the fiscal year 2000 funding for the Defense health care program we are seeking $10.8 billion, and under the President's budget we are requesting a total of $16.4 billion for the whole military health care system.

This includes funding for our responsibilities for force health protection information systems that will let us provide the surveillance that is so necessary both on the battlefield, before deployment, during deployment, and after deployment. It supports medical readiness and training so that our health care providers can continue to provide world class health care whether on the battlefield or in peacetime. It expands our dental program overseas.

It looks to the TRICARE remote issue so that we can provide for those who are out there in remote areas not near military treatment facilities (MTF's); and it funds demonstration projects which will let us attend to our over 65 population, those we honor and revere for their service.

We hope that the funding of the Defense health care program will provide the resources for the men and women of the military health care system to continue to provide the very best health care

in the world as they undertake their courageous missions in wartime when called upon to do so, and do that from the platform of the highest quality peacetime health care.

PREPARED STATEMENT

I look forward to working together to assure their resources so that they may complete their mission.

Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF DR. SUE BAILEY

Mr. Chairman, distinguished Members of the Committee, it is my distinct honor to appear before your Committee today and to provide for you an overview of the Military Health System.

The Military Health System is a vast and extraordinary health system. There is no other like it in the world. We ensure the health of our forces, care for them when ill or injured anywhere around the globe, and we provide comprehensive health coverage to the families of our services members, our retirees and their families and the surviving family members of those who have died in service to their country. Our attention to the health of our forces involves research, health promotion, and appropriate care whether deployed or at home stations. It relies on fully trained and militarily prepared health care personnel. It demands timely, supportive and quality care for family members. Some view the components of the Military Health System separately; they see the support for deployed force as separate from the operation of hospitals and clinics. However, these components are interdependent, each requires the other in order to provide the highest quality, effective healthcare for our forces. We cannot provide Force Health Protection in wartime without a robust peacetime healthcare system.

Fiscal Year 2000 Defense Health Program Budget

For fiscal year 2000, we are seeking funding for the Defense Health Program in the amount of $10.8 billion. Under the President's budget request, the total proposed budget for the Military Health System is $16.4 billion. Our proposed funding for military personnel is $5.5 billion and for military construction it is $73 million.

The President's fiscal year 2000 budget request:

—Continues and increases funding for the numerous Force Health Protection measures designed to promote health, prevent injuries and disease, care for casualties, and have a viable automated record system for all services members detailing their health status, plus possible exposures to health hazards
—Supports increased medical readiness training
—Contributes funds to the Global Emerging Infectious Disease Surveillance initiative
—Requires management efficiencies within the military treatment facility operations while providing increased funding for additional services
—Supports adequately the seven managed care support contracts, the transition to the next generation of contracts, the TRICARE Prime Remote program, the Family Member Dental Program expansion overseas, and the Selected Reserve dental program
—Provides funding for advances in medical practice
—Funds demonstration programs for providing healthcare coverage for beneficiaries age 65 and older. These demonstrations will test using the Federal Employees Health Benefit Program, offering a TRICARE supplemental benefit to Medicare, and expanding the national mail order pharmacy program to include Medicare-eligible military beneficiaries.

Force Health Protection

Force Health Protection (FHP) is the military health strategy that supports the national military strategy for the next century, Joint Vision 2010. FHP addresses the national obligation and DOD's commitment to protect the health of all service members while at home and during deployments. The number and scope of current military operations, the variety of deployment environments and hazards, and our expectations of men and women in uniform all have increased as the Nation responds to changing global threats.

Force Health Protection reflects a commitment to:

—Promote and sustain wellness to ensure that we can deploy a fit and healthy military force
—Implement medical countermeasures to prevent casualties from occurring in the deployed environment
—Provide high quality casualty care.

The many activities underway that contribute to FHP include greater attention to individual health status and the continual medical monitoring and recording of hazards that might affect the health of service members. Medical Surveillance has been in effect for recent deployments to Southwest Asia, as well as for deployments to Bosnia, Croatia and Hungary. Included are pre- and post-deployment medical briefings and individual health assessments, extensive environmental hazard monitoring in the theater of operations plus increased preventive and mental health resources in the theater.

We face a new era in our efforts to prevent casualties. Chemical and biological warfare (CBW) threats have complicated conventional preventive measures. To counter these threats, ongoing application of the latest technology for CBW detection, prevention and immunization (pre-treatment) are now employed to assure the protection of our forces. For instance, the Department initiated the Anthrax Vaccine Immunization Program, which is progressing very well with relatively few objections. We have now vaccinated over 200,000 service members. This summer we will enter Phase II of the program and begin immunizing those service members who will be the early deployers to high threat areas.

As the U.S. Armed Forces move into the 21st Century, they will become the highly mobile, technologically advanced forces envisioned by the Chairman of the Joint Chiefs of Staff. Medical support units can be no less mobile, no less agile, no less advanced if they are to discharge their Force Health Protection responsibilities. We have several initiatives underway that will afford us greater flexibility and improved patient care in conflict and wartime scenarios.

FHP is our unified strategy that protects service men and women from health and environmental hazards associated with military service through their continuum of service from accession, training and deployment(s), to separation or retirement, and beyond. Further, FHP acknowledges that the service member cannot focus on the mission at hand if he or she is concerned about the healthcare that his or her family is receiving at home. Therefore, TRICARE is directly related to force health protection.

TRICARE

TRICARE is an integrated health care delivery system that has enabled the Department to provide better access to high quality care for more of our beneficiaries more cost-effectively than the previous health care delivery modalities available in the Military Health System. As a health plan, TRICARE offers a triple-option health benefit package providing beneficiaries a choice of: TRICARE Prime, an enrolled HMO like option; TRICARE Extra, a preferred provider option; and TRICARE Standard, the standard CHAMPUS option. All active duty service members are enrolled in TRICARE Prime.

To better identify and remedy problems with TRICARE, I have begun intensive on-site reviews of each TRICARE region. These reviews include meetings with the Lead Agent, service line representatives, our managed care support contractor, beneficiaries and providers. At these meetings we conduct focus groups with beneficiaries and with civilian and military providers to obtain candid assessments of healthcare delivery issues in the region. For each region we will develop an action plan for correcting problems identified. I believe that these regional reviews will provide us with valuable information on the level of service provided to our beneficiaries, as well as how we can improve the perception of TRICARE in the field.

We have already underway a number of initiatives to improve TRICARE and the military health benefit. Two of these initiatives are of particular concern: pharmacy redesign and claims processing.

Pharmacy Redesign.—The proportion of Defense Health Program dollars to deliver a pharmacy benefit is growing faster than all other sectors of health program spending. In 1997, the MHS spent $1.3 billion on the pharmacy benefit. DOD costs for the pharmacy benefit in fiscal year 1997 rose about 13 percent; while less than the private sector increases of about 15 percent, they were more than the rate of inflation.

In June 1998, the General Accounting Office (GAO) issued a report regarding their review of the pharmacy benefit. The major findings included lack of an integrated information system and a fragmented and complicated benefit structure. The Fiscal Year 1999 Defense Authorization Act directed the Department to address the pharmacy benefit.

DOD formed a working group to thoroughly examine the pharmacy benefit and to compare and contrast the current program with the best business practices in the private sector. The working group solicited input from beneficiaries and beneficiary organizations, professional pharmacy organizations, and the pharmaceutical industry.

Currently, the Department is proceeding with a pharmacy benefit redesign plan that focuses on the advantages of an integrated information system. This system will enable some Prospective Drug Utilization Review and on-line edits. Improving just one part of a system will generate a positive effect on other parts.

Another Congressionally directed action the Department is pursuing is the extension of the pharmacy benefit to Medicare-eligible beneficiaries at two sites beginning October 1999. Planning is underway, however the sites have not been identified to date.

Claims Processing.—TRICARE claims processing is complex and unique in the industry. This is due to the numerous eligibility categories of our beneficiaries, the differing cost shares and benefits based on eligibility category, and the three TRICARE options for coverage. The managed care support contractors are responsible for processing TRICARE claims and have a timeliness standard of 75 percent of claims will be processed within 21 days.

In 1998, approximately 27,500,000 TRICARE claims were processed. Of these, 83 percent were processed within 21 days and 90 percent within 30 days. Although meeting the standard, it is not good enough. Several initiatives are underway to improve the timeliness and the efficiency of claims processing.

We will strengthen our timeliness standards for faster payment and require the contractors to pay interest on claims not processed on time. We plan to revise prescriptive government requirements and adopt commercial business practices. This will reduce the number of claims requiring review and the amount of clinical information required. We want to facilitate electronic filing of claims and to improve provider education on how to submit claims to TRICARE. With our managed care support contractors we have identified a number of reforms and one result will be a bottom-up review of the entire system by an independent firm with claims processing expertise. Finally, we have established tiger teams to work on-site with the TRICARE regions, especially Regions 1, 2, and 5, to identify and resolve claims processing problems.

As these reform measures take effect, we expect beneficiary and provider satisfaction to increase, administrative burdens to disappear, and best commercial practices to become widespread.

Prevention

A major initiative of the Military Health System is prevention and health promotion. We are in the final stages of implementation of several instruments that will significantly improve our ability to offer comprehensive preventive services to all of our beneficiaries. The Health Enrollment Assessment Review (HEAR) is completed by each beneficiary at the time of enrollment into TRICARE and is used by their Primary Care Manager to assess the beneficiary's current health status and to recommend a course of action or treatment to appropriately manage existing diseases. In addition, the Put Prevention Into Practice Program (PPIP) will allow our providers to evaluate and review the prevention and health promotion needs of each patient, from immunizations to screening services, and to provide these services in a more timely manner. The PPIP will be in place at all of our military treatment facilities by the end of 1999.

The recently established Safety, Prevention and Health Promotion Council has developed implementation plans for addressing three priority health promotion initiatives:

—*Alcohol Abuse Elimination*.—Develop strategies that will lead to the reduction of alcohol abuse and foster an atmosphere of either abstinence or the responsible use of alcohol by service members and our other beneficiaries.

—*Tobacco Use Cessation*.—Promote the elimination of tobacco use through education and the development of avoidance and/or cessation programs that will include the use of nicotine replacement therapy and behavioral counseling when appropriate.

—*Injury Prevention*.—Recognizing that one of the most common reasons people seek care in the Military Health System is for the treatment of unintentional injuries either in training or at home, develop initiatives to address the reduction of injuries both in and out of the workplace.

High Performance Military Health System

To ensure maximum efficiency of the Military Health System, we committed to a strategy that identifies, evaluates and achieves management improvements throughout military medicine. We identified 29 initiatives for implementing a high performance Military Health System. The focus of these initiatives, or our reengineering program, is optimizing our military system and its facilities. These include:

—Effective use of readiness-required personnel and equipment to support the everyday health service mission
—Equitable alignment of resources to maximize use of the direct care system
—Use of evidence-based clinical practices and a population health approach to ensure consistent, high quality healthcare.

Quality of Military Healthcare

Still, we continue to strive for improvement. For example, we are creating Centers of Excellence where high risk, complex and expensive medical procedures are carried out using the concentrated expertise and resources of the military services to provide state-of-the-art care. In partnership with the Department of Veterans Affairs, we are working on patient safety issues and clinical practice guidelines. We have revised our licensing policies to require all military physicians to maintain at least one completely unrestricted state medical license. Finally, we will work with the Congressionally mandated Quality Council to evaluate the effectiveness of current quality programs and to explore future initiatives to further strengthen them. We have identified candidates for this Commission and it will soon begin its review of our system.

Mr. Chairman, my statement has addressed the highlights of our fiscal year 2000 budget request, our strategy of Force Health Protection, progress in our TRICARE program, our prevention strategy, our comprehensive reengineering initiatives and our efforts to achieve improved quality within the Military Health System. These are vitally important aspects of the system of military healthcare. Together they provide the resources and organizational improvements that cause men and women to want to be physicians in the military; that cause soldiers, sailors, airmen and marines to want to stay in the service of their country; that cause the American people to have great confidence in those who run the military.

I am very proud of the Military Health System, its people and the many courageous missions they undertake. We are deeply committed to do whatever is necessary to take care of our people. It is my honor to be the leader of this extraordinary health system. I look forward to working with you in the New Year and to the many opportunities we have to serve our troops, their families and our nation.

STATEMENT OF LT. GEN. RONALD R. BLANCK, ARMY SURGEON GENERAL

Senator STEVENS. General Blanck.

General BLANCK. Thank you, Mr. Chairman, Senator Inouye, Senator Shelby. It is always a pleasure to appear before you. I have a statement which has been submitted for the record. I would like to briefly summarize a few of the points. First, we are focused on job number 1, and that is making sure the men and women of the Armed Services are healthy and ready to do their jobs, so we have a focus on prevention that I think is unprecedented, and we are doing some very interesting and good work on that.

FORCE PROTECTION

With it, we have something called force protection, that involves making sure that we record all the preventive medicine efforts, all of the interventions, all of the exposures that our service members are potentially—that they potentially encounter on something called the personal information carrier, and that is in testing as we speak, and we will be able to put it into the field later this year and for the final testing before deploying it, sometime next year.

ANTHRAX PROGRAM/HEALTH PROMOTION

You all know about our anthrax immunization vaccine program, another successful program using the safe and effective vaccine as a medical defense against a very serious weapon of war, and that is biologic weapon anthrax itself. We are also making sure that our service personnel get a lot of information on how to stay healthy, and these are some pamphlets that we have, and I will show you later, on some of the health risks that they may encounter in Central Europe areas where we in fact are engaged and may subsequently be even further engaged, so we are taking very seriously the issue of keeping our force healthy in many, many ways.

DEPLOYMENT OF MEDICAL ASSETS

We are also concentrating on making sure that we in the medical services are ready to deploy, whether in the Air Force, the Navy, or the Army. The Air Force, of course, is concentrating on evacuation systems such as the 60 Quebec, and we appreciate the efforts of everyone on the committee in achieving funding to get our air ambulance, which is really state of the art. We have our first eight, and we have more programmed to come.

TRAUMA TEAM TRAINING

We are doing surgical team training at trauma centers. It is a fact that, strange as it may seem, although military forces are, of course, structured and designed to take care of combat casualties, trauma, in addition to all of the prevention and other kinds of things that we do, in peacetime we are the ones that probably see the least amount of trauma because we are on bases where there are young, healthy people and little trauma except for training accidents and that kind of thing.

So we have started a program of sending our teams, the Air Force and Army, to Ben Taub Hospital in Houston, the Navy to Martin Luther King Hospital in Los Angeles, to expose them to the trauma that is there and provide collective or team training for that kind of trauma care, and we believe we will be able to rotate our folks through these trauma centers every 2 years, and then on the alternate year send them to some place like the Joint Readiness Training Center at Fort Polk, Louisiana for the kind of military unique training that they receive there.

COMBAT TRAUMA PATIENT SIMULATION DEVICE

I also this morning visited the Walter Reed Army Medical Center and saw something called the combat trauma patient simulation device, and this is a mannequin, very sophisticated, that has over 300 kinds of disease or injury kinds of trauma or instances that can be simulated, and allows a clinician, whether it is a nurse, a physician, a medic, a technician, to actually take care of a patient with the instructor changing the scenarios, looking at the physiologic monitors, administering the medication, intubating, and I will tell you, it has been some years, really, since I have been involved in taking care of patients at that level, but as I worked with this simulated patient, I was astounded to have the same feelings come

back of a sense of urgency as to what to do to take care of that patient.

This is something that the Navy has on board the U.S.S. *Comfort*, the Air Force has at Wilford Hall, and the Army has at many of our training sites, including at Walter Reed and at the AMEDD Center and School at San Antonio. This is a congressionally funded project that we're working out of Fort Detrick, and I think is a great success.

PREPARED STATEMENT

I have some flyers on this that I would like to give to you after the session if I might, because I think you will find it fascinating, and if you ever want to see this, this is absolutely a model for how medical training is going to be done not just in the military, but throughout this country.

[The statement follows:]

PREPARED STATEMENT OF LT. GEN. RONALD R. BLANCK

Mr. Chairman and members of the Committee, I am Lieutenant General Ronald R. Blanck, The Army Surgeon General. It is a privilege for me to address this committee. I am particularly pleased to do so here—in this setting with the other two Service Surgeons General. As this committee knows, we have and continue to work more and more closely together along with the Assistant Secretary of Defense for Health Affairs. I am very gratified to say that, in no small part, the success of today's Army Medical Department is built on this continued relationship of inter-service cooperation and collaboration.

Today I would like to provide you with a picture of the Army Medical Department. I will provide this picture in the context of the three Army imperatives: shaping the force, preparing the force, and responding to the needs of our Army and the nation. Through this picture you will see an Army Medical Department fully integrated not only on any future field of battle, but in garrison as well, taking care of all our soldiers, retired and active, and their family members. At the conclusion of my testimony, I believe you will agree that today's Army Medical Department is more flexible and better prepared to meet all our diverse missions than ever before. I thank you for your continued support of our efforts to provide the finest quality of medical support to America's Army.

Current Status of the Army Medical Department.—The Army Medical Department continues to respond with creativity and energy to the challenges of health care in a rapidly changing environment. Even as we reduce our numbers, we are deploying all over the world more than we have in recent years. These deployments are not only for combat support, but also for humanitarian assistance, stability and support operations. Medical personnel are finding that on these missions they are typically providing preventive medicine expertise, disease and environmental surveillance. All the while, we must maintain day-to-day health care for soldiers, retired soldiers and their families.

The Army leadership has articulated three imperatives as we prepare to meet the challenges of the 21st Century. We in the medical department have aligned ourselves with the rest of the Army to shape our forces to meet the needs of a changing world; we must also prepare our forces by staffing, equipping and training them to successfully complete all missions they may be called upon to perform; and we must respond to the needs of the Army and the Nation.

The primary mission of the Army Medical Department continues to be support of the Army in the field, whether that means dealing with military threats, peacekeeping or humanitarian relief. Let's look at the Army Medical Department's current priorities, as they relate to these imperatives:

SHAPE

We are continuing to refine our organizational structure in order to perform our mission in the most efficient and effective manner. In 1998, the Army Medical Department celebrated 25 years as a distinct Major Command for health care units. Health Services Command was activated on April 1, 1973. Before then, the leader-

ship chain for medical units was fragmented, with hospitals under the authority of individual installation commanders.

The organization has been an undeniable success. Refinements were added through the years, including expansion and redesignation as Medical Command in 1993. Most recently, Medical Command Headquarters merged with the Office of The Surgeon General in 1997 to create one staff under the authority and command of the Surgeon General dual hatted as the Medical Command Commander.

The great added value of this organization is integrating the peacetime and readiness roles of Army medicine into a total health-care system. Each component of the medical system is inextricably linked to all of the other components. This seamless organization produces significant economies and efficiencies, as demonstrated by the fact that we currently provide health care to our beneficiaries for significantly less than such care costs in the civilian marketplace.

Leadership Development Opportunity.—As I testified last year, historically, senior leadership positions and commands within the Army Medical Department had been corps specific. As an example, officers of the Medical Corps have commanded Medical Treatment Facilities and non-deployed Table of Organization and Equipment—TO&E—medical units have been commanded by Medical Service Corps officers. Dental Corps and Veterinary Corps Officers have commanded Dental and Veterinary units respectively. As a result, there have been few corps immaterial senior leadership or command opportunities for Army Medical Department officers. This policy has limited the Army Medical Department's ability to select the best-qualified officers for senior leadership positions.

In January 1997, the Secretary of the Army approved my request to change Army regulations, which had restricted command of Medical Treatment Facilities. In general, veterinary, dental, aviation, garrison and logistics commands will remain corps specific. Virtually all other commands are quickly becoming Army Medical Department corps immaterial. The implementation of corps immaterial commands within the Army Medical Department will be phased in over the next few years. The fiscal year 1998 Department of the Army Command Selection List selection boards held in November 1997 for Lieutenant Colonel and January 1998 for Colonel was the first opportunity for Army Medical Department officers to compete for commands designated corps immaterial. Results of these boards yielded increased facility command opportunities for highly qualified Medical Service and Army Nurse Corps officers. These colonels will begin to assume their new duties this Spring and Summer. In addition, the Army Medical Department has identified and opened appropriate non-command senior leadership positions to the best-qualified officers of each Army Medical Department Corps.

Most noteworthy in this area, Major General Nancy Adams, Army Nurse Corps, was selected to be the Commander of Tripler Army Medical Center and took command of that organization last summer. Brigadier General Marianne Mathewson-Chapman, Army Nurse Corps, was selected to be the Deputy Surgeon General/Special Assistant Army National Guard in the Office of the Surgeon General. Brigadier General Mack Hill, the Medical Service Corps Chief, recently assumed command of Madigan Army Medical Center and the Western Regional Medical Command. All are firsts for the Army Medical Department.

Reserve Component Integration.—The Army depends heavily on its Reserve Component for medical support. About 70 percent of the Army's medical forces are in the Army Reserve and Army National Guard—representing approximately 273 medical units. Several efforts over the past several years have improved some aspects of reserve readiness. For example, Medical Command and U.S. Army Reserve Command signed a Memorandum of Understanding that allowed closer interaction and support between reserve and active duty assets. Medical Command has also established Regional Medical Commands that are responsible for active/reserve integration in their respective geographical areas. Additionally, for the first time we have captured and documented Reserve Component individual medical readiness requirements and are progressing to insure they are equally considered for appropriate funding.

Although these efforts have been successful in meeting their major objectives, we continue to have serious problems in other areas, most notably acute shortages of physicians and dentists in many reserve units. With a loss rate higher than our gains every year since Desert Storm, the current recruiting incentives are obviously not meeting the objectives of the force.

It is a very complex set of challenges but we have already begun working on the following partial remedies with increased emphasis with Recruiting Command on manpower needs; and individualized efforts to convince physicians and dentists leaving active duty to join reserve units.

Neither of these efforts alone will solve the problem, but if we do a good job in both areas, along with on-going restructuring, we can make significant inroads in eliminating the shortages.

Dental Officer Shortages.—We continue to have concern regarding the recruitment and retention of dental officers in the Army Dental Corps. Our budgeted end strength for active duty dental officers is 1,138, and on the September 30, 1998, we had 1,013 in the Dental Corps, indicating that we are 11 percent under-strength. We have not been able to meet our accession goals for the past 14 years. Additionally, the Dental Corps is an aging force. As of September 30, 1998, there were 292 Dental Corps officers (29 percent of all Dental Corps officers) were retirement eligible (20 or more years of Active Federal Service) and an additional 55 Dental Corps officers will be retirement eligible within one year.

In response to this, Congress enacted a pay increase for both junior and senior officers, and an accession bonus and loan repayment program to enhance the recruiting of new officers. The National Defense Authorization Act of 1998 also provides for a Multiyear Retention Bonus for Dental Specialists.

We are working to maintain the number of Health Professions Scholarship Program scholarships in dentistry and to obtain funding for specialists under the Multiyear Retention Bonus. We will continue to work in this area and monitor its progress.

Physician Assistant Shortages.—Since 1992, the number of Physician Assistants leaving the Army has exceeded the number of accessions. This has resulted in insufficient numbers of Army Physician Assistants, creating assignment challenges in prioritizing Physician Assistant placements. There are a number of reasons for this problem and we are looking at several potential solutions. The solutions range from loan repayment for Physician Assistant School and recruitment bonuses to expanding the Green to Gold program and increasing the number of Physician Assistant Training seats. This problem is receiving a great deal of attention and I am confident we will overcome this critical shortage.

Consolidate Regions.—The Army Medical Department has begun to align its subordinate organizations in three ways. First, we are positioning ourselves around the deployable corps—XVIII Airborne Corps, III Corps and I Corps—by focusing on the needs of each of the warfighting Commanders in Chief. Also, we are looking to align and link ourselves better with TRICARE lead agents. They are increasingly important organizations for coordinating health care throughout the Army, Navy and Air Force. And, to a certain extent, we're looking to align with the Public Health Service and the Department of Veteran's Affairs, in order to oversee managed care support contracts and sharing agreements.

We have begun that alignment process by consolidating the Southwest Regional Medical Command with the Great Plains Regional Medical Command last fall. The expanded Great Plains Regional Medical Command supports III Corps, and will focus on Southern Command. The Pacific Regional Medical Command and the Western Regional Medical Command have signed a Memorandum of Understanding defining their peacetime/wartime support of I Corps and Pacific Command, particularly with regard to crossed lines of authority in Alaska. The North Atlantic Regional Medical Command and the Southeast Regional Medical Command are developing a Memorandum of Understanding as to how they will both support 18th Airborne Corps and share resources. Southeast Regional Medical Command will focus on Central Command and North Atlantic Regional Medical Command will align with the Europe Regional Medical Command to focus on European Command. These alignments should clarify regional responsibility and facilitate and improve training and support relationships.

Integration of Field Units into Fixed Facilities.—The Army must maintain a number of deployable, fully staffed, combat support hospitals to meet the early bed requirement for two nearly simultaneous Major Theater Wars. Other Combat Support Hospitals are given "Caretaker" status and must be able to rapidly deploy within 30 days to round out the required number of beds needed to support the Warfighting force. This helps maintain clinical skills and makes the best use of personnel to meet the daily demand for health care. Each Caretaker Hospital, with the staff working in the fixed facility, provides approximately $24 million worth of health care per year to our beneficiaries. Reserve personnel will mobilize to staff the fixed hospital when its active personnel deploy with their Caretaker Hospital and train with the hospital during their annual training period, providing even more cost savings. TRICARE support contracts also provide for increasing the level of care and number of providers available during times of war or full mobilization.

Medical Reengineering Initiative.—The Medical Reengineering Initiative is the outcome of a process that examined the ten functional areas of Combat Health Support to ensure their relevance to future operations. It provides for a single, modular

hospital and better command and control, with treatment teams and streamlined support elements. The Army Medical Department is an integral part of the Army, and as the Army reduces, so must its medical support. As a result of the Quadrennial Defense Review decision to reduce the Army from 495,000 to 480,000, the Medical Command will be reducing by about 800 military spaces. Some of this directed reduction will impact on health care providers and ancillary support. Although we are still assessing how best to execute our share of the Quadrennial Defense Review decrement, Medical Command intends to base its reduction on changes in workload and population served. Critical to this analysis will be the protection of Medical Command's core competency as a readiness focused health care enterprise.

Reinvention.—The Army Medical Department's commitment to reinvention remains strong and enthusiastic. The U.S. Army Medical Command has been designated as a Reinvention Center and has committed itself to the principles of the National Partnership for Reinventing Government as well as the Total Army Quality initiatives. Examples of this Center's efforts include a patient centered dental care delivery system, the use of innovative practice management to serve more patients, more efficient professional development training and the implementation of clinical practice guidelines to improve quality of patient care.

In addition to the Medical Command Reinvention Center, the Army Medical Department now has five Reinvention Laboratories as well as a Science & Technology Laboratory. These laboratories champion innovation, encouraging prudent risk taking, removing bureaucratic barriers, and linking authority, responsibility and accountability.

PREPARE

Readiness Training.—A phased implementation of new standards to train all medical soldiers for combat support began October 1, 1998. These are not intended to revolutionize the substance of training, but rather to ensure wider understanding of requirements and greater consistency in implementation. The eight requirements are survival skills, weapons training (for selected personnel), collective training, competency-based orientation, Deployable Medical Systems training, job-specific medical training, job-specific readiness training and a briefing on Medical Force Doctrine.

Battlefield Evacuation.—Clearing the battlefield continues to be one of my highest priorities. The platforms designed to evacuate our wounded from the battlefield have not kept pace with the modernized force and can no longer provide rapid battlefield evacuation. Studies conducted on injuries sustained in combat indicate that prompt treatment and evacuation of the wounded on the battlefield significantly reduces the mortality rate. The use of nuclear, biological and chemical weapons on the battlefield could significantly delay this process and may require altering the mix of battlefield evacuation resources. To meet this prospective challenge, we are working to modernize three major evacuation platforms: the UH–60Q helicopter, the Armored Medical Evacuation Vehicle, and the Armored Medical Treatment Vehicle.

The UH–60Q is the number one near-term medical modernization issue for the Army Medical Department and is critical to early entry, mounted and dismounted forces. It improves the medical, navigation and communication capabilities of our current UH–60A aircraft. With the UH–60Q we significantly improve our capability to evacuate casualties from as far forward as the tactical situation permits; conduct combat search and rescue; transport medical material and teams on an emergency basis; and perform the shore-to-ship evacuation missions.

The UH–60Q program received partial funding in the current Program Objective Memorandum, with funding starting in 2002. Additionally, we have a coordinated effort with the Army aviation community to align the UH–60Q production with the UH–60 Service Life Extension Program. As a result, we will gain a better performing aircraft; have commonality across the utility fleet; and save Research, Development Test and Evaluation dollars. The total requirement is 357 medevac aircraft—192 to the active component and 165 to the reserves. Fielding priority is in the Department of the Army Master Priority List sequence. Current modernization funding projections for the UH–60Q complete the 117 aircraft requirement identified in Total Army Analysis-05 for Force Package One by 2012 and the 75 aircraft in Force Package Two by 2016.

The Armored Medical Evacuation Vehicle supports ground evacuation of our wounded and is intended to replace the M113 Armored Ambulance for direct support to the heavy forces. It has the mobility, survivability and maintainability equivalent to the supported force, all traits lacking in the M113.

The Armored Medical Evacuation Vehicle is a component of the Armored Systems Force Modernization Plan currently being briefed to Congress by the Army staff. De-

velopment of the Armored Medical Evacuation Vehicle is funded from fiscal year 1999 to 2000, however procurement is unfunded. Fielding requirements for the active force and the enhanced Separate Brigades of the Army Reserve and National Guard are 819 vehicles.

The third leg in our battlefield evacuation triad is the Armored Medical Treatment Vehicle. The Armored Medical Treatment Vehicle is intended to replace the M577 Battalion Aid Station and is designed to provide a protected, trauma treatment workspace in direct support of our heavy forces. The Armored Medical Treatment Vehicle is a variant of the M4 Bradley and is 100 percent common with the Command and Control Vehicle. In addition to the medical workspace improvements, the Armored Medical Treatment Vehicle provides the mobility, survivability, situational awareness, and communications similar to the supported forces.

A prototype of the Armored Medical Treatment Vehicle performed superbly last spring during the Task Force XXI Advanced Warfighting Experiment at Fort Irwin, California. Although Armored Medical Treatment Vehicle development is essentially complete, procurement remains unfunded. Production, however, is possible whenever program funding is available. The procurement objective is 142 Armored Medical Treatment Vehicles for the Digital Corps and the Army Pre-positioned Stocks 3, 4, and 5.

These three platforms are more mobile, enhance survivability, and offer greater medical capabilities than the platforms they are designed to replace.

Special Medical Augmentation Response Teams (SMART).—We have organized SMART Teams in our regional medical commands and major subordinate commands to give us a preset, ready-to-go capability to provide rapid assistance when civilian authorities need help due to a terrorist incident, accident or natural disaster. It is possible for us to have a few highly-trained specialists on site within a few hours, with skills in trauma/critical care, burn injuries, chemical/biological casualties, stress management, communications, telemedicine, preventive medicine, disease surveillance, veterinary care and health facility planning. When Korean Air Flight 801 crashed in Guam last August, Tripler Army Medical Center had a critical care team in the air within hours to assist the Navy hospital in Guam. Shortly thereafter, the Institute of Surgical Research at Brooke Army Medical Center had two teams of burn specialists flying to the site to provide care to casualties. The teams will give us the capability to get two-to-four highly skilled care providers to a remote site rapidly, while larger support forces are mobilizing. These teams, primarily based in the Continental United States, are designed to quickly respond to regional needs, often civilian, and are not designed to replace field units.

Technology.—We are enthusiastically incorporating advanced technology into the way we provide world-class care to our patients. Some of our initiatives are:

—The Personal Information Carrier (PIC) or "digital dog tag", which will carry medical and personal information on service members. Commercial-off-the-shelf candidates were tested last summer, and a model built to military specifications will be field tested this year.

—A dry fibrin sealant bandage developed by the U.S. Army Medical Research and Materiel Command in conjunction with the American Red Cross. Made from the last two proteins in the human blood coagulation cascade, and freeze dried on absorbable packing. The bandage will set a clot within one minute. Research shows it can reduce blood loss by 50 to 85 percent. The Red Cross plans to conduct clinical tests and seek Food and Drug Administration licensure of the bandage within three years.

—A high-tech litter with resuscitative and life-sustaining capabilities that allows field surgery and care en route during evacuation. The Life Support for Trauma and Transport prototype was approved by the U.S. Food and Drug Administration for human use last June. This approval allows further evaluation by Walter Reed Army Institute of Research, using volunteer research subjects and patients.

I would be remiss in discussing technology if I did not also mention our refurbished World Wide Web site for Army medicine. It has a new look, easier navigation and more updated information. We plan to make full use of the site (http://www.armymedicine.army.mil) for rapid communication with the public. It regularly carries updates on my Top 20 priority issues, messages for our staff and copies of our Army Medical Department newspaper, as well as information about our organization, history and values.

Telemedicine is a technology to efficiently leverage healthcare delivery over long distance. The aims of this technology are to improve quality, improve access, enhance provider and patient satisfaction, and reduce cost. The technologies that it encompasses may include the personal computer with internet and email access, intranet access, store-and-forward technology, videoconferencing and digital ex-

change of various types of images. Most of Army Medical Department telemedicine is store-and-forward technology usually sent over the internet; this involves the capture of still images via digital camera attached to a personal computer. Tertiary care physicians can review the images and render a diagnosis and return the diagnosis back to the referring physician via the internet.

Last year the telemedicine projects from the six Regional Medical Commands were catalogued and can be reviewed at http://www.tatrc.org/pages/projects/armyproj.html. There are close to 54 projects being done in the Army Medical Department. The majority of projects are in the areas of radiology, dermatology, and psychiatry. At the North Atlantic Regional Medical Command, there are projects with teledermatology. Shortly, this will be deployed at Brooke, Madigan, Landstuhl, and Eisenhower Army Medical Centers. Telechocardiography, which is digital radiographic examination of the heart, is starting between Fort Belvoir Army Community Hospital and Walter Reed Army Medical Center to provide echocardiogram support to the military beneficiaries. The Armed Forces Institute of Pathology continues to pioneer telepathology throughout the United States and to foreign countries. The Center for Total Access is doing home health telemedicine for the care of diabetic patients. The intent is to improve the compliance and control of the patients with diabetes and to prevent inpatient hospitalizations. In the Great Plains Region, active neuropsychology telemedicine sessions take place between Brooke Army Medical Center and Darnall Army Hospital at Fort Hood, both in Texas. In Europe, there are teledentristry programs at 37 sites. In the Pacific Regional Medical Command, there are a number of projects that deal with teleradiology from Korea and Japan to Tripler Army Medical Center, Hawaii. There is an internet tumor board to review patients from the remote Hawaiian islands with neoplasms and subspecialtist in pathology, radiology, surgery, radiation oncology and hematology oncology render opinions on the best treatments for these patients. In addition, Tripler Army Medical Center has been active in the development of video-otoscopy (video inspection of the middle ear) for diagnosis of middle ear diseases in patients from remote sites, which will be important for early treatment and possible prevention of significant hearing loss.

The Advanced Medical Operations-Telemedicine Advanced Concepts Technology Demonstration is an effort to work with Pacific Command and the Joint service community to evaluate mature technologies for command and control and medical situational awareness. These issues include minimizing the medical footprint in the tactical area of operation, minimizing the need to evacuate Disease Non-Battle Injury casualties, enhancing medical threat information accessibility, and providing deployable telemedicine capabilities. The Army Medical Department continues to excel in telemedicine and attempts to efficiently leverage the care of its beneficiaries over a wide geographic distance.

Soldier Medical Readiness.—The Medical Protection System, a Medical Occupational Data System application, has been identified as the system to record, report and archive soldier and unit readiness. Implementation of the system is ongoing with anthrax immunization tracking being the first module to be completed.

Ambulatory Data System.—This new automation system captures diagnosis and procedure information on outpatient visits. Capturing this more detailed clinical information is critical for decision making and to support our new costing methodology.

Clinical Pathway Implementation.—Variation is the enemy of quality. Clinical practice guidelines and clinical pathways are road maps used to reduce unwanted variation and to maximize the quality of care rendered. The use of clinical practice guidelines, the adaptation of locally specific clinical pathways and the sharing of information will enable us to achieve our overall goals of improving clinical outcomes, conserving resources and improving patient satisfaction.

Initiatives from the National Quality Management Program have been incorporated into a database to identify indicators of patient care quality for each of our medical treatment facilities. These actions coupled with the TRICARE Management Activity Reengineering efforts and the activities of the Department of Defense and the Veteran's Administration Practice Guideline Working Group are expected to facilitate this initiative.

The Military Health System in partnership with the Veteran's Administration began an aggressive effort, in early 1998, to implement practice guidelines throughout the system. Extensive efforts are ongoing to have guidelines in place to support informed clinical decision making for our providers and patients. Our Medical Treatment Facilities are now using 103 more clinical pathways than they were a year ago.

RESPOND

This last imperative is where the Army Medical Department differs somewhat from the Army's line units. We must not only respond to the call to battle in far-off lands, but also to the daily demand for high-quality, cost-efficient health care for soldiers, retirees and their family members.

Army medicine answered the call in 1998 as it has every year since the Continental Congress authorized a Hospital Department and Director General and Chief Surgeon of the Continental Army in 1775. The most dramatic example came in August when bombs exploded at American embassies in Kenya and Tanzania. Personnel from the U.S. Army Medical Research Unit-Kenya joined the medical effort within hours and provided support for rescue, treatment and recovery operations for five days. A forward surgical team and a combat stress company flew in from Germany to help, and 22 casualties were evacuated for treatment at Landstuhl Regional Medical Center in Germany, Walter Reed Army Medical Center in Washington, DC and Brooke Army Medical Center in Texas.

A medical task force in Haiti not only supported units remaining there, but carried out frequent humanitarian missions to help the impoverished people of that island. Other medics on humanitarian training missions brought health care to people in Asia, Africa and Latin America, and helped the medical establishments of Eastern Europe modernize and adapt to post-Communist society.

In the U.S., we helped alleviate the affects of a winter ice storm at Fort Drum, New York, and of an April tornado that swept through Fort Stewart, Georgia. In August, Army National Guard medics helped people in Texas recover from floods after Tropical Storm Charley.

As we deal with current requirements for medical support, we also must prepare for developing threats. The Army is the executive agent for the Department of Defense program to immunize all U.S. military personnel against anthrax, one of the most dangerous biological weapons. This initiative poses tremendous challenges in logistics and record keeping. A million service members, many deployed around the world, must receive a series of six injections on the proper schedule over 18 months.

The program began in 1998 with military personnel in Southwest and Northeast Asia. It is a high priority to ensure this is done right and all indications are we are doing it right.

Perhaps the biggest challenge, to the implementation of this program, is overcoming misinformation that has linked the anthrax vaccine to well-publicized illnesses affecting some veterans of Operation Desert Storm. This Food and Drug Administration-licensed vaccine has been used safely and effectively for 27 years, primarily with veterinarians. Additionally, various scientific bodies, such as the Presidential Advisory Committee, have also found it to be safe. Educating service members, their families and the general public is essential and is an ongoing challenge.

Terrorism may be the greatest threat our nation faces in the near future. Small groups that could never stand up to the U.S. military in open battle can stage clandestine attacks against our citizens and our interests with relatively little danger to themselves. Thus, we can expect terrorism to become the strategy of choice for opponents of U.S. policies. The Sarin gas attack on Japanese commuters in 1995 revealed a new dimension to this form of threat. We have stepped up efforts to ensure we are ready to provide assistance to civilian authorities with such an incident.

Quality of healthcare.—Army medical facilities exceed the civilian average score on surveys by the Joint Commission on Accreditation of Healthcare Organizations. We are particularly proud of Tripler Army Medical Center at Honolulu, Hawaii and Martin Army Community Hospital at Fort Benning, Georgia, who scored 100 and 99 out of 100 respectively and received accreditation with commendation in 1998. The 121st General Hospital in Korea received a score of 96 and commendation after its first ever Joint Commission on Accreditation of Healthcare Organizations survey. Munson Army Health Center at Fort Leavenworth, Kansas, received a 98 and commendation in its first survey after downsizing from inpatient hospital to clinic; Noble Army Health Clinic at Fort McClellan, Alabama, scored a perfect 100 in its first survey after downsizing in 1996. The majority of our facilities surveyed in the last three years have scored over 90. Success is always due to outstanding people and the Army's medical people compare well to any health-care organization anywhere and I am proud of them.

TRICARE.—In 1998 TRICARE, the Department of Defense's managed-care initiative, became fully operational in all CONUS regions. Implementation has been a challenging journey since the first TRICARE contract became operational in March 1995 at Madigan Army Medical Center, in the Northwest Region.

We want TRICARE Prime to be the number one choice of beneficiaries as their health-care system. To reach that goal, we must stress quality of care, ease of access and customer-focused service.

A study of the Northwest Region, where TRICARE is most mature, has shown increases in use of preventive care, obtaining care when needed and satisfaction in making an appointment. There has been a decrease in use of the emergency room as a walk-in clinic, keeping it free for true emergencies. Most beneficiaries surveyed reported they were satisfied with the quality of their care. This was accomplished without increased cost to the government.

We are forging closer relationships between the services and the TRICARE Lead Agents to ensure issues requiring immediate action are handled without delay. And, as TRICARE continues to mature over the coming years, I am confident it will produce the desired benefits in terms of healthier military beneficiaries and lower costs for taxpayers.

Another highlight of 1998 was the demonstration of TRICARE Senior Prime (sometimes known as "Medicare subvention"), which began in selected locations throughout the Department of Defense. Army medical treatment facilities participating are at Madigan Army Medical Center, Tacoma, Washington; Brooke Army Medical Center, San Antonio, Texas; Fort Sill, Oklahoma; and Fort Carson, Colorado.

The purpose of this three-year program is to deliver accessible, high-quality care to people eligible for both Medicare and military medical benefits, without increasing the total Federal cost for either Medicare or the Department of Defense. The Department of Defense will continue to provide the level of care it has historically provided for these "dual-eligible" patients and Medicare will pay Department of Defense for care beyond that historical level.

Federal Employee's Health Benefits Program demonstration, TRICARE Senior Supplementation, and the pharmacy benefit expansion target Medicare-eligible beneficiaries living outside Military Treatment Facility catchment areas. Of the eight sites identified, one Army site, Fort Knox, Kentucky, will participate in the Federal Employee's Health Benefits Program test. Military Medicare eligibles will be able to join the Federal Employee's Health Benefits Program during the Fall of 1999 open season.

These are all important steps toward meeting our obligation to take care of those who devoted a career to military service.

One way we are operating more efficiently is through closer cooperation with the Department of Veterans Affairs. The Army and Department of Veteran's Affairs are benefiting from more than 130 Resource Sharing Agreements, at least 35 Memoranda of Agreement or Understanding and nine Interagency Support Agreements. These various kinds of agreements have different administrative and funding details, but all involve using resources of both departments more efficiently to provide services for less cost.

In addition, many Department of Veterans Affairs facilities are participating as TRICARE providers. The Department of Veteran's Affairs is treating outpatients in community-based clinics at Fort Belvoir, Virginia, and Fort Leonard Wood, Missouri. Tripler Army Medical Center, Hawaii provides care for most veterans in the Pacific region. A Joint Venture there includes a renovated wing for administrative services, an ambulatory care center and a 60-bed "Center for Aging" facility. In fiscal year 1997, Department of Veteran's Affairs reimbursed Tripler $9.5 million for its services. Department of Veteran's Affairs patients receive easier access to care, and both agencies benefit by expanded training and research opportunities. This is truly a "win-win" partnership.

We should see greater savings as we move into the era of enrollment-based capitation. With an accurate count of beneficiaries enrolled in TRICARE Prime through each facility, and with the ability of the Corporate Executive Information System to keep "score" of resources expended, we can make better financial decisions. However, there is a bottom below which we cannot responsibly go. Our priorities must be to provide quality medical care, to keep faith with our service members and to invest in the future so the quality of our medical program will keep pace with advances in medical science.

As I mentioned previously, each of our medical treatment facilities displays the Military Health System "report card". This compares the actual quality, access and satisfaction performance of that facility to published standards or to civilian norms. We exceed the standards in almost every area, though we seek continuous improvement, particularly in access. Our system must remain firmly rooted in the unique values of military medical service. The system must never be used to deny care, but rather to facilitate appropriate care in a proper setting.

Health Promotion and Preventive Medicine.—Whether engaged in armed conflict, deployed in support of peacekeeping operations, participating in any operation other than war, or training in garrison, commanders are concerned about any potential threat to the mission. In particular, commanders are becoming increasingly concerned about the health threats their personnel face and the ways to prevent these threats. This concept, designated Force Health Protection has three basic tenets: provide a healthy and fit force, prevent diseases and non-battle injuries, and care for casualties.

The vision for Force Health Protection requires a robust public health surveillance capability to provide commanders the timely information needed to identify and neutralize the health threats to their troops. The limited capability of the Department of Defense to address health concerns of veterans of the Gulf War (1990–91) with valid and timely data on force health and potentially hazardous exposures reinforces the need for comprehensive military medical surveillance.

Medical surveillance is defined as the timely, routine, and systematic collection and analysis of pertinent health information on a defined population and dissemination of this information to those who need to know. Comprehensive military medical surveillance is conducted to reduce or prevent illness and injury, and targeted to assist commanders and other decision-makers.

Comprehensive military medical surveillance is a Department of Defense capability to provide timely information (at the tactical, operational, and strategic levels) on a broad range of indicators of health in populations of interest unique to Department of Defense (active duty, civilian workforce, etc.).

Some of the major health indicators are population factors, including demographic risk factors (age, sex, and military occupation); potentially hazardous exposures (including workplace and deployment-related exposures); use of protective measures and equipment (immunizations, personal, protective equipment); personal risk factors (smoking, alcohol use, stress, pre and post deployment screening); health outcomes (injury, illness, sentinel health events); clinical screening (occupational "medical surveillance"); relevant data elements are integrated and analyzed in order to provide population based information at the corporate level to support policy decisions. A major product of this effort is the construction of a series of related "accession though retirement" databases on the Department of Defense populations of interest.

One of our recent significant successes used distance-learning technology to educate military and civilian health care providers on the care for biological warfare casualties. Through satellite links, 17,319 medical professionals at more than 583 downlink sites in the U.S. and overseas were able to tap in to the expertise of the U.S. Army Medical Research Institute of Infectious Diseases in treating injuries from biological weapons. Cosponsored by the Centers for Disease Control and Prevention, the 12-hour course included information on the medical consequences of a bioterrorist attack and scenarios on defense against battlefield biological threats.

Our researchers are continuing to develop vaccines against a variety of diseases, both naturally occurring and those that may be employed as biological weapons. In addition to protecting soldiers, this work can make a great contribution to civilian health. An antitoxin developed by the U.S. Army Research Institute of Infectious Diseases saved the life of an Ohio infant suffering from botulism last January. U.S. Army Research Institute of Infectious Diseases arranged an overnight shipment of the antitoxin when their assistance was requested, and after administering the antitoxin, the baby girl began to show improvement within hours. The antitoxin is an Investigational New Drug developed to protect soldiers on the battlefield but clearly such research can be beneficial to civilians as well.

The world is constantly changing and as the Army and the Army Medical Department adapts to these changes, we will continue to focus on our core values and functions. We will maintain our position as a world class system capable of continuing Army Medicine's proud tradition of "Caring Beyond the Call of Duty." Mr. Chairman, thank you again for the opportunity to appear before the committee.

WALTER REED ANGIO CAT

Senator STEVENS. General, I am constrained to leave here in a minute, but I have one question I would like to ask you, or maybe two. Have you been out and seen the angio computer aided tomography (CAT) at Walter Reed?

General BLANCK. Yes, sir.

Senator STEVENS. Is it functioning properly?

General BLANCK. It is functioning very, very well. Right now we are doing the electron beam computed tomography (EBCT). We have over 2,000 patients that have gone through that. It is functioning extremely well and, as you point out, it is the basis for the development of the volume angio computerized tomography which will allow us to do the three-dimensional imaging.

TIME LINE FOR ANGIO CAT EMPLOYMENT

Senator STEVENS. That is the one I am interested in. We hoped that would be ready for, God forbid, the next war, but we are in the next war now, and the angio CAT too is not there. How far away is it?

General BLANCK. We are working it with the company in Los Angeles, and they ought to have a prototype based upon the EBCT probably within the next year.

FUNDING FOR ANGIO CAT

Senator STEVENS. That is disappointing, because it was 2 years ago we thought it would be here this year. Has it been properly funded, fully funded?

General BLANCK. It has been properly funded, and it is just taking that long to meld all the technology together.

FUNCTION OF THE ANGIO CAT

Senator STEVENS. As I understand the goal of that would be that if a person was injured in combat, and that was in the vicinity, that that injured person could be placed in a chair and in about 90 seconds scanned and have three different computers read out the problems and instruct the corpsman what to do to save that life.

General BLANCK. Exactly right, in a very, very short period of time, a minute, somewhat less, somewhat more. A casualty would go through, you could see the entire vascular system, all the other anatomic structures, and the computer would, in fact, direct the corpsman, in fact could even potentially have the computer place a catheter, for example, which would have it go to where a wound is.

Senator STEVENS. That is angio CAT 3, but I am interested in number 2. I would urge you to inquire and see what we can do to speed that up. If that ground war starts over there, we ought to have a dozen of those in the area because that is modern medicine to the nth degree, in my opinion.

General BLANCK. Absolutely. That technology is phenomenal, and I will look at it.

Senator STEVENS. Did you go through the angio CATs?

General BLANCK. Yes, sir.

Senator STEVENS. Have you put him through it, and you are not supposed to tell your patient's business, I know. A few of my friends ought to go through that and understand what it means. It is really preventive medicine in the sense of the first person. The second is trauma treatment in an instant, and I think we should have that if it is at all possible.

General BLANCK. I know General Roadman has gone through it too, and the irritating thing is, he has a lower score than me.

Senator STEVENS. I went through it, too, but it is about time for my second trip, I think. I have not been for years. I went through the manufacturers. I just went out to test it. I figured if it could diagnose me, it could diagnose anybody.

Thank you very much, Mr. Chairman, you have the gavel.

Senator INOUYE [presiding]. Thank you. General Roadman.

STATEMENT OF LT. GEN. CHARLES H. ROADMAN, II, AIR FORCE SURGEON GENERAL

SUMMARY STATEMENT

General ROADMAN. Thank you. I have submitted my statement for the record. I would like to start off by saying that—addressing the chairman's comment, and that is that the budget for 1999 is executable. I do not think I would say minimally executable. It is executable. That we will not be turning patients away, or restricting their care. We project that in 2000 and 2001 that is also true, and a lot of work is being done for the 2002, 2005 budget.

We would like to thank this committee for all their support in helping us resolve the 1999 issue. We are in a time of great change, as the Air Force transitions to an expeditionary Air Force and the combat support requirement medically. We are finding that we are having to redo our unit-type codes (UTCs) and to take our medical system from a cold war structure into a very reactive plug-and-play clinically capable force. We have done that and are finishing up our fourth year of reengineering, have all of our UTC's reengineered, and are now in the acquisition phase.

Second, we are deploying and employing TRICARE. TRICARE is the backbone of readiness in our peacetime care for our families, and it is a critical meld of understanding both our wartime mission and our peacetime mission and the outsourcing and privatization that is occurring as the size of the military becomes smaller.

In addition to that, in order to go into a modern health care system we are in the phase of transitioning from a body fix it approach to health care to one where we can prevent where we can, and a population focus on health as well as a focus on world class health care. That requires different training, different equipment, different mind set for our providers and, by the way, it requires a different force structure as we begin to look at what is required to do that.

Now, it is clear that many of our administrative procedures that the Secretary has talked about need to be improved with claims payment and those types of issues. We are on the way to do that.

I will tell you, in my estimation TRICARE is a great success. We still have a long way to go, but we are making great progress.

The things that we are doing are really the outcomes of the strategy that I briefed to this committee over the past several years, which we call the Parthenon strategy, which is a five-point plan to reengineer medical readiness, which we have done to employ TRICARE. It used to be deploy TRICARE. We have deployed it. We are now in the employment, and that is an ongoing thing that we must constantly pay attention to.

We are in the final phases of our tailoring the force, which is really getting the right patient with the right provider at the right facility at the right time, and it is an understanding that health care in fact is a process, not a place, and as Senator Shelby knows, we have taken a World War II type big hospital, converted it to an ambulatory care superclinic which is world class, and what we will do is, we will increase the access, even though we will purchase patient care downtown, and so you see a melding of the civil sector as well as the military. I think it is the model that we will see in the future.

In addition, we are building healthy communities, which involves intervening so early that we call it prevention, and that is, about 70 percent of premature deaths in our country are due to lifestyle, and that is due to lack of exercise, nutrition, unsafe sex practices, and other issues.

The real issue is, our system in the past has been focused on, when people present with findings and symptoms, it is taking care of those, yet what we really need to do is go so far upstream and begin to intervene in things like smoking cessation and alcohol limitation and those types of issues. If we do that, we can significantly decrease the human toll as well as the fiscal cost, and I believe it is the ethical thing for a health care system to do that.

And then the fifth component is customer satisfaction. Now, clearly, as a physician I will tell you I rankle when we talk about customers, because it is patients that are the coin of the realm. On the other hand, we have combatant Commander in Chief (CINCS), we have wing commanders, we have third party payers, we have a whole panoply of folks that we need to be able to satisfy, so what we have really got to do is optimize the health care outcomes, the health care costs, and the services that we provide, and it is that optimization that we find our system struggling with.

Again, we have a plan but we still struggle. We are struggling together, I must tell you, in that all the things we are doing we are doing synergistically with the Department of Defense, with our sister services, and with the Veterans Administration, but as we focus on the future, I believe that it is incredibly important that we begin to lead turn into something we see coming, and the health care system that I think we owe you and we owe our Nation and we owe our people is one that prevents disease when possible and cures disease when necessary, but begins to balance those and move them more toward prevention.

PREPARED STATEMENT

It is clear that we have got to add value to our patients and our parent services. I think we are making great progress in that. I look forward to answering your questions and again, I thank you for the time and the ability to speak.

Senator INOUYE. Thank you very much, General.

[The statement follows:]

PREPARED STATEMENT OF LT. GEN. CHARLES H. ROADMAN, II

Mr. Chairman and members of the committee, thank you for this opportunity to address the goals and accomplishments of the Air Force Medical Service (AFMS) in

realizing our vision for the future. I consider it a privilege to appear before this committee who has worked so hard on our behalf.

As the Air Force prepares to enter the next millennium with a new organizational paradigm, the Expeditionary Air Force, the Air Force Medical Service will provide expeditionary medical support by transitioning from hospital-focused support to primary care and essential care. The AFMS "Parthenon" strategy will continue to be the foundation for Air Force health care into the next century. Our efforts under the strategic pillars of medical readiness, employing TRICARE, tailoring the force, and building healthy communities, with the capstone of customer satisfaction, have resulted in the most fit and healthy force in our history. We have the ability to provide state-of-the-art medical care to our personnel under any condition, anywhere in the world. Our strategy also has ensured a health care system able to provide high quality care to our Air Force family members. Now this strategy is mature enough to support our vision of population-based health care management (PBHM), using a total community approach. We believe this is an important template for the Military Health System.

Population-based Health Care

Population-based health care seeks to improve the overall health of a specific population through needs assessment, proactive delivery of preventive services, condition management, and outcome measurements. Its success depends on an interactive relationship among all elements of the community. The community approach has already been tested and proven by the Air Force. For example, in response to a community problem, suicide, the Air Force established an Integrated Product Team (IPT), comprised of members from various functional specialties—such as chaplains, security police, family advocacy, legal services, and mental health—and chaired by the AFMS. As a result of the IPT's efforts, suicides have declined 40 percent within the Air Force during the past two years—in 1998, we had the lowest number of suicides in 20 years. The Air Force suicide prevention program has been applauded as a benchmark for both the public and private sector.

Following this success, the IPT concept was expanded to our Integrated Delivery System (IDS), which links the synergy among base agencies to promote help-seeking behavior and integrate prevention programs. The IDS addresses risk factors through a collaborative, integrated, customer-focused prevention effort designed to offer programs such as stress and anger management, personal financial management, and effective parenting. These programs support readiness by reducing risk factors and building the performance-enhancing life skills of our community members.

The concepts of a healthy community involve more than just medical interventions. They include local environmental quality and hazards; quality of housing, education, and transportation; spiritual, cultural and recreational opportunities; social support services; diversity and stability of employment opportunities; and effective local government. Impacting these elements requires long-term, dedicated planning and cooperation between local Air Force commanders and civilian community leaders. The process will also involve changes in doctrine and policy. If we are serious about improving quality of life for our personnel—and the senior Air Force leadership has testified that we are—then we must impact all areas that touch people's lives—they are the essence of quality of life.

Medical Readiness

Population-based health care is essential to our first pillar, medical readiness. By ensuring that active duty members can deploy anywhere, anytime, with little notice, we provide our leaders and commanders with their most critical weapons system: a healthy and fit fighting force. Our tool to assure individual readiness for any contingency is the Preventive Health Assessment (PHA). The PHA changes the way the Air Force performs periodic physical examinations from a system based on episodic intervention, which has not been effective, to a system that stresses an annual review of the entire population using principles of epidemiology and prevention. The goal is to identify risk factors from a person's life-style—such as whether a person smokes, how frequently he exercises, and his diet—as well as his genetic background, individual health history and occupational exposure. Then, through proper prevention practices, we assist the member to moderate those risks, resulting in a more fit member capable of accomplishing the mission.

By managing the health of our active duty members, we in turn manage the health of entire units, addressing the requirements of the theater commanders. We have now established five readiness metrics for evaluation by our Performance Measurement Tool (PMT): PHA completion, medically related lost duty days, immunizations status, dental readiness and fitness status. This data will provide the unit commander vital information about the health readiness of his or her unit.

We also seek to safeguard the readiness of our troops through force health protection initiatives. For example, we have an extensive array of deployable medical capabilities, which ranges from four-person Air Transportable Clinics to 90-bed Air Transportable Hospitals. In addition, wide ranges of preventive health teams exist, such as the Preventive Aerospace Medicine Team, Theater Epidemiology Team, and the Bioenvironmental Engineering Nuclear-Biological-Chemical (NBC) Team. We have continued the deployment of new specialty teams—such as infectious disease, mental health rapid response, air transportable dental clinic, and pediatric teams—which we will complete by the end of the year 2000. In July of 1997 we conducted a form, fit, and function test of these newly reengineered specialty teams. We incorporated the results of this test into the improved Concept of Operations (CONOP's) and allowance standards (equipment sets), and have just concluded a second test to assess the improvements made to the specialty teams. Our next step will be to procure the new specialty sets.

In April 1998, a multidisciplinary team completed development of the Air Force Theater Hospital (AFTH) CONOP's. These facilities will replace our current contingency hospitals by the end of fiscal year 2000. They will provide a modular, incrementally deployable capability to provide essential care. They use existing ATH and specialty teams, along with pre-positioned (buildings) and deployable (tents) AFTH's.

Our top priority at this time is to formulate an expeditionary medical support package to support the Expeditionary Air Force (EAF) concept. Our goal is to reengineer our core assemblages so we can deploy first responder packages with multi-skilled personnel to any theater of operation within 72 hours. Our efforts in previous years to develop modular, flexible, and interoperable teams provide an excellent working base. We recognized the need to reengineer the Air Transportable Hospital to ideally support the EAF as well as to better mesh with the Air Force Theater Hospital CONOP's. The objective is to provide required capability while at the same time absolutely minimizing weight and cube. The new Air Force Theater Hospitalization and Expeditionary Medicine (EMEDS) CONOP's, personnel packages, and allowance standards are projected to be completed by September 1999.

Within the EMEDS, forward resuscitative surgical capability will be provided by the Mini Field Surgical Team (MFST), a five-person, man-portable (300 pounds) team. Stabilization will be done by a ground version of our new Critical Care Air Transport Team (CCATT).

In addition, the AFMS will support the EAF with a robust and capable aeromedical evacuation (AE) system that will facilitate transport of the stabilized casualty as we provide primary care and essential care in theater. Throughout contingency and humanitarian operations, Air Force AE flight crews and CCATT's provide in-flight care to quickly move stable and stabilized patients.

The CCATT, which adds an intensive care capability to routine medical flight crews, provides high quality enroute care without draining staff and equipment from theater commanders. For example, the AFMS sent two CCATT teams to Ecuador in February 1998 in response to Ecuador's largest pipeline explosion, which caused a fire that killed 11 people and badly burned another 60. The teams, from Wilford Hall Medical Center, Lackland AFB, successfully evacuated six patients to burn hospitals in Galveston, Texas. To support this valuable asset, we began a certified CCATT course in October 1997 and now have trained 133 CCATT's, and will have more than 50 kits in the inventory by this summer.

Last September, we began the Aeromedical Evacuation Contingency Operations Course (AECOT). This course will ensure we have well trained personnel familiar with standardized aeromedical ground support. Later this year, the course will be conducted simultaneously with the ATH course, allowing personnel from both weapons systems to benefit from their synergy.

Telemedicine will play an increasingly important role in our aeromedical evacuation mission under EAF. As DOD Executive Agent for airborne telemedicine, the AFMS continues to pursue the insertion of telemedicine into the aeromedical environment. Air Force human systems experts researched available technologies and recommended the use of existing Government Off-the-Shelf (GOTS) military satellite technologies to provide communications links from the aerovac platforms. Medical data can be transmitted to/from the patient compartment of the cargo aircraft and sent to the appropriate telemedicine referral centers as required. Additionally, clear voice communications can be utilized for provider-to-provider consultation as needed. We will be conducting the operational testing phase of this system this year in concert with major exercises, such as Patriot Medstar, and the Joint Medical Operations Telemedicine Advanced Concept Technology Demonstration.

Finally, no discussion of Air Force medical readiness is complete without recognition of our Guard and Reserve counterparts' contributions to our mission. The

Guard and Reserve have long been recognized for their vital role in our wartime aeromedical evacuation mission, for which they provide 93 percent of the capability. Our Mirror Force strategy, which provides a blueprint to organize, train and equip active duty, Guard and Reserve medics as one integrated team, will increasingly prove its value as more operational missions transfer to the Guard and Reserve in the future. Last summer, the Air Force Reserve Command and Air National Guard deployed ATH units to support Operation SOUTHERN WATCH at Prince Sultan Air Base, Saudi Arabia. In addition, the Air National Guard began rotations at the Eskan Village Clinic in Riyadh in January. Medical readiness personnel from the Air Force Reserve Command and Air National Guard will continue to serve rotations in the Joint Task force-Southwest Asia theater planner position.

These Air Reserve Component deployments have been so successful that the senior medical leadership has decided to conduct integrated deployments in the future—active, Guard and Reserve members will deploy together to provide medical support in theater. Additionally, the Guard and Reserve are actively participating in the planning and implementation of the Expeditionary Air Force for medical forces. They will continue to be active partners in our efforts to maximize the medical readiness capability of the AFMS by achieving a seamless, integrated medical force through the use of all components.

Employ TRICARE

Because combat readiness begins with the health and fitness of individuals—who depend on highly skilled health care providers—our peacetime health care system, TRICARE, remains the backbone of our medical readiness mission. Therefore, it is essential that TRICARE continue to evolve to meet the needs of the military population. Fortunately, TRICARE Prime represents a solid foundation for population-based health care, which must be built on an enrollment system to more accurately capture the size, characteristics, and unique needs of the patient population. Thus our second pillar, Employ TRICARE, is key to the success of our population-based health care management goals.

TRICARE, the Department of Defense's managed care system, concluded its implementation during this last year with the standup of the Northeast U.S. regions. While this makes TRICARE available to all of our eligible beneficiaries, there are still several hurdles to overcome to maximize its effectiveness, such as difficulties with claims processing and CHAMPUS Maximum Allowable Charge (CMAC) rates, and improving beneficiary awareness. We are working these issues diligently with the Lead Agents and the DOD TRICARE Management Activity. Unfortunately, as with the civilian sector, we are frequently met with local resistance to managed care, from local medical societies, civilian providers and our patients. This is all part of the education process with which we are challenged.

We are encouraged by the steady increase in patient satisfaction with TRICARE, as evidenced by recent survey data. This data shows that 93 percent of TRICARE Prime users would reenroll in TRICARE. We are particularly proud of the fact that TRICARE fares extremely well when compared to patient satisfaction with civilian HMO benefit packages.

TRICARE Prime brings together all the tools of population-based health care. In concert with the TRICARE support contractors, self-care and health-care information line programs have been instituted at each medical treatment facility (MTF), forming the basis for demand management. By providing such services as the Health and Wellness Centers (HAWC's), the Health Enrollment Assessment Review (HEAR) survey, and Put Prevention Into Practice (PPIP), we enable patients to access the best possible resources for improving their overall health and to become educated, responsible consumers. We're developing policy and programs where each MTF will use population needs and health assessment information to prioritize and proactively deliver evidence-based clinical preventive services. As part of our PPIP program, we established prevention committees at each of our MTF's. The senior medical staff, in consultation with the MTF Prevention Committee and using demographic and health assessment information, can ensure that appropriate appointments and ancillary services are available to support preventive interventions for the empanelled population.

Over the next year, we look forward to continued refinement of the health care delivery process in Air Force facilities, to include sharing arrangements with the Department of Veterans Affairs (DVA), as well as managing our Medicare Subvention and Federal Employee Health Benefits Program (FEHBP) demonstrations, which will help us serve the needs of our over-65 retiree population.

The Air Force has a long heritage of resource sharing with the DVA. Today we have 100 agreements with the DVA, sharing more than 270 services. In addition to our two joint ventures at Albuquerque, New Mexico, and Las Vegas, Nevada, we

will be establishing a new joint venture in Alaska with the May opening of our new hospital at Elmendorf AFB. We're pursuing numerous joint initiatives with the DVA to improve mutual efficiencies. For example,

—Clinical guidelines improving the standards of care will be shared across the Services and DVA, enhancing continuity and outcomes
—Discharge physicals will be "one-stop shopping" through one organization
—Numerous DOD and DVA staff have been collaborating to establish one computerized record that could be used during and after active duty service
—DVA representatives are participating on the DOD pharmacy redesign working group to establish standardization between agencies where feasible.

We are also excited about our efforts to better serve the over-65 retiree population. All of our five Senior Prime demo sites have now begun seeing patients, and additional enrollment capacity still exists at most sites. We are optimistic about the prospects of Senior Prime for our older retirees, and believe that these demos will show we can provide high quality medical care for less money than can the civilian sector, particularly in our larger facilities. However, we do have some concern regarding the financial implications of Senior Prime for our smaller facilities, which will be required to buy a significant amount of needed care from the civilian sector. That is the value of the demonstration: a trial period to test whether the program is financially viable at our small facilities as well as our large ones.

Our alternative demo at MacDill AFB, MacDill Senior, has enrolled all 2,000 participants and provides the full scope of primary care services while meeting TRICARE access standards. MacDill also will provide specialty care within the capabilities of the facility. Reports of the demo so far have been very positive—our patients are delighted!

These demos are an important first step for our Medicare-eligible retirees. We welcome the opportunity to test other alternatives and fully support the FEHBP demonstration and pharmacy benefit redesign requested by Congress. Along with our sister Services, we remain committed to fulfilling "the promise" these deserving beneficiaries believe were made to them.

Tailored Force

Our ability to continue providing quality health care to the military family depends on the effective use of all our resources—people, facilities and money. Population-based health care management is driving the methods the AFMS uses to plan for and allocate resources to our MTF's, and is therefore vital to our tailored force pillar. Financial and manpower resources will be determined first by the unit's readiness mission, second by operational support to the base mission, and third by the health care needs of the enrolled population. We have developed and implemented tools such as Enrollment-Based Capitation (EBC) and the Enrollment-Based Reengineering Model (EBRM) to properly size and resource our MTF's to meet their mission requirements and the health care needs of their population. The primary objective of tailored force is to develop an overarching strategy that will optimize the overall force size, while it ensures we have the right number of people with the right skills at the right place and right time.

Enrollment-Based Capitation (EBC).—The AFMS is a strong supporter of the Defense Department's development and implementation of a capitation model that allocates funds to a specific medical treatment facility (MTF) based on their enrolled population, rather than merely allocating between the three services based on an estimated user population. EBC results in making MTF commanders fully accountable for all the resources used by their TRICARE Prime enrolled population. The evolution from a workload-based resource allocation system to an MTF-enrolled population system makes this possible. Unlike the past, commanders will know which TRICARE Prime patients they are financially responsible for and how much they are being given for the care of these patients.

Enrollment-Based Reengineering Model (EBRM).—The traditional method of using historical workload of an "unenrolled" population to determine staffing requirements for Military Health System (MHS) components is outmoded. The EBRM is the Air Force's latest tool for determining manpower requirements for a managed care delivery system with an enrolled population. This model relies on civilian studies validating physician-to-beneficiary-population ratios, AFMS-generated data on support staff-to-physician ratios, and MTF-reported enrollment projections. The model was developed by an Air Staff Integrated Process Team (IPT), which included representatives from all Major Air Commands. Consistent with changes in the civilian sector delivery of health care, the model shows more primary care physicians are required than specialists, particularly as the health care industry shifts from an inpatient to an ambulatory care setting. The EBRM also suggests the "ideal" support staff ratios, according to our consultants involved in the development of the model; they were

not constrained by the old ways of doing things. Finally, the EBRM IPT modeled a "robust" primary care delivery system in which the Primary Care Manager (PCM) is expected to provide comprehensive care in the primary care setting, rather than merely acting as a gatekeeper of care.

These system improvements are crucial in allowing us to effectively execute our tailored force strategy. This strategy, although initially directed from senior leadership, has been validated through a comprehensive strategic planning process, essentially a bottom-up review and analysis. The end product is a roadmap that will reengineer how care is delivered in the AFMS. Programmed changes will result in fewer inpatient services throughout the AFMS. Inefficient small hospitals will convert to clinics as we move to a prevention-based system. Inpatient care at these clinics will shift to the civilian community resulting in a greater partnership within the community and significant improvement in efficiency and quality of care. At the same time, this shift will allow increased access to primary care services in the MTF as we free up precious resources that have been underutilized in inpatient care. While we have already completed 50 percent of this reengineering effort, we have a formidable two years ahead of us as we strive to achieve the strategy by the end of fiscal year 2000. Our facilities are committed to communicating these changes promptly and openly with their beneficiaries—your constituents—and their local civic leaders and members of Congress.

In summary, the ultimate outcome of a reengineered system using EBC and EBRM is a system in which the MTF's enrolled population drives money and manpower. The majority of health services will be delivered through prevention programs and well-supported PCM's. EBC and EBRM encourage MTF commanders to enroll their beneficiaries and retain them as satisfied customers while emphasizing preventive and primary care as the preferred delivery setting.

Building Healthy Communities

The prevention paradigm of our fourth pillar, Building Healthy Communities, is the cornerstone of the population-based health care management system. Previously we concentrated on individual health care through clinical intervention, but now we are using the community-approach, population-based initiatives. For example, three major areas we are targeting at the community level are decreases in tobacco use, alcohol abuse, and injuries. The Under Secretary of Defense for Personnel and Readiness has established a DOD Health and Safety Promotion and Injury/Illness Prevention Council, with the Air Force as its executive agent, to address these areas. The Air Force is the lead service for promoting tobacco use avoidance and cessation; the Navy is the lead service for alcohol abuse, and the Army for injury and illness prevention. We feel very confident in our ability to lead in the fight against tobacco use—thanks to years of hard work, tobacco use is at an all-time low in the Air Force.

We're also very proud of our success in the prevention of family violence, and I make particular note of this in light of a recent "60 Minutes" story on domestic violence in the military. The Air Force Family Advocacy Program (FAP) is a comprehensive network of family programs and services, with 600 professionals serving families at 80 installations worldwide. Our proactive approach and emphasis on early intervention allows us to provide services to families at an earlier stage of the domestic violence cycle. We believe these efforts are paying off. Not only are substantiated rates of child and spouse abuse declining, but the rates of severity of abuse are also decreasing. From 1990–1994, we averaged six deaths a year as a result of domestic violence—since 1995 we've averaged less than one death a year, clear evidence that our awareness and prevention programs are making a difference. However, we must continue to improve, for any loss of life or emotional scar is too many.

Our Health and Wellness Centers (HAWC's) continue to promote health and fitness for our people. These centers have been established at each Air Force installation as central points to focus on opportunities to promote and enhance health, fitness, and performance in the general beneficiary population. All Air Force bases have at least a full-time Health Promotion Manager, and every HAWC has an exercise physiologist to manage the USAF (including the Air Reserve Component) fitness assessment program and provide fitness counseling and prescriptions.

Another essential element of our Building Healthy Communities pillar is the Health Enrollment Assessment Review (HEAR) survey, which identifies behavioral health risk factors, the need for clinical preventive services and management of chronic diseases. Information from this survey is used at multiple levels: the individual, the primary care manager, the MTF, the TRICARE region, and the Air Force itself. In November 1998, the Department of Defense began to use a software program automating the HEAR. This incorporates the use of numerous survey data

into a global approach to understanding population health needs and status, and provides information from all branches of the service.

We have an aggressive fitness and performance enhancement research program headed by a newly created Force Enhancement and Fitness Division at our USAF School of Aerospace Medicine, Brooks AFB, Texas. In support of an Air Force Chief of Staff decision, the AFMS will enhance the USAF fitness program by adding muscular strength, endurance, and flexibility assessments for all members, and will develop performance-based occupation-specific physical conditioning programs. We will be testing these changes and determining the standards throughout 1999, and anticipate final implementation in January 2000. We've invested in our personnel and most are certified in their specialty (i.e., as health promotion managers, physiologists) and attend annual professional conferences to enhance their certification or education. Aerospace medicine, public health, bioenvironmental engineering, and occupational medicine personnel focus on opportunities to promote and enhance worksite health.

Customer Satisfaction and Quality Care

Prevention is the key to a better quality of life for our personnel and their families. Healthy, happy patients are satisfied customers. This is so important to us that we've identified customer satisfaction as the capstone for the AFMS strategy. We must ensure that our customer satisfaction efforts include our external customers, our military leaders and patients, as well as our internal customers, our medical staff personnel.

As a means to provide overall guidance, a customer satisfaction task force, known as our "Skunkworks," was formed in 1996. The task force developed a three-phase strategy to create a climate and culture where customer focus and service permeates all that we do in the AFMS. In Phase I, we researched best business practices in the public and private sectors to establish our program framework and develop tool kits. We have just completed Phase II of our three-phase strategy, which involved deployment to the field. With the last of our six rollout meetings, every AFMS organization now has trained representatives. We will use "report card data" and the AFMS customer satisfaction metrics that are part of the Performance Measurement Tool to monitor and measure our success. Finally, Phase III of our program, known as "Sustainment and Partnering," will be focused on maintaining a high level of momentum for customer service and continued monitoring of the data.

While we're excited about the potential of our Skunkworks program, we also recognize that no amount of provider training can replace high quality care as a means of satisfying our customers. We have plenty of proof that the quality of our care has never been better and that we have many satisfied customers.

Quality is the hallmark of our MTF's. With 97 percent of our facilities surveyed by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), the Air Force continues to match or exceed civilian scores. The average Air Force hospital accreditation score has risen from 92.38 percent in 1997 to 94.43 percent in 1998. Clinics maintained an accreditation score of 97 percent, and an impressive 48 percent were accredited with Commendation.

Let me offer you another example of the high quality of care we provide. Many of our facilities have participated in the Maryland Hospitals Association Quality Indicator Project for more than eight years. Air Force inpatient facilities have maintained significantly better rates than the aggregate average of more than 1,000 participating inpatient facilities on five clinical indicators including inpatient mortality, perioperative mortality, unscheduled readmissions, unscheduled returns to the operating room, and unscheduled returns to the special care unit.

This level of quality is reflected in our patient satisfaction. Not only do we know that 93 percent of our Prime enrollees would reenroll, we've received outstanding kudos from other customers. For example, our line commanders are delighted with the preventive health assessment, used to track and manage data on the readiness status of their troops. They have praised the program because it addresses their troops' readiness capabilities. They were especially pleased when their units were prepared to go to the field for deployment exercises without any medical discrepancies.

We're proud of our record in delivering quality care, but there will always remain room for improvement. We take this very seriously, and continue to work hard with our sister Services to fulfill the mandates of the quality initiatives established by the former Assistant Secretary of Defense (Health Affairs). Some of these things I've addressed in the course of this testimony. Among others is ensuring that every Air Force MTF has a health care council or consumer committee to offer beneficiaries an open line of communication. In fact, this is an item on the checklist of the Air Force Inspection Agency during their Health Services Inspection. During the past

two years, all Air Force MTF's inspected received a satisfactory or higher rating on this item.

I'm also pleased to say that 100 percent of our MTF's have published a directory of providers to better inform patients about professional information relating to their providers. Air Force MTF's are also 100 percent compliant in posting their "report cards" for patients to see when they visit the facility. Report cards contain "how are we doing" data on access times for major service areas, patient satisfaction, and JCAHO scores as well as information on patient education, patient rights and web site availability.

Our bottom line: The AFMS is dedicated to maintaining the finest professional work force, the best quality care and truly satisfied customers!

Conclusion

Our responsibility as providers and caregivers is to our customers—our nation, our patients, our leaders, our families, ourselves. We believe there must be changes in how military medicine is currently managed and a strategy to prepare for the future 10, 20 or 30 years from now—that strategy is population-based health care management. To succeed, it must be reinforced with a foundation that sustains medical readiness, employs TRICARE, tailors the force, builds healthy communities, and—ultimately—delights our customers. We confidently and wholeheartedly accept that challenge, the challenge of stewardship of resources, responsibility for our patients and our nation's health and support of our national security interests. Our strategy is about stewardship.

STATEMENT OF VICE ADM. RICHARD A. NELSON, MEDICAL CORPS, SURGEON GENERAL, U.S. NAVY

Senator INOUYE. Admiral Nelson.

Admiral NELSON. Mr. Chairman, Thank you for the opportunity to come before you today and speak a little bit about the Navy programs. One of the problems with being the fourth person in four is that most things have already been said, but I would like to share a little bit about Navy issues.

Just like the other services, our first priority is our readiness role, and being prepared for contingency operations. I took a look yesterday at where we have people deployed right now, and I would share with you that we have almost 1,700 folks, between our reservists and our active duty who are taken out of their regular roles in the MTF's and our treatment facilities and are at sea or else with the marines.

Right now, we have—the U.S.S. *Mercy*, the hospital ship on the West Coast is in an exercise. We have also folks out of hospitals with the First Marine Division, and that exercise, and we have a reserve fleet hospital stood up to also participate in the exercise, and so a good mix of both our active and reserve forces in support of a major exercise, and also prepared for their contingency roles.

We also have part of a fleet hospital deployed to Haiti right now, and other folks scattered around the world, and so we are paying attention to our first job.

We are very attuned to our responsibility for force health protection and how we prepare our sailors and marines for their roles. An important part of that, though, is also how we care for the families. That is an important part of their well-being and of their peace of mind when they are deployed, and so along with my counterparts here we take the TRICARE program very seriously. We see it as our program, our responsibility to see that it works.

We certainly have had some start-up problems with it, but where we have had it in place awhile, it is a very successful program. I look forward to making it a success throughout the system.

Along with the TRICARE program we are really going through a culture change in military medicine, and both of the other two Surgeons General alluded to that. It is a change of our thinking from being one fee for service sort of medicine, take care of you when you are sick, to really doing the full scope of health promotion and prevention, disease management things to see that we keep people as healthy as they can be and take care of them at the appropriate level.

As we transition to that, as we have transitioned to that kind of health care it has made all the more important the roles of our various parts of our medical department, and that they work together and that we have better teamwork than we ever had before.

I am aware that today you have the nursing chiefs from the various services as another panel. The role of nurses in the culture change is most important.

Another program that we are well-started with right now, and I am anxious to see the results of, is the TRICARE senior prime program. I have felt a strong commitment to our former military who have passed the age of 65 and their families, and I think we have a commitment that includes them, and I have been very pleased that the Navy has one site participating in the TRICARE senior prime program. That is Naval Medical Center in San Diego. We are anxious to see that program a success, and we are anxious to try another over-65 programs to see what they offer and how they are accepted by our beneficiary population.

Navy medicine's vision now focuses on superior readiness through excellence in health services, and to give you a sense of how we feel about the importance of those health services and how well we think we are doing, this past year, 1998, we have 15 of our hospitals and major clinics go through inspections surveyed by the Joint Commission on Accreditation of Health Care Organizations (JCHO). Fifteen of those all passed. They all had an average score of 95.6. Thirty-seven percent of those received commendation as well as that level of passing.

The overall average of JCHO for commendations is 17 percent. We more than doubled it. We have quality. We have quality in our practitioners, we have quality in our facilities, and we are committed to keeping it that way.

PREPARED STATEMENT

I thank you for the opportunity to come before you. I look forward to the discussion. Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF VICE ADM. RICHARD A. NELSON

INTRODUCTION

Good morning. I am Vice Admiral Richard A. Nelson the U.S. Navy Surgeon General. I want to thank you, Mr. Chairman and members of the Subcommittee, for your invitation to testify at this important hearing on Military Health Care. I would also like to share with you Navy Medicine's and our strategies and goals for the new millennium.

Upon taking the helm last summer, I was quickly brought up to speed on the depth and breadth of the Military Health System (MHS), including issues of concern to you, the Department of Defense (DOD) leadership, and our beneficiaries. It has been very gratifying to see our dedicated, innovative, and highly competent health

care professionals meet these challenges head-on and find viable, inventive and cost-effective solutions to these complex issues. I will specifically address these matters of concern later on in my statement.

Readiness is the overarching theme that continues to shape Navy Medicine's future. We are continually developing mechanisms to enhance our Readiness. Navy Medicine is extremely proud of our medical mobilization platforms—two hospital ships and ten fleet hospitals—specifically designed to provide comprehensive, high quality medical care to our troops anytime and anywhere. Another initiative of our readiness mission is to ensure our Sailors and Marines are fit and healthy physically, psychologically, and emotionally. We call this part of our mission Force Health Protection. This mission is best achieved through preventive medicine, health promotion and disease management. Focusing on the wellness of the whole person best protects the health of our Sailors and Marines. Specific programs have been designed to reduce alcohol and tobacco use, promote exercise and healthy diet, and advocate early diagnosis and aggressive management of chronic illnesses. Over the past several years Navy Medicine developed many unique health care delivery initiatives at sea and ashore. These initiatives are designed to minimize lost work time, especially in the operational environment of the Navy and Marine Corps team, and include the development and deployment of safe vaccines, and the placement of sports medicine, physical therapy and mental health professionals in close proximity to our training sites and deployed troops.

The readiness of our deployed forces is further ensured by the knowledge that superior health care services are available to their loved ones while they are deployed. With completion of the TRICARE program across the United States, we now have registered nurses available around the clock in all 12 geographical regions through toll free numbers to answer health related questions.

Navy Medicine continues to focus on improving TRICARE implementation. Please be assured we take ownership of the inherent difficulties experienced with implementing this new program and are actively involved with DOD to simplify and improve TRICARE. We are accomplishing this through customer-focused marketing efforts designed to provide uncomplicated explanations of the TRICARE benefit. Access to this consumer information is provided over the Internet and within our Military Treatment Facilities (MTF's). We are also working to improve provider claims processing, improve telephone responsiveness, eliminate barriers to specialty referrals when needed, and improve the ease of portability. Establishing equitable health care benefits for our over 65 beneficiaries using congressionally directed senior health care demonstration projects also remains a priority. I will provide an update on these programs later.

In line with these efforts, Navy Medicine's leadership recently redefined our guiding vision and updated our strategic plan. Navy Medicine's vision now focuses on "Superior readiness through excellence in health services," and our updated strategic plan aligns our organization with today's needs as well as the challenges we expect to experience in the near future. This will be accomplished by focusing on: (1) force health protection; (2) people; (3) health benefit; and (4) best clinical and business practices.

FORCE HEALTH PROTECTION

As I stated earlier, Force Health Protection (FHP) is a key component to sustaining our military readiness. FHP promotes a healthy lifestyle, improves existing health, proactively and aggressively addresses medical threats through prevention and awareness programs, and provides quality health care for illnesses or injuries when they do occur.

A major component of our readiness posture as well as supporting FHP is Navy Medicine's deployable medical platforms. We presently have two 1,000-bed capacity hospital ships and ten 500-bed capacity fleet hospitals (six active and four reserve) specifically designed to provide comprehensive and definitive health care to our deployed troops in any region of the world. Our Fleet Hospital program has been improved through the development of a Naval Expeditionary Medical Support System (NEMSS). This system provides the flexibility to activate portions of the Fleet Hospital instead of the full 500 beds, based on the needs of a particular mission.

Personnel assigned to our MTF's within the continental United States staff the Hospital Ship and Fleet Hospital platforms. Periodic training is conducted to hone the skills necessary to provide medical care in combat environments and conduct medical mass casualty operations.

In June of last year more than 700 active duty and reserve Navy personnel from the National Naval Medical Center, Bethesda and the Naval Medical Center, Portsmouth deployed aboard the U.S.N.S. *Comfort* (T–AH 20) for Exercise Baltic Chal-

lenge in Lithuania. The *Comfort* joined participants from Lithuania, Latvia, Estonia, Norway, and Sweden for an exercise scenario based on providing humanitarian assistance following an earthquake in Lithuania.

The *Comfort* was the afloat cornerstone of the medical portion of this exercise which involved over 1,400 medical personnel. The exercise included helicopter medical evacuation to the *Comfort*, triage and treatment of over 220 simulated casualties and further transfer of these casualties into the fixed wing aeromedical evacuation system. In addition to familiarizing the crew with the physical plant, the exercise also tested the crew's expertise in medical regulating, helicopter operations, management of mass casualties, humanitarian operations, telemedicine and operating with non-governmental and private volunteer organizations.

The U.S.N.S. *Mercy*, based in San Diego, is presently preparing for a similarly complex training exercise this spring.

Preparation of our Fleet Hospital staff for the realities of combat is another top priority. Dedicated staff at the Fleet Hospital Operations and Training Command, Camp Pendleton, California, teach medical personnel, construction battalion units, and other nonmedical ratings units how to erect, operate and disassemble a Fleet Hospital. The training exposes students to living and working in conditions similar to a battle zone and includes operational exercises involving chemical, biological and radiological defense; casualty drills; and terrorist infiltrations. Naval Hospitals Camp Lejeune, Bremerton, and Pensacola have taken fleet hospital training one step further by actually erecting medical tents on the hospital grounds and routinely treating patients in them. This allows medical personnel to receive meaningful hands-on training in a setting very similar to one they will encounter when deployed.

One aspect of FHP, the Anthrax Vaccine Immunization Program (AVIP), has received heightened attention over the last several months. In May 1998, the Secretary of Defense approved the implementation of AVIP for the Total Force. Currently, service members deploying for thirty days or more, or assigned to the high threat areas of Southwest Asia and the Korean Peninsula are being vaccinated. By 2003, the entire force will begin receiving the six-shot series of the anthrax vaccination in a phased inoculation program. As of March 22, 1999, over 82,000 Navy and Marine Corps members have been inoculated.

I am well aware of the controversy associated with AVIP and the concern some of our troops have regarding potential side effects. The vaccine is safe. It is a sterile product made from a strain of dead anthrax organisms that does not cause the disease. The anthrax vaccine was approved by the Food and Drug Administration in 1970 and has since been safely used in the civilian sector. It is administered to veterinarians, laboratory workers, and livestock handlers in the United States. Infectious disease experts at the Centers for Disease Control and Prevention also agree that the overall benefits of the anthrax vaccine far outweigh the risks. Of the over 82,000 Marines and Sailors inoculated, only eight reactions have been reported via the Vaccine Adverse Reporting System. All have returned to full duty.

Administration of the Anthrax vaccine plays a crucial role in achieving our goal of improving and maintaining the overall readiness posture of our military forces. The threat to our troops is real and it is our responsibility to use all available means to protect them.

Navy Medicine is also focusing on numerous other, less high-profile venues designed to keep our Total Force fit and healthy. Smoking rates, though on the decline nationally since 1980, continue to be higher within all military branches as compared to our civilian counterparts. In response to the higher smoking rates, the Navy Health Promotion and Marine Corps Semper Fit Programs, available on the majority of our Navy and Marine Corps bases, all offer tobacco-cessation classes. These classes not only assist the cigarette smoker, but also are intended to help individuals stop using smokeless tobacco products. Smokeless tobacco is not a safe alternative to smoking, as it causes oral cancer and severe dental problems. Use of smokeless tobacco products within the Department of the Navy is significant; approximately 12 percent of our Sailors and 24 percent of our Marines use smokeless tobacco.

Examples of innovative Health and Wellness Promotion programs implemented aboard our ships by our hard-working Navy Medicine health care professionals in conjunction with the ship's food service and Morale, Welfare and Recreation personnel are numerous. They include:

The U.S.S. *Vincennes*' (CG 49) medical department improved the crew's wellness by developing a smoking cessation program, submitting daily health notes for the plan of day, conducting cardiopulmonary resuscitation and medical training for all personnel and, with the help of the dining facility personnel, improved the overall quantity and quality of healthy foods available.

The medical staff aboard the U.S.S. *Blue Ridge* (LCC 19) established a registry to track back and knee injuries in each workspace. The registry is designed to identify trends in work place behaviors and conditions, allowing for the necessary corrective action in order to prevent further job-related injuries.

Aboard the U.S.S. *Cleveland* (LPD 7), dental staff aggressively counsel dippers, chewers, and smokers on the very real hazards of tobacco use. The ship is also providing "mint chew" to assist Sailors who want to kick the habit.

To ensure a healthy crew, the medical staff aboard the U.S.S. *Chosin* (CG 65) performs mandatory screening programs for hypertension and cholesterol. They also offer courses in anger and stress management, nutrition education, and sexually transmitted disease. In addition, the U.S.S. *Chosin* has a LEAN (Lifestyle, Exercise, Attitude and Nutrition) program that encourages weight reduction and behavior modification.

These ships, along with many others received the Surface Force Commander's Annual Wellness Unit Award or green "H" award for their efforts. This award was initiated in 1996 by the Commander, Naval Forces Pacific and encourages ships to develop lifestyle programs that will keep Sailors and Marines healthy and contribute to personnel readiness. Health and Wellness programs are also plentiful at our shore installations. The Navy Environmental Health Center (NEHC) in Norfolk, Virginia offers a similar program titled the Command Excellence in Health Award, which recognizes both sea and shore commands for excellence in health promotion programs. NEHC's program began in 1995 and has three levels of awards: Bronze Anchor, Silver Eagle and Gold Star. Each level represents increased command participation in health promotion programs. In 1998, 22 commands across the fleet received this award, another key indicator of Navy leadership's continued commitment to promoting a "Fit and Healthy Force".

PEOPLE

I am well aware that achieving our goals is highly dependent upon the bright, dedicated and energetic men and women of Navy Medicine. From the Hospital Corpsman attending to a wounded Marine in a remote corner of the world to the neurosurgeon assigned to one of our premiere medical centers, two elements are absolutely critical if we intend to attract and retain top quality people: job satisfaction and providing the necessary training to maintain their skills.

In fiscal year 1998 Navy Medicine met or exceeded recruiting goals for our Medical Corps, Nurse Corps and Medical Service Corps community. The Dental Corps was the only Navy Medicine officer community not achieving recruitment goals. Legislation passed to increase special pays for Dental Corps officers as well as increases in the number of Armed Forces Health Professional Scholarships are expected to balance and stabilize the force structure of Naval Dentistry in fiscal year 2000.

While the other officer corps within the medical community met overall recruiting goals, there remains a shortage within specific sub-specialty communities. For example, the Medical Corps is presently experiencing shortages of orthopedic and general surgeons. Shortages in radiologists are also expected in the future. The Medical Service Corps is encountering similar shortfalls in clinical psychologists and optometrists. Health professions compensation and special pays, designed to compensate for these shortfalls, have aided in alleviating the shortfalls and Navy Medicine continues to work very closely with Health Affairs in determining how best to utilize these tools.

Graduate medical and dental education is another essential program that enables us to attract the best and brightest medical and dental students. Graduate Medical Education (GME) provides us with the specialty-trained practitioners to staff our worldwide network of medical and dental treatment facilities, and helps us retain a dedicated cadre of clinical faculty. High quality in-house GME leads directly to high quality health care. Navy programs are some of the best in the country, with our medical and dental residents regularly scoring well above the national average on inservice training examinations, and graduates of our programs excelling on their specialty boards. Keep in mind, graduate medical and dental education isn't just about training doctors and dentists. It also creates the right environment for training nurses, physician assistants, hospital corpsmen and dental technicians. GME is a vital part of Navy Medicine.

The way we manage our GME programs today will have tremendous influence over the size and shape of Navy Medicine for many years to come. Navy Medicine's leaders are evaluating the projected requirements of the Navy and the needs and expectations of our beneficiaries in order to determine our training output requirements, both in absolute numbers and in specialty mix. Another consideration is our

increased need for providers from the primary care specialties. This need is a direct result of our full transition to TRICARE.

Fortunately, interest in Navy Medicine training programs is very high. The Joint Service Graduate Medical Education Selection Board (GMESB) has the formidable task of selecting the best candidates for training, and matching their desires with the needs of the Navy. Those young men and women who are selected will be guiding Navy Medicine into the new millennium and beyond.

My philosophy is to identify Navy requirements and match them to our training output, both in absolute numbers and in specialty mix. I believe the GME system is working well for us at the present time. We have the right proportion of people in training and the mix of graduates is meeting the needs of the patients they are serving. In addition, feedback from line commanders, up to and including the Chief of Naval Operations, indicates they are quite satisfied with both the level of training and overall quality of the medical officers we have been sending them.

As mentioned earlier, there are a few areas that require fine-tuning. We remain chronically understaffed in areas such as general surgery and orthopedics and our need for primary care specialties continues to grow now that we have fully transitioned to TRICARE with its emphasis on prevention, wellness, continuity of care, and disease management. Consequently, I have asked the Medical Education Policy Council (MEPC) and the GMESB to rigorously evaluate the projected medical requirements of the Navy and make the recommendations for our GME needs of the future.

HEALTH BENEFIT

As you are aware, the MHS has recently completed transition from a direct care system to a managed care system known as TRICARE. The Navy line leadership and Navy Medicine are committed to making TRICARE work and want it to be the very best health care system for all our beneficiaries. TRICARE is a vital component of the MHS and is absolutely essential to achieving Navy Medicine's mission of supporting the combat readiness of our uniformed services and promoting, protecting and maintaining the health of all those entrusted to our care, anytime, anywhere.

TRICARE and readiness are complementary aspects of our mission. In fact, the effective implementation of TRICARE has a direct and positive influence on the readiness of our military members. Keeping our men and women fit for duty involves several key concepts: prevention of disease and injury; timely, world class restorative care and rapid rehabilitation; a mobile medical force that can deliver care anytime, anywhere we are called upon; and the security and peace of mind brought on by knowing that loved ones are well cared for and provisions are made for those who have served before us.

Navy Medicine is committed to meld the critical functions of a peacetime health care delivery system with the unique requirements of our operational medicine mission. We're taking our best clinical and business practices and implementing them to improve our overall health care delivery system. Application of our goals at Branch Dental Clinic Jacksonville has resulted in improved operational dental readiness of aircraft squadrons and reduced lost time from work. This was accomplished by placing three satellite clinics within the hangar complexes at the Naval Air Station.

The Branch Medical Clinic, Marine Corps Recruit Depot Parris Island is testing a new program that will ensure timely health care for recruits and reduce time they spend away from training. Called the "Company Corpsman Pilot Program," it not only ensures a continuous medical presence with the recruits, the test also provides an opportunity for Hospital Corpsmen to gain valuable sickcall experience. Hospital Corpsmen are trained especially for this program and, under the supervision of a physician assistant, act as sickcall screeners, treat minor conditions, and refer more serious cases to higher levels of medical care. One of the immediate benefits of this program is a dramatic reduction in sickcall time from three and one-half hours to about one and one-half hours. The recruit, company-level involvement has also improved the ability to support the recruits by becoming familiar with their individual strengths and weaknesses.

These examples show the synergetic relationship keeping people healthy has with maintaining their operational readiness.

Navy Medicine remains actively involved in ensuring the success of TRICARE. With the implementation of the last two geographic regions, TRICARE is now accessible nationwide. In Region II, we have experienced some start-up issues that have affected our beneficiaries and network providers. They have encountered difficulties with claims processing, appointment access, and availability of MTF Prime choice. Be assured that Navy leadership takes seriously the concerns expressed by our

beneficiaries and network providers. Navy leadership is engaged at all levels working with Health Affairs, the TRICARE Management Activity, the Lead Agent, the medical center, and the contractor to fix these problems and restore the prompt access to care our beneficiaries expect and deserve. The lead Agent, MTF and contractor have formed a strong team and we are making progress. The new, state-of-the-art, hospital building at Naval Medical Center Portsmouth will be dedicated soon and will significantly improve Navy Medicine's ability and flexibility to care for our patients in the Tidewater area.

Navy Medicine's experience with TRICARE implementation across the nation has taught us that start-up issues regarding appointments, access to networks, and claims processing turnaround can be mitigated through lead agent, medical center, and contractor teamwork. Navy Medical Department leaders are aware of the common pitfalls associated with TRICARE implementation and we are listening to our customers. Based on a recent survey, it appears beneficiaries who are well informed about their TRICARE benefits have higher satisfaction levels with their health care. We are therefore increasing educational efforts. For example, U.S. Naval Hospital Okinawa's personnel take the benefits message directly to current enrollees and potential customers. Practitioners, receptionists, technicians, and managers are all trained benefits advocates able to advise staff and beneficiaries efficiently and effectively on the details of TRICARE membership. Based on our West Coast experience, we know TRICARE works well in support of our core missions. The feedback from line commanders in southern California regarding troops' satisfaction with the quality of health benefits is encouraging. The TRICARE Lead Agent is very successful in uncovering and fixing the healthcare problems of our active duty members and their families. Successful TRICARE execution is the chief reason those levels of satisfaction, good health, and readiness are present in southern California. Navy leaders and Navy Medical Department leadership are committed to seeing the newer TRICARE regions mature and achieve similar success.

TRICARE now provides a platform for keeping the promise to our over 65 retirees through Medicare subvention and other demonstration programs. The TRICARE Senior Prime demonstration has been implemented and is running well at the Naval Medical Center San Diego. The Federal Employee Health Benefits Program (FEHBP) demonstration sites were recently announced. There are two Navy sites (Naval Hospital Camp Pendleton, Naval Hospital Roosevelt Roads) included among the demonstration locations. The FEHBP demonstration program will allow our beneficiaries the option of choosing among a variety of commercial health plans. We support the senior health care demonstration projects and are looking forward to learning the details of the TRICARE Senior Supplement and Mail Order Pharmacy demonstrations, due to debut later this year.

BEST CLINICAL AND BUSINESS PRACTICES

Before I begin presenting examples of what we are doing to incorporate our best clinical and business practices, I would like to make it clear that the implementation of these initiatives will not alleviate all the budget issues Navy Medicine will be facing in fiscal year 2000 and beyond. Our current plan includes reducing real property maintenance and deferring replacement of some equipment. While patient care will not be directly affected by these actions, they may have an indirect effect on our overall ability to provide top quality patient care. Unfortunately, we do not believe this picture will improve over time.

The primary reason for my concern is the unexpectedly high increases in U.S. healthcare costs. Recent reports by civilian healthcare industry consultants indicate that costs of employee health benefits at large companies will increase seven to ten percent this year, civilian pharmacy costs are escalating at ten percent a year, and FEHBP premiums will increase 10.2 percent this year. Also, Health Maintenance Organizations are dropping out of Medicare across the country—which may cause more retirees to seek space-available care in our MTF's. This situation is further exacerbated by an aging DOD beneficiary population who consume more expensive care, and the need to fund several demonstration projects including TRICARE Senior, FEHBP, and the National Mail Order Pharmacy to support their needs.

As you are aware, Sailors and Marines along with retirees consider their health care benefit the most important aspect of their compensation after their paycheck. We must work to ensure that our beneficiaries do not perceive an erosion of benefits or a broken "promise" in their healthcare system.

Having stated my concerns, I would like to now mention that the men and women of Navy Medicine are ever optimistic and actively participating in detailed reengineering of clinical and business practices across the MHS. As we further implement utilization management, develop clinical guidelines, and achieve best clinical

and business practices, I am also asking my leaders to look at the global effect their decisions will have on the Defense Health Program.

A key area presently undergoing revision is Navy Medicine's readiness systems. The Readiness Reengineering Oversight Council (RROC) was established to oversee these revisions which are designed to achieve integration of wartime and peacetime health care resulting in a stronger health care system to meet these dual missions. The RROC is currently overseeing the following initiatives: realignment of peacetime health care billets to support our hospital ships and fleet hospitals; provision of appropriate readiness training; development of doctrinal publications to update and clarify mission support for these mobilization platforms; and planning for the necessary systemic changes to meet operational health care needs in the future.

Best clinical and business practices are also being used to develop efficiencies in the daily provision of health care. For example, several facilities in the Navy have found they can enhance patient satisfaction, decrease waiting times, and reduce costs by transitioning to the Patient Oriented Dispensing System (PODS) in their pharmacies. PODS put the pharmacist or technician in face to face contact with the patient who can be counseled about medication compliance and interactions while prescriptions are filled on demand. Patients experience a shorter wait, have all their questions answered and unclaimed prescriptions are eliminated. This saves both man-hours and costs, as medications do not need to be discarded or returned to stock.

Incorporating our best clinical and business practices to reduce costs, improve efficiencies and enhance customer service involves all aspects of our business including patient access, pharmacy services, clinical practices, TRICARE marketing, education and training, and readiness. As we develop new innovations, we are incorporating them system wide through active communication with our principal stakeholders—the line community, the MTF commanders, clinical leaders, managed care staffs, and performance improvement and quality management coordinators.

A prime example of Navy Medicine's application of best clinical and business practices is our vigorous telemedicine program. Telemedicine not only allows us to provide comprehensive, high quality care to our forward-deployed troops, but also significantly reduces the number of medevacs from our overseas installation and deployed ships. On recent deployments to the Persian Gulf, the U.S.S. *Enterprise*, U.S.S. *Carl Vinson*, U.S.S. *George Washington*, and U.S.S. *Theodore Roosevelt* medical teams successfully managed mental health, neurology, orthopedics, and dermatology cases using teleconsultation. U.S. Forces deployed to Bosnia, Haiti, Macedonia, and Southwest Asia have utilized telemedicine in their operational environments. We are also using telemedicine to increase our physicians' scope of practice. At Naval Hospital Lemoore, California, a board certified family practice physician with dermatology training handles skin care issues utilizing telemedicine consultations with Dermatology, rather than the past practice of referring patients to civilian providers hundreds of miles away. The previous process could take over 30 days, but now the physician is able to establish a treatment plan within 72 hours. Patient convenience and cost savings, along with more comprehensive care are the primary advantages to providing care through telemedicine.

The use of teleradiology at U.S. Naval Hospital Yokosuka is also realizing savings, and improving the quality of health care by enhancing x-ray support capability at the Navy installations in Japan. Naval Hospital Yokosuka provides interpretations of x-rays and other radiological studies through a computer network linked to the radiology departments within its branch medical clinics located throughout mainland Japan. The key benefit of teleradiology is faster diagnostic feedback to the provider.

In an effort to effectively utilize resources and prevent duplication of services, Navy Medicine along with Health Affairs is examining the consolidation of supply and pharmaceutical purchasing with the Veterans' Administration. We are also evaluating and establishing cooperative agreements in areas such as laboratory services, specialized treatment systems, standardization of discharge physicals, and a joint formulary. Navy Medicine welcomes these opportunities to provide wider health services for our active duty and family member populations through the Veterans Affairs Medical Centers (VAMC). Full integration of VAMC's into the TRICARE regional managed care support contractors' networks, enhances Navy Medicine's ability to execute sharing opportunities.

Navy Medical Research and Development plays a vital role in reengineering our clinical and business practices by providing biomedical research that enhances the ability of our Sailors and Marines to perform their missions safely. Examples include the development of a software package to automatically scan and record room temperature measurements in shipboard workspaces, introduction of a new Marine combat boot that will reduce musculoskeletal injuries, and development of a self-

contained personal microwave and radio frequency detector worn in the ear that produces an instantaneous, audible warning of high electromagnetic fields.

The scope of our research community's efforts spans all operational aspects of Navy Medicine from the development of a computer model streamlining the flow of forward medical supplies for the Marine Corps, to the design of a prototype diver-worn sound meter that will detect and identify hazardous underwater sounds. Researchers have even developed and tested a torso harness that continuously updates a pilot's awareness of spatial orientation through a sense of touch.

Many times our researchers' work has direct applicability to the civilian medical community. For instance, while studying new strategies for the treatment of combat injuries, our scientists made important advances in T-cell manipulation, known as anergy therapy. The numerous potential applications of this therapy are very exciting and offer an opportunity to treat a spectrum of illnesses from organ transplantation to allergic reactions.

Navy Medicine is acutely aware that quality and emphasis on customer service are vital to an organization's survival. Navy Medicine takes the care of all its beneficiaries very seriously and works extremely hard to ensure the safety and well being of those entrusted to our care. I am proud to note that 15 Navy MTF's were accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) in 1998 with an average score of 95.7. Our Navy Hospitals achieve markedly higher accreditation scores when compared with civilian facilities and 37 percent of our hospitals have received the coveted "accreditation with commendation" compared with only 17 percent of all JCAHO accredited hospitals. We continue to work very closely with Health Affairs to further improve the quality of care and customer service in our MTF's. Effective April 1, 1999, all physicians not possessing a valid unrestricted license will have their special pays terminated and be removed from patient care and contact. We presently have four physicians in this status, none of whom are practicing independently. In order to assist our beneficiaries in making informed decisions on health care, we have developed a "report card" for our MTF's, providing "on line" quality and consumer information and we are developing a health care provider directory.

CONCLUSION

In closing, I would like to thank the Committee for the support they have given me in my first eight months as the Navy Surgeon General. The last year of this millennium has provided us with many successes and challenges and I am confident that the new millennium will provide additional opportunities for the men and women of Navy Medicine. I would like to reemphasize my commitment to supporting the combat readiness of our uniformed services and the provision of top quality health care to all our beneficiaries. I look forward to continuing a close working relationship with the members of this Committee and sincerely appreciate all your help in enabling Navy Medicine to realize its goals.

KOSOVO OPERATIONS

Senator INOUYE. I look forward to your many, many more appearances here. I would like to begin with a general question for all. The budgetary process that led us to this point has been ongoing, but the bulk of the work I believe began about a year ago. At the time, your budgeteers got together the nature of the conflict in the Balkans was not quite clear, but it is becoming a war now. It is a conflict. It is violent. We have been fortunate we have had no casualties, but my question is, are all of you prepared for any contingency?

Dr. BAILEY. I will take that question first. Clearly, we are in a situation now that requires a review of our budget so that we are able to stand at the ready should we be called upon and, in fact, we are already engaged in some medical support to the contingency.

We have requested $91 million to cover additional cost related to the operations there in Kosovo and in and around former Yugoslavia. The funding is requested to offset additional cost incurred due to the deployments of our medical personnel and also the re-

sponsibility that we have to the reserve and guard and to the families when they are deployed, so yes, we will be looking for additional funds, and they will be requested to meet this contingency operation.

Senator INOUYE. Would you also cover this point? Yesterday, the administration submitted its budget request, the emergency supplemental. I believe it was $5.4 billion. It covered humanitarian plus the ongoing military mission. Does that cover your concerns?

Dr. BAILEY. Yes. The $91 million I am referring to is part of that $5.4 billion.

Senator INOUYE. And is that sufficient?

Dr. BAILEY. And in my estimation, it will be sufficient.

General BLANCK. If I may add to that, it is sufficient for now. The concern I think we all have is, if there are larger scale operations which require us to deploy our personnel from fixed facilities whether in the States or in Germany or Italy, then we will require some reserve backfill to continue the level of care of all the beneficiaries that we now provide.

But clearly there will be an increase in cost as some of that care is shifted to the contractor out of the military treatment facilities because the surgeons will not be there, or whatever it is, and so I think if there are further deployments, then we are looking at additional cost, and I know Dr. Bailey and her folks have taken that into account as they are looking to that future.

General ROADMAN. Senator, the majority of the mobilization we have right now is flight surgery-oriented because, in fact, we have aircraft with squadrons deployed, so that is our squadron medical element that is there, in addition to some medics in Tirana.

I think the issue where—there are two possibilities where costs would go up, and that is if we became involved on the land, or if we became responsible for taking care of the refugees, which right now is an non-governmental organizations (NGO) responsibility, and so both of those issues are ones that, quite frankly, are wild cards that we do not know what the answer is, but as we look at what is going on today, we are adequately covered.

Senator INOUYE. Admiral.

Admiral NELSON. Senator, we from the Navy standpoint tend to—what we do in wartime pretty much matches what we do in peacetime as far as the medical coverage goes, but for the Marine Corps, we are prepared to support them if they are put ashore. I am not certain what all is in the $91 million, but my expectation is that unless something totally unexpected occurs we would be covered in that.

Your question, though, did not ask specifically about money. Did you mean more? You asked if we were ready.

BUDGET FOR KOSOVO

Senator INOUYE. Is the present budget sufficient?

Admiral NELSON. From a budget standpoint for this fiscal year I am still $71 million shy for being fully funded, but I can make this year, and I can support what I anticipate in contingencies right now, and with additional funds that Dr. Bailey is speaking of, we should make it.

Senator INOUYE. My concern is that if this conflict should get a bit more violent, and in order to cover additional costs we employ this procedure called reprogramming, and reprogramming always leaves all of you injured because you cannot pick it up. You may get something a year from now, which may be too late, and we on this committee look upon that procedure as being less than satisfactory, but are you prepared if the time should come for you to reprogram?

Dr. BAILEY. I guess what you are hearing from us all is that we have concerns as well as we go forward. At this point we feel the budgetary process is appropriate for the years 2000, 2001, and in fact we have factored out through the year 2005 the contingency operations. The situation in Kosovo today certainly raises concerns that you are hearing here from the Surgeons, yet we feel at this time the $91 million will cover not only the needs of the reservists who will be deployed and their families, but as you heard General Blanck say, it also covers our backfield situation so that we are able to continue to provide peacetime health care through our managed support contracts.

General ROADMAN. Senator Inouye, maybe I am starting to fall in with Admiral Nelson. Maybe I do not understand the question exactly, because as you ask about reprogramming, if you are talking about reprogramming $91 million to pay for something other than medical, as I said in the hearings last year, I had to get $194 million added to my budget in order to be executable. I got $194 million added to my budget in 1999 to become executable. I am executable in 1999 because of that.

If I have money taken out of my budget in order to be able to pay for other issues, I will go inexecutable and would require restricting care, decreasing real property maintenance (RPM), decreasing equipment purchases and all of those. So if that is the question, the answer is no, sir, I am not.

Senator INOUYE. Well, that is what I wanted to get. In other words, your budget covers the condition of this world as you saw it a year ago.

WAR READINESS MATERIEL (WRM)

General ROADMAN. Absolutely. Now, recognize that the world as we saw it a year ago and the majority of that budget other than our WRM, which is another pot, but the world as we saw that included TRICARE, peacetime health care. The contingencies that we are in right now are not big money drivers. I mean, there is some cost to it, but it is not a big money driver, but if we are talking about reprogramming of any significance we would become inexecutable in the present year, and if we are talking about taking money, the additional that has been planned for 2000 and 2001, we would become inexecutable in that year.

Senator INOUYE. There are two other Senators here, so if I may ask one more question, I was very pleased to hear all of you speak of prevention and, as you, General, stated, prevention when possible and cure when necessary.

About 20 years ago, this committee did a little research, and we found at that time that nationally we were spending about $1,400 for curative medicine and less than 10 cents per person for preven-

tive medicine. I realize you cannot do it in terms of dollars and cents, but are you satisfied we are doing enough in prevention?

General ROADMAN. No, sir, we are not. Nationally we spent 1 percent in prevention and 99 percent in intervention.

Senator INOUYE. My question leads to this important one. Part of your prevention program covers research that has military implications, but at the same time a lot of nonmilitary implications such as smoking, such as pediatric asthma, maybe sleep management, alcoholism, and so there are some who are suggesting that maybe this type of research activity should be turned over to the civilian sector.

Now, if you start doing that, I presume it is going to have a major impact upon military medicine, but what are your thoughts?

General ROADMAN. Sir, if I could just continue on with that, I am chairing the Department of Defense (DOD) Prevention Council where we are now working on three major initiatives and that is smoking cessation, alcohol reduction, and unintentional injuries, and I will get back to your other question, but I want to wrap it in, because as you talk about things that were nonmilitary I would like to give you our number, which is staggering.

In 1996, the Department of Defense spent $1.3 billion on cigarette-related illness. We spent $1.6 billion on alcohol-related illness. Now, that is direct and indirect cost. That has direct military implications, and it has to do with force protection and the ability of our people to do the jobs they need to do when deployed.

So what I will tell you is that in all of these the big advantage that the military has is that we are a very large closed model health maintenance organization (HMO) with people who stay within our system for a long time. The problem that we have in the civilian sector is that there is a high turnover in staff model HMO's, and so there is very little fiscal or continuity of care to be able to track people over a long time, so this is an ideal model to be able to show the Nation where we need to go in prevention.

Pediatric asthma, as you said, that has direct military implications, because a number of our kids have asthma. Our pilots are flying at just below the speed of sound at 600 feet. They are worried about their child getting adequate care, and we know that if we put clinical practice patterns in that we can control the cost, and we can put those other costs into those other things we clearly need to do.

So I think everything we look at in the prevention area is looking at a dynamic system, and everywhere where we begin to deliver better care, more efficient, more effective, it frees up dollars that we do not have to go after our services where they need to do modernization as well, and so the real problem is, I cannot put those boundaries on it. I think you have the ideal system to be able to develop a model health care system, which I think we already are, but have so much more further to go.

Many of the things we are talking about have direct and indirect military implications that we are a good test bed for this type of study. Now, there is one caveat that I would give you, and that is, if we get prevention type tasking, additional tasking, and do not have the money flow with it, it has direct military implications because it decreases the availability of our budget, and in essence it

is taxation without representation, if I can use an old historical phrase, and we have got to be sure that if we want to know the answer, that we pay for it.

RESEARCH VERSUS CLINICAL PRACTICE

General BLANCK. If I could add to that with two comments, much of the research we do is inextricably intertwined with the clinical practice that we perform. Our day-to-day practice, clinicians do much of this research. It cannot be split out, and I think General Roadman alluded to that as well. You cannot put a boundary around much of this research and separate it out from clinical practice.

Part of what makes us the excellent system we are is the ability to push the frontiers and do that research while providing that care in all of the populations for whom we are responsible first and foremost.

Second, in some of the very specific research programs, breast cancer, prostate, for example, which we serve as the executive agent at the Medical Research Materiel Command, it is done very, very well and, in fact, a recent article in Scientific America commented on some of the advocates for these programs being made part of the research program at the National Institute of Health (NIH), and this was pioneered by the military, actually, in the programs you all have supported at Fort Detrick, and so we do the research very well. We feel it is part of our system. We are a large test bed for much of that. It is part of the quality of our organization.

Dr. BAILEY. Let me just also add to that that the Department of Science and Technology strategy does support dual use research and development by using commercial practices, processes, and products and by developing technology that can be a base for both military and commercial products.

Often, we are given research projects in breast cancer and in other areas specifically because of the fact that our funding stream is often year-by-year, as you well know. Projects that are turned over to other organizations or agencies often look for a funding stream that is out 20 years, so the bad news is we go year to year, but the good news is, that means our research is often very intense, very focused.

Now, let me also add that turning over research and development to the civilian sector could possibly significantly undermine and jeopardize the ability of the Department to develop and field equipment and technologies to meet its current needs or its future needs or specifically the unique needs of the Department of Defense.

Senator INOUYE. Admiral.

Admiral NELSON. Again, most of it has been said, Senator, but we constitute a very good test bed for population research, for whether that deals with preventable diseases, preventable issues, or studying disease occurrence. We are a fairly controlled population. We have central data bases. We are able to have probably a better core control than most any other population would be.

I agree with General Roadman that, as we are tasked with research, the dollars need to follow that. That becomes a tight, crit-

ical issue for us, but sometimes we get involved in research that people look askance at, as about, I just came—last month I visited our research facility in Cairo, Egypt. We are doing research on pediatric diarrheal diseases through Africa, also doing malaria vaccine development, and people wondered, why do you look at development of vaccine for pediatric diseases in Africa?

Well, what we are looking for are vaccines for our naive immune systems. If we sent marines ashore in some part of that part of the world we would be experiencing the same diseases, and those are serious diseases, so it is important that we look further than the things that are right in front of us as far as research goes.

Senator INOUYE. It sounds like a pun, but the response you made is just what the doctor ordered, as far as I am concerned. Thank you very much.

Senator Shelby.

Senator SHELBY. Thank you, Mr. Chairman. What I am thinking about here and the question I am trying to pose is, will there be enough funding if we get into a real shooting war in Kosovo and take a lot of casualties will you have enough to cover it? General Blanck.

FUNDING FOR COMBAT CASUALTY CARE

General BLANCK. Today, no.

Senator SHELBY. The answer is no.

General BLANCK. The answer is absolutely no. The contingency is, it must be anticipated. The $91 million Dr. Bailey spoke of is a beginning towards that, and as that would move forward my anticipation is, but it is only an anticipation, that subsequent funding would be forthcoming, but no. We are funded to do what we are doing and not much more than that, and the demands so far on the medical system from what is going on in Kosovo have been relatively minimal.

Senator SHELBY. Do you concur with that, General?

General ROADMAN. I do. I think as you think about what it is we do folks will say, well, why are you not ready? We have the fixed cost ready. We have the manpower, we have the WRM equipment, but as we begin to do treatment we have expendable supplies that have got to be replaced and refunded, and that is really the issue that would begin to drive it, so it is the variable cost of readiness that we will be short that we would have to be funded up on.

Senator SHELBY. And would it be hard to put a figure on that, because you projected in the future. You do not really know what you need, do you?

COST PROJECTION OF COMBAT CASUALTY CARE

General BLANCK. That is relatively easy to cost out. What I think is the unknown cost, and I alluded to it before, is maintaining the same level of care at the facilities from where we have drawn the military folks to go into theater, and I do not know what that is, because it is dependent upon how many other of the beneficiaries, active duty go to that part of the world, and so we do not provide their care any more, and how many members stay in the area, what the contract cost would be, how many reservists we are able to get to backfill, and so there is variables in there, but we have

begun looking at that, and I know TMA with Dr. Bailey have some figures on it.

Senator SHELBY. Admiral, as far as the Navy and marines, will you address that?

Admiral NELSON. I think our issues are similar, or if you steam a hospital ship, we have figures on what that costs us a day, both from a manning and a steaming and then dependant on the volume of patients they take care of, that starts eating up the dollars and consumable supplies, so we have a significant cost if we are to use that, or if we were to put a fleet hospital ashore, then you start eating consumables.

Again, we have the fixed cost covered. It is some of the moving it around, and then the consumables that go through it. But also, again, I would reiterate what has been said here. As we have started more fully utilizing the capacity of our facilities, our hospitals and clinics, we have become very dependent upon the manpower to cover our TRICARE program, so we would be buying that care, and that does not come cheap.

Senator SHELBY. But I think it is very important that if—and I hope we will not, but if we did get into a ground war in Kosovo, you would have to anticipate from the medical care a lot more funds to take care of our soldiers and sailors.

Admiral NELSON. Yes, sir.

Senator SHELBY. I think that is what Senator Inouye was alluding to.

General ROADMAN. I think the way to say it is that we have funded in the past the cost of readiness. We have not funded the cost of executing a war.

Senator SHELBY. Dr. Bailey, my inquiry now would relate to research into combat-related lung injuries. One disease being researched is the condition of acute respiratory disease syndrome. This syndrome is often the result of battlefield wounds, exposure to agents used in chemical or biological warfare, and other events that are common in combat, such as extensive skin burn, shock, smoke inhalation, and clamping of the aorta in trauma surgery. Recent reports indicate that more than 90 percent of the combat casualties who died after evacuation from field had evidence of acute respiratory disease syndrome (ARDS), and that those surviving for more than 5 days had a high incidence of pneumonia and other ARDS indicators.

Dr. Bailey, given the broad incidence of acute respiratory disease syndrome among combat casualties, should we not be placing a higher priority on understanding this syndrome?

Dr. BAILEY. Clearly, that syndrome is something that we focus on, as you know. Many of the concerns after the gulf war were the environmental exposures. Of course, we had the smoke fires. We were also concerned about what we were using to protect our forces. Clearly, we provide vaccines and pre-treatments and medications, and at times even the clothing that has been sprayed with insecticide, so you can imagine there are many things in the environment that are breathed in, and therefore we are very concerned that we provide for the protection of the respiratory system as well.

I should mention to you that as part of the $19 million that is provided for research and development, one of the topics for a re-

search proposal is under lung research, so I could provide for the record additional information, if you like about that.

Senator SHELBY. I wish you would.

[The information follows:]

Within DHP are funds to be used for research that focuses on issues pertinent to our military forces. There are fifteen suggested areas, of which one is lung research. The USAMRMC has been selected to execute this program. Once the funds are received by USAMRMC, a public announcement on the program will be made.

Senator SHELBY. Wouldn't a more robust ARDS research program be timely?

Dr. BAILEY. I would agree. Clearly, we have a long, long list of research projects, and are sorting out now how we can apply the funding we have to research and development which again generally is done not through the Defense Health Program (DHP) specifically, but Director, Defense Research and Engineering (DDR&E) and again, we could provide you with some additional information about that, but we do, through the Armed Services Committee that I, in fact, co-chair, have input from the Health Affairs point of view, so that we direct the research, given our lessons learned in our military contingency operations, previous wars, and our medical knowledge, so that we do direct research.

Senator SHELBY. I have been told this is very important to get to the bottom of in research. Do you agree with that?

Dr. BAILEY. I agree.

Senator SHELBY. Thank you, Mr. Chairman.

[The information follows:]

USAMRMC does not have research projects that primarily investigate ARDS or its pathogenesis. However, there are several projects that address primary lung injury that may predispose a patient to ARDS. These projects emphasize far-forward casualty care that will limit lung injury and decrease the chance of a patient later developing ARDS. Specifically, these projects are: (1) evaluating treatments for smoke and thermal inhalation injuries, (2) studying damage from ischemia and reperfusion in lungs, as well as from tension pneumothoraces, and examining the use of antisense DNA compounds as a therapy against the excessive mucus secretion that occurs after smoke inhalation. All of these research efforts will likely reduce the induction and magnitude of ARDS after trauma. An additional research project studies delivery of nitric oxide via high-frequency percussive ventilation, which could be used in the treatment of ARDS. Total funding for these projects is $1.0 million for fiscal year 1999 and $1.0 million for fiscal year 2000 (planned).

Senator INOUYE. Senator Hutchison.

Senator HUTCHISON. Thank you, Mr. Chairman. I am very concerned about the health care issue, and as you probably know, put an amendment on the Soldiers Sailors Bill of Rights Act to address health care, because when I am out visiting bases either in Texas, or Saudi Arabia or Bosnia, or Kuwait, or wherever we are, people mention pensions, they mention pay, but they also mention health care. I remember visiting with an airman in Saudi Arabia and I said, what is your biggest problem in the Air Force, and he said, it is calling my wife at home, and she is crying because she cannot get a pediatrician to see our baby. I did an amendment that would try to address some of the concerns in TRICARE.

And let me say that I know you are really trying to make TRICARE work. I do, and with the BRAC drawdown and the loss of facilities and the fact that we have more married people with children in the services now, it has produced a different picture, and I know you are trying to address it, but this is my question.

Have you been able to address some of the mandates that would be in my amendment now, which you can. For instance, first making it easier to file claims for both the beneficiary and the physician, or the medical personnel. Second, targeting where the doctors in a certain area just can no longer afford to serve the patients that are military because the reimbursement is so low, going ahead and reimbursing them at a higher level. Just saying, if we have a shortage and we cannot get a pediatrician in Abilene, Texas, for Heaven's sakes we will increase the reimbursements to their normal levels. Are you doing that now, which you can without my bill?

COMMENT ON SOLDIERS/SAILORS BILL OF RIGHTS AMENDMENT

General BLANCK. Dr. Bailey will answer that, but I would like to on behalf of all of our patients and all of us at the table thank you very, very much for your interest and for the amendment. I think that is exactly the way we need to go, and it is going to be very helpful as we try to deal with this.

Dr. BAILEY. There are many things in the bill, and they are very helpful to us, and I also want to thank you for that. They are all the things we looked at, and I should share with you, I think I followed you in all of those places in Bosnia and Saudi Arabia, and I have been to 11 of the 12 regions in the United States where we have Lead Agents and TRICARE, because we really want to understand region by region.

There are things happening in Texas which in fact are not happening elsewhere. We have increased the rate in Alaska, for instance, in remote areas of reimbursement, and so we need to look at it region by region, even though we know what a portable culture we are, and therefore we are stressing portability, and uniformity in our system so that the airman and his family find it easier to access the system.

PORTABILITY

Senator HUTCHISON. Portability is one of the parts of my amendment, but in addition to region—Alaska and Hawaii are two very good examples of where the cost of living is much higher, but in addition to region, do you also target shortages where, for instance, a cardiologist will not see military personnel in Abilene, which certainly is not a high regional expense, but do you target shortages also, in addition to regional differences?

Dr. BAILEY. First of all, in a very service-specific way, each Surgeon General here and their teams look at their responsibility in terms of providing specialists that are appropriate for the needs of the community they serve. At the same time, overall we look at the number of specialists per region, and we are looking also at some creative ways of providing care, not only in remote regions, where there is not a pediatric cardiologist, for instance, and providing through circuit riding, if you will, bringing—instead of taking the patients a long distance to a particular specialist, bringing the specialist, and sometimes sharing the specialist between the different services, which I think is something rather unique that we have accomplished in the tenure of everyone you see here at the table, to provide that kind of cross-coverage.

Senator HUTCHISON. I understand that is one approach, but are you able to just target shortages with an increase in reimbursement if you are out a phase?

General BLANCK. No, and that is something that we are looking to do, but to the best of my knowledge at least we have not been able to do that by the example you used in Abilene, a civilian cardiologist who might be the only one in the area saying, I would love to see you, but you do not pay enough, so then we can use, as in your amendment, the usual charges which would be above, presumably, the rate.

Senator HUTCHISON. So you need the legislative authority to do that?

Dr. BAILEY. In fact, we would need legislative relief to do that. We are only charged or allowed to provide through legislative directive at the CHAMPUS level, the maximum allowable at the Medicare rate. Now, that is done standard throughout the system. It was several months ago, that has been implemented, but that still puts us at a level that may provide, particularly in the area of certain specialties, what we need, and we would need legislative relief to provide that.

Senator HUTCHISON. I would just ask you if there is anything that I have missed in my amendment because, of course, we passed a bill in the Senate. My amendment got 100 votes, so I think everyone is in total support of adding this aspect to our readiness.

But if there is something we have missed, it still has not been conferenced, and I would like for you to tell me what you feel you need legislative authority to do that would allow you to serve our personnel wherever they are in a better way, because that is what the amendment is intended to do, and it is what we have done our research to try to address, but if we have missed something I want you to tell me, because this is our chance to give you every opportunity to give the best service that we can give.

I will just end by saying I really appreciate your looking at what we are trying to do and letting us work together to do this, because the last thing I want is one of these pilots that is out there on the front thinking about whether his wife and children are getting medical care, or if it is a woman, her husband, who may be taking care of the children.

So I want to make sure that they are not worried about something that we can take off their minds. I want to just add one other point. Back to the line of questioning that Senator Shelby gave. Are you saying that if we were planning for an escalating contingency in Kosovo or anywhere else, that we have enough medical personnel to serve? It is just the other kinds of supplies and facilities that we would have to add. We would not have to, for instance, go out and draft military personnel.

General ROADMAN. You are correct.

Senator HUTCHISON. Thank you. Thank you, Mr. Chairman.

Senator INOUYE. Thank you. Senator Leahy.

Senator LEAHY. Thank you, Mr. Chairman. I am glad to see everybody is here. I am unfortunately, as oftentimes happens, bouncing back and forth between two hearings, one here and one in Judiciary upstairs.

General Blanck, I wanted to ask you, for the past several years, this committee has provided funds for the Army's breast cancer research program. Could you tell me how that program is administered by the Army? I have been told it is one of the most efficient research programs in or outside the military in terms of cost and effectiveness and, as one who helped start it, I would kind of like to hear how it is going.

ADMINISTRATION OF ARMY BREAST CANCER RESEARCH PROGRAM

General BLANCK. Well, Thank you, Senator. Yes, I believe that what you have heard is correct. It is run out of the U.S. Army Medical Research Materiel Command at Fort Detrick. There is a specific organization within that command that takes the funds and then we have civilian integration panels that look at how—or set up the criteria for how the request for proposals will go out, and then grant proposals come in.

The panels involve members of the academic community, involve advocates for—that is, the consumer groups who will benefit from the program, involve our own personnel, of course, and it is a very, very good way of trying to get together all of those who are involved in this who look at it in a very timely fashion.

They set up areas of looking at certain biochemical markers or treatment protocols, or other creative ways to get at this program, to include some new diagnostics. I really take a great deal of pride, and I think all of us at the table justifiably can do this. This is, of course, a Triservice program as far as that goes.

Most of the funds then are sent out to the civilian community to those who propose the various research protocols, and we kind of operate as a hopefully efficient pass-through.

Senator LEAHY. Well, I am glad to hear that. We talked about this actually in Burlington, Vermont last Friday. I was speaking to a group in honor of a friend involved with a group of breast cancer survivors, and when I mentioned the program that you have in the military, and just mentioned it, it got a round of applause. I figured, Mr. Chairman, at that point I probably just should have shut up and sat down.

But I want you to know that I wish you could have been there. You would have appreciated it.

Tell me, in the fiscal year 1998–99 funds, have they been spent, the breast cancer funds? Have they been spent? Where are we on that baseline?

BREAST CANCER FUND EXPENDITURES FOR FISCAL YEAR 1998–99

General BLANCK. Not the 1999, but the 1998 have been, in some cases and, as you know, we run a 2-year program, and so we combined some of the funding. Some of the projects have been approved, funding granted. Others are still undergoing that process.

By the way, Senator, I have to, as an aside, mention I do get to Burlington. My daughter is a senior at the University of Vermont.

Senator LEAHY. Good for you.

General BLANCK. Well, good for her, actually.

Senator LEAHY. Good for her. I have three who went there, three children who went there. As I look at the military lineup here, I am almost afraid to mention one went in the Marine Corps.

Admiral NELSON. That's OK. [Laughter.]

Senator LEAHY. But I think it is a fine school, and I live close by there, and so I hope she is enjoying it.

General BLANCK. Very much. Thank you, and I will be glad when she is through, because my pocketbook will be fatter.

ELECTRONIC MEDICAL RECORDS

Senator LEAHY. I know the feeling. I saw your invitation for the medical evacuation (MEDEVAC) helicopters out here at National Airport. We have one of the older models that just moved into Vermont with our guard, and I think it is tremendous what they can do.

I have one other area of questions. General Blanck, you have been a strong proponent of electronic medical records for deployed troops, whether active or guard or reserve, and you have been a leader in the effort to field computerized tools that automate the process of maintaining medical records, and I have some idea of how important that is, and I hear from my wife, who is a nurse and most recently had a medical surgical floor, how important these records can be.

Are we going to have a time when all deployed troops will go into theater with a complete medical record baseline, and then can be screened as they come out of the theater? We always seem to have these deployment-related problems and syndromes, and some are significant and real, and some could be avoided, probably, in future deployments if we had a better idea of what medical events are occurring when.

Dr. BAILEY. I am going to turn it over to General Blanck, but let me say, since I mentioned earlier the gulf war, I want to say on behalf of all the medics who participated in that war, there was good medicine done there, but part of the problem was, we did not have the surveillance capability in order to prove that, or to indicate how good the work was that was done.

It was one of our lowest disease nonbattle injury rates ever in any wartime situation and, again, the medics get a lot of credit for that, or should get more credit for that, so I just want to back up and state that.

Let me also say that that points out exactly what you are saying. We need a record, and we will have one soon, with the help of everybody at this table. I think that we, like no other group of surgeons or anybody in health affairs have really pushed for the computerized patient record, and I am going to let General Blanck take over and do his demonstration on that, but we are spending for our composite health care system II (CHCS–2) $100 million a year. We are pushing this, and in fact we are now comparing it to be sure we are getting it fast enough and at the right price, so we can have pre-deployment records, know what happens in the field, and know what is happening when people come home.

Senator LEAHY. And I think you will find strong support from this committee for that, because we also know that in many instances you are going to have people, nonphysician-providers out there, providing care. I have been very interested in some of the new techniques of diagnostic tools for nonphysician providers, some of which we are developing for very rural areas here in the United

States, but would be just as applicable in a forward deployment where we are using the nonphysician providers, and helpful to the physicians who are going to be there. The physicians are not going to be lugging around—in forward deployment, they are not going to be lugging around all kinds of medical libraries with them.

We have done it with—I watched a procedure used on the Internet the other morning. I am sitting out in Rosslyn watching surgery in Vermont being observed in Vietnam, with everybody talking in a three-way event. It was fascinating. And then surgery in Vietnam being critiqued by people in the United States who were experts in that field watching it in real time, and it was fascinating.

I have gotten way off my basic question, and I will hush up with that and let anybody else add that would like to.

General ROADMAN. Senator, embedded in your question was the question of, will there be a time when our troops go in and they have been prescreened and when they come out they are postscreened, and the answer is, that time is now. The fact of the matter is, one of the lessons we learned out of Desert Shield and Desert Storm is that we could not add science to questions that we needed to have answers to, and so in fact, immediately after that, immediately being several years, we put in a predeployment screening process and a postdeployment screening process with blood samples that are stored so that we can compare pre and post deployment.

But the point of what you are asking I think was, and when will that be automated, and of course, Ron is leading the charge on the personal information carrier, which I think he always has in his hand, and I see he has it there now, which is what?

Senator LEAHY. I thought you might.

General ROADMAN. Let me see if your lips move while I talk. [Laughter.]

That we can carry not only images but immunizations, and we can update them so that it has read and write capability right there at the provider, and I will let Ron talk about the programmatics of that.

PERSONNEL INFORMATION CARRIER (PIC)

General BLANCK. The basis of it, of course, is the computerized patient record that we are doing in conjunction with the Veterans Administration with the Department of Veterans Affairs (DVA). We need to have the same record because folks transition from one system to the other. There is that degree of overlap. Much of that can be stored centrally, and it will be where there is the connectivity.

However, as everyone knows, when folks go into the field, occasionally when you are in the air, or on ship, or with the marines, you do not have that connectivity. Certainly in times of war, and so we have this, that will carry the information necessary for a medic, for a nurse, for a physician, for a physician's assistant, whoever it is to have at their fingertips—and by the way, this fits in a sleeve that just goes in a personal computer, and so it does not take additional equipment, or a lot of infrastructure necessary, and actually we even have a device that a medic can, on the battlefield, dictate what he or she is doing to a patient while they are putting

on a compress, or bandaging up a wound, or using our new Band-Aids, that kind of thing.

It is on here. It goes back on the chain of the soldier to the forward surgical team, or the battalion aid station, whatever it is. This is then read, information gathered, additional kinds of things put on. You can do it either by menu or free text to the combat surgical hospital, and so forth.

PROPOSALS FOR THE PIC

Now, we put out a request for proposals after doing the initial testing this past January. We are in the process of evaluating those proposals now. We will purchase, perhaps 50,000 of these this summer and begin field testing of them at the end of this year so that by the time I retire, which is next year, we ought to be able to deploy these to soldiers, sailors, airmen and marines going into areas where there is not that connectivity.

We ought to have it far enough along that we will be able to put those elements on the computerized patient record necessary, immunizations, family history, allergies, medications on here, and actually have it in use, and then that will fit in with what has been said in terms of us actually recording the predeployment screening that we now do, the interventions, the exposures, the surveillance of results that we get while in theater, and then the post deployment surveillance, and we will have that record.

Senator LEAHY. General, as you go along with that, if you could keep me and my staff posted, because it is something that I am very interested in. I suspect everybody on this committee would be.

CHEMICAL/BIOLOGICAL TERRORISM DISTANCE LEARNING COURSE

General BLANCK. If I may add one other thing on technology, you talked about the television show that you saw. It is fascinating. We started yesterday, three services, a distance learning course on medical response to chemical terrorism. We do that a couple of times a year, and we also do it for biologic terrorism. It is a distance learning course. Actually, Dr. Bailey opened it.

Senator LEAHY. That is what this was, distance learning. I mean, this was real time. I was talking with the people in Vietnam and Vermont at the same time.

General BLANCK. It is real time, 3-day course, 50,000 soldiers, sailors, airmen, and marines, active and reserve, signed up for the course, civilian, fire and police, 14 other nations, including the entire nation of Singapore. It is available to every household in Singapore, interactive, and this was the kind of thing that all of us are involved in as, of course, we try to deal not only with recordkeeping but also using the technology to bring the information on chemical-biologic in this case, but in other things, too, to the civilian world.

Senator LEAHY. Thank you. Thank you, Mr. Chairman.

Senator INOUYE. Thank you. I realize that the nurses have been waiting a long time, but I have just a few more questions, if I may.

Senator LEAHY. I especially apologize to the nurses, because I have got to go back to the Judiciary Committee, and I will apologize again when I get home, too. [Laughter.]

ROLE OF RESERVES

Senator INOUYE. One of the lesser known facts about military and military medicine is the role that the reserves play, and I realize that you are not directly involved in the administration of reserves. Now, for examples, guard and reserves comprise 53 percent of the total military users, and the cost in the DOD budget is 7½ percent. That is a bargain. Seventy percent of the Army's deployable medical capability is in the reserve component.

However, since Desert Storm, certain statistics have become available to all of us that concern us. For example, for every physician recruited we lose three. In the medical reserves. The reserve component Medical Corps strength was 67 percent of the authorized strength. Dental Corps, 70 percent, Army Medical Specialist Corps, 53 percent. These are getting pretty bad. Are we doing anything about it, recruiting and retention?

RESERVE MEDICAL SPECIALTY RECRUITMENT AND RETENTION

General BLANCK. Senator, this is, I suspect, more an Army problem, since we rely more heavily on the reserves than do the other services, though I suspect for the Navy, Marines and Air Force the statistics are similar, but I am more heavily relying for my deployable assets as well as backfill assets for folks that deploy out of Walter Reed or Brooke Army Medical Center, or Tripler, probably, than the other services, and indeed the figures that you have quoted are accurate, although there has been some sign of progress in the past. However, I continue to be extremely concerned, because we have not reversed the trend.

We have slowed down some of the losses and our recruitment has increased a bit, but the one that scares me the most is the fact that by 2002 82 percent of physicians, close to 90 percent of dentists, I believe 67 percent of nurses will be retirement-eligible in the reserves, and that says that we may be keeping some, but it is a graying force, and clearly we need to bring in folks and then have the appropriate opportunities for them to advance.

INITIATIVES FOR ENHANCING RECRUITMENT AND RETENTION

We have many initiatives we have worked through, and for the past 2 years we have had a group from the guard reserve and active working virtually full-time on it. With the help of this committee and other Members we were able to pass legislation which allowed us to set up a loan repayment program that is better than it had been and offers more money; that has helped.

OUTSOURCING RECRUITMENT

We are contracting out recruitment, and not just leaving it to the Recruiting Command, which are really concentrating on bringing in the young soldiers to be infantry, or artillery, or whatever, so that they can specifically look at our reserve medical folks.

INSURANCE PROPOSAL/HEALTH PROFESSION SCHOLARSHIP

We have a legislative proposal not yet ready for prime time that would provide insurance to those in private practice so that when they come on board they would not lose everything, as happened

to many. We have a program that would provide a health profession scholarship program for those folks in medical school, nursing school, dental school that actually then would have them do their payback in the reserves, very similar, in fact exactly the same as the program we have now for active, and on and on it goes, many, many initiatives.

90-DAY ROTATION POLICY

The one that we are about that close to finalizing is the 90-day rotation policy for nurse anesthetists, for surgeons, for folks who really cannot afford to go for 279 days and, in fact, their skills atrophy when they are on a deployment for that long, so we can rotate more frequently, and that is something that we think will be positive, and I could go through an even greater litany.

SUMMARY OF RESOURCE RECRUITMENT/RETENTION

The point is, the problem has been recognized. We have a lot of processes and programs in place, but the outcome has not yet changed. I actually have a layout by fiscal year as to when the programs come into play or are approved or implemented, and then what that means in terms of changing those numbers, and I would be happy to share that with you afterwards.

General ROADMAN. Senator, I listened to Ron very carefully, and I have to tell you, he does not rely on the guard more than the other services, the guard and the reserve. Ninety-three percent of all of our strategic air evac is flown by guard and reserve in peacetime and in war, and so we are absolutely dependent on the guard and reserve to do our day-to-day job as well as any contingency we would have.

Our numbers are a little bit different. The numbers are not big, but for the reserve we have increased by five physicians per year over the last 7 years, so we are not in a sliding scale back, and for the guard it is an increase of 15 on the average per year, and so we are not in the slump that you are talking about.

As a matter of fact, for our selective reserve we are 89 percent, and for our guard we are at 90 percent filled in our billets, so we are still struggling. We are still struggling with specific Air Force functional codes (AFFC's) with specific skills, but we think we have the tools with the things Ron mentioned of education loan repayment, changes with the stipend program and with the bonus program, we feel like those will be incentives that will help us.

It is still clearly a problem of folks having pressure from their employers in peacetime to do their guard and reserve duty, and particularly when they get mobilized, and so the emphasis on employer support needs to continue, as well as, I believe, particularly in the medical field, some protection from loss of their practice as they come on board to deliver service to our country.

Dr. BAILEY. Let me just say, as a former Navy reservist myself, that I take great pride in not so much what I did but what I watched my unit do. They came and drilled on the weekends and were standing at the ready during the gulf war to deploy, to backfill, to do whatever they were called upon to do, and so again I think we all give great credit to our reserve and guard. Specifically, there are programs underway, and I would want to let this com-

mittee know about concerns we have about providing the medical support to the families of reservists when they are gone.

The Department of Defense has always stood behind reserve and guard and in fact would like to see a waiver of deductibles, would like to see a more fair arrangement for the medical services to their family. Right now, if you are deployed for under 30 days we do not have coverage. Over 30 days you are what is called standard, which is old CHAMPUS, which is not as cost-effective as it could be for a family, and it has to go past 180 days for them to get equal benefits for other active duty members.

So again, that is something the Department has always been behind, but the Office of Management and Budget (OMB) has felt was too costly to implement. I would suggest it is not too costly to provide for the medical needs of those who deploy and leave families at home at a moment's notice, as the reserves do.

Let me just also say, in the recruitment and retention, that the loan repayment that General Blanck mentioned is now up to $10,000 a year, up from $3,000 a year, and that it is also available now, even during the training years, and that for retention we have a bonus of $30,000 that has recently become available to health care providers, especially in the critically short specialty areas.

Senator INOUYE. Admiral.

Admiral NELSON. We have several problems in reserve and retention of reservists for bringing them in. In the enlisted community I am about 2,000, over 2,000 short, and we have a number of initiatives out to try and increase our accessioning in of individuals into the reserve, particularly hospital corpsmen, and also to retain the hospital corpsmen who leave us but go to medical technical training and try to offer them an incentive to stay in the reserve as we assist them with school, and so certain initiatives going, but I do have a significant shortfall in corpsmen and other dental techs as well.

In the Nurse Corps, I am about 200 short in the reserve right now. We have not been able to recruit to the level we need, but more than just the numbers, it is a distribution issue. We are short on the perioperative trained nurses, the critical care skills, the nurse anesthetists, and so it is a focused shortfall, really, in the reserves.

For the Medical Corps and Dental Corps, the issue is a little bit different. Our numbers are not as short, but we are short of the right mix, and one that is critical for us is, we plan our manpower and how we resource the reserve officers based upon an average grade level of lieutenant commander, I think, or major.

By the time a surgeon, an orthopedic surgeon trains, comes out of medical school, does—let's say he does an in-service internship residency, does his payback time, and then makes a decision to leave the service, he has reached a level of 05. He has reached a level of, is ready to be or has been selected for commander in the Navy. I do not have any billets open for commanders and captains in the reserve. No matter how much I want that individual, I am having trouble getting them into a slot in the reserve now.

So we have got a problem with the grade levels that we distribute to in the reserves, and I have got to figure out a way to overcome that, because I have lots of good people we have trained,

many of them who leave active duty and would be willing to stay in the reserves, and we do not have slots for them.

UNIFORMED SERVICES UNIVERSITY OF HEALTH SCIENCES (USUHS)

Senator INOUYE. Thank you.

USUHS has been under attack ever since its inauguration, although I am happy to note that the attacks have become less and less in recent months, in recent years. I just want to know, are you satisfied with what USUHS is doing?

General ROADMAN. Absolutely. As a commander in previous assignments I was much happier to get a USUHS graduate than a graduate of any other medical school because they had the officership skills, they had the core understanding of the military, and they in fact were a cadre of leadership within the military, the Medical Corps. That is also true of products of the school of nursing, in that we get excellent officers. I think it is—as you know from watching that battle, it depends upon how you cut the cost to figure out whether it is cost-effective. My assessment is, it is a cost-effective method when you include the recruitment and the retention of people over a long career, and I am delighted with the product we get.

SATISFACTION WITH USUHS PROGRAMS

General BLANCK. Also extremely supportive and pleased with the product of all of the schools, graduate schools. Graduate School of Nursing, the medical school, and it does offer that combination of officership within the medical practice discipline.

I would add that it is a cadre. We probably should not get everybody from the same school, and so it is probably in the right proportion with the others whom we rely upon from the health professions scholarship program that bring in physicians and other health professionals from the civilian schools.

The challenge there, of course, is to provide them with the basic course, with the tools to function in our culture, and truly become military physicians, military nurses, rather than just practicing medicine in the military. There is a difference between that and military medicine. USUHS graduates practice military medicine, not just medicine in the military, or nursing in the military. They truly do that, and we need to bring the health professionals scholarship programs (HPSP's) along.

It always occurs to me, as we all will, I suspect, be supportive of the medical school, none of us are graduates of it. We came from civilian schools, and in fact General Roadman says that he is thinking seriously of making the Air Force a career. [Laughter.]

Admiral NELSON. I would echo those comments about the products of USUHS. I have had two hospital commands in which I have had the physician students from there on my staff, and I was skeptical of them initially, but my assessment, after 7 years in command of hospitals, is that that is our best quality, overall our best quality producer of military medical officers.

Dr. BAILEY. Let me just add that fortunately—I agree, USUHS is really a shining star, I think for military medicine, and fortunately the funding has now been corrected. They are indeed funded, and they have also received some additional funding, and I just

want to mention that that is in the area of military nursing research, the Graduate School of Nursing, brain injury treatment, noninvasive prostate treatment, coronary disease reversal program, and finally the Center for Disease Management. So you can see the kind of work that is going on in USUHS. They are a great institution.

RETENTION RATES

Senator INOUYE. I just want to add this to your statement. If my recollection is correct, for USUHS graduates going beyond the obligatory period, I think the retention numbers exceed 90 percent, is that not correct?

General BLANCK. Yes, sir. Last year it was in excess of 92 percent.

Senator INOUYE. And if you compare that to the other service academies, Annapolis, the Air Force, and West Point, I think they average about 60, do they not?

General ROADMAN. I do not know.

Senator INOUYE. Which shows that you have done very well, and we here on this committee are most grateful.

My last, and it may not be a question, but I am certain you are aware that all of us are constantly confronted with letters from constituents, nonmilitary, who are always complaining we are spending too much for the military.

Now, for example, on my last visit to Hawaii I spent a couple of hours at a community gathering, and the first question I was asked is, why don't you cut down defense? Well, I think we are doing a lousy job in informing the people of the United States. For example, less than 1 percent of the population is involved in uniform. Ninety-nine percent do not play a direct role in our military.

Furthermore, I think, when I tell my constituents that if one looks at the budget and decides upon how much we are spending, you will notice that 60 percent of the money spent is for preparation of war, and after wars, 60 percent are personnel. In the defense budget I think it is about 50 percent, and when you add retirement costs, there's another 8 or 9 percent, so roughly 60 percent of our total defense budget is spent on personnel, and people, when they hear this, are a little stunned. They were not aware of that.

Second, when I point out, because I am one of the dinosaurs here, that when I was in the service, in my regiment 4 percent of the men had dependents. Today, I think the average in all services exceeds 60 percent. I think in the Army it is, what, 65, 70 percent. The same thing with the Navy and the Air Force.

And I think this should be made known to the people that our military hospital is not the type that I attended back in the forties, where you very seldom, if ever, saw a child or a dependent there. Today, I think at Walter Reed, 15 percent of the beds are occupied by active service personnel and 85 percent by dependents or retirees, and that is the cost.

When I point out that personnel costs far exceed the costs of weapons systems, but we hear only about weapons systems, I would hope that you people would start blowing your own horn and talking about how important you are, because what you are doing

keeps our military together. From a very practical standpoint, without you, retention is out of the window, recruiting is out of the window, and without you we will not have the research.

These are all leading questions that I gave you, but for example, the best research on acquired immune deficiency syndrome (AIDS) is done in the military. All the best research, whether it be breast cancer or pediatric asthma, it is all in the military, because it does have a military impact, and I hope we tell the folks at home what all of you are doing.

We have a lot of publicity on other aspects of the military. You see the B–2 flying around, or an aircraft carrier sailing around, but very seldom do you see the work of nurses and doctors, and that is what keeps our military together.

Dr. BAILEY. Senator, I would certainly echo your thoughts. Again, I think we all take pride in the men and women who serve our Nation as medics for the service and, in fact, military medicine is better than it ever was before. If you look back years ago, there was not the preventative folks. Health and wellness and a fit force was not something that was focused upon the way you hear General Blanck discuss it today. Our beneficiary population has gone up.

In fact, the demographics have shifted tremendously. Our over 65 population in the 1950's was about 7 or 8 percent. In the year 2002 it will go past 50 percent, 50 percent active duty and families and 50 percent over 65, so again, our peacetime mission has shifted dramatically.

I would want to state here for the record that it is that peacetime platform from which we take this managed care organization, the HMO that is the military health care system, and we go to war when we are called upon to do so, and I think everyone takes pride when they see military medics in action, like they were in Kenya. Our people from the combat casualty air transport team in Ramstein, Germany, went in to get our people out of Kenya after that terrible bombing, and when you see people in American uniforms on the end of the gurney, everybody knows you are in good hands.

So I think you are right. I think we need to give the pride and the recognition to the medics of the military.

General ROADMAN. Senator, if I can add one thing, I think in the rational world everything you have described is absolutely correct, what we do, what we do well, how we aid the Nation. However, I think we are caught in a political cross-fire as we get to this demographic change, and folks going over 65, quite frankly, since we went to an all-volunteer military in 1973, we retained and recruited based on the promise of health care for life.

But as the folks get to 65, and as the post cold war right-sizing occurs they find themselves in communities that are orphaned, and the cost of Medicare Part B that they did not take before is exorbitant to them, or that in fact they cannot get in because space available is decreasing, and so we are caught in a problem between beneficiaries that quite frankly have a legitimate case, title 10, which does not cover them, nor does it cause the dollars to flow to take care of those, and where that battle occurs is not at how good we are, it is at the appointment desk.

And so quite frankly we get beat up by the associations and by the individual beneficiaries that cannot get their care, and quite frankly it is a problem we cannot solve, because we are here to execute a benefit with the funds that we are given, and quite frankly, it is never enough to meet the expectations of what people think they are entitled to.

So as you are doing that, quite frankly we are not very effective at blowing our horn, because we are in a crouched position with our hands over our heads trying to keep from getting beat up, and so I love hearing what you say. You are better at blowing our horn than we are, while we are ducking for cover.

Senator INOUYE. Well, it is about time you get up and stand tall.

General ROADMAN. Well, I agree with that, sir.

Senator INOUYE. Well, Dr. Bailey, General Blanck, General Roadman, Admiral Nelson, on behalf of the committee, I thank you very much for the testimony, and on behalf of the committee I thank you for the service you are rendering to our Nation. Thank you.

Now, at long last—and we are supposed to have adjourned by now, but if I may now call upon Brigadier General Bettye Simmons, Chief of the United States Army Nurse Corps, Brigadier General Linda Stierle, Director of Medical Readiness and Nursing Services, Rear Admiral Kathleen Martin, Director of Navy Nurse Corps.

ADDITIONAL COMMITTEE QUESTIONS

I have a very lengthy statement here, but I am going to put that in the record because time is of the essence at this time. I would like to thank all of you for being with us today. Before I call upon you, I would like to say that I have many, many questions and, if I may, to the Surgeons General I will be submitting them for your response, so may I now thank all of you for attending, and may I call upon General Simmons.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO DR. SUE BAILEY

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

Question. Can you give us an update on your Anthrax Vaccine Program?

Answer. To date, execution of the program has gone exceeding well overall. As of May 16, 1999, more than 890,000 anthrax immunizations have been given to over 288,000 Service members since implementation of the Anthrax Vaccine Immunization Program (AVIP) on March 10, 1998. Immunization compliance rate for most of the Military Departments meet or exceed the Department of Defense goal of 90 percent. The incidence of side effects or adverse reactions following injection approximates other similarly prepared, common vaccines. Although local reactions at the injection site are not uncommon, they are usually mild and short-lived. There have been very few serious adverse reactions (defined as resulting in hospitalization or loss of work time greater than 24 hours) and these cases have been medically resolved. To date, there have been 79 reports of adverse reactions following administration of the anthrax immunization. It is unclear whether these reactions are directly attributable to administration of the anthrax vaccine. Only eleven of these cases required hospitalization or loss of duty for more than 24 hours.

Question. I understand from press reports that some service members have received shots of vaccine that was expired. How did this happen, and how will you prevent it from happening again?

Answer. A number of recent articles in magazines and newspapers have incorrectly reported that a certain lot of anthrax vaccine (i.e., FAV020) that were administered to our Service members or shipped to military facilities was expired. At no time have expired lots or vials of anthrax vaccine been administered to our Service members or shipped by DOD to any military facilities.

Anthrax vaccine lot number FAV020 was originally approved for release by the FDA in 1994, with an expiration date in 1996. The manufacturer of the FDA-licensed anthrax vaccine, BioPort (MBPI), requested an extension of the expiration date and conducted additional potency testing on lot number FAV020 in 1996 in order to meet FDA's requirements for extending the expiration date. This potency testing was satisfactory and FDA subsequently re-released lot number FAV020 with the expiration date extended until 1999. The extension of the expiration date on anthrax vaccine lot number FAV020 involved the manufacturer, MBPI, and the FDA. The DOD was not involved in the extension of anthrax lot number FAV020. Any manufacturer of a pharmaceutical or biological product can request and receive an extension from the FDA on the expiration date of the product after federal requirements for product extension have been successfully met. It is not uncommon for a government or private-sector organization to use a pharmaceutical or biological product whose expiration date has been extended by the FDA.

QUESTION SUBMITTED BY SENATOR ARLEN SPECTER

Question. One criticism of the Department of Defense's inoculation policy, especially during the Gulf War, was that there was no way to track which soldiers were given a particular vaccine and at what time. Are you familiar with the recent incident in which 59 Marines, 20 of whom are unidentified, were given expired doses of the anthrax vaccine? What is the Department doing to ensure that all lots of the vaccine are inspected prior to administration? Also, what effort is the Department making to correct its incomplete record keeping?

Answer. At no time have expired lots or vials of anthrax vaccine been administered to our Service members or shipped by DOD to any military facilities. A number of recent articles in magazines and newspapers have incorrectly reported that a certain lot of anthrax vaccine (i.e., FAV020) that were administered to our Service members or shipped to military facilities was expired. Anthrax vaccine lot number FAV020 was originally approved for release by the FDA in 1994, with an expiration date in 1996. The manufacturer of the FDA-licensed anthrax vaccine, BioPort (MBPI), requested an extension of the expiration date and conducted additional potency testing on lot number FAV020 in 1996 in order to meet FDA's requirements for extending the expiration date. This potency testing was satisfactory and FDA subsequently re-released lot number FAV020 with the expiration date extended until 1999. The extension of the expiration date on anthrax vaccine lot number FAV020 involved the manufacturer, MBPI, and the FDA. The DOD was not involved in the extension of anthrax lot number FAV020. Any manufacturer of a pharmaceutical or biological product can request and receive an extension from the FDA on the expiration date of the product after federal requirements for product extension have been successfully met. It is not uncommon for a government or private-sector organization to use a pharmaceutical or biological product whose expiration date has been extended by the FDA.

With respect to record keeping for the anthrax vaccine, the Services use automated immunization tracking systems (ITS) to record and track the anthrax immunization status of Service members. A core set of anthrax information data in a standard format is transmitted to the DOD's central personnel database, the Defense Enrollment and Eligibility Reporting System (DEERS). As individuals redeploy or move from one geographic location to another, the automated ITS allow query of the DEERS database to confirm the immunization status of an individual or update the individual Service members immunization record. These ITS are also used as a management tool to remind Commanders and individuals about their anthrax immunization status. As a redundant back-up to the automated ITS, anthrax immunization data is also recorded in the Service member's medical records and the immunization shot record (PHS 731, International Certificate of Vaccination). The Department conducts routine audits of the ITS, DEERS database, and Service member medical records to ensure that anthrax immunization data is being appropriately documented.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

FAMILY ADVOCACY

Question. Dr. Bailey, there has been concern and increased attention to violence in military families. In fiscal year 1997 alone, $100.7 million was earmarked for Family Advocacy programs in DOD. While child neglect and abuse has remained stable at half the civilian rate, spouse abuse has increased. What is the military medical community's involvement with line units to address this issue and improve Family Advocacy programs?

Answer. Physicians, nurses and other health care providers play a key role in the evaluation and treatment of persons who are victims of domestic violence. Sometimes the signs are obvious, such as in the case of a woman who is brought to the emergency room with multiple injuries that clearly were not accidental. Often it is much more subtle, such as a patient who comes into a Family Practice clinic with a headache and is reluctant to talk about what is happening at home. Identifying patients who are victims of domestic violence requires a thorough understanding of the problem, excellent diagnostic skills and the ability to make patients comfortable in discussing very distressing events. Our physicians, nurses and other health care providers receive regular training in these areas.

Identification is just the first step. Physicians and other health care providers not only treat the injuries but also help patients stay safe and find solutions. Referral to Family Advocacy for specialized services is an essential part of that process. Physicians work with Family Advocacy as an essential part of the Case Review Committees who review all Family Advocacy cases.

As you know, the Assistant Secretary of Defense for Force Management Policy has responsibility for the Family Advocacy Program. Recently the Office of Family Policy initiated a thorough review of DOD and Service policies on spouse and child abuse. Several opportunities for improvement were identified. Family Policy convened a working group with representatives from the Services and from Health Affairs that is meeting monthly to deal with the issues identified.

The Services vary in the way the Family Advocacy Program fits into the organization. In the Army and the Air Force, the medical command has a major responsibility for the program. In the Navy and the Marine Corps, Family Advocacy is a personnel program. In all the Services, the Family Advocacy Program works closely with unit commanders and military treatment facilities to increase awareness and improve services.

FEDERAL EMPLOYEE HEALTH BENEFITS PROGRAM

Question. Congress mandated a demonstration project to offer the Federal Employee Health Benefits Program (FEHBP) to retirees as an alternative to receiving care through the military health system. While there are strong segments of support for this alternative, there is also concern that this proposal would be very expensive both to the government and the individual. There is also concern that this particular plan would have a negative impact on the military medical system. What is your assessment of the impact of this proposal on military medicine?

Answer. DOD recognizes its responsibility to offer a health program for military beneficiaries aged 65 and older, and desires to improve upon the vagaries of "space available" care. For example, DOD mail order and retail pharmacy benefits are extended to Medicare-eligibles who formerly relied on now-closed pharmacies. Our commitment is to maintain access to care, and maintain our level of space-available care to the maximum extent feasible despite continuing reductions in medical infrastructure. We believe that significant efficiencies can be achieved in the Military Health System without reducing space-available care. Our strategy is to explore and test viable options for retiree health care, to identify the best ways to meet our beneficiaries' needs in the future.

Among the programs that are now under way or being developed are the following:

—TRICARE Senior (Medicare subvention) is undergoing a 3-year test at six sites, as authorized by the Balanced Budget Act of 1997. Under the first component, called TRICARE Senior Prime, DOD may receive capitated payments from Medicare Trust Funds for beneficiaries enrolling in TRICARE. Under the Medicare Partners component, DOD will enter into agreements with Medicare Choice Plans, and receive payments from the plans for care provided to dual-eligible beneficiaries enrolled with the Partner plan.

—A demonstration project at MacDill AFB, Florida involves enrollment of 2,000 seniors for primary care services at the MacDill hospital; when they need services beyond the capabilities of MacDill, they will obtain those services from ci-

vilian providers and use their Medicare entitlement. Annual DHP funding of $2 million has been allocated to this project.

—Additional demonstrations TRICARE as a supplement to Medicare, at two sites, and enhanced pharmacy coverage, at two sites, have been directed, along with the FEHBP Demonstration, in the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999. Health care under these projects will begin in fiscal year 2000. With full implementation of these demonstration programs next year, DOD will have in place projects in about 20 locations, affecting about 100,000 over-65 military beneficiaries. As information becomes available about beneficiary satisfaction, program costs and feasibility, and other factors, it will be vital to examine the options and come up with a well-reasoned approach to meeting the health care needs of the beneficiaries, to whom the nation owes so much.

Estimating the Cost of FEHBP for Military Beneficiaries

DOD has reviewed the results of two analyses of the Military Health System (MHS) and FEHBP conducted by the Congressional Budget Office, and the findings in the General Accounting Office report, "Military Retirees' Health Care—Costs and other Implications of Options to Enhance Older Retirees' Benefits" (June 1997).

The key implication of CBO's July, 1995, report, "Restructuring Military Medical Care," is that replacing the peacetime military health benefit with FEHBP would result in a net added cost to the Government, ranging from $7.3 billion to $12.1 billion, depending on the level of government contribution to the FEHB premiums. This includes increased Medicare trust fund expenditures estimated at $1.4 billion. Also, the average annual out-of-pocket costs per beneficiary are about $1,250 under the most widely used FEHBP plan, Blue Cross and Blue Shield standard option. A comparable figure for TRICARE would range from $100 to $500, depending on beneficiary category and option selected.

In January 1998, CBO provided cost estimates for several bills that would provide coverage for certain MHS beneficiaries. Because of the provisions of these bills, CBO took a different approach than in its 1995 analysis: FEHBP is considered as an additional choice for beneficiaries, rather than as an alternative to existing coverage. CBO concludes that, given government and beneficiary premium contributions commensurate with those for civil service non-postal employees and annuitants, participation rates would be about 70 percent for beneficiaries over 65, about 5 percent for retirees, their families and survivors under 65, and nil for active duty families. These participation rates reflect the availability of cost effective alternatives to FEHBP. Overall, CBO estimates the net cost of offering an FEHBP option at about $2.1 billion annually. Most of this cost is attributed to Medicare-eligible beneficiaries, because CBO expects very low participation by other MHS beneficiaries.

These two analyses by CBO delineate two extremes: the 1995 report provides a high estimate, based an assumption that the MHS will be unavailable, and the 1998 report provides a low estimate, based on expected beneficiary response to an FEHBP option offered in addition to current options.

In its June 1997 report, the General Accounting Office assumed that 83 percent of Medicare-eligible retirees and family members would enroll in FEHBP if offered the choice, and estimated the cost to DOD at $1.6 billion. GAO did not estimate the cost to the Medicare Trust Funds of offering FEHBP.

Impact of FEHBP on Military Medical Readiness

In addition to the issue of cost, DOD has concerns about the military readiness implications of offering an FEHBP entitlement to MHS beneficiaries. These impacts would be exacerbated if the CBO's alarming estimates for the costs for an FEHBP option prove accurate, and some of the costs must be borne out of the existing Defense Health Program. The inseparability of the twin missions of military medicine is, simply stated, the ability to care for the men and women of the uniformed services through a continuum of operations reaching from the "boots on the ground" to installations here in the United States. A vital, and unique component is the ability to assess health risks associated with ongoing worldwide deployments. The MHS must have physicians, nurses, technicians, and medics who know what to do to save lives and prevent illness and disease. They learn how to operate in a field or shipboard environment by working within that military setting, and they maintain their professional, technical skills by working in a military medical setting. We need hospitals and clinics where our health care personnel can practice and provide a highly valued benefit to the families of our active duty personnel, our retirees and their families.

If substantial numbers of beneficiaries are removed from the Military Health System, then DOD's ability to recruit, train, and maintain the needed medical force

could be seriously impeded or disrupted. Existing training programs in military facilities may be unsupportable; new arrangements with civilian facilities for training military personnel would have to be made. There are considerable overlaps in the resources needed to treat seniors in peacetime and the casualties of war—from intensive care and operating rooms, to radiology and pathology services, to physical therapy and dialysis. Keeping these resources on standby for war is impractical; using them to support peacetime care for military beneficiaries is the sensible approach.

DOD is committed to improving the military health system. Health care is an important aspect of quality of life, and DOD is committed to ensuring the quality and availability of medical care for all members of the military community including active duty personnel and their families, and retirees, their families, and survivors. FEHBP presents an alternative health care delivery option that could threaten the viability of our medical readiness infrastructure and would be dramatically more expensive for the Government and for beneficiaries than TRICARE for CHAMPUS-eligible beneficiaries and TRICARE Senior for Medicare eligibles.

QUESTIONS SUBMITTED BY LT. GEN. RONALD R. BLANCK

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

BREAST CANCER RESEARCH PROGRAM

Question. Can you give us an update on the breast cancer research program?

Answer. The U.S. Army Medical Research and Materiel Command (USAMRMC) sponsors basic and clinical research relevant to breast cancer that will result in substantial improvements over today's approach to the prevention, detection, diagnosis, treatment, and basic biology of the disease. Awards are designed to stimulate innovative research, address issues of morbidity and mortality, and fortify the national effort against breast cancer. Congress directed the U.S. Army's involvement in the current BCRP; the Army program is in accordance with Institute of Medicine (IOM) guidelines; appropriations for fiscal years 1992 through 1999 (fiscal year 1992–99) total $864.1 million; since the inception of the BCRP, 10,728 proposals have been received and approximately 1,400 awards have been made.

Program Accomplishments

The overall goal of the BCRP is to promote research directed toward eradicating breast cancer. To accomplish this mission, the Program funds a diverse portfolio that encompasses research on prevention, detection, diagnosis, treatment, quality of life, and basic biology. Research achievements for the fiscal year 1997 program are preliminary since these projects have only been funded for approximately one year.

Congress has appropriated $135 million for the fiscal year 1999 BCRP; this money was received at USAMRMC on 11 January 1999. Vision Setting for the fiscal year 1999 BCRP occurred on 27–28 January 1999. The Program Announcement for fiscal year 1999 was released 3 March 1999. Approximately 1,500 proposals are anticipated, resulting in approximately 400 awards. Scientific review will be conducted August/September 1999 and programmatic review will occur in November 1999. Investigators will be notified of their funding status in December 1999 with the first award being made shortly thereafter.

New award mechanisms have been developed to complement those offered by other agencies. They stimulate innovative, creative research and provide training of scientists for careers in breast cancer research. The fiscal year 1999 BCRP Program Announcement solicited proposals in the following eleven categories: Career Development Award (CDA), Clinical Translational Research (CTR) Award, CTR CDA Award, CTR Fellowship Award, Collaborative CTR Award, Historically Black Colleges and Universities/Minority Institutions (HBCU/MI)-Focused Training Award, HBCU/MI-Partnership Training Award, Idea Award, Institutional Training Grant, Post-doctoral Traineeship, and Pre-doctoral Traineeship.

Some of the more noteworthy results stemming from the BCRP are under prevention: the development of a new vaccine targeted against ductal cell carcinoma in situ that results in a decreased rate of tumor development in an animal model (Esserman LJ, et al., *1997 Era of Hope Proceedings*, Volume I, p. 265). Under Detection/Diagnosis: the development of a new methodology that may provide a convenient, sensitive means to detect changes to genes in human breast samples (Giese RW, et al., *1997 Era of Hope Proceedings*, Volume I, p. 153). Finally, under Basic Biology: work in the characterization of matrix metalloproteinases and their role in metastases (Matrisian LM, et al., *1997 Era of Hope Proceedings*, Volume II, p. 623).

As a result of funding through the BCRP researches have obtained 27 approved patients with 2 more expected to be granted in time for the ERA of Hope II, which I will address in a moment. Additionally, joint funding projects with the National Cancer Institute outline common scientific research projects reduced duplication of effort. The BCRP also works closely with state agencies and utilizes cancer prevention/cure advocacy groups in the review process.

The DOD BCRP employs a flexible funding strategy that is responsive to Congressional direction and is adaptable to the needs of the public and the research community. A major program accomplishment for the BCRP was the multidisciplinary Era of Hope meeting held in the fall of 1997. This meeting achieved many goals, including demonstrating the successful BCRP public-private-government partnership, providing an opportunity for the exchange of information among scientists from the diverse disciplines and consumer advocates, and disseminating the research results from DOD-funded research. The success of the ERA of Hope meeting has prompted the USAMRMC to hold a similar multidisciplinary meeting to showcase funded DOD projects. ERA of Hope II is scheduled to take place 8–12 June 2000 in Atlanta, Georgia.

Conclusion

The DOD CDMRP creates a unique partnership among the public, private, and military sectors. As the Executive Agent for the DOD CDMRP, the USAMRMC has interpreted and executed the Congressional directives for each appropriation with rigor and integrity. As a result, the USAMRMC has created programs that are innovative, scientifically sound, and responsive to the needs of the scientific and advocacy communities.

Question. As you know, the Congress appropriated $135 million for breast cancer research in both fiscal years 1998 and 1999. When do you expect to award these research funds?

Answer.

Fiscal year 1998 BCRP

The first award for the fiscal year 1998 BCRP was negotiated on 31 March 1999. As of 19 May 1999, 82 awards (20.5 percent of all fiscal year 1998 awards) have been negotiated. The remaining 330 awards will be granted no later than 30 August 1999.

Fiscal year 1999 BCRP

The deadline for receipt of all submissions except Clinical Translational Research (CTR) and Collaborative Clinical Translational Research (C–CTR) pre-proposals is 2 June 1999. The deadline for receipt of invited, full CTR and C–CTR proposals is 28 July 1999. Peer and programmatic review of fiscal year 1999 proposals will be completed by 17 November 1999, with the subsequent approval of the awards list by the Commanding General, USAMRMC. The first awards will be negotiated in January 2000 with all awards finalized shortly thereafter.

COMPUTER-BASED SIMULATION MODELS

Question. Do you believe that computer-based simulation models can enhance health planning and reduce health care costs, while maintaining quality?

Answer. I certainly believe they have the potential to. In fact, based on this belief, one of my major subordinate commands (U.S. Army Medical Research and Material Command [USAMRMC]) partnered with Vector Research, Inc. (VRI) to produce the first version of the Healthcare Management Model (HMM) in 1998. The HMM is a prospective, population-based, strategic planning decision support tool that can model for complex healthcare systems the impact of alternative disease management (DM) processes on health status and future workload requirements. This product was expanded for disease state modeling at Wilford Hall and Brooke Army Medical Centers in the past year along with expanded work for the Great Plains Regional Medical Command. It helps provide answers to questions such as which diseases to target for DM, what are the most cost-effect interventions, and how to allocate resources between preventive and acute clinical interventions.

The Healthcare Complex Model (HCM), also developed under contract to USAMRMC, is also a simulation-based model which focuses on healthcare reengineering from a corporate perspective. The strengths of the HCM are in running quantitative analyses of significant variations in health system policy or structure such as variations in clinical practice patterns (i.e., referral), changes in medical technology, or staffing patterns. These systems are an exciting way to model different healthcare scenarios.

PROSTATE CANCER RESEARCH PROGRAM

Question. Can you give us an update on the prostate cancer research project?

Answer. The U.S. Army Medical Research and Materiel Command (USAMRMC) sponsors basic and clinical research relevant to prostate cancer that will result in substantial improvements over today's approach to the prevention, detection, diagnosis, treatment, and basic biology of the disease. Awards are designed to stimulate innovative research, address issues of morbidity and mortality, and fortify the national effort against prostate cancer. The PCRP is modeled after the current and highly praised Breast Cancer Research Program (BCRP).

Current Status

Congress appropriated $50 million for continuation of the PCRP in fiscal year 1999. New Investigator Awards and Idea Development Awards have been continued in fiscal year 1999. The MPFT Award was renamed the Minority Population Focused Collaborative Training (MPFCT) Award in fiscal year 1999, since emphasis was placed on fostering collaborations between applicants and established prostate cancer researchers. Two new award subcategories have been introduced: Prostate Cancer Center Initiation Awards and Post-doctoral Traineeship Awards. The intent of the Center Award is to engage experts from multiple disciplines to establish regional centers for the study and treatment of prostate cancer. The intent of the Traineeship Award is to enable recent doctoral degree students to conduct research in prostate cancer.

Scientific peer review of 48 Post-doctoral Traineeship proposals was conducted in March 1999. Programmatic review of these proposals was performed in April 1999, where 26 proposals (54.2 percent) were recommended for funding. Scientific peer review of 202 New Investigator, 366 Idea Development, and 10 MPFCT proposals was conducted in May 1999, and programmatic review of these proposals will occur in August 1999. Screening of 43 Cancer Center Initiation pre-proposals was conducted in April 1999, where 20 pre-proposals (46.5 percent) were invited to submit full proposals. Scientific peer review of Cancer Center Initiation full proposals will be performed in September 1999, and programmatic review of these proposals will occur in October 1999. Award negotiations for Post-doctoral Traineeships will begin in May 1999; award negotiations for the other award types will begin shortly after the proposals are programmatically reviewed. All award negotiations will be completed by 30 September 2000.

Program Accomplishments

To date, 185 proposals have been approved for funding with the fiscal year 1997/98 funds by the Commanding General, USAMRMC, and work on these projects is currently being initiated.

In response to requests from scientists, advocates, and members of Congress to increase the pace of distributing appropriations for scientific research, the PCRP has decreased the time between appropriation of funds and distribution to scientists. The fiscal year 1999 PCRP Program Announcement was released on 23 December 1998, and the time between receipt of appropriation and distribution of funds to scientists has been decreased from 15 months to 6–10 months, depending on award category.

Question. In the past, it has taken too long to get research money out to the scientists and researchers. What are you doing to speed up the process?

Answer. The Congressionally Directed Medical Research Program (CDMRP) office has significantly accelerated proposal review and award negotiations, so that research money can be expeditiously allocated to the researchers without compromising the integrity of the proposed review process. For example, for the fiscal year 1999 PCRP, the time between receipt of appropriation and the first distribution of funds to scientists was decreased from 15 to 6 months for certain award categories (i.e., Post-doctoral Traineeships). Milestones for all CDMRPs are reviewed quarterly to continuously seek ways to accelerate the programs while maintaining a high quality review process.

Specific Actions

Certain actions have been taken to expedite the process of getting research funds to the scientists, including the following, Regulatory Documentation—Institutional Review Board appendices for high scoring proposals are now being requested prior to Programmatic Review so that Regulatory Compliance and Quality processing can begin as soon as the Commanding General approves the awards list; Electronic Funding—funding documents required to initiate awards have been converted to an electronic form thereby accelerating the time to award by approximately 2 months; and Current Processing—the dissemination of paperwork/information to the dif-

ferent offices involved in negotiations is now done concurrently instead of sequentially; this has reduced the time in negotiations by approximately 3 months.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

FAMILY ADVOCACY PROGRAM

Question. There has been concern and increased attention to violence in military families. In fiscal year 1997 alone, $100.7 million was earmarked for Family Advocacy programs in DOD. While child neglect and abuse has remained stable at half the civilian rate, spouse abuse has increased. What is the military medical community's involvement with the line units to address this issue and improve family advocacy programs?

Answer. Increased OPTEMPO is having a negative effect on retention and morale with the result of a smaller Army with an increased demand for every form of family support and treatment. Increased family separations are "placing tremendous stress on our troops and their families." Behavioral, mental health and family treatment/service providers system-wide report increased cases of marital problems, parent-child problems, adolescent acting out, child and spouse abuse (including significant other abuse), and alcohol and other substance abuse.

The above challenges are further complicated as an increasing percentage of soldiers marry and have children. These individuals and their families can reasonably be expected to experience family related stressors associated with adjustment to the mobile military lifestyle, frequent deployments, field training exercises, and isolated assignments. Further, some young soldiers marry before they are mature enough to deal with attendant responsibilities, leading to increases in family problems and a tendency to utilize non-constructive coping behaviors.

Increased stress of military life associated with increased OPTEMPO also affects families relative to assignments and promotion. With fewer soldiers available to meet demands for assignments, stress is increased as families attempt to seek assignments where identified special family needs can be met without family separations (e.g. exceptional family members) while meeting the demands of military service. Concern about whether such problems will negatively affect promotion and career potential is a source of stress for these soldiers and families. The Department of the Army provides a comprehensive range of individual, family, command and community behavioral and mental health programs and services to sustain, restore, or enhance social well being and functioning of individuals, families, military units and the Army community. These services and programs provide a continuum of care through peacetime, deployment, sustained operations, and post deployment, from birth through retirement and beyond.

We provide the same family support programs and services found in the civilian community. The Army also has unique programs specifically for soldier support such as combat stress control, division mental health, unit and command mental health consultation, and stress response teams. These programs are significant to soldiers, their family members and the Army.

Programs and services for soldiers and their families include the full range of inpatient and outpatient behavioral and mental health treatment, and programs in collaboration with other Army agencies such as the exceptional family member program; family team building; family advocacy (child and spouse abuse); and alcohol and drug treatment. In addition, Army Community Service Centers provide community-based programs to support soldiers, families and all beneficiaries.

Programs and services are generally accessible to our service men and women, but some program areas are understaffed because of funding or personnel reductions. These reductions may result in waiting lists and delays in providing timely services or no services. Service providers have raised concerns regarding timely provision of the full range of services to soldiers, and regarding limitations of some services to family members. These concerns are particularly evident in outside Continental United States (OCONUS) and isolated CONUS locations which are most challenged by a relative lack of these providers.

Professional Behavioral Health Providers

As the Army force structure has been decreased over the last several years, the Army Medical Department (AMEDD) force structure has also been reduced. Consequently force structure reductions have occurred in behavioral health personnel, and other soldier and family program providers have been reduced.

The social work officer (73A) strength decline serves as an excellent example of the declining AMEDD force structure. The authorizations for Army licensed social work officers (major providers of marriage/family therapy and family services to sol-

diers and families) has decreased from 153 in fiscal year 1996 (fiscal year 1996), to 115 in fiscal year 2000. This represents a loss of 38 active duty social workers or a 25 percent reduction. These officers provide program leadership as well as direct services.

AUTHORIZATION COMPARISON

[April 16, 1999]

	Fiscal year—					Overall
	1996	1997	1998	1999	2000	
Social Workers (73A)	153	156	127	116	115	−38
Percent	.....	2	−19	−9	−1	−25
73A MEDCOM	113	86	92	95	83	−30
Percent	.....	−24	7	3	−13	−27

NOTE: 73A MEDCOM authorizations are part of total 73A authorizations.

Prepared by APPD, Data Source: PMAD.

Other providers of behavioral and mental health services including psychiatrists, psychologists, family counselors, drug and alcohol treatment specialists, family advocacy personnel, and exceptional family member program staff have experienced similar reductions in personnel as well as reductions in program budgets. However, the demand for these services has not decreased.

Historically, professional treatment providers for families were assigned proportionally to medical treatment facilities (MTFs) and other program locations based on the number of soldiers and family members served. Today MTF commanders have the option to determine which personnel authorizations will be filled within their commands. In some instances, behavioral health providers are reduced in favor of other priorities. This in combination with the reality of decreased authorizations across the board has resulted in reductions in soldier/family program staffing.

Exceptional Family Member Program (EFMP)

The EFMP and the Educational and Developmental Intervention Services (EDIS) programs assist families with special needs to ensure that their needs are considered in the assignment process, and support Army readiness by maintaining personnel data on these family members and providing mandated services. Over 42,000 family members are enrolled. Authorizations are adequate but programs can be unevenly staffed which may negatively impact accessibility in certain locations where command priorities supersede staffing guidelines. This again is particularly true in OCONUS and isolated CONUS locations.

Family Advocacy Program (FAP)

The Army Audit Agency found the AMEDD underfunded for its mission to prevent and treat child and spouse abuse in its 24 October 1997 FAP report. With current funding, the AMEDD is 46 clinical personnel below the Department of Defense staffing standard. The most significant impact of the shortages is noted at deploying installations because of the large number of service members and family members. The European Regional Medical Command submitted an Army Family Action Plan initiative for 17 additional marriage and family counselors. This is an unfinanced requirement. Understaffing places programs in a reactive rather than proactive position relative to family problems and needs. There is currently a draft proposal in review which will change the funding stream for the Family Advocacy Program. In this proposal, funds will be distributed through Department of Defense ultimately to installation Commanders who will determine funding ratios for prevention and treatment.

Alcohol and Drug Abuse Prevention and Control Program (ADAPCP)

The Army ADAPCP provides a full range of comprehensive drug and alcohol identification, detoxification, treatment and follow-up services for soldiers and their families members. The ADAPCP counter-narcotics funding (known as VCND) program budget for treatment between 1996 and 1998 was reduced from $4 million to $1.7 million. Twenty-one clinical positions have been eliminated in the program due to these cuts. The full gamut of services to beneficiaries can no longer be provided in many locations. Waiting lists exist intermittently at several installations including Fort Bliss, Fort Bragg, Fort Lewis, Fort Sam Houston, and Fort Stewart.

Care for service members outside catchment areas

Professional treatment providers and counselors outside of the DOD Family Advocacy Program are treated under the TRICARE benefit for mental health services, beneficiaries are eligible for eight visits for services with no pre-authorization required. They may choose from a network of providers. However, marriage and family counseling is not a benefit. Some of the other family counseling and intervention services that Army families experiencing psychosocial and environmental issues may need (and commanders expect) are not part of the benefit package.

For active duty members outside the catchment areas, such as where recruiters may be located, we are working to amend TRICARE contracts so those beneficiaries will be able to call the contractor and obtain the name of a provider. Instances where the contractor may not have a provider readily available can be addressed on an individual basis.

Also available to service members in Geographically Separated Units is a process which has been in place for a number of years. Soldiers, in need of mental health treatment, are identified by commanders who then contact social work services at the nearest medical facility. The social worker provides access to supplemental funds which are used to fund the treatment.

FEDERAL EMPLOYEE HEALTH BENEFITS PROGRAM

Question. Congress mandated a demonstration project to offer the Federal Employee Health Benefits Program (FEHBP) to retirees as an alternative to receiving care through the military health system. While there are strong segments of support for this alternative, there is also concern that this particular plan would have a negative impact on the military medical system. What is your assessment of the impact of this proposal on military medicine?

Answer. The Military Health System (MHS) must work hard to develop an equitable health benefit for retirees. TRICARE provides an excellent benefit for retirees and their families who are age under 65.

For retirees age 65 and older, TRICARE Senior Prime (Medicare Subvention) should be proliferated throughout the MHS as soon as possible. Second, the National Mail Order Pharmacy should be expanded nationwide for this beneficiary group. Finally, FEHBP should be considered for those retirees age 65 and older who do not live near a military treatment facility (MTF). The Army supports the legislated demonstration of FEHBP for retirees age 65 and older, scheduled to begin 1 January 2000.

Offering FEHBP to retirees age 65 and older who do not live near a MTF would have minimal impact on the MHS, given sufficient additional funding for such a new initiative. The MHS does not have existing resources to offer FEHBP as a new benefit.

Offering FEHBP to all retirees regardless of age and location threatens the readiness of military providers by shrinking the beneficiary population and reducing the complexity of health care requirements. Graduate medical education within the MHS, a major incentive for physician accession and retention, would also be threatened by proliferation of FEHBP due to reduced complexity and population size.

QUESTIONS SUBMITTED TO VICE ADM. RICHARD A. NELSON

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

FAMILY ADVOCACY

Question. There has been concern and increased attention to violence in military families. In fiscal year 1997 alone, $100.7 million was earmarked for Family Advocacy programs in DOD. While child neglect and abuse has remained stable at half the civilian rate, spouse abuse has increased. What is the military medical community's involvement with line units to address this issue and improve family advocacy programs?

Answer. Although the Family Advocacy Program is managed by the Navy Personnel Command (NPC–661), our Military Treatment Facility (MTF) Commanders work collaboratively with the Line Commands to identify, assess, protect victims, intervene, treat, and follow-up on family violence situations.

An MTF privileged provider chairs the Case Review Committee. The Case Review Committee is the multi-disciplinary body that reviews all cases of family violence, determines if abuse occurred, makes intervention/treatment recommendations to the service member's commanding officer, reviews treatment progress, and decides when to bring a case to closure.

Our MTFs provide medical care in family violence cases that involve injury. The Joint Commission on the Accreditation of Healthcare Organizations requires that MTFs have criteria and protocol in place for identifying, treating, and referring victims of abuse of all kinds. There is also a requirement to have educational programs for hospital staff in domestic violence, child abuse, sexual assault, and elder abuse.

MTFs provide mental health services to active duty victims and offenders. When care is not available within the Military Health System, the Bureau of Medicine and Surgery provides the necessary supplemental care funds to obtain treatment at civilian health care facilities.

Family Service Centers are currently under the purview of Bureau of Naval Personnel and employ social workers who interface directly with the local commands concerning preventive and educational services.

FEDERAL EMPLOYEE HEALTH BENEFITS PROGRAM

Question. Congress mandated a demonstration project to offer the Federal Employee Health Benefits Program (FEHBP) to retirees as an alternative to receiving care through the military health system. While there are strong segments of support for this alternative, there is also concern that this proposal would be very expensive both to the government and the individual. There is also concern that this particular plan would have a negative impact on the military medical system. What is your assessment of the impact of this proposal on military medicine?

Answer. The Bureau of Medicine and Surgery fully supports the development and evaluation of demonstration projects designed to improve health care access to our 65 and over beneficiaries. By contrast, while full-scale implementation of FEHBP may provide more choice and protection for some military retirees, the program is prohibitively costly in terms of dollars, impairs the ability to continue to provide care to our beneficiaries, and negatively impacts on the capability to maintain an effective military readiness program.

Specific impact on readiness training and readiness will result from reductions in MTF care provided to military retirees, their dependents and survivors. Training, retention, and quality of physicians and other health professionals necessary for medical readiness will additionally suffer if the retiree population is reduced in the direct Military Health System (MHS).

A study completed by the Center for Naval Analysis in 1998 estimates the cost of offering the FEHBP to our Medicare eligible beneficiaries to be $1.7 billion. The Office of Personnel Management oversees 450 different FEHBP plans ranging from Fee-for-Service to Health Maintenance Organizations. A blended premium across these selections indicates an approximate out-of-pocket expense to beneficiaries ranging from $590/individual up to $1,456/family per month.[1] Additionally, the department's projected share of 72 percent or higher for the FEHBP premium is not affordable in today's defense fiscal climate. Unless additional or offset funding is provided to support this project, care in military facilities will be ultimately reduced to resource this program. In addition, broad implementation of FEHBP jeopardizes the success of Medicare Subvention demonstration programs already in place and eliminates the purpose of the FEHBP demonstration project designed to properly evaluate the feasibility of the program and determine the Department's financial liability.

Navy Medicine, in conjunction with the Office of the Assistant Secretary of the Navy (Health Affairs), continues in its willingness to work with Congress to develop, implement and evaluate limited demonstration models designed to improve health care access to our Medicare eligible military retirees. These models not only include FEHBP, but other alternatives such as a TRICARE Supplement to Medicare, a redesigned pharmacy benefit, and Medicare Subvention (TRICARE Senior). All options must be carefully evaluated to ensure we provide the greatest benefit to the greatest number, while both maintaining our military readiness posture and providing quality health care to all our beneficiaries.

[1] Center for Naval Analyses. "Options for Improving Access to Health Care for Retirees." CAB 98–60.09/29 May 1998, Sponsor Review Version.

QUESTIONS SUBMITTED TO LT. GEN. CHARLES H. ROADMAN

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

DOD HEALTH CARE DELIVERY

Question. How do you and the other Surgeons General conduct long range, strategic-planning for the delivery of health care?

Answer. In order to effectively support the Air Force Mission, the Air Force Medical Service (AFMS) participates actively in the Air Force Line strategic planning processes. This allows us to insert into these efforts the necessary provisions for consideration of and logistical support for human performance factors in all aspects, from recruiting standards to training and performance expectations, to prevention and rehabilitation efforts, to post-career health care.

In addition to working closely with the Air Force Line, much work is done in collaboration with the other Services to provide a coherent, efficient Military Health System (MHS). The MHS Executive Committee (MHSEC) regularly meets for the purpose of long-range planning and oversight of initiatives. We have developed long-range goals which include leadership development, reengineering of joint readiness capability, implementation of a benchmark health care system, taking an aggressive strategic approach to leading and managing the MHS in a changing environment, and exploiting and integrating technology and information systems. Two subcommittees assist in these processes:

The MHS Strategic Planning Subcommittee identifies to the MHSEC specific recommended breakthroughs to achieve the MHS Vision and Goals. At the direction of the MHSEC, the Subcommittee recommends teams and plans to achieve the breakthroughs and maintains oversight of the activities in the process.

MHS 2025 is charged with envisioning plausible futures of the MHS and developing a view of the preferred future towards which we may put our efforts. The charge to the subcommittee for this year is to design the Military Health System of the future—that is, to reengineer the MHS to meet the challenges of 2025.

Currently a comprehensive MHS reengineering effort is underway. This effort is led by the MHS Reengineering Coordination Team, which is chartered by MHS senior leadership to conduct research, coordinate working groups, integrate initiatives, and recommend strategies and operational plans to achieve the MHS vision.

Within the AFMS we have developed a corporate structure and strategy geared to inextricably link planning, programming, and budgeting and contribute to mission accomplishment in a resource-constrained environment. We have adapted the Air Force Strategic Planning process to develop an approach linking long-range planning to resource allocation. The approach begins with the AFMS Strategy and cascades through Operational Tasks to current year operations.

This year we have published the first AFMS Medical Annual Planning and Programming Guidance (MAPPG). This guidance will drive the fiscal year 2000–2001 Mission Support Plan (MSP). Next year's MAPPG will drive preparation of the 02–07 POM. The MAPPG includes incorporation of the Enrollment Based Reengineering Model, which applies specific provider and support staff ratios to balance AFMS resources.

To meet the challenges of changes in the management and delivery of health care, the AFMS developed a Strategic Resourcing Portfolio (SRP). This process involves linking all resourcing processes to achieve improved resource allocation. The SRP gives us tools to challenge the traditional approach to health care; so manpower is driven by population, not workload. Capitated budgets create improved incentives. Thus the resourcing process directly supports the Mission Support Plan (MSP).

"AFMS Operational Health Support Into the Next Millennium" is a study which we commissioned from Karta Technologies, Inc., to paint a picture of what the 21st Century Warrior will require of his/her military health system. It provides a look over the horizon to operations in 2025 and what capabilities will be demanded of the MHS by the warfighters.

Question. Where are you making strategic investments to re-engineer DOD health care delivery?

Answer. All of the programs outlined above represent considerable strategic investment. The MHS Reengineering Coordination Team has developed TriService models defining requirements for enrollment, readiness, and resourcing. Current initiatives of the Team include pharmacy improvements; recapture of workload from managed care support contractors through MHS facility optimization; MHS information technology consolidation; outsourcing of medical technical training, improvements in acquisition and administration of managed care support contracts; reengineering and improvement of prevention programs; and restructuring medical

centers. The Technology Insertion Board of Directors develops strategies to continue Information Management/Information Technology (IM/IT) investments that will increase efficiency and maximize population health for MHS beneficiaries.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

FAMILY ADVOCACY

Question. There has been concern and increased attention to violence in military families. In fiscal year 1997 alone, $100.7 million was earmarked for Family Advocacy programs in DOD. While child neglect and abuse has remained stable at half the civilian rate, spouse abuse has increased. What is the military medical community's involvement with line units to address this issue and improve family advocacy programs?

Answer. While the spouse abuse rate has increased slightly across the Department of Defense, Air Force data demonstrate a consistent decline in these rates over the past five years. Clearly, we take family violence seriously in Air Force communities; and we have devoted significant resources to its prevention as well as intervention when violence occurs.

Toward this end, the Air Force Family Advocacy Program is uniquely organized and structured to ensure the regular and ongoing contact and involvement between line commanders and the medical community. Specifically I, as the Surgeon General, have overall responsibility for our Family Advocacy Program (FAP). At the Air Staff level, the FAP is a division of our Air Force Medical Operations Agency, reporting to a two-star medical commander.

At the installation level, the Family Advocacy Office belongs to the local medical commander. This alignment ensures the medical community's total involvement in family advocacy across the entire continuum of domestic violence issues and provides us significant leverage. First, as a matter of routine, medical group commanders are actively involved with line commanders in FAP installation policy and oversight committees; and, second, our medical group staff are the primary providers of consultation and support to line commanders at each stage of a family violence case.

Let me provide four specific examples of the Air Force medical community's involvement and support to installation line commanders in our efforts to prevent and intervene in family violence:

Policy Development.—Line commanders, including the Support Group Commander, are part of installation policymaking committees designed to address family issues, including family violence prevention and treatment. Examples are the Community Action Information Board, the Care on Target Team, and the Family Advocacy Committee. This Air Force infrastructure, established to address family issues, provides a multidisciplinary forum to continually evaluate and improve the military community's response to family violence.

Prevention Efforts, Community Collaboration and Education.—Medical Group commanders insure that line commanders are periodically briefed on all prevention programs available to their troops. Implementation of the Air Force Integrated Delivery System insures seamless service delivery of family programs at each installation.

Treatment Programs.—Line Commanders and First Sergeants are encouraged to attend monthly Family Maltreatment Case Management Team meetings where they are offered multidisciplinary input about the assessment/status of their troop and they participate in formulating the course of treatment recommended by the family violence professionals.

The Medical Group multidisciplinary staff offers consultation and advisory support to line commanders at each stage of the reported maltreatment incident:

—Initially, when risk of further harm is assessed, line commanders are given clinical recommendations about whether family members should be separated and for how long.

—At disposition, line commanders are involved in the process of making case status determinations and formulating an initial course of treatment.

—As treatment progresses, line commanders receive monthly to quarterly updates on the level of participation of their troops in the treatment process and the level of risk of continued violence in the home.

—At case closure, line commanders receive information in writing about the progress of their troop and his/her family members in treatment and the status of the family at the close of the FAP record.

As a final example of our comprehensive coordination across functional areas on Air Force installations, I would like to highlight the High Risk For Violence Team (HRVRT) implemented in 1996. This team is a classic example of the multidisciplinary approach to informing and advising line commanders of the level of risk to victims. The installation HRVRT develops a coordinated community approach to protecting potential victims and reducing the risk of further violent behavior from perpetrators, utilizing all appropriate base resources and expertise in support of this effort. Family Advocacy staff and the staff of the Judge Advocate are always available to line commanders to advise them on their jurisdiction issues and the course of action considered to be in the best interest of the victim and the family system.

Since 1995 we have seen a significant reduction in the most severe cases of spouse abuse, especially spouse deaths. This is due to our strong collaborative response to family violence, which includes line commanders, Judge Advocates, law enforcement, and personnel staff—all closely integrated with our medical community to prevent family violence and protect victims of family violence when it occurs.

FEDERAL EMPLOYEE HEALTH BENEFITS PROGRAM

Question. Congress mandated a demonstration project to offer the Federal Employee Health Benefits Program (FEHBP) to retirees as an alternative to receiving care through the military health system. While there are strong segments of support for this alternative, there is also concern that this proposal would be very expensive both to the government and the individual. There is also concern that this particular plan would have a negative impact on the military medical system. What is your assessment of the impact of this proposal on military medicine?

Answer. The Air Force fully supports the FEHBP demonstration. It is difficult to predict the program's cost to either the beneficiary or the government due to several variables. Without knowing which plans would be available in each area, what the coverage options would look like and what the costs would be in various locations, it has been difficult to gain consensus on estimates. We are concerned that this program may draw workload from the Military Health System, which would negatively impact readiness. This would take two forms: through diminution of necessary skills and an eventual loss of resources due to reduced workload. We feel a number of varying approaches may be needed to meet the needs of the over-65 population while assuring maintenance of our readiness capabilities. This demonstration is vital to assessing the contribution and demands of FEHBP in different situations, and determining what options work best, and in what combinations, to meet our competing requirements.

NURSE CORPS

STATEMENT OF BRIG. GEN. BETTYE H. SIMMONS, CHIEF, ARMY NURSE CORPS, U.S. ARMY

PREPARED STATEMENT OF SENATOR DANIEL K. INOUYE

Senator INOUYE. Because we are running late, I would like to put my opening statement in the record.

[The statement follows:]

PREPARED STATEMENT OF SENATOR DANIEL K. INOUYE

Good morning. I join my Chairman in welcoming Brigadier General Simmons, Brigadier General Stierle, and Rear Admiral Martin to discuss Military Nursing Programs. It has been my pleasure to work with military nurses for many years and to reflect on their many accomplishments.

I understand that both General Simmons and General Stierle are appearing before this Committee for the last time as Director of the Army and Air Force Nurse Corps respectively. I would like to take this opportunity to thank you both for your outstanding service during your tenure.

I would also like to welcome Rear Admiral Martin to this Committee. I hope that you will find this hearing a worthwhile experience and that it will be the first of many positive discussions.

Military nursing as a profession continues to provide outstanding care to our active duty troops, family members, and our retiree population. Military nursing, however, is faced with challenges similar to those faced by the civilian nursing sector. Organizational restructuring and concerns about increasing cost efficiencies have stimulated military nurses to look at expanded roles for nurses and new ways of providing care to ensure medical readiness and quality of care. The future of military nursing will require continued leadership and innovation.

Another milestone for nurses is the success of our senior Nurse Corps officers being assigned to more executive level, command positions. There are now a total of 38 nurses serving as commanders of military hospitals and clinics. I am particularly pleased to note that your former colleague, Army Major General Nancy Adams, has been assigned as the Commander at Tripler Army Medical Center in Hawaii. Under her leadership, Tripler has had remarkable success with a perfect score of 100 on the recent Joint Commission survey. Like General Adams, nurses in these kinds of command positions continue to be at the forefront of developing innovative ways to reduce health care costs while providing high quality care.

The success of military nurses in critical leadership positions begins when they enter active duty. Last year, the Office of Management and Budget suggested an initiative to reduce the educational requirement for nurses in the military, an initiative the Chairman and I strongly opposed. The success of these nurses reinforces the need for an appropriate educational foundation and supports the requirement that all military nurses have, at a minimum, a Bachelor of Science in Nursing degree.

Certified Registered Nurse Anesthetists (CRNAs) in the Armed Forces continue to provide high quality care as independent practitioners, often without anesthesiologist supervision. They are often the sole provider of anesthesia services at our small military facilities, in field hospitals, and aboard ships.

By contrast, their civilian counterpart CRNAs face professional limitations as they continue to struggle with anesthesiologists over the Health Care Financing Administration's (HCFA) proposed rule to remove the Medicare requirement for supervision of nurse anesthetists by anesthesiologists. I understand that the Surgeons General and the Chief Nurses are examining this issue within their services to maximize the contributions of all health care providers.

I am proud to say that military nurses are excelling in both the patient care and command arenas. Nurses continue to lead the way in creating expanded opportuni-

ties for the delivery of safe, high quality patient care throughout the world—on land, at sea, and in the air.

I appreciate your attendance this morning and look forward to hearing about readiness, quality of care issues, and research initiatives in the Nurse Corps.

STATE OF THE ARMY NURSE CORPS

General SIMMONS. Mr. Chairman, it is my privilege to appear before you and report on the state of the Army Nurse Corps. I would like to thank you for your overwhelming support of military nursing. It has enabled our corps to make a difference in the life of American soldiers, and our beneficiaries. We are indeed very proud, and I will highlight a few imperatives in terms of how we are making a difference. Army nurses are ready.

SUPPORT OF HUMANITARIAN MISSIONS

Right now, we have over 120 active and reserve component nurses deployed in supporting humanitarian assistance missions. For example, we have a nurse in El Salvador converting dirty classrooms to clinics to provide health care. Within hours of Hurricane Mitch hitting Honduras, nurses were filling sandbags to keep an air base from being engulfed with flood waters.

Last summer, during the bombing at the embassy in Kenya, an Army nurse officer on leave there reported to the embassy and got actively engaged in providing care. When she returned, she identified that she could not come home, that that is what the Army had trained her to do, and it was the right thing to do.

We are helping to shape the international geopolitical environment. Last summer, at the request of the Egyptian Government an Army Nurse Corps officer led a team to Egypt to assess the requirements for upgrading the Egyptian health care system. We are involved in many, many initiatives to get the right person to the right job.

EXPANDING ROLE OF NURSE PRACTITIONER

Part of that is expanding the role of the nurse practitioner to increase resource efficiency in our health care system. Army nurse and launch tool has implemented a program called risk reduction for readiness, in which we are identifying high risk behaviors in soldiers, such as sexually transmitted disease, drug and alcohol offenses, so we are targeting those conditions, working with commanders to target specific problems rather than dealing with illness.

At Fort Huachuca, Arizona, we have instituted field sick call where the family nurse practitioner goes out to the unit rather than the soldier having to come into the hospital, reducing lost duty time. We are particularly proud of the innovations through nursing research. We are using it to respond to the challenges of taking care of patients in the military environment.

TRISCIENCE NURSING RESEARCH

Thanks to your support, the Triservice Nursing Research Program has been the primary funding link that we would probably not receive from any other source, and one study on nursing re-

search is developing a portable device to accurately record soldiers' vital signs during a medevac helicopter flight.

We have a Nurse Corps officer who is leading an investigation team on a nutritional supplement for traumatically injured soldiers to preserve lean body mass and to be field expedient.

We are using Triservice nursing research dollars to fund issues related to problems with breast feeding for soldiers on active duty. The investigator uncovered barriers to breast feeding that included lack of support from the system, and on and on and on.

Certainly the research reveals that human breast milk improves babies' health, provides a jump start in their growth and development, and decreases the risk of acute and chronic disease. As a result of that funding from Triservice research there was additional research that was done with Triservice dollars that resulted in the first DOD-recognized hospital for a baby-friendly hospital initiative. That is at Fort Irwin, California. The National Training Center, and this program is sponsored by the World Health Organization United Nations Children's fund, and this DOD hospital, Fort Irwin, was the first facility in DOD to be recognized for its efforts at breast-feeding and again a direct result of Triservice nursing research dollars.

Again, advanced nursing practice has led the way in many initiatives for research efficiency. We have an advanced practice nurse clinic at Brook Army Medical Center that has increased access to care and costs less in terms of the delivery of health care than a traditional medical clinic.

Lots of good results from the technology multiplier initiatives, product Akamai, the use of telemedicine. That group has focused on using telemedicine as a resource in time-efficient method of providing care. Again, Triservice nursing research dollars have been critical in that.

NURSING AS A PROFESSION—(OPPORTUNITIES)

We are proud of who we are and what we have done, sir. Based on your support and your belief in nursing as a profession, we have many, many opportunities for nurses. We have the first Army nurse to be selected on a command selection list to command an Army medical treatment facility, Colonel William Bester. He was leader developed in our core competency of nursing, documenting that our core competency of providing leading delivery of nursing care gives us the skills that we need to lead the organization.

FUTURE CHALLENGES FOR ARMY NURSE CORPS

I would like to highlight a couple of challenges that we need your continuing support for. As you know, part of the cost-cutting methods are, one of the initiatives is a look at whether or not nurses in the military need to come in at the baccalaureate level. As we move to a wellness model, the baccalaureate-prepared nurse is the most flexible nurse. We need your support to ensure that the bachelor of science and nursing (BSN) remains a criteria. We must have your continuing support to ensure that nurse remains at the table in terms of innovation in the health care delivery system.

SUMMARY OF STATE OF ARMY NURSE CORPS

Your support of Triservice nursing research has provided funding for nursing studies with significant impact on soldiers in readiness. We are evolving. We have identified needs. We are improving every year as we go to identify innovations in nursing practice that improve the delivery of health care to soldiers on the battlefield and their families in our medical treatment facilities.

PREPARED STATEMENT

I am proud to say that Army nurses are a critical link in the changing face of the military health care system. From the fox hole to the front line of the hospital, nurses are making a difference in the lives of soldiers and their beneficiaries. Nursing is, indeed, the linchpin in the health care delivery system. Keeping nursing at the decisionmaking table is critical to continuing the evolution of our Nation's health care delivery system. Sir, we thank you for believing in the value-added of nursing to our health care system.

Senator INOUYE. Thank you, General.

[The statement follows:]

PREPARED STATEMENT OF BRIG. GEN. BETTYE SIMMONS

Mr. Chairman, distinguished members of the committee, ladies and gentlemen. I am Brigadier General Bettye Simmons, Chief of the Army Nurse Corps. It is my privilege to appear before this committee and report on the state of the Army Nurse Corps. This is the third time I have had the opportunity to testify before this committee and my last as Chief. First, I'd like to thank the members of this committee for your wholehearted support of military nursing. Your support has enabled the Army Nurse Corps to make a difference in the lives of America's soldiers and our beneficiaries. Our vision is Army nurses who are Ready, Caring, and Proud. This morning, I'll use these imperatives to focus on how Army nurses are making a difference. I'll also discuss challenges that lay ahead for the Army Nurse Corps as the Nation and the Army transition into the new millennium.

Army nurses are Ready. Last year, over 120 active and reserve component Army nurses deployed in support of humanitarian assistance missions. Our task now is to continue to deploy nurses who make sound decisions in complex situations and rapidly transition between peace and wartime operations. To that end, our readiness strategy is three-fold: leader development, nursing role development, and innovation through nursing research.

LEADER DEVELOPMENT

Our leadership process has already produced nurses who are experts at matching requirements to resources. For example, in El Salvador, nurses converted dirty classrooms into clinics to provide care and comfort to homeless families. Within hours of Hurricane Mitch hitting Honduras, nurses were filling sandbags to keep Soto Cano Airbase from being engulfed by floodwaters. Leader development in our core competency of nursing prepared one nurse to work as U.S. Embassy staff in Nicaragua where she assisted in-country military groups. Nurse leader development prepared another nurse to serve as the Deputy Surgeon for Central American medical military operations. Army nurses do very well in their deployment role because in their peacetime mission they have become expert at managing the human dimension of change. Our leadership process highlights preparing nurse critical thinkers who can respond to any contingency and—the process is working. Last summer, an Army nurse was vacationing in Kenya when she learned of the American embassy bombing. She quickly made arrangements to travel to the Embassy. Once there, she retrieved supplies from the bombed clinic in the embassy basement, organized the supplies into a clinic at another location then assisted in managing the clinic for both American and Kenyan employees of the Embassy. After returning home, the nurse wrote; "There was no way I could just get on the plane and fly away. This is what the Army has trained me to do and it was the right thing to do."

Nurse leaders are helping the Army to shape the international geopolitical environment by building face-to-face relationships via foreign medical assistance initia-

tives. Last summer, at the request of the Egyptian government, a medical foreign assistance team led by the Assistant Chief of the Army Nurse Corps went to Egypt to assess requirements for upgrading the Egyptian military health care system. As a result of that visit, several Egyptian nurses completed Army Nurse Corps training courses and several more nurses are slated for future training.

ROLE DEVELOPMENT

We are working hard to use the right person for the right job. Consequently, we have expanded the role of the Family Nurse Practitioner, (FNP) in the field hospital to provide care to a wide array of patients with an economy of personnel. To further broaden the FNP's scope of care, an Army nurse instructor at the Uniformed Services University of the Health Sciences is developing new curriculum aimed at better preparing graduates for their role in operational deployments. This curriculum includes topics that will prepare graduates to function as trauma care providers as well as family nurse practitioners in an operational environment. The program will culminate with a medical field readiness exercise known as "Operation Bushmaster". This exercise will provide tough, realistic training scenarios for the FNP's that will maximize their effectiveness as operational health care providers.

Army nurses are expanding their roles as advance practice nurses to develop innovations that improve our ability to deploy a healthy force. For example, an Army FNP at Landstuhl, GE is implementing a program called "Risk Reduction for Readiness". This program targets high risk soldier behaviors that are detrimental to readiness. Fourteen high-risk behaviors such as sexually transmitted diseases, drug or alcohol offenses, spouse or child abuse and suicide attempts are tracked using data from local human service agencies. Each commander gets a quarterly printout for their unit that identifies high-risk behaviors in their soldiers. This program enables health care providers, working together with unit commanders to target specific problems rather than using a shotgun approach to health promotion and readiness.

Another nurse initiative that is improving readiness is the Medical Readiness Database for the 42,000 soldiers at Ft Hood, Texas. By querying the database, commanders can analyze their unit's medical readiness then partner with health care providers to correct deficiencies. Nurses are currently expanding the database to include the USAR and ARNG units that are assigned with active duty units at Ft. Hood.

A nurse at Ft. Huachuaca, Arizona, is decreasing the time soldiers spend at sick call with the Field Sick Call. Twice a month, the FNP goes out to local field units to conduct sick call and interface with line commanders about health care issues in their units. Field Sick Call has reduced the number of soldiers waiting at hospital sick call thereby increasing soldiers' availability to their units.

INNOVATIONS THROUGH NURSING RESEARCH

Finally, we are using nursing research to respond to the challenges of caring for patients in austere environments. Thanks to your support, the Triservice Nursing Research Program provides funding for military nursing studies that might not receive funding from other sources. These studies will provide leap-ahead capabilities for military nurses on future deployments.

In one study, a nurse researcher is developing a portable device that can monitor patients' heart rate, respiration and blood pressure in high noise and vibration environments. A non-invasive device that accurately measures and records a soldier's vital signs in the field or combat environment, as well as in a MEDEVAC helicopter, could greatly improve care in the field and improve health outcomes for these soldiers. Advance testing is showing the device is performing even better than expected.

Another study funded through your support of the Triservice Nursing Research Program is investigating a nutritional supplement for traumatically injured soldiers. The supplement promises to preserve lean body mass and protect vital respiratory strength and endurance after a soldier is injured. It is field-expedient, compact, doesn't require refrigeration and is less susceptible to contamination.

Both studies illustrate how nurses are using research funding to develop innovative applications of high technology care to care of the soldier.

Army nurses Care. Nurses are making a difference with women's health issues. A study funded by the Triservice Nursing Research Program investigated why military women stopped breastfeeding before they had planned. By interviewing both officer and enlisted soldiers, the investigator uncovered barriers to breastfeeding that included lack of supervisor support, co-worker's squeamishness towards pumping breast milk in the workplace and lack of structured time to breastfeed. Conflicting loyalties caused many women to terminate breastfeeding. For example, a

non-commissioned officer struggling to meet weight standards post-delivery had to decide at the end of her twelve-hour days—does she go home to breastfeed her baby or to the gym to work out? An Army specialist spoke of the irony of a supervisor who supported soldiers' smoke breaks but denied her a break to pump her breastmilk. Recent research has proven that human breastmilk improves babies health, provides a jumpstart in their growth and development and decreases their risk of acute and chronic diseases. For Moms, breastfeeding decreases postpartum bleeding, helps women return faster to their pre-pregnancy weight and decreases the risk of ovarian and breast cancer.

An Army nurse at Ft. Irwin, California, linked the questions raised in the Triservice study with the science detailed in breastfeeding studies to implement an innovative program called the Baby Friendly Hospital initiative. This program is sponsored by the World Health Organization and the United Nations Children's' Fund. It encourages and recognizes hospitals and birthing centers that offer an optimal level of care for breastfeeding moms and babies. Recently, the hospital at Ft. Irwin, California was the first DOD medical facility to receive recognition for its efforts at promoting breastfeeding. The nurses at Ft. Irwin provide education on the benefits of breastfeeding to battalion and company commanders and give breast pumps to women who are deploying to the field. Nursing initiatives that are founded on research, such as this one, are decreasing costs by improving outcomes.

Another nursing study funded by the Triservice Nursing Research Program is aimed at helping battered women who develop post-traumatic stress disorder. Many abused women develop post-traumatic stress disorder. The investigator on this study will use cognitive Trauma Therapy to reduce PTSD, depression and guilt in battered women. At this time, the investigator is doing the training with actual victims of battering and is already seeing significant decreases in PTSD and guilt feelings and increases in self-esteem. Findings from this study will have significant implications for military readiness and costs related to treatment for battered women.

Nurses are increasing access to care. The Advanced Practice Nurse (APN) Clinic at Ft. Sam Houston, Texas provides care to a population of 7,200 active duty and civilian patients, averaging 115 patient visits per day. This clinic has increased access to care and costs the organization fifty dollars LESS per patient than that same patient's visit to the Internal Medicine Clinic. Also, the patient gets more bang for their proverbial buck. The APN's at this clinic focus on wellness and prevention and devote approximately ten minutes of each clinic visit to wellness education.

Nurses in non-traditional roles are leveraging technology to improve care and increase access. For example, an Army nurse corps officer directed the life cycle management of the Composite Health Care System II, or CHCS. This system is a compendium of clinical applications that provides the Department of Defense with an enterprise-wide clinical information system. CHCS integrates patient data from multiple sources and displays this data in a user-friendly format at the point of care. This system, currently in alpha-testing in Hawaii, will eventually allow health care providers to reach out to patients geographically dispersed in the Pacific and improve quality of care. The value added of placing nurses in information technology initiatives is that the nurse, as the patient advocate, knows technology must serve not only the organization but also, the patient. Nurses recognize the importance of preserving small details such as maximizing patient/provider eye contact when a hospital becomes automated.

Nurses are evaluating technology as a healthcare provider multiplier. For example, an Army nurse is conducting a study, funded by Project Akamai, to evaluate the care patients receive via telemedicine. Initial focus groups with patients and providers involved in telemedicine indicate that it is a time and cost-effective mechanism for receiving care. The current climate of decreased numbers of military healthcare providers coupled with an increasing operation tempo is opening a door for telenursing initiatives. Initiatives like the electronic housecall, that I shared with you in last year's testimony, can expand the ability of military nurse practitioners to provide care in areas where physician support is limited.

A nurse methods analyst in the TRICARE division is developing the first-of-its-kind Tricare Survey Web Site on the AMEDD web page. The web site will allow hospital commanders to compare how well they are doing with other facilities with the overall goal of raising the level of quality care across the Army Medical Department.

Army nurses are Proud. We are especially proud of the success we've had with our leadership initiatives. We realize the Army imperative of leadership development is crucial. As a result, our leader development philosophy focuses on leader training that develops the officer as a critical thinker and managing officer assignments to alternate operational and clinical jobs. This philosophy insures our nurse leaders can develop and make the best contributions to the Army Medical Depart-

ment. On the seventh of August, 1998, the hospital commander at Ft. Jackson, South Carolina, relinquished command to an Army nurse. This nurse is a superb example of an officer that has been leader developed in our core competency of nursing. His experience will help other nurses realize their future goals.

And now, I'd like to highlight two challenges facing the Army Nurse Corps. As cost-cutting methods are sought to reduce the price tag associated with military health care, our use of the Bachelor of Science-prepared nurse continues to be scrutinized. As we move to a wellness model of military health care, it is imperative we access nurses who have the flexibility to provide care in outpatient centers, homes and nurse-managed clinics where demand is expanding as healthcare moves beyond the hospital. Your support of the BSN criterion for entry into active duty Army nursing has insured we remain on the cutting edge of the wellness revolution.

Finally, your support of the Triservice Nursing Research Program has provided funding for nursing studies with significant impact on soldiers and our readiness mission. We need your continued support to insure that nursing studies relevant to our unique military environment are guaranteed a funding pipeline that is absolutely unavailable elsewhere.

I'm proud to say that Army nurses are changing the face of military healthcare. From the foxhole to the frontline of a hospital, we are making a difference in the lives of our soldiers and beneficiaries. As the Nation, the Army and the Army Medical Department continue to adapt to changes in the world around us, Army nurses will continue to be part of that change. I thank you for this opportunity to tell you about Army nursing.

STATEMENT OF BRIG. GEN. LINDA J. STIERLE, DIRECTOR, MEDICAL READINESS AND NURSING SERVICES, OFFICE OF THE SURGEON GENERAL

Senator INOUYE. General Stierle.

General STIERLE. Senator Inouye, it is an honor to present my final report as the Director of Air Force Medical Readiness and Nursing Services. Your continuing endorsement has enabled us to make invaluable contributions as vital members of the Air Force Medical Service. I have submitted my medical testimony for the record, and will now highlight some of our successes.

First, leadership opportunities for nurses continue to grow. There are currently 20 Air Force Nurse Corps officers assigned as group commanders of our medical treatment facilities. Squadron commander experience is crucial for competitive selection to group command, so I am pleased to report that 17 percent of almost 300 squadron commander billets are also filled by billets. Nurses also command 37 percent of medical units in the Air Force Reserve Command and 12 percent of the Air National Guard medical units and, for the first time, an Air Force Reserve nurse was selected to be the command surgeon of the Air Reserve Personnel Center. We anticipate continued progress in filling active and reserve senior leadership positions.

Now, I will highlight some of our successful disease and population and health management initiatives. Grand Forks Air Force Base, North Dakota, Dover Air Force Base, Delaware, and Bolling Air Force Base, District of Columbia, implemented the role of the health care integrator to support primary care management teams. Health care integrators are the bridge between our dual missions of peacetime health care and operational health support. Hill Air Force Base, Utah, and Travis Air Force Base, California, successfully decreased the hospitalization rate and the acute care appointments required for asthma and hypertensive patients.

Eielson Air Force Base, Alaska, streamlined the health assessment of active duty by incorporating their annual fitness test and reducing a 5-hour procedure into a 2-hour one-stop process. At

Hickham Air Force Base, Hawaii, TRICARE enrollment is built into the command orientation program, and permits completion of health data collection and screening in one 4-hour block. Nursing, because of its system-wide perspective and its holistic approach to care is strategically positioned to ensure the successful integration of population health into practice.

The term, total nursing force, describes the partnership that exists between the active and the reserve components, including officer and enlisted. The disaster relief provided to the victims of the embassy bombings in Africa by the active and reserve component medics from Prince Sultan Air Base in Saudi Arabia is an excellent illustration of this enterprise in action.

The vision of the total nursing force strategic plan is to achieve a seamless, integrated force, and it is more reality today than ever before. The active and reserve component partnership has also been vital in the development of skills sustainment programs. One of the best examples of our team collaboration is a program called TOPSTAR, a medical training program that uses state of the art mannequins and computer-based instruction.

This 2-week course enables attendees to complete 100 percent of their skill sustainment requirements that previously took them up to 4 years. With the significant reduction of in-patient units, it will be increasingly more difficult to meet all clinical training requirements without initiatives like TOPSTAR. We also strongly endorse joint training programs. Nursing will be participating in a pilot military training program at Ben Taub General Hospital in Houston, Texas. This 30-day course is designed for trauma teams composed of medical and nursing personnel who can rapidly respond to worldwide contingencies.

Another example is the distance learning program designed by an Air Force faculty member of the Uniformed Services University of Health Sciences. This innovative training affords military nurse-anesthetists the opportunity to complete an advanced academic degree, even though they are geographically separated.

Because the training platforms in our treatment facilities are decreasing due to the decline in the quantity and the acuity of patients, we must develop adjunct methods of training. Laughlin Air Force Base initiated a ride-along program for their emergency medical technicians with the Vel Verde paramedics in Del Rio, Texas. Air Force medics are now exposed to a larger volume and a greater variety of emergency patients that help them maintain their critical skills while forging a stronger partnership with our civilian community.

Another example is the simulated medical unit at the 383 Training Squadron at Sheppard Air Force Base, Texas, which allows students to experience the typical work flow on a busy in-patient unit. This training innovation was awarded the Air Force 1999 Commanders in Chief's installation excellence award for special recognition.

We continue to use advanced technology to achieve breakthroughs in health care delivery systems. Virtual modeling and data bases have been developed that enable the right match of clinical capability to the care requirements of injured troops. Enhanced

telecommunication in the aeromedical evacuation environment is moving at a fast pace as a result of Air Force nursing leadership.

Accession and recruiting efforts continue to receive my close attention. Now, as never before, as we transition health care to an outpatient environment, we need experienced nurses who have the maximum flexibility to meet both our peacetime and our wartime patient care requirements. Commissioning of enlisted airmen who have completed a bachelor's of science degree in nursing continues to be a success story. We want to retain these stellar individuals as Nurse Corps officers, because they have demonstrated their career potential and commitment to the Air Force.

Foremost, I want to thank this committee for the continued backing for the Triservice Nursing Research Program. The benefits of completed research are not always immediately evident, but we are grateful that you recognize this, and we look forward to your continued support in our ongoing research endeavors.

Air Force nursing is generating timely research, addressing military readiness concerns as well as global health care issues. As an example, the results of a study on the effects of fluid hydration on personnel wearing the chem-bio ensemble concluded that water was just as effective as the more expensive sports drink in maintaining hydration. Last year, we saw a significant increase in the number of nurses formally presenting their research and also submitting it for publication, and it is my sincere belief that our research investment will improve nursing practice and patient outcomes in future years.

In closing, it has been my great privilege these last 4 years to present the state of the Air Force Nursing Service. Our dynamic cadre of total nursing force professionals is dedicated to our credo of global nursing, precision care for our airmen, their families, and our Nation.

PREPARED STATEMENT

Senator Inouye, I want to thank you again for the opportunity to showcase the invaluable contributions of military nursing. We appreciate your support in behalf of the Department of Defense, the Air Force Medical Service, and the communities we serve.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF BRIG. GEN. LINDA J. STIERLE

Mister Chairman and members of the committee, it is an honor to report on the achievements of the Air Force Nurse Corps (AFNC) since my testimony in April of 1998. Thanks to your continued endorsement the AFNC has made significant strides as we revise and sculpt our role in the ongoing evolution of the Air Force Medical Service (AFMS) vision of population-based health care management. As we prepare to enter the new millennium and transition from hospital-focused services to a health care system which emphasizes disease prevention and promotion of healthy life styles, the benefits of the Total Nursing Force Strategic Plan (TNFSP) and our collaborative vision of "Global Nursing . . . Precision Care", become realized.

As reported in previous testimony the TNFSP links directly to the AFMS strategic initiatives and from a broader viewpoint, correlates with the strategic plan of the Military Health System (MHS). The TNFSP has six goals. The goals are (1) Cultivate, Identify and Advance Strong Leaders, (2) Spearhead Customer-Driven Nursing Practice, (3) Forge Ahead as a Full Partner in the AFMS Building Healthy Communities, (4) Champion an Integrated Ready Force, (5) Effectively Use AF Nursing Resources, and (6) Employ and Integrate Technology and Research. As we begin the

third year of the TNFSP, this approach will continue to be the foundation for Air Force Nursing into the next century.

Goal #1: Cultivate, Identify and Advance Strong Leaders:

Goal statement.—Optimize nursing leadership to meet mission challenges of the 21st century.

Command Opportunities

Leadership opportunities for AFNC officers in the AFMS continue to increase. It is my opinion that an AFNC officer in a medical group or squadron commander position brings an inclusive perspective of the overall health of a specific population to the organization. Nurses, because of their diverse blend of clinical expertise, leadership experience, educational and customer focus, are among the best equipped disciplines to lead the way in proactive delivery of preventative services. In addition, I believe advanced academic degrees only serve to strengthen their qualifications for command roles.

The AFNC competitiveness and selection for command has steadily increased over the last 12 years. There are currently 20 AFNC officers in group command, or CEO, positions. This translates to 25 percent of the 80 AFMS medical treatment facilities (MTF's) are currently commanded by AFNC officers.

Gaining squadron commander experience is crucial for future selection to medical group commander positions. Of the 296 medical squadron commander billets, 17 percent or 51 are currently filled by nurses. Since the squadron commander position was introduced in October 1994, there has been an inconsistent fluctuation in the percentage of these billets that are filled by nurse corps officers. We will continue to closely monitor this command opportunity to ensure appropriate corps representation within the AFMS.

In order to evaluate progress in our achievement of Goal #1, we also began tracking senior leadership positions for nurses in the Air Reserve Components (ARC). Thirty-seven percent of medical units in the Air Force Reserve Command are commanded by nurses, whereas Air National Guard (ANG) units commanded by nurses are 12 percent, averaging 23 percent for the Air Reserve Components. I'm also pleased to report that for the first time an Air Force Reserve nurse was selected to be the Command Surgeon of the Air Force Reserve Personnel Center.

Nurses In Senior/General Officer Billets

In September 1994, the 2-star general officer promotion board opened to all corps and in September 1995, the 1-star board became a corps neutral opportunity. Moreover, the Fiscal Year 1996 DOD Authorization Act expanded the 3-star Surgeon General position beyond the Medical Corps (MC) to include all Air Force Medical Service officers. These are important steps in assuring a level playing field for leadership opportunities for all corps throughout the AFMS.

Officers compete for 1-star flag officer promotion at 2-years time in grade of colonel and must assume 1-star rank before their mandatory retirement date (normally 30 years commissioned service). Before competing for 1-star flag officer positions, AFMS officers normally progress through a series of medical group commands and other senior leadership positions. Eligibility for Medical Group command begins after the officer has been selected for colonel and ends at 26 years of commissioned service.

The usual phase point for Medical Corps (MC) and Dental Corps (DC) officers to reach colonel is between 13 to 18 years of commissioned service. The MC/DC officers have up to 13 years as a colonel to progress through medical group commands, and a total of 17 years to reach other higher level career milestones in preparation for general officer promotion. In comparison, the normal phase point to colonel for the DOPMA constrained corps, the AFNC, Biomedical Science Corps (BSC), and Medical Service Corps (MSC), is 21 to 22 years. These officers only have a 4 to 5 year window to progress through multiple medical group commands, and a total of 8 years to achieve higher positions that make them competitive for general officer promotion. This puts nurses, as well as other DOPMA constrained corps, at a distinct disadvantage for general officer promotion.

In order to be competitive with the non-DOPMA constrained corps (MC/DC) and have enough time to progress through a career track toward general officer promotion, DOPMA constrained candidates (NC, BSC, MSC) need at least one, if not more, below-the-primary-zone (BPZ) promotions. The AFMS recognized that the BPZ opportunity for DOPMA constrained corps was significantly less than for Line of the Air Force (LAF) officers and non-DOPMA constrained corps (physicians/dentists). Therefore we successfully campaigned to increase the BPZ opportunity to the rank of Lt Colonel and Colonel from 2.5 percent to 10 percent for the NC, BSC, and MSC officers.

Goal #2: Spearhead Customer-Driven Nursing Practice:

Goal statement.—Champion competent, collaborative practice among healthcare professionals to deliver truly customer-centered, affordable and accessible healthcare.

Customer Satisfaction

Nursing is intensely involved in the AFMS Customer Satisfaction Task Force, chartered to instill a customer-focused culture throughout the enterprise. Nurses and medical technicians assumed leading roles in the deployment of this strategy. Regional "kick-off" meetings were conducted to explain the essential elements of the strategy to all MTF's. They were asked to concentrate on four priorities—putting customers first, eliminating the "crazymakers" (distracters), empowering the staff, and reinforcing customer service basics. We have numerous success stories. For example, Scott Air Force Base, Illinois, eliminated restricted newborn nursery visiting hours. A ride-along program for EMT's was initiated between Laughlin Air Force Base and the Val Verde EMS Paramedics in Del Rio, Texas. This helped AF medics maintain critical EMT skills while at the same time promoting collaboration with the local civilian community—a win-win situation for all involved. Another win-win situation, F.E. Warren Air Force Base, Wyoming, listened to customers who pointed out that parents come in both sexes and either may need access to baby changing tables. So, they designated one restroom as a unisex, family bathroom that anybody may use to tend to their children's needs. These are just a few examples of how nurses are leading the way in the customer service revolution occurring in the AFMS.

Goal #3: Forge Ahead as a Full Partner in the AFMS Building Healthy Communities:

Goal statement.—Integrate nursing's unique healthcare expertise into building robust, prevention-based health and wellness, which will make healthy communities cultural and societal realities.

Prevention-based Health and Wellness

Managed care, in the context of population health management, presents rich new opportunities for nursing. Capitalizing on these opportunities will require a strategic vision, new training efforts, and the ability to face complex organizational challenges. These new opportunities are consistent with the professional practice framework within which nurses are prepared and practice, thus making them an ideal choice as health care leaders and partners in the new managed care millennium.

The goal of an ethical managed care organization is to care in the most appropriate way for all the individuals in the system, based on identified needs of the population being served. The civilian sector reports a shortage of primary care physicians that is predicted to last for 40 to 45 years. It would be appropriate to conclude that nurses and other health care disciplines will step in to offset this shortage. Trends in health care predict that nursing will be utilized in several directions beyond the traditional inpatient bedside. Advanced practice nurses (APN's) will substitute for physicians for less complex patient conditions and make independent clinical judgements. Nurse case managers will coordinate care and delegate assignments to other support health care disciplines and as team leaders will organize, educate and provide patient care. Nurses will be responsible for increasingly complex and independent clinical roles. These changes will be in response to the shift toward primary care and care in the clinic, home and community.

In the last two years, I have reported on the implementation of the Health Care Integrator (HCI) role. Each MTF has been provided the guidance to implement this position.

Since its inception, over 60 percent of AFMS facilities have resourced an HCI as compared to 48 percent in 1998. Of the facilities that do not have HCI's assigned, 90 percent plan to do so in the next year. We anticipate the HCI will become a pivotal player in ensuring our enrolled population receives appropriate guidance and intervention to maintain and obtain healthy life styles.

Roles for the AFMS nurses that resonate most closely with the goals and objectives set by the MHS, AFMS, and TNF are: disease management, critical pathway development and implementation, case management, informatics, call centers, plus telephonic nursing and nurse-managed clinics. I would like to highlight some of the successful disease management and population health initiatives implemented at our facilities.

Ambulatory clinics across the AFMS have consistently developed nurse-managed clinics, primary care triage services, and Ambulatory Procedure Units (APU). Typically nurse-managed clinics focus on managing asthma, hypertension, and diabetes

with HCI's providing case management, patient education, follow-up, and coordination of care between the primary care managers (PCM's), referral services and patients. Some facilities have expanded management activities to include routine women's health and obstetrical services. Nurses in primary care triage services use approved protocols to manage acute appointments, referrals, and provide home and self care advice.

Grand Forks AFB in North Dakota transitioned their successful nurse-managed clinic staff to the family medicine PCM teams. These nurses became the HCI's for the PCM's. The HCI's are responsible for disease management of their population. Patients can walk in to see their nurse for advice, be referred to a specialty service or have a appointment made with their PCM.

The HCI role has expanded to an increased educational role linking technicians, nurses, and providers as a team. The HCI and team will go out into the community, work centers, commissary, or wherever the need is. An HCI has recently been added to the Aerospace Medicine, Pediatrics and Women's Health clinic. Feedback and data collection has confirmed each PCM has a more definitive understanding of their populations health needs and deficiencies. The numerous outreach efforts by HCI's have turned a population of skeptical customers into believers. Continuous marketing campaigns and distribution of HCI business cards have served to create a sound foundation for a solid patient relationship. The staff strongly feel that efficient clinic operations and a cultural change to population based health care is dependent on the nurses' ability to see the big picture and manage the processes.

At Dover AFB, Delaware, the HCI nurses have found one-on-one interviews with each Senior Prime enrollee to be very beneficial in assessing their health needs and enrolling them to a PCM. At Bolling AFB, District of Columbia, an HCI is assigned to each PCM team. The two HCI's are at the forefront in building action plans to reengineer managed care at this clinic. They are integrally involved in implementing strategies for population health to include utilization management, disease management, case management, and prevention based health care.

At Hill AFB in Utah the HCI role has been in place for 20 months. In that short period of time the merging of population health management and managed care is a working reality. The HCI and the staff have developed programs that integrate services along the wellness-to-illness spectrum. I will outline a few examples of the programs they instituted.

New arrivals to base receive information during base orientation on the family health care planning that is available for individuals with chronic illnesses. A case manager developed short and long term plans for proactive, tailored care for the Exceptional Family Member Program beneficiaries as as well as anyone being followed. A cancer patient used to require two days for chemotherapy in addition to two days travel time to the MTF. As a result of health care integration the treatment that previously took 12 hours to complete can now be accomplished in three hours. These solutions sound simple but are often complex when there is not one person who is monitoring all aspects of the patient's needs.

At Travis AFB in California, the incorporation of healthcare integration into the MTF's culture has been successful in decreasing the hospitalization rate and acute care appointments for patients in the asthma program. Additionally, hypertension patients have improved blood pressure control since being enrolled in the program. Nurses have become key players in disease management because of their system-wide perspective and comparatively holistic approach to care.

In summary, the TNF continues to support and facilitate the vision to move "Building Healthy Communities" forward. Disease management and population health care may be the medium through which nursing firmly establishes itself for the next century in health care.

Goal #4: Champion an Integrated Ready Force:

Goal statement.—Maximize medical readiness capability with the right mix of multi-skilled personnel, incorporating joint training and interoperable equipment.

It is essential that we ensure our total force members are ready to deploy anywhere, anytime, with little notice. We provide our leaders and commanders with their most valuable weapon for a successful outcome: a healthy and fit fighting force. As our Surgeon General stated in his witness statement, "in managing the health of our total force members, we in turn manage the health of entire units". It is also essential that we provide our MHS members from all disciplines with not only the appropriate tools to do the job but with a high level of skill competency to do the job. Here are a few examples of initiatives we have implemented that provide this training.

Joint Training

The surgeons general (SG) from the Air Force, Army and Navy approved a one-year feasibility study to conduct a Military Trauma Fellowship program at Ben Taub General Hospital in Houston, Texas. The training is designed for first responder trauma teams of approximately 20 physician and nursing personnel. The military services will permanently assign nursing personnel as observer controllers (OC) to validate uniformity of training, establish didactic program guidelines and maximize the training experience. The OC's will report no later than July 1, 1999 to complete training and be considered a fully qualified member of the Ben Taub emergency trauma staff. Air Force nursing personnel, scheduled to begin training in February 2000, are assigned to the Expeditionary Medical Support (EMEDS) unit training codes. The EMEDS is a small and mobile surgical and intensive care team of physicians, nurses and enlisted specialists designed to quickly respond to contingencies or disasters around the world.

The EMEDS team will complete a 30-day program in Ben Taub focusing on prehospital care/transport, resuscitation, shock stabilization, and peri-operative nursing care of trauma patients. The nursing personnel participating in training will be Certified Registered Nurse Anesthetists (CRNA), operating room (OR) nurses/technicians; critical care nurses and technicians, respiratory technicians, emergency room (ER) nurses, and Emergency Medical Technicians (EMT's). The success of this pilot project could help point the way towards optimizing future training programs with "clinically rich" civilian sites and make joint training more of a reality.

Joint Training Through Mirror Force

Joint training activities to meet Mirror Force contingency needs is an AF Leadership initiative that the Active, Reserve and Guard are strongly committed to enhancing. By focusing on sharing similar training and mission opportunities, while optimizing utilization efficiencies, our ARC personnel are brought together into a seamless, medically ready force.

Patriot Medstar, as reported in last year's testimony, is a joint DOD medical training exercise designed to promote interoperability and understanding of how our medical weapons systems interface. Our 1997 exercise was a tremendous success. For the first time all Aeromedical Staging Squadron (ASTS) and Air Transportable Hospital (ATH) elements participated in total force training. Patriot Medstar 99 will be held in conjunction with TopStar this year as we launch our second TOPSTAR Travis (West) site, and project even greater opportunities for all health care disciplines.

I'm proud to say that nurses were the first corps to deploy a clinical core competency training reference for our clinical nurses. This reference, which has been posted on our web page, provides a systemized process for obtaining and planning training on the skills and knowledge necessary to provide patient care in a wartime or contingency operation.

A web page has been developed to incorporate medical readiness "one stop shopping" training opportunities for the Air Force Active and Reserve Components as well as other Services. This initiative has increased the Total Nursing Force's accessibility to current training information. Prior to this, ARC training personnel and commanders had to make countless calls to collect the necessary information to effectively plan the training.

As reported last year, the Nursing Department at the USAF School of Aerospace Medicine, Brooks AFB, Texas, implemented the Critical Care Air Transport (CCAT) Course. Through their diligent commitment to this program they have been able to train 240 CCAT teams composed of Total Force physicians, nurses, and enlisted specialists who may be required to provide critical care support to AE patients.

As the AFMS continues to tailor its force, the ability to maintain proficiency in all medical skills will become increasingly more difficult. It will be impossible to meet all training requirements in the remaining inpatient settings for our active duty medics, not to mention our reserve component. The TNF will continue to create efficient and effective methods to obtain and maintain critical skill proficiency.

Although the most valuable training platform is real world deployments, we have several sustainment operations that provide exceptional learning experiences.

Operation SOUTHERN WATCH.—The ongoing support to Southwest Asia (SWA) has been a TNF commitment from all Active Duty, AFRC, and ANG medical specialties. A 25-bed Air Transportable Hospital (ATH) remains deployed at Prince Sultan Air Base (PSAB), Kingdom of Saudi Arabia. It is staffed with 65 medical personnel on a 120-day rotational deployment schedule. AE assets are co-located serving as the hub for tactical and strategic patient movement. In addition, the ARC was tasked to provide complete coverage of the ATH. The ANG led the rotation schedule starting in March 1998, while the AFRC's rotation schedule started August 1998.

Our enlisted Independent Duty Medical Technicians (IDMT) continue to provide medical surveillance. The team is positioned at PSAB, monitoring the health of personnel pre/post deployment and conducting environmental surveillance of sites within SWA. Support is also provided for an in-theater clinic, consisting of six holding beds, staffed with 25 personnel on 120-day rotations. It is located in Eskan Village, Riyadh. The ANG led this rotation schedule beginning in January 1999. There are also other numerous Squadron Medical Elements (SME) deployed with operational flying units. There is currently an aeromedical evacuation (AE) hub with an Aeromedical Evacuation Control Center (AECC) and AE crews covering Ali Al Saleem, Kuwait.

Operation JOINT FORGE.—Though considerable downsizing has occurred in the past year, we still have personnel deployed to Hungary, Bosnia, Croatia, Italy and Germany. In Croatia, we provide base medical support with a 3-person clinic operation with five holding beds. AE support for the operation is conducted with liaison teams, Mobile Aeromedical Staging Facilities, Aeromedical Evacuation Control Centers, and Aeromedical Evacuation Support Cells in Germany, Bosnia, and Hungary. In addition to sustainment operations, such as Southern Watch and Joint Forge, we also have the opportunity to be primary instruments for global engagement through Humanitarian Civic Actions.

Humanitarian Civic Actions (HCA)/Disaster Relief

The AFMS provides medical relief for natural and man-made disasters throughout the world. The AFRC and the ANG were full participants in fiscal year 1998 U.S. SOUTHCOM's HCA programs. They accepted taskings for eight missions, providing medical and dental care in five countries. Their involvement in the fiscal year 1999 HCA program has increased to eleven missions in eight countries. Medical technicians from the ANG provided AE support in Honduras during the aftermath of Hurricane Mitch. Medics from Prince Sultan AB also flew to Nairobi, Kenya, in response to the bombing of the U.S. Embassy. These are prime examples of the TNF's involvement in HCA efforts. These programs enhance our national and military strategies, provide quality healthcare to needy populations and impart good healthcare practices to future generations.

Goal #5: Effectively Use AF Nursing Resources

Goal statement.—Capitalize on Air Force nursing personnel to optimize support for the AFMS mission requirements.

We want to ensure the TNF maintains the proper skill mix, grade structure, and experience balance necessary for mission accomplishment. We begin this sustainment process through accessions and recruiting efforts, accompanied by the force tailoring of size, skill mix and grade requirements.

Accessions/Recruitment

As reported in last year's testimony, the entry-level educational requirement for commissioning AFNC officers was changed in 1997 to a Bachelors of Science in Nursing (BSN) degree. In CY 1998 our senior AFNC leadership made the corporate decision to limit recruiting of novice BSN nurses to Reserve Officer Training Cadets (ROTC) and enlisted members who had completed their BSN. The nurses we now recruit require not only a BSN but also a minimum of one-year of acute care experience. These nurses are considered fully qualified to function independently, thus ensuring the smaller force we have today has maximum flexibility to meet both our peacetime and wartime patient care requirements. We need experienced nurses primarily because of decreased training platforms within the AFMS. The movement of health care from an inpatient to an outpatient environment has reduced the training opportunities for nurses to acquire basic medical-surgical skills normally obtained in a nurses' beginning years of practice. These skills form the foundation of our wartime clinical practice competencies.

BSN nurses have the requisite knowledge base, flexibility, and experience to teach our medical technicians, and to collaborate with interdisciplinary professionals and agencies. To date we have filled 50 percent of our targeted recruitment goal for fiscal year 1999. Although our more stringent recruiting criteria can account in part for recruitment deficiencies, the civilian sector's decreasing pool of fully qualified nurses is also a factor. Nursing school enrollments have been down for the last three years. This coupled with a forecasted greater requirement for skilled nurses further compounds our ability to meet our recruiting goal. We are aggressively pursuing other avenues of nurse accessions to meet our requirements. In the past year we have increased the commissioning opportunities for enlisted members who have their BSN, in addition to continuing with ROTC scholarships. Our criteria will remain unchanged and we strongly believe that a BSN nurse provides the AFMS with

an AFNC officer that can independently lead, manage, teach, and integrate health care across the spectrum of peacetime, war, and humanitarian operations.

Force Tailoring:

As reported last year, the AFMS Mission Support Plan (MSP) identified the need to reduce inpatient beds in facilities as the AFMS transitioned to a population-based health care management model. Our reengineering efforts are on track as we strive to attain the right ratios of nursing personnel and staffing mix for our beneficiaries in the outpatient environment by the accelerated completion date of fiscal year 2000.

The AFNC is actively participating in Phase I and Phase II drawdown incentives currently in place. The Phase II portion of the drawdown is open to all Air Force Specialty Codes (AFSC's) such as emergency or critical care nurses, and these AFSC's can be closed to applicants any time. In addition to previous years incentives, we were able to ensure that any AFNC officer who opted for a special line transfer would be eligible to retain accrued constructive credit. It is unlikely, however, with the current incentives that we will meet our rightsizing requirements by fiscal year 2000. Other creative methods will have to be considered to reach our goal, such as Variable Separation Incentive (VSI) and Special Separation Benefit (SSB). These programs would apply to those individuals with between six and fifteen years of active military service.

Graduate Education

A nurse's practice is embodied in the following four domains: clinical, research, education and administration. Graduate education prepares the nurse for expanded roles in one or more of these domains.

The 1998 Integrated Forecast Board (IFB) projected advanced academic educational requirements for the AFMS. The IFB approved a significant number of training years to support Community Health Nurses in Health Care Integrator roles at Medicare Subvention sites.

We continue to stress the value of graduate and post-graduate education for our AFNC members. Advanced practice preparation is the hallmark of our profession and is essential to our evolution and journey towards our culture, which embodies population health while at the same time providing for our wartime requirements.

Uniformed Services University of the Health Sciences (USUHS)

The mission of the Graduate School of Nursing (GSN) is to prepare advanced practice nurses (APN's) at the graduate level to meet the primary and critical care needs of active duty members of the Uniformed Services, their families, and all other eligible beneficiaries. USUHS prepares graduates who are equipped to contribute to the Uniformed Services' peacetime health care delivery systems and to provide military and public health support during combat operations, civil disasters, and humanitarian missions. Air Force Nurse Corps officers are assigned to the Certified Registered Nurse Anesthetist (CRNA) and Family Nurse Practitioner (FNP) program GSN faculty.

The CRNA Program received a maximum 6-year accreditation in September 1997 from the Council of Accreditation. We continue to assign all CRNA students to the USUHS GSN, believing it to be one of the strongest programs in the country. To date, the USAF CRNA students graduating from the USUHS program have had a 100 percent success rate on their board certification examinations.

Force Sculpting: Enlisted Specialists

The utilization of medical technicians in non-traditional roles like managed care, readiness and health promotion as well as commissioning of enlisted Airmen who have a BSN continues to be of tremendous benefit to the AFMS. These force multiplier endeavors have served to provide the enterprise with critical resources in a rightsizing environment and increased the breadth of career opportunities afforded these stellar individuals.

Goal #6: Employ and Integrate Technology and Research:

Goal statement.—Exploit cutting edge technology and research to manage information and advance nursing practice.

Modeling and Simulation Technology in Medical Readiness

The nursing profession has, for years, recognized the contribution of advanced information systems in defining health care delivery requirements. The AFMS has led the charge in developing a suite of sophisticated models and databases that support the full analysis of the right match of clinical capability to the health care require-

ments of one or more ill or injured airmen/troops. This technology-driven capability allows for medical care validation, without placing one patient at risk.

The Medical Readiness System Database, another advanced and robust AFMS product, is based on over 300 clinical profiles addressing patient needs from the most severely injured trauma patient to a simple upper respiratory infection. Not only does this database drive all modeling efforts, it also captures optimal care requirements in the deployed setting. Nurses participating in training exercises today, such as Patriot Medstar 99, now have a clear set of clinical requirements. Those requirements are then matched, through modeling, to actual casualty projections. Training is realistic, operationally driven and standardized. Exploiting simulation models for training is a new focus of the AFMS.

A newly developed prototype, the Synthetic Theater of War Model, is the first simulated training tool developed to allow medics the opportunity to realistically rehearse expected medical requirements before actually deploying to war. Leadership, critical thinking under pressure, and clinical care determination are only three of the many useful skills developed through this type of training platform. For the first time, the medics can participate in the Line of the Air Force simulation model development with a clear vision of how medics should be inserted into their program development.

Telemedicine Technology

Work on the insertion of enhanced telecommunications into the AE environment is continuing at a very fast pace; two exciting programs are in the works. The first is commonly called the "Care in the Air" project. The second is the Joint Medical Operations—Telemedicine Advanced Concept Technology Demonstration (JMO-T ACTD).

The "Care in the Air" project started almost three years ago, with our Proof of Concept Demonstration in the European Theater. Many lessons were gleaned from this pivotal event. Perhaps the most important was electronic mail (e-mail) on/off AE platforms, this would provide the ability to send and receive e-mail in the air and at Mobil Staging facilities. The 311th Human Systems Wing at Brooks AFB, Texas, has been investigating the best solution to address this critical operational issue. That work will soon come to closure when a list of potential solutions, with well defined pros and cons, is provided to a decision making team of experts, including medics, for determination of the "best fit" technology solution.

The JMO-T ACTD is a joint program focused on integrating service-specific telecommunication solutions, such as the "Care in the Air" project, in the operational setting. Designed to match emerging technologies to a specific theater's critical operational issues, this ACTD was first developed by the medics. Its' vision is to provide joint war-fighting commanders the ability to deliver effective force protection in austere, non-linear operational theaters, a bridge between how we do business today and Joint Vision 2010. The JMO-T ACTD's overall objectives are (1) enhance the JTF commander's view of the common operational battlespace, (2) enhance awareness of medical threats to deployed forces, (3) speed and improve medical care and return-to-duty decisions closer to the front lines, (4) optimize medical evacuation, (5) minimize the medical footprint, and (6) enhance deliberate and collaborative medical planning capabilities. Questions regarding who collects clinical and operational data, how that data is packaged, sent, and to whom are just a few of the functional issues to be studied.

An Air Force nurse is leading the AFMS portion of this important ground breaking demonstration. Work began over 12 months ago and will continue over the next four years. Aggressive planning is presently occurring in preparation for demonstrating joint operability during Kernel Blitz 99, followed by Patriot Medstar 99. It is an excellent opportunity for the AFMS to investigate how their communication infrastructure "fits" within the joint arena before we go to war. The "Care in the Air" project will flow nicely into this demonstration as the next step in determining how technology enhancements within the AE environment can improve our clinical and operational efficiencies.

Information Technology

The Total Nursing Force Strategic Plan (TNFSP) homepage website was updated to a designated user-publishing process with Netscape Communicator. A platform was created to allow for virtual discussion forums. Information can now be exchanged or feedback obtained almost immediately to brainstorm, resolve issues, and share best practices. These electronic communication systems placed the AF TNF "on the map" for state of the art, customer-responsive communication. Timely dissemination of accurate information is critical to successful mission accomplishment in these dynamic times.

Technology in Education

In the last year, the Nurse Transition Program has been reengineered to better accommodate the needs of the students as well as chief nurses and nurse managers. As our training platforms in the MTF's decrease in quantity and acuity of patients, we have been investigating adjunct methods of training. One of these has been the simulated inpatient medical unit, developed at the 383rd Training Squadron at Sheppard AFB, Texas. This unit allows students (both officer and enlisted) to experience the typical workflow on a moderately busy patient care unit. It is believed that this tool will be a beneficial supplement to skills training and sustainment of the Total Force in the future.

Military Nursing Research

The Tri-Service Nursing Research Program continues to provide the essential resources to ensure the continued growth of a flourishing Air Force nursing research milieu. The benefits of completed research are not always immediately evident. We are grateful that this committee recognizes this and look forward to your continued support in our ongoing research endeavors.

From 1992 to present day, 28 of 142 (20 percent) Tri-Service nursing research studies came from the Air Force. Proposals completed to date display a diverse range of topics to include: The Effect of Healing Touch, Cancer Prevention and Detection in Military Nurses, Family Stress Associated with Wartime Separation, and Readjustment of Gulf War Veteran Women. For fiscal year 1998, Air Force nurses in the Active, Guard and Reserve forces submitted four of nineteen (21 percent) Tri-Service research proposals selected for funding. The research proposals were: Preventing Suctioning-Induced Hypoxemia at Altitude, Impact of TRICARE/Managed Care on Mirror Force Readiness, Air Force Women's Health Surveillance Study and Management of Hypertensive Patients by CNS in Military Setting. I am very pleased that the subject matter being researched is timely, addresses global health care issues as well as military specific concerns of the day.

Our final grant writing workshop made tremendous strides this year. We provided over 60 ARC members with a heightened understanding and participation in research activities and increased the cadre of AF AFNC investigators. Placement of Clinical Nurse Researchers (CNR) at each of our clinical investigative sites provided the essential link for nursing staff to incorporate research into day-to-day activities. The CNR's increased the nursing staff's knowledge and participation in clinical research, dissemination of research findings, and utilization of research findings in daily practice.

Of the 29 nursing research studies completed and ongoing at WHMC, seven have been competitively selected for Tri-Service nursing research grants, with an additional proposal currently pending grant approval. Four studies have been completed (two were Tri-Service funded). The two Tri-Service funded studies are entitled; "Impedance of Chest Tube Drainage: Effect of Position" and "Effects of 3 Fluids on Hydration During MOPP Training." The first study validated current nursing practice in the care of patients with chest tubes. The results of this study have the potential of maximizing chest drainage systems; thus, reducing treatment time, reducing patient discomfort and health care costs. The results are particularly important to military nurses who may be faced with situations where avoiding dependent loops in the tubing may be impossible. In these cases, it appears that periodic lifting and drainage of the tubing results in adequate fluid drainage. The investigators have submitted the study for publication in a national nursing journal.

The data from the second study dealing with fluid hydration is still being analyzed, but the researchers have concluded that water was as good as the more expensive "sports drinks" in maintaining adequate hydration during strenuous activity while wearing chemical/biologic warfare protective clothing. If this conclusion holds true after analysis, it will have a significant impact on the resource constrained environment of our austere deployment sites.

Since assignment of the CNR to the Keesler AFB Medical Center in Mississippi, 49 staff members representing six disciplines have conducted 12 interdisciplinary clinical studies. We are extremely proud of this multidisciplinary collaborative approach to research. This data reflects tenfold improvement in staff involvement in research activities, as compared to the previous five years. There are eight studies now being conducted to address clinical issues and concerns.

One completed study examined effects of "patient-preferred" music use by patients about to undergo surgical procedures. "Patient-preferred" music, as a therapy, substantially reduced ($p<.001$) anxiety perceived by patients, prior to surgery. This knowledge provides for potential reduction of some medications currently being used during the anesthesia induction period, thus impacting our current surgical patient care practice.

The prevalent rate of high blood pressure was studied in one of the under served civilian communities in the local area. It was determined that high blood pressure is highly prevalent (4 out of 10) in this particular group of individuals who also had an extremely low level of self-care and knowledge regarding high blood pressure. Based on this substantiated knowledge deficit, an initiative was implemented by military nurses to improve the knowledge level concerning high blood pressure in this off-base community. This project has strengthened our community relationship. The study is being reviewed for publication at this time, and it will be the first of its kind in the professional literature.

The Keesler AFB Clinical Nurse Researcher was awarded continued Tri-Service Nursing Research Program funding of $167,833 on a two-year study. This study will evaluate benefits of managing hypertensive patients by advanced practice nurses utilizing advanced telehealth procedures in reducing blood pressure and prevention of complications.

Another benefit that can be directly linked to the presence of a CNR at Keelser AFB medical facility is the level of dissemination of research findings by nurses for nurses and others professionals. During last year alone and as a first, over 30 nurses presented 15 research posters at national conferences, three papers at research conferences, and five manuscripts for publication in professional journals.

The presence of a CNR at Travis AFB Medical Center has served to heighten the spirit of inquiry. Over the last year six studies have been completed, with topics ranging from, "Impact of Staff Education/Practice on Success of Breast Feeding", "Factors Affecting Department of Defense and Veteran Administration Patient Satisfaction in a Military Emergency Department" to "The Effects of Implementing a Cerebral Vascular Accident (CVA) Critical Pathway", the second study has been submitted for publication in Military Medicine. On the horizon are four collaborative studies that this facility will do with Wilford Hall Medical Center in San Antonio and the Graduate Nursing faculty at USUHS. In addition to ongoing research, continuing education classes are offered quarterly to provide nurses with the tools/knowledge they need to read, critique, and utilize research in their practice and provide the inspiration to conduct their own studies.

As you can see, Air Force nursing is generating research studies targeted to both critical practice and readiness issues. It is my sincere belief that we're pursuing a course that will offer many improved practice opportunities in the years to come.

CONCLUSION

In closing, it has been my great privilege to present the state of the Air Force Nurse Corps these last five years. I can say unequivocally that this dynamic assemblage of nursing professionals is strategically positioned to carry the Total Nursing Force into the new millennium. They are committed to ensuring that our airmen, their families and our nation are provided with the most preeminent health care available worldwide. Our strategic plan charts the course to meet the challenges and opportunities that lay ahead. Mr. Chairman and committee members, thank you for recognizing the invaluable contributions of military nursing. We appreciate your support in behalf of the Department of Defense, the AFMS and the patients we serve.

Senator INOUYE. Thank you very much. Admiral Martin, welcome aboard. This is your first appearance before us. We look forward to your help here.

STATEMENT OF REAR ADM. KATHLEEN L. MARTIN, DIRECTOR, NAVY NURSE CORPS

Admiral MARTIN. Thank you, Senator Inouye, and thank you for inviting me to speak to you today about the Navy Nurse Corps. As my first appearance, I am certainly delighted to report on the current state of our corps, and to explain our future challenges, which will echo the same remarks that both General Stierle and General Simmons made as far as our challenges for all of our Nurse Corps.

The Navy Nurse Corps is a total integrated force of over 5,300 reserve and active duty nurses who actively support the Navy health care team. Our focus is on, as Admiral Nelson mentioned, readiness, and accomplishing our health benefit mission through

practicing, teaching, and leading medical treatment facilities of all sizes.

Navy nurses envision themselves as leaders in creating teams and developing partnerships for optimal health promotion and organizational performance. Our strategic plan in the Navy Nurse Corps focuses us on mission accomplishment and support, inspirational leadership, and exceptional professionalism. Therefore, the drivers of our strategic plan are operational readiness, leadership, and professional practice.

As Admiral Nelson mentioned, our fundamental purpose for existence is operational readiness. In addition to supporting our fixed treatment facilities, we have over 70 active duty nurses serving in a broad range of operational assignments that include aircraft carriers, hospital ships, fleet surgical teams, and fleet marine force units. Navy nurses routinely support military operations and exercises involving our hospital ships U.S.S. *Mercy* and U.S.S. *Comfort*, and are critical to giving operational experiences to Navy nurses as well as supporting the exercise itself.

Operational readiness also includes humanitarian support missions conducted in response to sudden tragedies and environmental disasters. Nurse Corps officers assisted in the aftermath of destruction caused by Hurricane Mitch in Honduras, and were an essential part of medical units deployed to provide support to the people of Haiti. Operational readiness also means maintaining the health and well-being of our sailors and marines on a daily basis.

In our fleet concentration areas, family nurse practitioners deliver care at the pierside to provide ready access to health care and reduce time lost from the workplace. Critical to maintaining a readiness posture is the successful utilization and integration of our reserve personnel.

Reserve nurses contribute to our total force integration, providing superbly skilled replacements for deployed active duty staff, allowing continuation of full-scale health care services in all facilities. Some examples include support to Naval Medical Center Bethesda during Baltic Challenge, support to naval hospitals at San Diego and Camp Pendleton during Operation Kernel Blitz, support to Naval Hospital Pensacola in preparation for a major operational exercise.

Leadership is our second focus of our strategic plan. Currently, there are 27 nurses serving in commanding officer and executive officer positions in military treatment facilities and other health care activities. In the operational arena, several of our active duty and fleet hospitals have Nurse Corps officers serving as commanding officers. Many of our reserve units and commands are also commanded by reserve officers, Nurse Corps officers.

Our accomplishments would not be possible without the dedicated and motivated Navy nurses who demonstrate nursing excellence on a daily basis. Numerous professional practice initiatives reflect this devotion to outstanding health care to our beneficiaries. For example, nurse-managed clinics are being opened at many commands. The goals of these clinics are, decrease inpatient hospitalization rates, decrease numbers of outpatient visits, and improve patient compliance and quality of life. Protocols for care are

developed by nurses and physicians and approved by the medical staff.

Advance technology has also led to new and exciting practice initiatives. Nurses in San Diego are involved in telehealth program to reduce emergency department visits and improve outcomes for pediatric asthma patients.

A multidisciplinary team uses video technology to conduct physical assessments, treatments, and patient educations without the patients or their families leaving home. As the complexity of our professional practice increases, it is essential to maintain a strong research foundation. Doctorally prepared nurse-researchers actively guide staff nurses to investigate practice issues where they think improvements can be made. Nurses at one of our facilities projected substantial savings by studying the use of compression devices on post operative patients which resulted in new standardized treatment protocols.

Having focused on our accomplishments, I would like to briefly mention our primary challenge, and it is a challenge that has been mentioned again this morning. We will be faced with a national shortage of nurses. Two of the major causes of this shortfall are an aging registered nurse (RN) workforce and a drop in enrollment numbers in BSN programs around the country.

Our Recruiting Command is already experiencing difficulties in recruiting both new graduates as well as experienced nurses. Recruiters are competing with large signing bonuses from civilian health care organizations and pay that exceeds our beginning salaries for Navy nurses. For these reasons, our Nurse Corps accession bonuses and our pipeline scholarship programs are critically important to us. We certainly are extremely appreciative of your support of these programs.

Navy nurses have the dual role of professional nurse and military officer. Today's health care system presents complex challenges, requiring a comprehensive knowledge base as well as enhanced leadership skills. Nurses must have critical thinking skills, effective communication, leadership ability, and proficient clinical expertise for this dual role. Your continued support for maintaining a bachelor's degree as the baseline entry level for all military nurses is imperative.

The Navy Nurse Corps is committed to the success of the military health care system, and we are extremely proud of our part in Navy medicine. As we collaborate with our colleagues in all the services to achieve high cost—excuse me, quality, cost-effective care, we will continue to keep the health and safety of our beneficiaries as our highest priority, and by the way, quality does cost.

PREPARED STATEMENT

I sincerely thank you for your support and for the opportunity to address you today. I look forward to our continued association during my tenure as the Director of the Navy Nurse Corps. Thank you.

[The statement follows:]

PREPARED STATEMENT OF REAR ADM. KATHLEEN L. MARTIN

Mr. Chairman and distinguished members of the Committee, thank you for inviting me to speak with you about the Navy Nurse Corps. This is my first appearance

before you as the Director, and I am delighted to report on our current state and explain our plans and priorities for the future. I am immensely proud of the Navy health care team and the Navy Nurse Corps. After briefly reviewing our mission, I will address our accomplishments and challenges.

The Navy Nurse Corps is a totally integrated force of over 5,300 reserve and active duty Navy nurses who actively support the Navy and Marine Corps team and Navy Medical Department. Our focus is on accomplishing our readiness and health benefit missions; serving with pride and distinction with our fleet and Fleet Marine Force world-wide; and practicing, teaching, and leading in military treatment facilities (MTF's) of all sizes.

We envision ourselves as leaders in creating teams and developing partnerships for optimal health promotion and organizational performance. We accomplish this by focusing on accurate mission alignment and support, inspirational leadership, and exceptional professionalism. The three "drivers" of our Nurse Corps strategic plan are operational readiness, leadership and professional practice.

Operational Readiness

Our fundamental purpose for existence is operational readiness. In addition to supporting the fixed MTF's, we have over 70 active duty nurses serving in a broad range of operational assignments that include aircraft carriers, hospital ships, Fleet Surgical Teams, and Fleet Marine Force units.

Navy nurses routinely support military operations. Operational exercises involving our hospital ships U.S.N.S. *Mercy* and U.S.N.S. *Comfort* are critical to giving Navy nurses experience in an operational setting as well as supporting the exercise itself. In the 1998 "Baltic Challenge" exercise, the U.S.N.S. *Comfort* deployed 96 active and Reserve Nurse Corps officers for 30 days in support of a partnership for peace initiative to the Baltic States of Latvia, Estonia, and Lithuania.

Currently active and Reserve nurses train to support our fleet hospitals. Much of this training is at fleet hospital training sites. Fleet hospital training sites have been established at Naval Hospitals Camp Lejeune, Pensacola, Bremerton, and Camp Pendleton allowing nurses and other medical department staff to train in an operational setting while decreasing training costs.

Operational readiness is also demonstrated during participation in humanitarian support missions conducted in response to sudden tragedy. Nurse Corps officers assisted in the aftermath of destruction caused by Hurricane Mitch in Honduras. They served with the Marine Corps Second Medical Battalion and with the Special Psychiatric Rapid Intervention Team (SPRINT). The SPRINT Team provided post traumatic incident debriefing and counseling, and assisted the other military units in providing Spanish translators, disaster assistance guidelines, and provisions for the special needs of children affected by the disaster.

Another significant humanitarian mission we participated in is the deployment of medical units to provide support to the people of Haiti. Staff from Naval Medical Center Portsmouth deployed to Haiti with the Second Medical Battalion in July 1998. After six months of service, the Medical Battalion was relieved by members of Fleet Hospital Jacksonville; a significant number of nurses supported both teams.

Operational readiness also means maintaining the health and well being of our Sailors and Marines on a daily basis. In our fleet concentration areas, Family Nurse Practitioners deliver care at the pierside to provide ready access to health care and reduce time lost from the workplace.

Critical to maintaining a readiness posture is the successful utilization and integration of our Reserve personnel. Reserve nurses contribute to "total force integration," providing superbly skilled replacements for deployed active duty staff, allowing continuation of full-scale healthcare services in all facilities. Examples include:

—Support to National Naval Medical Center Bethesda during Baltic Challenge;
—Support to Naval Medical Center San Diego and Naval Hospital Camp Pendleton during Operation Kernel Blitz;
—Over 100 Reservists will replace active duty staff at Naval Hospital Pensacola, as they begin an intense training curriculum in preparation for a major operational readiness exercise this summer.

We have a plan for total force integration that matches the superb talents of Reserve officers with the readiness mission of the Navy. At Navy facilities around the country, the Reservists are teaming up with their active duty counterparts to implement the Integrated Medical Support Program that emphasizes consistent Reserve drills at a specific mobilization site. This program strengthens both the Reservists' skills and the facility's ability to meet its peacetime and operational missions. A facility can gain up to six weeks a year of a Reservist's time, instead of two weeks of annual training and disjointed portions of weekend drills.

Leadership

Leadership is the second focus of our strategic plan. I am very proud of our leaders in the Nurse Corps. Currently there are 27 nurses serving in commanding officer and executive officer positions at MTF's and supporting commands. Some of the most exciting leadership initiatives are occurring as we undergo major organizational changes within our MTF's around the world. In numerous hospitals, nurses are assuming roles as department heads or directors of clinical services and product lines. Several nurse practitioners are serving in dual roles as health care executives, while maintaining an active clinical practice.

In the operational arena, Nurse Corps officers are excelling in leadership positions. Several of our active duty fleet hospitals and one Reserve fleet hospital are commanded by nurses. A Nurse Corps officer has just been selected to serve as the Medical Detachment Commander, providing medical support for the 15th Marine Expeditionary Unit. We recently had our first Navy nurse qualify as a Command Duty Officer onboard a carrier, the U.S.S. *John C. Stennis*; an accomplishment I feel confident will be repeated in the future.

I am particularly proud of our increased operational role. As Navy nurses become increasingly involved in more and varied leadership roles and responsibilities, and make significant contribution to leadership onboard our ships, we get more Line Navy requests for nurses to serve in such roles. Their ability to become a part of the Navy and Marine Corps team in support of our operational forces is exemplary.

Professional Practice

Our accomplishments would not be possible without the dedicated, educated, and motivated Navy nurses who demonstrate nursing excellence on a daily basis at MTF's around the world. Similar to our excellent leadership initiatives, we have many professional practice initiatives that demonstrate our dedication to outstanding healthcare to our beneficiaries.

Nurse-managed clinics are being opened at numerous commands around the country. The primary aim of these clinics is to encourage patients' involvement in their care and provide individualized education to patients regarding their disease or complication. The goal is for these efforts to decrease inpatient hospitalization rates, improve patient compliance and quality of life, and decrease the number of outpatient visits to the emergency department and primary care managers. Protocols in these clinics are developed by nurses and physicians and approved by the medical staff.

At the Naval Ambulatory Care Center Groton, Connecticut protocols have been established with physicians that assist nurses in assessing and providing care for patients. Beneficiaries requiring education or initial screening for conditions such as sore throats, chicken pox, or pregnancy can be managed by the nurse. Additionally, nurses begin preliminary screening for school physicals. The nurses see approximately 20 to 25 patients per day, enhancing access to care and increasing the number of patients enrolled to providers.

Nurse Corps officers at Naval Hospital Jacksonville developed a comprehensive program known as "Baby Boot Camp" to support and educate new parents. This program assists parents in planning for their new babies and includes topics ranging from feeding and bathing basics to infant resuscitation.

Advanced technology has also led to new and exciting practice initiatives. Nurses at Naval Medical Center San Diego are involved in a telehealth program to reduce emergency department visits and improve outcomes for pediatric asthma patients. A multi-disciplinary team uses video technology to conduct physical assessments, treatments, and parent education without the patient ever leaving home.

Advanced technology has also allowed us to use the Training and Education Device (TED) as an extremely valuable teaching adjunct for nursing and medical students. TED is an electronic patient simulator whose human appearance and state-of-the-art technology simulates real-time illness or injuries and real-time responses to treatment interventions. TED can be programmed to give all the physical signs and symptoms of a Marine extensively injured from a minefield explosion or a pregnant woman with multiple complications. TED has been used to train over one thousand corpsmen, nurses, and physicians worldwide, and has proven to be a most innovative and cost-effective member of our educational team.

As the complexity of our professional practice increases, it is essential to maintain a strong research foundation. Doctorally prepared nurse researchers actively guide staff nurses to investigate practice issues where they think improvements can be made. Nurses at one of our facilities saved the command over $100,000 by studying the use of compression devices on post-op patients, which resulted in new standardized treatment protocols. Another research team decreased the incidence of postoperative spinal headaches by looking at traditional preoperative practices and mak-

ing state-of-the-art changes. Perioperative nurses actually proved that buying more expensive suture was cost effective because it was more durable and broke less frequently. These and multiple other research initiatives have resulted in better patient care and more efficient use of scarce resources.

We also have nurses working pierside and onboard ships, focusing on health promotion, prevention and women's health initiatives. At several commands, nurse practitioners have initiated "Adopt-A-Ship" programs, where nurse practitioners spend a portion of their time on "their" ship, determining the particular health needs of the crew. Of special interest to the Navy are the concerns of women onboard ship, the greatest of which are, pregnancy avoidance, sexually transmitted diseases, tobacco and alcohol abuse, training injuries and return to duty postpartum. Additionally, many commands are using nurse practitioners to provide health care at the workplaces of sailors. This minimizes time lost from the workplace and leads to greater understanding and unity between the medical department and Line Navy.

As you can see, teamwork, interdisciplinary efforts, managed care practices and research initiatives are hallmarks of our professional practice endeavors. I am extremely proud of the many accomplishments of Navy nurses and their contribution to the Navy Medicine team.

Challenges

Having focused on our operational, leadership and professional practice efforts and accomplishments, I would also like to briefly mention two of our challenges. I am concerned that we may be facing a nation-wide nursing shortage. This impending shortage is being widely publicized in numerous professional journals and national conferences. Two major causes of this shortage are an aging RN workforce and a drop in enrollment numbers at nursing schools around the country. A study funded by the Association for Health Services Research concluded that the RN workforce is aging at a rate that far exceeds all other occupations contained in Bureau of Census data. The average age of practicing nurses in the United States is 42 years old. As this population ages and leaves the workforce, we will need nurses to replace them. The decreasing numbers of students in nursing schools today is worrisome. Our Recruiting Command is already experiencing difficulties in recruiting both new graduate and experienced nurses. They are competing with large "signing bonuses" from civilian health care organizations and pay that exceeds beginning Navy salaries. For these reasons, our Nurse Corps accession bonuses and our pipeline scholarship programs are critically important to us; we are extremely appreciative of your support for them.

Secondly, rapid changes in technology, moving health care to the home and outpatient arenas, and a sicker inpatient population require nurses to be educated to meet these complex challenges. Nurses must have critical thinking skills, effective communication skills, and proficient clinical talents. As with all other officers commissioned for military Service, nurses need to have a baccalaureate degree. As nurses work with various healthcare providers and Line officers to meet the numerous and unique needs of active duty members and their families, they must have the educational preparation to meet these challenges. I feel confident in the Nurse Corps' ability to meet these challenges. We would not have come this far without the support of our medical department and Line colleagues, and especially you here on Capitol Hill.

The Navy Nurse Corps is committed to the success of the military health care system, and we are extremely proud to be part of the Navy Medicine team. As we collaborate with our colleagues in all the Services to achieve high quality, cost effective care, we will continue to keep the health and safety of our beneficiaries as our highest priority. I sincerely thank you for your support and for the opportunity to address you today, and I look forward to our continued association during my tenure as Director.

Senator INOUYE. Thank you very much, Admiral. Before I pursue it, I would like to on behalf of the committee acknowledge and thank General Simmons and General Stierle for your many years of service to our Nation. I realize that this may be your last appearance before this committee in uniform, but you are always welcome back.

Fifty-four years ago on this day, I met my first Army nurse, because on this day I received my final Purple Heart, and it was in a field hospital, and from that moment on I have had a love affair

with nurses. It did not take me too long to realize that nurses were professionals, that they were very competent, and yet I was disappointed because at that time nurses were looked upon by doctors as inferior subordinates, and yet in my care in the hospital I believe I saw the physician about once a week at the most, and the rest of the time the nurses took care of me, everything from minor surgery to IV's or what-have-you. They were the psychiatrists, they were the nurses, they were everything.

I am pleased that finally recognition and appreciation is becoming evident in the Medical Corps, and that you are treated like professionals, but I do not think we have really achieved that yet. I think, for example, you should have at least two stars apiece. [Laughter.]

The number of people you are commanding at this time would justify an additional star.

As you have indicated, and especially Admiral Martin, the nursing shortage is a matter of major concern to us, and I have had the committee's executive nurse intern, Patricia Boyle, come up with a few numbers, and these numbers really frighten us. Employment for nurses will grow faster than the average for all occupations through 2005, with job growth at 30 percent. By 2010, the demand for registered nurses will outstrip the anticipated supply. By 2000, there will be over twice the number of jobs for master and doctoral prepared nurses as nurses available.

The average age of an RN today is 44 years. Half of the Nation's registered nurses will reach or be near retirement age in the next 15 years. Entry level bachelor students fell more than 6 percent from 1996 and 1997. Estimates forecast that the need for nurses in hospitals will increase by 36 percent by the year 2020 because of the rising complexity of care. Two-thirds of nurses should hold bachelor's of science degrees by 2010. Whatever it is, these numbers are not promising. Are you satisfied that the programs we have in place in recruiting and retention will be sufficient to meet this problem that is right upon us now?

EFFECTIVENESS OF RECRUITING INITIATIVES FOR ARMY NURSE CORPS

General SIMMONS. Senator, right now our recruiting initiatives are effective. You know, we have some chronic shortfalls, as everyone does, in specialty nurses, and particularly nursing anesthesia, and you know we have had some legislative help for comparability pay to improve our retention, and that has helped.

We do have the capability for accession bonuses through the United States Army Recruiting Command, again legislative assistance, that we are using for hard-to-recruit specialties, i.e., critical care nurses and nurse anesthetists, and working family nurse practitioners.

Right now, based on multiple factors, the downsizing in the Army, quadrennial defense review (QDR) reductions, those kinds of things, as the military health care system has taken personnel reductions, we do not feel that shortage today. Certainly, the projections are exactly as Pat has said.

BSN ENTRY VERSUS MSN ENTRY

Entry into baccalaureate programs has decreased, but entry into master's programs have increased. Nursing remains a predominantly female profession, and as opportunities in the country have expanded for women, women are looking at other alternatives for careers other than traditional roles and health care is certainly one of those, so we are watching carefully. We do not feel that impact today in our system. We have gotten the support that we need. We have the capability and the flexibility for accession bonuses, so I would have to say today that we are comfortable and are getting the support that we need.

Senator INOUYE. Does USUHS help in this program?

General STIERLE. USUHS helps again in terms of I think providing us with a product that even though you can prepare individuals in terms of advance practice nursing in the civilian sector, what you do not get from that experience is the military unique aspect of their training in terms of helping them focus on how their practice would have to change in austere environments, austere settings.

The other thing I think that is very good about USUHS is that it is a joint environment, so it gives us an opportunity to interact with each other in terms of the services and gives us a better understanding of how we are alike but also how we are different as we come together, and I think USUHS is also—it has a unique opportunity to make a contribution to the Nation in terms of modeling, how more collaborative education could benefit the health care system, because one of the things that we know from research studies, in particular in critical care arenas, is that collaborative practice between the different disciplines has a positive impact on the quality of health care and patient outcomes, and so it is uniquely positioned to be able to demonstrate to this Nation how we could do more of that not only for the patients but also in terms of cost.

But getting back to your question about recruitment and the shortage of nursing, I think the programs that we have in place now are serving us well, but I think as I said in my testimony we need to be ever vigilant, and there may be certain areas that we will have to target in the near future.

For example, in years past, all three services have had very serious problems with recruiting sufficient numbers and retaining nurse anesthetists, but with the special incentive pay that we were able to get, plus educational programs that we had, scholarship programs, the Air Force for the last 3 years has met 100 percent plus our requirements in that arena.

In the future, we may need to target something like the critical care nurses in terms of intensive care units, because there is not only a shortage in nursing, but in particular in critical care nursing we are seeing a shortage across the Nation, and certainly in wartime we have a tremendous need for nurses with those skills, although in our peacetime environment we really do not have a large requirement for that.

So I think in the not-too-distant future we may need legislative assistance in terms of putting in place certain programs to incentivize getting individuals with specialty skills that we need.

Admiral MARTIN. Senator Inouye, I believe that we will have, very soon will have a very critical problem. I was a recruiter in the mid-seventies, right after Vietnam, and I know what it is like to beat the bushes out there, and we have had nursing shortfalls in the past, and I think this is the time to prepare ourselves. Right now, we really need to look at those and maintain those scholarship pipelines, our accession bonuses.

We need to look at our young enlisted corpsmen and other ratings and really encourage them to continue with their career in the services and incentivize them to continue on to get their bachelor's degrees in nursing, but I really believe we will have a problem, and it is coming fast.

Senator INOUYE. Another problem that concerns us is skills, I suppose. Medical facilities have gone from hospital status with acute care to outpatient facilities with primary care models. For example, between 1990 and 1999, the Air Force went from 75 hospitals and 40 clinics to 40 hospitals and 34 clinics. Do you believe that we are putting ourselves in jeopardy by these changes?

General STIERLE. I do not think we are putting ourselves in jeopardy by these changes. These changes are necessary. They are the right things to do. But I think what it means is that sustainment training is going to become a critical issue for the active component just like it has long been for the reserve component, and we are going to have to look at a variety of ways that we are going to sustain those skills, and we are already.

I mentioned in my testimony the Ben Taub initiatives, partnering with our civilian counterparts in terms of looking for win-win options, in terms of providing them people to provide care, plus providing us with a platform to sustain our skills, looking at simulated and use of sophisticated mannequins in terms of trying to sustain skills over time, careful assignment management in terms of how we utilize our different facilities over time to try and ensure that we maintain the level of experience, optimal use of our deployment opportunities in terms of, those are some of the best learning platforms that we have in terms of the humanitarian programs, small-scale contingency operations, so I think we just have to be very creative in terms of the different methodologies that are available to us in terms of sustaining skills.

READINESS TRAINING AND COST IMPACT

General SIMMONS. I think as we have worked to make the military health care system more resource-efficient, part of the impact has been a decrease in the inpatient census, which has been the training bed traditionally for nursing personnel, officer and enlisted.

As General Stierle talked about, the Ben Taub initiative in Houston, to send our personnel to do some acute care training, there is a big price attached to that. The Army Medical Department of the services are in the daily business of taking care of soldiers and families. When we train, there is a bill associated with that. There are opportunities to train in particular in the civilian sector, en-

hanced skill sustainment, but that is at the cost of peacetime health care.

If you pull a full surgical team out with the anesthesiologist and the surgeon and the nurse anesthetist, the licensed practical nurse, the emergency medical technicians (EMT's), someone is gone from that hospital in the peacetime, and you do not reap the peacetime benefit of having those people in our system.

So as we look for innovations, critical innovations to ensure that we are ready, the issue then becomes the impact on the daily care of soldiers in our hospitals, and I know the Surgeons General are working this as we speak, because readiness has a big price tag attached to it, so in order to assure that we have the skills that we need, it does detract from our peacetime mission, because we have a real mission every day in the table of distributions and allowances (TDA) hospitals, and so can it be done, yes, it can, but it has a price tag, sir.

Senator INOUYE. Does the budget cover that, the price tag?

General SIMMONS. We have the readiness equation in it, but we are still continuing to calculate the growing cost associated with that.

Admiral MARTIN. I think as General Simmons mentioned, one of the impacts is when we send individuals out on various training exercises that is lost to our facility, and then we have to really look to see how to compensate for the patients in those facilities as active duty nurses leave.

The other thing, we have some very good memorandum of understanding (MOU's) with the Veterans Affairs (VA) hospitals but then again the nurses leave the facilities to go and really get their competencies elevated in outside facilities.

One of the unique things the Navy has done is, we have taken our fleet hospital training sets and established them at some of our hospital sites and actually put up fleet hospitals in the backyards of our MTF's, and we are actually doing patient care in those fleet hospitals, but it certainly is a challenge to the leadership and our creativity.

Senator INOUYE. Because of our culture and our history the nursing profession has been primarily a ladies' profession, but in the real world there is no secret that men get better pay than women, and in the private sector a male nurse would get a different title and bigger pay than a female nurse in many cases. Are we doing enough to recruit male nurses?

RECRUITMENT OF MALE NURSES

General SIMMONS. Sir, I will tell you the Army Nurse Corps has a higher percentage of men than any other segment of society in the military and the civilian sector; 34 percent of Army nurses are men.

Senator INOUYE. Thirty-four percent?

General SIMMONS. Yes, sir.

Admiral MARTIN. Thirty-two percent of Navy nurses are males, and we certainly are doing an awful lot as far as getting them and maintaining them and retaining them in our Corps.

General STIERLE. Thirty percent in the United States Air Force overall.

Senator INOUYE. I think if you polled the committee they would say something like 5 percent.

General SIMMONS. In the civilian sector that is an accurate statement, sir.

Senator INOUYE. We should have men also testifying, and then you might get a better pay scale. [Laughter.]

Admiral MARTIN. I think the men went before us. [Laughter.]

Senator INOUYE. Well, you have overstayed here, and you have waited long. I would like to thank all of you, and Admiral Martin, welcome, and to both of you, General Stierle and General Simmons, we thank you very much for your service.

SUBCOMMITTEE RECESS

This subcommittee will meet again next Wednesday, April 28, at 10 a.m. in this room, to review the National Guard programs. Thank you very much.

[Whereupon, at 12:22 p.m., Wednesday, April 21, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, April 28.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2000

WEDNESDAY, APRIL 28, 1999

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:25 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Bond, Shelby, and Inouye.

DEPARTMENT OF DEFENSE

NATIONAL GUARD BUREAU

STATEMENT OF LT. GEN. RUSSELL C. DAVIS, USAF, CHIEF, NATIONAL GUARD BUREAU

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning, gentlemen. My apologies to all concerned. We had a meeting preliminary to other people going down to the White House on the matter of Kosovo, and I regret my being late.

We are pleased to have you all here this morning. We want to commence with the Chief of the National Guard Bureau, Lieutenant General Russ Davis. Nice to have you back, General. You are accompanied, I know, by the Director of the Army Guard, General Schultz, and the Director of the Air National Guard, Major General Paul Weaver.

Now, we have transitioned to the point where the Guard has become a central participant in our worldwide national military strategy. In addition, I think the Guard plays an important role in countering threats related to defense of the continental United States, including terrorism, information warfare, national defense, and the transnational threats and attacks of critical infrastructure that are just too ominous for the future.

You have vital missions now as part of the Total Force. Senator Inouye and I have worked very hard to try to see to it that you have the funding and the support that you need from the Congress, working with the National Guard Caucus. We have seen some tremendous performances from our people, your people, the National Guard people in overseas contingency missions as well as support for the national disasters in our country and also Honduras.

I think it is important that we realize that this is an increased OPTEMPO, and your modernization and infrastructure funding

must be increased accordingly, so I want to address those funding requirements this morning. I can assure you that in partnership with my friend, Senator Inouye here, we are not going to allow any of your priorities to be underfunded in the year 2000. We welcome your statements here today, and I can tell you that the importance we put upon the Guard is such that while we have canceled two other hearings to go to the White House for meetings on Kosovo, we both felt we should be here today.

So, Senator Inouye.

STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. Thank you very much, Mr. Chairman. I want to join you in welcoming General Davis, General Schultz, and General Weaver. Since the very beginning of our Nation, we have depended upon our citizen soldiers. Two hundred years ago they were known as State militias, the forerunners of our National Guard. The National Guard provides an essential part of our defense, as you have noted, Mr. Chairman, one that deserves our full support, and cannot be short-changed.

In recent years, there have been some disagreements between our Army Guard and active duty forces, but all of us here are pleased that some of these problems are apparently now behind us. I believe this year's budget goes a long way toward addressing this situation. However, there are still concerns. We find that it is still difficult to convince the active component to procure new weapons for our Guard forces, and the situation in the Army for military construction remains a real problem. Too few dollars are requested annually to satisfy the legitimate requirements of our Guard forces.

On another note, I want to commend the administration for seeking to increase the number of National Guard rapid assessment initial detection (RAID) teams to defend against terrorists with weapons of mass destruction. This is a critical problem that requires our full attention.

General Davis, I hope you will carefully consider Hawaii as one of the sites for this new mission. I think we are ready for that.

Mr. Chairman, I want to thank you for this hearing and for your many courtesies. I look forward to the testimony of the witnesses.

Senator STEVENS. Yes, sir. Senator Bond.

STATEMENT OF HON. CHRISTOPHER BOND

Senator BOND. Thank you very much, Mr. Chairman. Generals, I join with the chairman and ranking member and my colleagues in welcoming you before the committee. We here, as you have heard, are united in our belief that the National Guard's missions are crucial to our national and civil defense. As cochairman of the National Guard Caucus, I am very proud to recognize that in terms of military readiness, national disaster preparedness, and law enforcement, the Guard has distinguished itself with an unsurpassed level of professionalism and a bargain price.

I also note happily that the administration acknowledges your viability. They have consciously decided to increase your mission areas, a blessing, maybe in disguise. I note proudly that the Missouri Guard F–15 unit based in St. Louis have been routinely flying missions in support of our mission in Bosnia, but I am con-

cerned that they may be severely restricted in their ability to be integrated into a larger force because of their lack of the advanced data links which are critical to multiunit operations.

On a State-wide note, I would like very much to see the Cobra helicopter unit based at Whiteman Air Base get Apaches as soon as possible. Ground-based units are serving well around the globe in support of the multiple missions directed by the President.

The Secretary has sufficiently recognized the Guard's funding shortfall and made an effort to alleviate their financial predicament, although in my opinion it has not been adequate, and I assure you, gentlemen, that I am fully supportive of the chairman and the ranking member that we are going to do all we can to ensure that your components are adequately resourced in funding as well as manning.

Secretary Cohen's announcement already referred to that the Department of Defense (DOD) has established new chemical-biological incident response teams manned by guardsmen as once again an affirmation of your ability to carry out the most dangerous of missions. I hope that you are going to receive a funding spike to train and field those teams.

FUNDING

This, Mr. Chairman, is what concerns me, that mission shifts and additions have overwhelmed the "additional funding" provided by the Secretary of Defense's budget request. I am also concerned because the plans proposed for the armed expeditionary force and expeditionary Air Force concepts scheduling Guard and Reserve units into operational rotational slots indicates that the active force is too small to carry the load the President has placed on it in peacetime, and I am concerned that when we use our strategic reserve to fulfill peacetime daily requirements, we will not have a strategic reserve for time of war.

Additionally, I am concerned about the precedent of wresting control away arbitrarily of Guard units from the Governors, and I would be interested if you have been hearing from the Governors on that.

Rather than being a bit player, the Guard's role should be vibrant, viable, and adequately funded by the Department of Defense, which leads me to my most immediate concern for the Guard. As I understand it, General Davis, you face a $184 million shortfall, my words, not yours, in your personnel accounts alone. I am also deeply concerned about your ability to conduct effective training at all levels, individual through various unit levels.

Generals, I wonder if you are concerned that if training is tiered, the top getting the 100 percent, on down to 20 percent, that unit preparedness might be, too, also tiered, and that that could lead to a call to slice off the bottom reduction of force because of the atrophying readiness levels and their inability eventually to fulfill their mission requirements.

To me, it looks like they are setting themselves up for a good excuse for a cut. I hope we will have an opportunity to address those issues during the question and answer rounds, especially in light of the fact that much of this comes out of statutory requirements, military schools, and training funds.

I look forward to hearing your testimony today, and I thank you.

Senator STEVENS. Thank you, and we appreciate your work on the Guard Caucus.

Senator Cochran.

STATEMENT OF HON. THAD COCHRAN

Senator COCHRAN. Mr. Chairman, I do not want to delay the hearing, but I do want to join you in welcoming our panel. We understand the stress that you are under right now trying to match the needs that you have with the funding that is available under this President's budget. We are pleased to see some increases in the budget this year to reflect the growing importance of Guard units in the Air Guard as well as Army National Guard.

We hope that you can be assured by your visit here today that we are going to do everything we can to make sure you have the funding you need to protect yourselves and to protect the men and women under your command, as you go in harm's way in Kosovo and elsewhere in the world to protect our security interests and the interest of our great country. That is the message I think that we should give you this morning, that we are going to do everything we can to be sure that the Congress responds to ensure that you have the funds that you need to do your job.

I know that there are specific questions that I am going to ask later in the hearing, but I will defer those and any other specific comments about parochial interests to thank you for the leadership you are providing.

Senator STEVENS. General, I hope your comments will address what to me appears to be a dichotomy in the whole planning for your operation, and that is that the QDR, the Quadrennial Defense Review would indicate that we should reduce the Army Guard strength by 21,000 beginning in the year 2001, and yet my staff tells me that there is an identified need of 4,700 full-time positions right now to correct chronic shortfalls in the Guard, and that this is impacting your readiness, particularly in view of the deployments contemplated due to the current conflict.

PREPARED STATEMENT OF SENATOR SHELBY

The subcommittee has received a statement from Senator Shelby, which will be placed in the record.

[The statement follows:]

PREPARED STATEMENT OF SENATOR RICHARD C. SHELBY

Good morning gentlemen. It is a pleasure to see you before the Committee today. General Davis, it is especially gratifying to see that a fellow Alabamian is in charge of the National Guard Bureau. I believe that you are about eight months into your tenure. I know it will be both a trying and gratifying assignment. I would also like to point out to the Committee that the General is not only an accomplished military pilot and leader, he is also an experienced corporate lawyer in civilian life. I think that is quite a unique background and it is an example of what a hard working person can achieve while in the National Guard. General, you are a credit to the state of Alabama and the Guard. I wish you the best.

I would like to note that in National Guard Bureau's Posture Statement is a quote from Thomas Jefferson, "For a people who are free, and who mean to remain so, a well-organized and armed militia is their best security." Without such a militia this nation would never have thrown off the yoke of the British Monarchy. For two centuries state militias and now the National Guard have answered the call when our nation needed them most. Whether it was Saratoga, Gettysburg, Normandy, the

Persian Gulf, or South Florida after Hurricane Andrew, the Guard has done the job and done it well.

Yesterday, our nation called again. Guard units, some in my home state of Alabama, have been activated for the war in Kosovo. I urge this Committee to ensure that we provide the proper funding to allow the Guard to continue its role in our military's Total Force Concept and as a source of trained manpower in disaster relief situations. Generals, I have a few questions for you this morning and I look forward to your responses. Thank you Mr. Chairman.

Senator STEVENS. We welcome you, and look forward to working with you as you carry out your role, and we are delighted to have you as the head of the Guard Bureau.

Thank you.

General DAVIS. Mr. Chairman, Senator Inouye, Senator Bond, Senator Cochran, I would like to thank you first of all for the opportunity to come over here and represent the almost half-a-million folks in the Army and Air National Guard. In addition, we would like to thank you for the outstanding support you have provided us in the past, and we have had the opportunity to work with you and your staffs this year and thank you for considering the Guard a vital and key part of our national defense. We think it is.

Senator STEVENS. Before the two of us leave this thing, you or your successor is going to have four stars. We believe he should be equal to the other Chiefs.

Senator BOND. Amen

Senator COCHRAN. Amen.

General DAVIS. Thank you, sir. We think we are very vital and key to the common defense of the United States, and we work very closely with our parent services and with Congress, and I would like to say we feel from our viewpoint we have been very successful because of that partnering and that relationship, so we would like to thank you all for the support you have given us.

GUARD

From the very founding of our country the Guard has been a very key element of our national defense, and we feel we are still fulfilling that role. As recently as yesterday, the Presidential selective reserve call-up (PSRC) requested some of our National Guard members to come over and support actions in Kosovo, and we have that capability, and we have combat-ready forces both in the Army Guard and the Air Guard. In the Army Guard we have got, in combat forces we represent about 52 percent of the total Army combat capability, the total Army capabilities in the Guard. In combat support, 42 percent, in combat service support, about one-third.

Just last year, 1998, the Army National Guardsmen were deployed, about 22,000, almost 23,000 were deployed forward, and that is really about the equivalent of a division from World War II, in over 90 countries, so we are a vital and key part of the total Army.

In the Air National Guard we have a significant portion of the capability in the Guard, 100 percent of the continental air defense, and the theater airlift, 49 percent, and 43 percent of the aerial tankers, and that is why, when the services became so tapped, the requirement to have a Presidential selective recall.

The issue there is, we have had a large number of our people involved in tanker support. I was over in France a few months ago

with the air refuelers out of Hawaii, and they were there on a volunteer basis. We have been doing it on a volunteer basis. We are at a point now where, with the additional requirements, volunteerism is not serving us as well as it has in the past, and we are concerned about the ability to meet all of those requirements.

So the Air Force requested it, and because of the additional requirements we had from the commander in chief (CINC) through the process of the system we will be providing some additional folks over there, and General Weaver will get into a little more detail on that, but really about 2,100 people, about 1,200 of those personnel will be called up, and the first increment of the 33,000 will be Air Guard refuelers.

But they, too, play a very key and vital role. On almost any given day we have got about 5,000 Air Guardsmen who are out there in the system, and roughly 400 of our 1,100 airplanes, and with this call-up we will have even more folks involved.

Our readiness, though, like our active components, is a function of resources. We can only do what we have the dollars to do and the people to do and the equipment to do, and we have done very well in that arena, and we are improving, and with the additional dollars we received last year we will be able to do a lot more in training, particularly in the Army Guard. General Schultz will get into that.

We cannot only train our people. In the past few years we have had the option of our young people either going to school or training with their units. We did not have enough dollars to pay, and enough work days to support both, so it was an either-or choice. This year, for the first time in the last 3 or 4 years, we are going to have the dollars to do it. We have the dollars in 1999 to do it, so that is a major increase in improvement, and General Schultz will get more into that.

PREPARED STATEMENT

I would like to defer to our two Directors if I could, please, at this point, sir, and then come back and make some closing remarks regarding youth programs and counterdrug and all that. I would like to have General Schultz, the Director of the Army Guard, proceed.

[The statement follows:]

PREPARED STATEMENT OF LT. GEN. RUSSELL C. DAVIS

FOREWORD

This Posture Statement of the Chief, National Guard Bureau is a document that looks to the future. In the Annual Review of the Chief of the National Guard Bureau we document our recent past and record our progress. These two publications together provide an overview of where we have been, where we are, and most importantly, where we are going in the National Guard of the next century.

This Posture Statement is a tool designed to forecast the National Guard stance for the future and the role we play in both the "shape" and the "preparation" phase of our national security strategy. Our corporate task is to generate and sustain combat readiness for the defense of our country across the full spectrum of missions the National Guard must perform. This posture statement will outline how we intend to prepare ourselves for that mission.

The National Guard faces many challenges in our future, including recruiting, force structure, modernization, and readiness, as well as the struggle to match resources to requirements. We have faced similar challenges for over 362 years. We

have remained a relevant institution for America since our founding and will remain so as we move into the new millennium.

At our country's founding we were the primary vehicle for our nation's defense. Congress in the Selective Training and Reserve Act of 1940 stated that the National Guard was an integral part of the first line of defense of our country. We remain the primary ready reserve force for our nation today. Being in the forefront requires an integrated, balanced, full-spectrum combat capability as we face the challenges before us. Emerging missions such as National Missile Defense, countering Weapons of Mass Destruction, and grappling with the challenges of Homeland Defense require a combat-ready and fully prepared National Guard. An increasing operations tempo, with integrated operations in the Sinai, Bosnia, and Macedonia, are just a few examples of the challenges the National Guard faces.

Today the Army National Guard provides a full measure of that capability, with over half of its Total Army Combat forces (54 percent), almost half of the Combat Support capability (46 percent), and about one third of the Combat Service Support forces. In fiscal year 1998, the Army National Guard deployed 22,990 soldiers to over 90 countries for a total of 672,679 man-days.

The Air National Guard likewise is a full partner in providing about half of our nation's theater airlift capability (49 percent), almost half (43 percent) of our aerial tanker forces, a third of our fighters (33 percent) and a forth (25 percent) of our Air Rescue resources to name just a few. In a typical month the Air Guard will deploy thousands of people and hundreds of airplanes (Feb. 1999, 5,142 personnel, 553 aircraft) to work hand in glove with the Total Air Force team.

Our challenge is to maintain the National Guard's relevance and historical contribution to America. As we enter the new century, the National Guard will be taking on new responsibilities and utilizing new tools and methods as part of a strategic plan to maintain our role as a key player in the National Military Strategy. The reader will find a comprehensive look at our Army, Air and Joint National Guard programs and objectives in these pages. This report will outline how we intend to meet those objectives and will document some of the challenges we face.

By providing the Congress with this Posture Statement we are renewing the strong partnership between the National Guard and our legislators in teaming to make America ready and prepared for the challenges of the 21st century. The National Guard is near the zenith of its abilities thanks to the support and concern of Congress for our nation's security, safety and military preparedness.

A FULL-SPECTRUM FORCE

The mission of the National Guard, first and foremost, is to be prepared to deploy as a member of this nation's military team to fight and win. We are organized, we are trained, and we are equipped to do that mission. As a consequence of that organization, that training and that equipment, this nation also gets a full spectrum force capable of operations in support of our neighbors, our community, our states and our nation anywhere we are needed.

The Army and Air National Guard is engaged everywhere we turn. Our people were on the spot in Tennessee as the tornadoes struck. Our Coronet Oak airlifters were there in Central America even as Hurricane Mitch hit. National Guard members are in Central America as part of "Operation Amigos". The damage our close neighbors in Central America have endured will set them back decades, and we are in for a sustained effort in the coming years helping them to rebuild and recover.

The National Guard is on virtually every continent, with thousands of people and hundreds of airplanes at any given time. We are active in countering drugs, building relations with emerging democracies and fighting terrorism. We are on the line in Bosnia and Kuwait, and we are guarding America's security on land and in the sky. The Guard is active in space missions, we are on the arctic ice, we are inventing information operations, helping disadvantaged youth, is committed to diversity and supporting our airmen and women at their workplace and at their homes. Our men and women have compiled an outstanding safety record on the ground and in the air. The list of accomplishment goes on and on.

We are poised to join the fray in Kosovo, Southwest Asia, in Korea, or anywhere we are needed. By now, it goes beyond saying that the Army will not deploy, will not fight, and will not prevail without the Army National Guard. And the Air Force will not fight, and cannot defeat this nation's foes without the Air National Guard.

The National Guard remains a great organization that has worked hard at staying at the top of its game. Despite downsizing and budget cuts, we have maintained and honed our capabilities and remain a dependable, and an outstanding national asset. The Air National Guard's close and seamless partnership with the Air Force of the future, the "Expeditionary Aerospace Force" and the Army National Guard's

integrative partnership with the Total Army ensures our continuing relevance to America. Our continued focus on the combat imperative will be our strength as we cross the threshold of the new century, the first of a new millennium. This focus will ensure that the National Guard of the United States will continue to be the full spectrum force that this nation must have to support our neighbors at home and our National Security Strategy anywhere in the world we are called.

COMMITTED TO THE NATIONAL SECURITY STRATEGY

The National Guard is a full player in the U.S. military contribution to meeting the three core objectives of the National Security Strategy; enhance our security, to bolster America's Economic prosperity, to promote democracy abroad. Today the threats to our nations' security are diverse in a continually changing international security environment. We must continually prepare ourselves for the regional or State-centered threats particularly the states that are actively improving upon their offensive capabilities such as the planned use of nuclear, biological, or chemical weapons. Transnational threats exist like terrorism, drug trafficking, illicit arms trafficking, environmental damage, and attacks on our national information infrastructure i.e. "cyber attack" on such areas as electrical power, and transportation systems. With the rise in technological capabilities rogue states, and terrorist organizations pose a threat, along with a more diverse methods for foreign intelligence collection from sensitive government networks. The Army and Air National Guard is well positioned to prepare for and respond to these divergent threats. We continue our rich history of contributions to the nation, state and local community. Our focus is on ensuring the appropriate readiness capability to meet and adapt to the changing security environment.

A central thrust of the National Security Strategy is to "enhance relationships with key nations around the world to combat transnational threats to common interest". U.S security is enhanced by promoting activities that shape the international environment by promoting regional security, democratic governance, basic education, and through peacetime engagement. The National Guard State Partnership Program is a premier example of the value in conducting training exercises, cooperative exchanges, and assistance with our allies and friends. Our efforts help to deter aggression an coercion, promote regional stability, reduce threats, and at the same time serve as role model for militaries in emerging democracies, highlighting our rich history of strong civilian control of the military and rich heritage of the citizen soldier and airman.

The National Guard provides an affordable component of our National Defense thus contributing to one of the main objectives of our strategy: bolstering America's economic prosperity. The strength of our nation for shaping the international environment and responding to the full spectrum of threats and crises depends on additional capabilities and technologies. At the heart of being a capable force is the quality of our people. We place a high priority on recruiting, training, education, quality of life, and retention initiatives and programs. Soldiers and airman need to be afforded the opportunity to receive the appropriate training and education to perform a variety of specialized skills. We plan to keep up with the pace of technology advances in intelligence, surveillance, reconnaissance, Space, Missile Defense. We remain the foundation of the military contribution to National Security Emergency Preparedness. As the reader will see throughout this document, our contribution is accomplished within the context of the three elements of the National Military Strategy: shape the international environment, respond to full spectrum of crises, and prepare now for an uncertain future.

JOINT FORCE AND JOINT VISION 2010

The National Guard is a quality force that will continue to make a difference at the national, state, and community levels well into the next millennium. We will do that as we always have by: Capitalizing on Creativity; Leveraging Technological Opportunities; and Achieving Maximum Effectiveness.

The Army and Air National Guard are the lineal descendants of the early colonial militia with the constitutionally mandated role of defending the United States against its enemies—both foreign and domestic. As we enter the 21st Century, this purpose will continue to be relevant as the National Guard's fundamental organizing principle. Joint Operations will shape the way the U.S. military forces think, plan, and fight. In time of conflict our military forces must be able to fight and win against any aggressor. In time of peace, our forces will serve our Nation in a variety of ways including deterring conflict, and when necessary, provide peacekeeping and assist with humanitarian needs. The joint vision foresees all elements of the U.S.

military manned, led, trained, organized, and equipped to prevail across all levels of operations.

The National Guard is engaged in the operational concepts of Dominant Maneuver, Precision Engagement, Focused Logistics, and Full Dimensional Protection.

The four operational concepts set forth in Joint Vision 2010, conducted in an atmosphere where information superiority prevails, will have far reaching impact on all the military services to include the National Guard.

In Dominant Maneuver we will achieve the multidimensional application of information, engagement, and mobility capabilities to position and employ widely dispersed joint air, land, sea, and space forces to accomplish the assigned operational tasks.

In Precision Engagement we will employ a system of systems that will enable our forces to locate the objective or target, provide responsive command and control, generate the desired effect, assess our level of success, and retain the flexibility to reengage with precision when required.

In Full Dimensional Protection we will control the battlespace to ensure our forces can maintain freedom of action during deployment, maneuver, and engagement, while simultaneously providing multi-layered defenses for our forces and facilities at all levels.

In Focused Logistics we will achieve the fusion of information, logistics, and transportation technologies to provide rapid crisis response, to track and shift assets even while enroute, and to deliver tailored logistics packages and sustainment directly at the strategic, operational, and tactical levels of operations.

The Key Ingredients in accomplishing these operational concepts are: High Quality People; Innovative Leadership; Joint Doctrine; Joint Education & Training; Agile Organizations; and Enhanced Material.

The synergy of the Joint Vision 2010 operational concepts, underpinned by information superiority and technology innovation, will greatly enhance the National Guard's capabilities in high intensity conventional military operations and move U.S. forces toward full spectrum dominance. These concepts will apply across the entire spectrum of military activity. The National Guard must therefore be prepared for a wide range of operations. Our history of adapting to a broad spectrum of missions will assist us greatly as we focus on acquiring the latest technology, being well equipped, well trained, and ready to support and defend the interests of our Nation.

ARMY NATIONAL GUARD

Army National Guard soldiers contributed throughout the world to operational missions in over 70 countries in fiscal year 1998. These fine men and women further took time from work and from home to serve in over 300 domestic support missions.

Active Component/Army National Guard (AC/RC) Integration

As we approach the 21st Century we in the Army National Guard find ourselves more integrated into the Total Army. Efforts to achieve greater Active Component and Army National Guard integration have been successful. The primary focus is on the Army National Guard Division Redesign Study (ADRS), the Active Component/Reserve Component (AC/RC) Integrated Divisions, Divisional Teaming and the AC/RC command exchange initiative.

Division Redesign Study

Its implementation will result in a large scale conversion of the Army National Guard combat force structure to Combat Support and Combat Service Support assets. A result of the 1995 Commission on Roles and Missions recommendation that the Army reorganize lower priority Reserve Component forces to fill force shortfalls in higher priority areas. This Division Redesign will eliminate the potential shortfalls in personnel required for the Total Army to implement the National Military Strategy. The most recent Total Army Analysis and the Total Army Requirements Determination results in a greater percentage of Army National Guard combat forces receiving relevant warfighting missions.

Integrated Divisions

The associated AC/RC integrated division initiative will place six Army National Guard combat brigades under the leadership of two Active Component Divisional headquarters in an unprecedented degree of AC/RC force structure integration. The first of two integrated divisions will become a reality before the end of this year.

The Teaming Concept

Even further integration will be realized through division teaming effort, which has resulted in direct training affiliations between several Army National Guard

combat divisions and their Active Component counterparts. Under the teaming concept partnered divisions will conduct joint planning, training, and readiness assessments. The divisions will team their resources for rapid response to requirements across the full spectrum of military operations.

Command Exchange Program

Finally, the placement of several Active Component Officers in Guard command positions has increased understanding on all sides. Last year fourteen Active Component officers were placed in command of National Guard units and this year for the first time, two National Guard officers will be placed in command of Active Component battalions.

Each of these efforts will ensure that the Total Army greets the new century as a seamlessly integrated land combat force.

The "Readiness" Focus

Our focus is on readiness to fight and win our nations wars as part of the Total Army. Understanding the following goals of our Army National Guard is essential to knowing how we meet our overall objective of readiness.

Manning the Force

Recruiting and retaining quality people in the Army National Guard is a critical leadership and management function. The goal is to develop and execute a Total Army integrated human resource system to acquire, manage, compensate, retain, and transition people enabling the Army National Guard to provide combat ready units. Leadership emphasis on recruiting and retaining quality personnel will enable the Guard to meet the emerging personnel challenges of the new century. We must also strive to ensure that full time manning and support levels are sufficient to ensure the necessary readiness levels in our units.

Organizing for Success

Provide the maximum possible number of missioned Army National Guard units based on the Total Army Analysis (TAA) process with required support as part of the Army's total force structure required to achieve directed capabilities. Army National Guard Division Redesign, the AC/RC Integrated Divisions, the Teaming Concept, and the Command Exchange Program noted above are key factors in organizing for success. Additional studies like the Total Army Analysis 07, Total Army Requirements Determination process, and the Reserve Component Employment Study 05 will examine the increasing use of the Reserve Components.

Equipping the Guard

Obtain and distribute mission capable equipment to optimize Army National Guard unit readiness, modernization, and force relevance. State-of-the-art weapons (M109A6 Paladin 155 mm systems, Multiple Launch Rocket Systems, M2AODS Bradley Infantry Fighting Vehicles, Avenger Air Defense systems, and Patriot Air Defense systems), aircraft (UH–60L, OH–58D, AH–64A, Search & Rescue UH60Q, Light Utility Helicopter), communications devices, night vision devices, laser aiming sights, and other equipment such as the Enhanced Position Location Reporting System, and tactical wheeled vehicles are necessary if Guard units are to seamlessly interface with their Active Component counterparts.

Sustaining the Force

Provide appropriate and efficient support for personnel, equipment and operations to accomplish all Army National Guard missions. The management of readiness is conducted by prioritizing resources to the units that are designated as "First to Deploy". While high priority, early deploying units such as the Combat Support and Combat Service Support Force Support Package units have recently received adequate funding, other units like the eight Army National Guard combat divisions have been working hard to meet minimal readiness goals. Despite innovative resource management initiatives, Unit Status Reports indicate a decline in overall unit readiness. Despite the fiscal constraints the Army National Guard Divisions are moving forward. The 49th Armored Division has been selected as the command and control Headquarters for an Operation Joint Forge rotation in fiscal year 2000. The Army National Guard has successfully demonstrated its capability to conduct Home Station Mobilization throughout the past three years as eighteen units mobilized and deployed in support of Operation Joint Endeavor/Guard/and Forge. Resourcing the Force is critically important. The Army National Guard represents approximately 9.4 percent of the Army's budget and 2.4 percent of the Department of Defense budget. Ensuring the Army National Guard receives the proper resources results in a Guard that is capable, affordable, and accessible for responding to both

state and federal missions. Further efforts by the Army National Guard to meet sustainment goals involve providing efficient and seamless logistical operations.

Knowledge Infrastructure

The infrastructure necessary to capture and create information and knowledge, store it in an organized manner, improve it, clarify it and make it accessible in a usable format to anyone who needs it is a combat imperative. The Army National Guard focus on modernization and increased utilization of knowledge infrastructure will decrease the time spent on maintenance of databases, and increase the speed in which units can be mobilized and deployed. The key to this effort is the design, maintenance and upgrading of a system that will be cross dimensional within the Active and reserve components. The Reserve Component Automation System (RCAS), an automated information management system, provides the Army the capability to more effectively administer, manage, and mobilize the Army National Guard and the Army Reserve.

Training the Force

A primary mission of the Guard is to produce ready units to meet the National Military Strategy. This requires the development of strategies and the planning, acquisition, distribution and execution of resources to train individual, leader and collective tasks in the live, virtual and constructive environments. National Guard members actively attend training and education activities at all of the Army's Combat Training Centers and at the Guard Aviation Training Sites. The Guard is actively increasing its participation at the National Training Center, Joint Readiness Training Center, and the Combat Maneuver Training Center. The Army National Guard operates four Aviation Training Sites that are utilized by the Total Army. Leveraging simulation technology for increased training efficiency, has received ever increasing attention for the potential it offers.

Quality Installations

These provide state of the art, environmentally sound, community based power projection platforms that integrate all functions required to sustain and enhance unit readiness, quality of life, and community support. This goal needs particular attention because many facilities do not yet provide the community based power projection platform required. The Army National Guard operates over 3,100 armories in nearly 2,700 communities in all 50 states, Puerto Rico, the Virgin Islands, Guam and the District of Columbia. The Army National Guard federally supports the operations and maintenance of more than 19,000 training, aviation, and logistical facilities. The Army National Guard promotes and accomplishes a sound environmental program focusing on compliance, conservation, and restoration efforts.

Missioning the Guard

A mandatory goal is 100 percent of all Army National Guard force structure federally missioned. All Modified Table of Organization and Equipment (MTOE) units and Table of Distribution and Allowances (TDA) structure included within Time Phase Force Deployment Data (TPFDD) or supporting the Commander in Chief (CinC) war plans. While Guard men and women continue to answer the call for numerous state missions throughout the year they are increasingly supporting the national missions at home and abroad supporting the Theater Commanders in Chief.

Quality of Life

We must provide an environment and culture that promotes equal opportunities for all, fosters environmental stewardship and provides for the safety, health and fitness of the force, families and communities. Keys to supporting our men and women of the National Guard are a strong Family Support Program, obtaining strong employer support, effective risk management techniques, motor vehicle safety & accident avoidance, ground & aviation safety, and a vibrant Occupational Health Program, and facilities that reflect the pride, contribution and importance of the Guard members.

AIR NATIONAL GUARD

Air National Guard personnel routinely rotate with active duty personnel in Central America, Europe, Southwest Asia, Southeast Asia, Middle East, and the Balkans in support of National Security Strategy objectives. In 1998 more than 7,000 Air National Guard members contributed to the U.S. Forces in Europe mission.

People remain our most vital resource, they are the heart of our organization. The ability of the Air National Guard to meet its federal and state obligations is directly related to the quality of our human resources. The responsibility of the quality of

our people rest with the organization's leadership. Strength in leadership and quality planning is the foundation for successful force management. Our objective is the achievement of the highest possible level of competence and accomplishment by each member of our organization. This will result in the successful accomplishment of our missions.

We are continually building upon our leadership training to ensure the entire spectrum of elements throughout the personnel life cycle of our guardsmen receive considerable attention. These elements focus on:

—Accession of personnel.
—Development of each member both technically and professionally.
—Effective utilization of our people.
—Rewarding airmen who demonstrate potential, and preparing them for greater responsibility.
—Soundly managing the retirement or separations of each individual.

The willingness of our airmen and women to volunteer as an able force is well documented. With this record we must remain committed to our people's quality of life, such as pay, health care, community programs, family programs, upgrading our base resources and equipment. Currently recruitment rates are stable, but retention has declined slightly. An improved compensation and benefits package will help ensure competitiveness in recruitment and prevent the decline in retention. Strengthening Educational benefits such as the successful Montgomery GI bill and student loan repayment programs will assist our efforts. The leadership of the Air National Guard has developed a Four Year Roadmap to increase the focus on the important elements of a successful force: Year of the Enlisted (1999), Year of the Family (2000), Year of the Employer (2001), Year of Diversity (2004).

Readiness

It is required for rapidly responsive aerospace power projection. This is achieved and maintained through a wide spectrum of tasks, such as worldwide deployments and training exercises. Nearly 90 percent of our flying units are rated "C–1" or "C–2" (fully mission ready). While our forces are ready our weapon systems are aging. The average age of our aircraft fleet is over 25 years old. This causes increased requirements for maintenance and repair, which drives the cost up higher. Overall mission capable rates are down from 73.3 percent to 67.3 percent since fiscal year 1994. Today, Air Guard operations tempo is nearly at Desert Shield and Desert Storm levels. Additionally an increase in tempo is expected with the establishment of the Expeditionary Aerospace Force. Personnel tempo requirements are a concern. An internal re-engineering effort is underway to ensure a fully missioned rapid tailorable response force. We are ready but we must modernize.

Modernization

It is a critically needed investment in readiness and enhancing our Expeditionary Air Force capabilities across our core competencies of:

Aerospace Superiority.—F–22 air superiority fighter, AMRAAM/AIM–9X missiles, Space Based Infrared System, and support Evolved Expendable Launch Vehicle program.

Global Attack.—Support B–2 and B–1 conventional munitions upgrade program.

Rapid Global Mobility.—C–17, modernization of C–5, C–130, and KC–135, GANS/Global Air Traffic Management

Precision Engagement.—Joint Air-to-Surface Standoff Missile, Joint Direct Attack Munition. Joint Standoff Weapon (JSOW). Conventional Air Launched Cruise Missile, Wind Correction Munitions Dispenser, and the Joint Strike Fighter.

Information Superiority.—Military Satellite Communications, Unmanned Aerial Vehicle's, JSTARS, and Computer Network Defense.

Agile Combat Support.—GCSS and other integrated information systems.

These core competencies integrate well into joint campaigns, providing the most rapid and effective way to achieve national objectives, while reducing risk to our men and women serving our nation. Modernization requirements require us to focus on these additional programs and equipment: F–16 (NVIS), (SADL), GPS & CUPID program for F–16 Block 30 aircraft, Precision Attack Targeting System (PATS), F–16 Unit Training Device (UTD), F–15 Fighter Data Link (FDL) seamless with the Total Air Force, Airlift refueler modernization KC 135E fleet, C–130-H3 simulator development in partnership with the Air Force Reserve, A–10 8 mm color video recorder and avionics upgrades, Support arena-Combat Communications units with Theater Deployable Communications, and acquisition of the F–22 fighter. Investment into Military Construction and real property maintenance accounts will enhance our readiness capabilities.

The Air National Guard seeks to ensure its attack assets will have the latest and best in precision attack capability (PGM) and battlefield information equipment. Our objectives are to ensure all Air National Guard aircraft have the latest, best defensive and anytime all weather equipment. Further modernization of our tanker fleet and C–130 enhancements are also needed. We must have adequate funding for replacement parts, especially engines, and "mid-life" upgrades for our weapon systems. We expect to obtain new F–22 and C–17 systems as they are produced. Space and information warfare offer enormous opportunity for new Air National Guard missions. We are actively engaged with Space Command and the newly formed C–2 Agencies to seek out these missions. Modernization is the lifeblood of the Air National Guard. New mission opportunities exist in our own back yards working in concert with the Army National Guard in response to potential attacks against our homeland. The Air National Guard will be working together with the Army National Guard on this mission utilizing the security, disaster preparedness, medical, intelligence, communications, and services organizations.

Expeditionary Aerospace Force

It is the vision for how the Total Force will organize, train, and equip to meet national security challenges of the near future. Ten Aerospace Expeditionary Force packages are being developed from the air and space resources and manpower from the Total Air Force. Aerospace Expeditionary Force (AEF) units will serve on a 15 month rotation cycle with 90 day vulnerability windows for deployment. During each vulnerability window, two AEF's will be available for short notice taskings and/or scheduled forward presence missions. The objective is to increase predictability and stability to the lives of our airmen. These forces will be light lean, lethal forces that exploit speed, range, flexibility, and responsiveness of aerospace power. The Expeditionary Aerospace Force provides a full spectrum of capabilities that can be tailored to meet the requirements of the Theater Commander in Chief's (CinC's).

Air National Guard Objectives—An overview

Missions.—Assume missions that support national and state requirements and take maximum advantage of the unique characteristics of the Air National Guard while maintaining its traditional character.

Force Structure.—Proactive participation in the development of force structure to support national policy while preserving the constitutionally based militia role of the Air National Guard.

People.—Recruit and retain personnel capable of performing assigned missions.

Leadership.—Develop leaders to effectively operate in a multi-service, multi-national environment while continuing to effectively lead and manage peacetime activities within their state and unit.

Training.—Provide effective and efficient training that develops and maintain a high level of proficiency and readiness to meet federal and state mission requirements.

Basing.—Provide operationally, politically, economically and environmentally acceptable bases to support force structure and mission requirements.

New Missions

The Air National Guard is postured to take on new roles and missions. The Guard is focused on re-engineering units to meet the requirements of the National Security Strategy.

—Satellite and Space Platform Communication
—Space-Based Infrared System
—Expeditionary Forces
—Command and Control
—Battlefield Management
—Information Warfare—Information Assurance
—Unmanned Aerial Vehicles i.e. Global Hawk
—Intelligence i.e. Imagery Analyst Unit & Tactical Reconnaissance
—New Force Protection requirements
—Preparedness and Response to Weapons of Mass Destruction

Core Values

They are the fundamental beliefs that propel our organization's behavior and decision making. Values define our culture, and in so doing, direct our efforts. Our success depends upon the individual National Guard man or woman who consistently demonstrate these values; Integrity First, Service Before Self, Excellence in All We Do, Commitment to the Citizen Soldier Heritage, Strength of Our Diverse Family.

Safety Record

At the forefront of everything we do in the Air National Guard is safety. The number of class A flight mishaps has been half of what they were the last five years. The number of ground mishaps has reduced at a similar rate. An emphasis on accountability both personal and peer has helped bring about this change. Although this reduction is a noteworthy achievement the challenge remaining is to eliminate all flight, weapons, ground mishaps. The Air National Guard has embraced the operational risk program, another tool to assist our commanders in assessing risk and determining the value of each mission. For our safety program to be as effective in the future we must insure it is an integral part of every organization. Our units logged in excess of 370,000 flying hours while making 1998 our safest flying year in Air National Guard history.

JOINT FORCE CONTRIBUTIONS

As stated previously, our focus on the combat imperative combined with our presence not only in the community, but as part of the community, results in a capability unique in this nation. Our ability to operate across the full spectrum of operational requirements make us an unparalleled national asset. Outlined in this section are missions that the National Guard can and will perform as an outgrowth of our ability to fight and win our nations wars.

Domestic Preparedness

Natural and Man-made Disasters

The Army and Air National Guard provides military support (personnel and equipment) to civil authorities (MSCA) during periods of emergency. The National Guard works very closely with the civil authorities who have primary responsibility for emergency planning, response and recovery. Emergencies that could result in military support are:

Natural.—Any hurricane, tornado, storm, flood, high water, wind driven water, tidal wave, earthquake, volcanic eruption, landslide, mud-slide, snowstorm, drought, fire, or other catastrophic event not caused by man.

Civil.—Any man-made emergency or threat which causes or may cause substantial property damage or loss such as civil disturbances or government sector strikes. The National Guard response efforts to the Los Angeles riots, the Oklahoma City bombing, and the TWA Flight 800 crash are examples of civil response actions.

Other.—An emergency in any part of the United States which requires assistance to supplement local or State efforts to save lives and protect property, preserve public health and safety, or to avert or lessen the threat of a disaster.

Governors authorize non-federal, National Guard, military support to civil authorities by their respective Executive Order. The Governor of a State or jurisdiction uses the National Guard in State Active Duty status to carry out these missions. These missions are of a temporary nature and are terminated as soon as civil authorities are capable of handling the emergency. The Governors normally employ their State National Guard in a State Active Duty status under their State constitution and State laws. Under legal agreements between the States and under federal guidelines, States may provide mutual assistance to other States during times of emergency. In these circumstances, the State where the National Guard is being sent must request mutual aid from the sending State, in accordance with an interstate compact.

The National Guard Bureau maintains daily contact with States that are conducting military support operations. The National Guard Bureau also coordinates through the DOD Director of Military Support with the Federal Bureau of Investigation, the Federal Emergency Management Agency and the other agencies responsible for Emergency Support Functions established in the Federal Response Plan.

In fiscal year 1998, over 375,771 National Guard workdays were expended in response to 308 call-ups. Beginning with Typhoon Paka, and ending with Hurricane Georges, National Guard members provided the work force and equipment needed to help local communities recover. In all, eight States suffered the effects of hurricanes, six States were struck by tornadoes, and Guam was hit by a typhoon. Florida and California provided significant support to State officials fighting wildfires. Three State National Guard units provided drought relief to farmers. Floods devastated six States and winter storms struck nine States. National Guard units from three States provided support to law enforcement agencies. Most State National Guard call-ups do not escalate to federal declarations.

Weapons of Mass Destruction—Enhancing The National Guard's Readiness To Support Emergency Responders In Domestic Chemical And Biological Terrorism Defense

The Guard strongly supports a fully coordinated, integrated and clearly focused national program that assists State and local agencies with preparing for and responding to Weapons of Mass Destruction (WMD) terrorism. The National Guard acknowledges that nationwide many State and local elected officials and other responsible authorities are working diligently, within their limited resources, to prepare their respective jurisdictions for defense against chemical and biological terrorism. The emergency response community has been actively engaged in chemical and biological incident preparation. They have aggressively pursued, with limited success, the resources, equipment and training they have determined to be most critical to their abilities to protect lives and safeguard order.

The National Guard maintains a long tradition of providing support to civil authorities from its earliest days in colonial Massachusetts in 1636 to the more than 300 call-ups across the Nation in response to natural disasters or civil unrest in 1998.

With its broad-based doctrine and training, force structure, infrastructure and information architecture, the National Guard stands ready to support the emergency response community to prepare for and respond to a WMD incident.

Current National Guard WMD-Related Capabilities

The National Guard possesses numerous capabilities that can directly assist in addressing the threat of WMD attack. These range across the response spectrum and encompass prevention, management, and mitigation efforts.

Some of these capabilities are discussed below.

Rapid Assessment and Initial Detection (RAID) Detachment.—Ten, 22-member RAID Detachments are currently being formed (one per Federal Emergency Management Agency Region). They are projected to be fully operational by January 2000. The RAID Detachment's mission is to assess a suspected biological and/or chemical event in support of a local incident commander. They will have the ability to advise civilian responders and emergency management officials regarding appropriate actions, and facilitate requests for assistance to expedite arrival of additional military State and federal assets.

RAID (Light) Detachments.—The National Guard is also establishing 44 RAID (Light) Detachments in each of the 44 States and territories not receiving an initial RAID Detachment in 1999. The RAID (Light) Detachments will provide limited chemical and biological response capability.

Reconnaissance and Decontamination Teams.—Nuclear Biological & Chemical Reconnaissance and Patient Decontamination elements are programmed to be organized, trained and equipped within the National Guard and other Reserve Components in fiscal years 1999 and 2000. The Army National Guard will have 8 Reconnaissance and up to 42 Decontamination Platoons. The Air National Guard will have 8 Reconnaissance and 21 Decontamination Detachments.

The National Guard's WMD Training Organizations.—The National Guard supports a number of excellent training organizations. Originally chartered to train or facilitate the training of military and law enforcement officials for the Counterdrug mission, these institutions are being made more robust to support WMD training initiatives.

Distributive Training Technology Program (DTTP).—The Army National Guard's GuardNet XXI, along with the Air National Guard's Warrior Network combine to become Network America. This network is the backbone for the delivery of voice, video and other data, to include the DTTP, to the National Guard. It can be made available to civilian emergency responders, hospital and emergency medical personnel desiring to participate.

National Guard Bureau Liaisons to Major Organizations.—In addition to the temporary positions currently being staffed at the NDPO, Federal Emergency Management Agency, and Department of Justice/Office of Justice Programs, the National Guard has also placed personnel in temporary positions at the U.S. Army Training and Doctrine Command, U.S. Army Soldier and Biological Chemical Command.

National Guard Bureau Partnerships with Civilian Training Initiatives.—The National Guard, as a community-based military force, is a partner in building better and safer communities. These partnership projects encompass education, training, and preparedness.

Y2K The Year 2000 Challenge

The National Guard in its role as the primary federal reserve of the Army and Air Force has undertaken an extensive Y2K testing and surety program which

meets the directives of the Department of Defense. The testing programs range across areas such as personnel pay and benefits, engineering, logistics, security systems, communications, and operations. A concentrated effort is being made on developing and testing contingency plans. We will validate through an exercise that the National Guard Bureau in Washington D.C. will be able to provide the federal government the capability for command communications to the 54 states, territories and the District of Columbia. We will verify our ability, even with potential Y2K disruptions, to call-up or Federalize the National Guard soldiers and Airmen should they be needed to respond to a National Emergency.

One of the main challenges facing the National Guard is the difficulty in acquiring replacement parts for Y2K sensitive items. Y2K compliance enables the Guard to perform its warfight mission as well as be able to respond to the call of our Governors for a natural or manmade disaster. The National Guard is taking actions similar to all public and private sector organizations to maintain their viability to conduct their business with minimum or no interruption as a result of the Y2K issue.

The National Guard Bureau has asked the National Guard forces in the all 54 states, territories, and the District of Columbia to ensure Y2K compliance so they are capable of performing their federal missions. The Guard units will be ensuring they are Y2K complaint so they can also answer the call of the respective Governors. Several States have indicated they will alert elements of the Guard in case they are needed for a Y2K incident response. An alert or call to State active duty remains a prerogative of the respective Governors. Units are focusing on awareness, identifying infrastructure, and conducting contingency plan walks. A "systems walk" to ensure the unit continuity of operations plan covers all critical items. An "interface walk" to identify linkages with off-base entities to verify their ability to provide continuous support. It is critical the National Guard achieve Y2K compliance to ensure we can meet the requirements of our elected civilian leaders, State and federal, today, on New Years eve and into the next millennium.

National Missile Defense

Our nation is currently developing a policy on a missile defense system. This policy will likely call for the future deployment of a missile defense system capable of defending the United States of America against a limited ballistic missile attack. The Army and Air National Guard is capable of making a significant contribution to this mission with our active service components. This would be a progression of the historic Nike Air Defense sites and Coast Artillery mission of the Army National Guard and the current contribution the Air National Guard makes to U. S. Space Command.

Information Protection

The Army and Air National Guard will contribute to the recently created 22-member Reserve component team called the Joint Web Risk Assessment Cell (JWRAC) to monitor and evaluate Department of Defense Web sites to ensure the sites do not compromise national security by revealing sensitive defense information. The Secretary of Defense approved the development of the team, which will comprise two full-time Reservists and 20 drilling Reserve and National Guard personnel.

The Defense Information Systems Agency started the cell on March 1, 1999. The JWRAC will search and purge defense web sites for information and trends of data that could be used to breach security or pose a threat to defense operations and personnel. In addition, team members will evaluate web-site content to ensure compliance with departmental policies, procedures and best practices. Two full time personnel will manage the daily operations. They will perform operational scheduling, manage training, and ensure the team maintains technical proficiency.

A fundamental requirement for the conduct of all military operations is information superiority, which is "the capability to collect, process, and disseminate an uninterrupted flow of information while exploiting or denying an adversary's ability to do the same." Information superiority will be enabled by the enhanced command and control, fused source intelligence, dominant battlefield awareness and offensive and defensive information warfare. The Army and Air National Guard is poised to make a significant contribution to this joint effort. Recruitment of personnel that are on the leading edge of the communications technology transformations will benefit the Nation in many areas. Personnel who may have traditionally not considered the military as a full time career may very well be interested in contributing to our nation as members of the Guard and Reserve. This role will increase the citizens' involvement in national security while at the same time making a contribution in both offensive and defensive information operations strengthening and protecting our nation, state and local community communication infrastructure.

Counternarcotics and Drug Interdiction

Counterdrug operations make up an important part of all three National Guard mission areas. In addition to demand reduction programs we foster within our communities, we have both Title 10 and Title 32 responsibilities in the war. Under Title 10, the Army and Air National Guard help theater CinCs detect and monitor attempts to smuggle narcotics into the United States and its Territories from their regions. We do this by deploying individuals and units to locations abroad where they perform ground-based and airborne surveillance, provide linguistic support, augment intelligence staff, and assist in other ways. Our recurring deployments to Panama for Operations Coronet Nighthawk and Constant Vigil are familiar examples of this.

Under Title 32, the National Guard supports various Federal, State, and local law enforcement agencies in counternarcotics and drug interdiction operations within the country and Territories. We furnish equipment, manpower, and special expertise that other agencies have come to rely on heavily. We have been involved in the past few years in campaigns against drug smuggling, distribution, and domestic cultivation. From assistance with cargo inspection at U.S. ports of entry to providing aerial reconnaissance and aerial photo-interpretation for interception operations and the location of illicit domestic drug crops, Guard members are recognized as key players on the U.S. counterdrug team.

During 1998, militia men and women—all volunteers—participated in more than 16,981 counterdrug missions and helped seize over 1,146 tons of processed narcotics and amphetamines, 9,070 vehicles, 15,175 weapons, and 46,100,997 marijuana plants. More than 90,908 arrests were made and $240 million in currency confiscated in these operations. Guard members' status as agents in their State exempts them from the posse comitatus restrictions that prevent other U.S. military forces from being used in a similar way. Counterdrug support is performed in addition to regular mission training and it enhances basic military skills.

Drug Demand Reduction (DDR)

Narcotics are of the most pervasive and deadly threats our nation faces, and we in the Army and Air National Guard take the war seriously. We actively support a wide range of operations that enhances the Drug Demand Reduction Mission. The National Guard is positioned in hometown America, and with this we know our schools and neighborhoods are also battlefields where the drug war is waged. We either win or loose this war one life at a time. Our militia men and women are trained to provide support to community-based drug demand reduction initiatives in our local areas.

Our members and their families participate in many of the over 8,000 separate drug demand reduction programs underway throughout the nation. These programs focus on community coalition building, presenting anti-drug messages, developing leadership within vulnerable groups, and promoting high standards of citizenship. The men and women of the National Guard are stable role models committed to a "zero tolerance policy" toward illegal drugs for themselves, their families and for others with whom they serve. They are, and will continue to make, a positive change in the communities where they live and work.

The National Guard Drug Demand Reduction program supports parents, community leaders, drug coalitions, and other agencies by providing facilitators for strategic planning sessions, parenting courses to those in need, drug-free individuals to speakers' bureaus, and trainers to those who present an anti-drug message to America's at-risk youth. Youth prevention programs like "Adopt-A-School" or "Lunch Buddy" programs along with "Ropes" Confidence and esteem building courses have National Guard members serving as mentors and tutors.

We continue our three year partnership with the Community Anti-Drug Coalitions of America (CADCA) to support the fight against drugs in our local communities. We along with CADCA also produce a series of Drug demand reduction teleconferences concerning coalition development, mentoring, issues affecting our youth, and drug trends in our Schools.

National Guard Youth Programs—Enriching the lives of our children throughout the nation

ChalleNGe & Youth Conservation Corps.—The ChalleNGe program and Youth Conservation Corps first received congressional authorization and appropriations for a three-year pilot program under Section 1091(a)—National Defense Authorization Act for Fiscal Year 1993. The pilot programs purpose was to determine whether life skills and employment potential of youths who dropout of secondary school could be significantly improved through military-based training, including supervised work experience in community service and conservation projects, and to determine the

feasibility and cost-effectiveness of such a program for the National Guard. The legislation allowed the National Guard Bureau to enter into agreements with state governors to conduct programs targeting youth in general and youth at-risk in particular. Preventive rather than remedial, the programs aim at providing young people with the values, self esteem, life skills, education and self-discipline to succeed as students and adults. States are selected on interest and ability to host a program at a National Guard site.

In fiscal year 1998, 32 United States Code, Section 509—authorized the National Guard ChalleNGe Program on a permanent basis. Five new programs were added. Participating states provide matching funds beginning at 25 percent and increasing 5 percent each subsequent fiscal year until a 40 percent matching fund is reached in fiscal year 2001. A positive step forward occurred in the fiscal year 1999 legislation authorizing the National Guard ChalleNGe Program expansion and Tier 1 status for graduates making them eligible for enlistment in the armed forces with a GED upon successful completion of the program.

Why the National Guard? Conduct of youth programs is consistent with and fits the community role and state mission of the National Guard. The required infrastructure is already in place to support such a program and the National Guard has the availability of trained personnel in areas of organization, planning, execution, self-discipline and leadership. The program adds value America.

ChalleNGe: Program consists of a five-month residential phase and a one-year post-residential mentoring phase for youth between 16 and 18 years of age who are not in trouble with the law, drug free, unemployed, and a high school dropout. The goal: through military-based training, significantly improve life skills and employment potential.

ChalleNGe is based on eight core components that support the development of the whole person in terms of mind, body, and personal values. Emphasis on self-discipline, self-esteem, education, and development of healthy life-styles.

ChalleNGe Eight Core Components: Leadership/Followership; Responsible Citizenship; Community Service; Life Coping Skills; Job Skills; Health, Sex Education and Nutrition Academic Excellence; Physical Education.

Youth Conservation Corps: Currently the Commonwealth of Kentucky is operating a Youth Conservation Corps program. It is a six week residential version of the Youth Challenge Program.

Youth ChalleNGe Participating States and Current Enrollment: Alaska 200, Arizona 224, Arkansas 200, California 200, Colorado 200, Georgia 400, Hawaii 200, Illinois 800, Louisiana 350, Maryland 200, Mississippi 248, Missouri 200, New Jersey 200, New York 200, North Carolina 200, Oklahoma 200, South Carolina 200, Virginia 200, West Virginia 200, Wisconsin 200.

New ChalleNGe Programs and Enrollment for fiscal year 1999: Massachusetts 200, Michigan 200, Oregon 208, Montana 200, Puerto Rico 288, Texas 200, and potentially the State of Indiana.

STARBASE

STARBASE represents the Science and Technology Academies Reinforcing Basic Aviation and Space Exploration Program. It was first created at Selfridge Air National Guard Base in Michigan with an initial grant from Kellogg Foundation in 1989. In fiscal year 1993 Congress appropriated $2 million to the Air National Guard to establish five STARBASE sites. The program was authorized as a 10 U.S.C. §2193, science and mathematics education improvement program. STARBASE is a nonresidential program for students in the grades K–12. It provides them with real-world applications of math and science through experiential learning, simulations, and experiments in aviation and space related fields. The program targets "at risk" (minority, female, and low socioeconomic) students, and utilizes instruction modules specifically designed to meet the State's math and science objectives. The STARBASE program is conducted by the National Guard in 14 states and territories (California, Florida, Iowa, Kansas, Michigan, Minnesota, North Carolina, Oklahoma, Oregon, South Dakota, Texas, Vermont, Wyoming, and Puerto Rico). The Air Force Reserve and the U.S. Navy now operate two STARBASE programs each. This year the District of Columbia Air National Guard will commence a STARBASE program. Additionally three other reserve component sites are coming on line in fiscal year 1999: Marine Corps Air Station Beaufort, SC; Barksdale AFB, LA (USAFR); and Navy Station San Diego, CA.

Family Support

Families can exist without the National Guard, but the National Guard cannot exist without families. The mission of the Family Program is to establish and facilitate communication, involvement, support, and recognition between National Guard

families and the National Guard in a partnership. An informed and committed National Guard family helps support a strong National Guard. And, a strong National Guard helps maintain a strong America.

The National Guard Family Support program provides a national network linking over 3,200 communities within 54 states, territories, and the District of Columbia. This network includes 54 full time State Family Program Coordinators, who work with military points of contact and volunteers at every organizational level. Volunteers are the heart of the program. Augmenting this network as required by the situation, approximately 3,000 National Guard retention and recruiting personnel in the Air and Army National Guard are tasked with the mission of supporting the National Guard Family Program.

The program focuses on promoting family member volunteerism, development of family support groups at the local level, and facilitating family readiness training. It further increases the awareness of the family importance to the National Guard and to the success of its mission, notifying families of available benefits, entitlements and services. The program provides the infrastructure that supports the process of identifying, defining, addressing, and resolving issues that impact the balance between National Guard service and family stability.

Families partner with our members and units to build the strongest possible Family Support Programs. Partnership is crucial and mutually beneficially to State missions and the national defense. It emphasizes family involvement as a partnership with the unit, fosters a sense of well being, and strengthens a sense of community with shared benefits and responsibilities. Partnership creates an environment where we work together to overcome obstacles that would hinder or impede our mission competency.

Employer Support

The Army and Air National Guard support a strong relationship between our soldiers and airmen and their respective employers. A great deal of assistance is provided by the National Committee for Employer Support of the Guard and Reserve (NCESGR). This Department of Defense organization works with employers, reservists, military leadership, and 54 volunteer committees to build and maintain a strong base of support for the role of the National Guard, and Reserve in our Nation's defense. Throughout the years, studies have shown that nearly a third of the men and women surveyed about why they were leaving the National Guard and Reserve indicated "employment conflict" as the reason for their separation. The NCESGR established a nationwide network of local employer support volunteers, organized within each state, commonwealth, territory, and the District of Columbia to bring the message to all employers, large and small, in cities, towns, and rural areas that the National Guard and its individual members are full players in the defense of our nation. By explaining the missions of the National Guard and Reserve and by increasing public awareness of the role of the employer, they develop a dialogue among employers, the state employers support committees, and local National Guard and Reserve unit commanders and members. Now, with thousands of volunteer executives, senior government representatives, educators, and military personnel serving on local Employer Support of the Guard and Reserve committees, a wide variety of informational and assistance programs designed to capture the attention of employers and win their support is in place. The objectives of the employer support program are to acquaint employers with the vital role of the National Guard and Reserve, the positive impact of employing National Guard members, and the changing role and missions of the Reserve components.

Diversity is our Strength

All of our men and women in the National Guard are truly outstanding. It is important that our leadership understand the strength in our diverse force. Workforce diversity is an organizational behavior that acknowledges and values differences and similarities among people and how the differences can work to improve the organization. It also means understanding the organizational environments with an appreciation for gender, culture and ethnic lifestyles. The members of the National Guard ask only for their dignity and our respect. It is important that we offer them that respect as leaders, but it is more important that the environment we help create, makes respect mutual—up, down and sideways. Our citizen soldiers also have a right to fair and equitable treatment. Guard men and women serve with as much dedication as anyone in uniform. They may be part-time or full time, in operations, logistics or in support but they are always Guardsmen. They may be male or female, and of any race but they are always our fellow soldiers and airmen. They may believe in different creeds, religions, or may be from foreign land, but they are all citizen-soldiers and airmen. Our objective is to continually improve our goal of team-

work, reaching out to every member to work together and accept each others differences. The differences we have make us stronger by the diversity of viewpoints.

Promoting Democracy Abroad through Engagement—The National Guard State Partnership Program

An influential component of the National Guard's Federal role is that of Preventive Defense. We are uniquely positioned to promote democratic practices abroad and find ourselves in frequent demand for nation-building programs. Under the auspices of the National Guard's State Partnership Program, National Guard personnel participate in various commands sponsored engagements.

The National Guard participates in programs such as the North Atlantic Treaty Organization's Partnership for Peace program, European Command's Joint Contact Team Program, Southern Command's Traditional CINC Activities Program, and similar activities sponsored by the Office of the Secretary of Defense, the Joint Staff and various State Department Agencies.

There is good reason to summon the National Guard when America wants to promulgate its best to the world. Our professional militia provides an influential example of how a military force can be effective while demonstrating military subordination to civil authorities. This is the ultimate embodiment of democratic values, particularly to the states of Eastern Europe, and Central and South America, as these countries work to break with repressive pasts.

National Guard personnel and the militia system under which they operate are models for the role of a military in a democratic society. They illustrate how a military force of the people remains committed to the people. The wealth of civilian skills our Guard members take overseas—and the diversity of non-military professions they represent—are important, giving our men and women a versatility and credibility as goodwill ambassadors that no other American military arm can match.

The State Partnership Program

This program builds long standing institutional affiliations and people-to-people relationships with nations while establishing democratic military organizations. By utilizing National Guardsmen in their dual roles as citizen-soldiers, the partner nation's military leaders are encountering highly trained and cost-effective members of the United States Armed Forces. Guardsmen serve as role models in making a compelling case for the ideals of democracy, professionalism, and deference to civilian authority. They also demonstrate the necessity and economy of Reserve Components with the ability to react immediately to civil and military emergencies.

Much of the Guard's success in promoting democracy abroad is the result of the State Partnership Program. To date thirty states and Puerto Rico have joined as Partners or Associate Partners in extending the hand of friendship from grassroots America to twenty-seven countries that would emulate our ways and institutions. Foreign military personnel and political leaders visit our country to observe how the National Guard operates within the State and Federal framework. National Guard members reciprocate with visits to the partner country in which they provide detailed information on civil-military topics like search and rescue, medical support, disaster response, military law, and family programs. Importantly, these are more than just military-to military contacts. By involving governors, mayors, and their staffs; State legislatures; and the families and friends of our Guard men and women in building these bridges of friendship, we promote political "buy-in" on national security strategy at the local level. We also foster cooperation between the Federal and State governments in other productive ways.

Partner Nations and States are currently developing partnership events for the coming year. Some events being discussed are multi-national disaster preparedness exercises, search and rescue exercises, environmental operations, military justice, Non-Commissioned Officer development programs and civil/military cooperative programs.

Tasking in this area is growing rapidly. During 1998, exercise New Horizons took place in Ecuador. Approximately 1,300 Army and Air National Guard members in addition to troops from the U.S. Marine Corps, Air Force, and Ecuador's Armed Forces participated. During the exercise the joint forces built schools and clinics; and provided logistical, medical, aviation, and security support to the project. State partners (Illinois, Texas and, Ohio,) helped 3 countries (Poland, Czech Republic, and Hungary) prepare to become NATO members. Three states conducted civic/opinion leader visits to their partner countries. These trips included state governors, state legislators, congressional staffers', educators, business leaders, and guard employers. Tennessee traveled to Bulgaria to observe Cornerstone 98. California went to Ukraine to observe Peaceshield 98 and Arizona went to Kazakhstan to plan for a

Regional Workshop, just to name just a few of the activities conducted under this valuable bilateral linkage.

Sharpening the military skills of our militia men and women while demonstrating their ability and willingness to enhance the quality of life for hemispheric neighbors is just one benefit of this timely and innovative engagement. We are firmly committed to sustaining this effort which has our Guard men and women helping to shape emerging democracies, prepare for and improve readiness by engaging in international events and activities, and respond as our national security needs require.

CONCLUDING REMARKS

I have attempted to underscore the importance of our Total Force as a sterling example of what we have done, and what we will continue to do together. In essence, we have a contract to receive federal money to enable us to be ready to fulfill our duty if called to federal service. The National Guard has met the conditions of that contract in every instance. The federal money we receive combined with our state funding, also results in a valuable state resource to respond to the needs of our communities and our neighbors when needed.

The French poet and philosopher Charles Peguy said, "freedom is a system based on courage". I think he meant not just battlefield bravery, but the broader idea of the courage to act on our beliefs, and to exercise our freedoms in the face of tyranny. Our history of courage is one of over 362 years of standing up for our country and defending these ideas in every war and conflict in our history. The privilege exercised to fight for this nations ideals, its liberty and its freedom.

At the onset of World War II, twenty Guard divisions were called up to flesh out and to break trail for the total of 89 divisions that would ultimately fight the Axis powers. Those National Guard divisions proved as they have done on so many previous occasions that the Army Guard can fight and prevail in combat. Their sacrifices reaffirmed and validated once again the courage, the dedication, and the value of the National Guard to our nation.

By 1950 the Army had shrunk to only ten divisions and fewer than 600,000 soldiers. There were real readiness issues then too. We will soon celebrate the fiftieth anniversary of the "Forgotten War" which took place on the Korean Peninsula. General E.C. Meyer, the former Chief of Staff of the Army served as a company commander with the 40th Division, a Guard Division, in that conflict. He was part of the Total Force before there was a Total Force. Eight Army Guard Divisions were called up, and two (the 40th and 45th) saw combat in that conflict. Once again the contribution of the National Guard was critical to achieving this nations objectives at a crucial time in our history.

Over 45,000 Air Guardsmen were called as well, with two Wings in combat (the 116th and the 136th). Among other things, The Korean War was our first racially integrated combat experience. It is a forgotten war, but it was an illustration of the forgotten lessons of unreadiness. It got off to an ignominious start with the famous "Task Force Smith"—a military debacle which illustrated our lack of preparedness, only a few years after we had been victorious in World War II. We must not forget the lessons of what a lack of readiness can cost in American lives.

The Guard was recognizably under-utilized in Vietnam, possibly out of an administration concern of public acceptance and commitment to that conflict. It gained an unearned reputation as a refuge the unwilling. That old stain reappeared when we went to the Gulf War without the Army Guard combat units in the belief by some that the Guard could not meet the standard. Others believed that the Army National Guard was good enough to fight alongside of their active component. That was almost a decade ago. Today we are even more ready than we were then in a lot of ways, but not as ready in some others. Primarily due to the funding issues noted in the September 1998 and January 1999 testimony of the Chairman of the Joint Chiefs of Staff and the Service Chiefs the Guard has endured readiness challenges in the recent past, but this year and the future looks brighter.

The Guard is prepared for our primary responsibility as the first-line, ready-reserve defense force for America. It is the mission we have always had, and today it remains our first responsibility. We will organize, train, and equip, ourselves for this fundamental mission. That will require that we focus on force structure, end-strength, and above all, the resourcing and funding to do the job. There are a plethora of important jobs to perform. We have a reservoir of vast experience, capable of taking on the missions of countering Weapons of Mass Destruction, Homeland Defense, Information Operations, and paramount—maintaining our combat role. Our military is shrinking in size, but faces a dynamic of change that includes pre-

paring for two major regional conflicts (MRCs), managing day to day operations, and small scale operations, evacuations, humanitarian and peacekeeping missions.

We need to permanently drive home the importance of being prepared for war as a way of preventing war. The commemorations we celebrate are a way for us to remind ourselves of the price of freedom. But we need more than commemorative reminders. We need more than rhetoric. We need a strong, ready, capable National Guard to effectively contribute to our state and federal missions. On behalf of the over 450,00 men and women of your National Guard, I assure you that we are a capable, accessible, and affordable component of our Nation's Defense.

STATEMENT OF MAJ. GEN. ROGER C. SCHULTZ, DIRECTOR, ARMY NATIONAL GUARD

READINESS

Senator STEVENS. General Schultz.

General SCHULTZ. Mr. Chairman, distinguished members of the Senate Appropriations Committee, first, I must begin by thanking you for your support with last year's appropriation, and I want to assure you that the money that we realized in fiscal year 1999 has been sent to all units, OPTEMPO dollars in particular, to get inside of our readiness-related requirements and bring up those later deploying units to readiness conditions, because we clearly have sliced off the bottom, in the tiering models that we use, those units that simply are not the first to deploy.

As has already been mentioned, there is concern about integrating the Guard into the Army, and I want to assure this committee that we have taken significant steps across the Guard's adjutant generals and commanders across our organizations to become better integrated into the Army, and we are making progress in that endeavor, and as we look at the activity, both mission sets at home and abroad, the Guard is busier than ever.

Last year, we deployed to 70 countries. This year we have already deployed to 70 countries, and as we further integrate the Army Guard into the Army, what we are realizing is compatibility of systems, modernization obviously comes along with additional requirements for our tanks and our Bradleys and other weapons systems to be compatible with or to interoperate with those units that we will deploy to war with, and so interoperability is an issue, modernization is an issue. We are making some progress with those requirements.

Communications systems are a classic example of one of our priorities, so that as our units are deployed on shorter notices than ever, with the missions that are currently pending, those kinds of priorities you will see us explaining in terms of preferences.

I think another example of integration, Mr. Chairman, is the 49th Division. A Texas-based Guard division headquarters will assume responsibility, command and control-type responsibility for a multinational division north in Bosnia. March of 2000 is the transfer of authority, and we are on the path, with 1,300 soldiers from the Army National Guard, 11 States contributing to that mission set, so we are clearly integrated in ways that many never thought would be possible.

And as I talk about these kind of conditions, I must underscore the issue that has already been raised, and that is the concern about readiness. Seventy-one percent of the units in the Army National Guard today are deployable, standing by for short-notice mis-

sions. The units that are not prepared for their mission today are primarily found in our combat divisions. We have eight combat divisions in the Guard, and the readiness condition of those units is simply a factor of affordability. It means we just do not have enough money, or have not realized enough money or distribution in the past to keep those units set at baseline platoon-level maneuver skill requirement. We are making progress in fiscal year 1999, as I have already outlined, and we expect in the next 12 months, perhaps 18 months, we will have our Guard divisions back to what we consider to be minimum deployable level, and that is a readiness condition, C–3.

Mr. Chairman, the top priority for the Army National Guard today, in terms of quality of life, and also showing early signs of readiness implications, is full-time staffing within our units. Today, we are short 3,000 military technicians in our units across the Guard. We are short over 1,600 active Guard and Reserve soldiers in our units across the Guard.

We have examples in readiness reports today where commanders are saying, I have the repair parts on the shelf, but I do not have the full-time staff to put the parts on the aircraft, or on the systems, or the vehicles, so full-time staffing is showing signs of clear implications for some of the lower readiness conditions that I have already talked about.

Along with figures, as I talk with you about our requirement for fiscal year 2000, there is a costing model adjustment in those figures of $57 million, so it is not just increasing technicians and active Guard and Reserve soldiers, it actually is adjusting a costing model error that we had in our formulas.

Mr. Chairman, I tell you that the Army National Guard will meet end strength as of September 30 of this year. We are above program slightly, so we are clearly on track, and we are, of course, 59,000 today. At the end of the year we will be at a congressionally directed 357,000.

PREPARED STATEMENT

Mr. Chairman, readiness is our priority. We are standing by for missions should we receive them. Thank you for your support.

[The statement follows:]

PREPARED STATEMENT OF MAJ. GEN. ROGER C. SCHULTZ

DIRECTOR'S SUMMARY

As I look back on fiscal year 1998, I am proud of the indelible spirit of our soldiers. They traveled around the world performing missions in more than 70 countries. They aided neighbors and friends in over 300 domestic support missions, using 374,115 man-days. Each soldier took time from work and home to do the job and achieve the mission. Six of these fine soldiers, our Army National Guard Soldiers and NCOs of the Year, are highlighted later on in this document. They are representative of the hundreds of thousands who selflessly balance the demands of employer, family and Army Guard duty.

In our efforts to support these fine soldiers, we have worked toward improving the readiness of our units today, while looking forward into the 21st century to define the requirements of our nation and the support it will need from its Army National Guard.

Most significant among our efforts have been the successes in achieving greater integration with our counterparts in the Active Component and Army Reserve. Included in those efforts are two Integrated Divisions, Command Exchange programs,

and the Teaming concept. Each of these is detailed a little later, but all work together to help our Army National Guard become a critical part of a unified, seamless Total Army.

In telling the story of the Army National Guard in fiscal year 1998, it is important to understand the goals that guide our organization. These, goals, which form the framework for our Army National Guard Posture Statement, include: Manning; Organizing; Equipping; Sustaining; Knowledge Infrastructure; Readiness; Training; Quality Installations; Missioning; Quality of Life; and Resourcing.

This year's Army National Guard Posture Statement provides an overview of our efforts in each of these critical areas. While each goal is important we must remember that each looks toward achieving our overall objective—readiness. As the "Federal Reserve of the Army", the Army National Guard has as its paramount mission the readiness to fight and win the nation's wars as a part of the Total Army.

While our successes through fiscal year 1998 have been many and varied, the force responsible for those successes has remained constant. Army National Guard men and women, along with their families and employers, richly deserve credit for the progress we have seen in the past year. Without the efforts of Guard soldiers—sometimes at their own time and expense—our readiness challenge would be far greater than is the case today. Without the selfless support of Guard families across the nation, our readiness as a military force would suffer. Finally, without the understanding and support of Guard civilian employers, the men and women of the Guard would be simply unable to provide the dedicated service for which they are so well known. Readiness in the Army National Guard is evaluated in many ways, but the core reason for our success has never varied. The Guard is people.

ORGANIZATIONAL HISTORY

The Army National Guard predates the founding of the nation and a standing national military by almost 150 years. America's first permanent militia regiments, among the oldest continuing units in history, were organized by the Massachusetts Bay Colony in 1636. Since that time, the Guard has participated in every U.S. conflict from the Pequot War of 1637 to Operation Desert Storm in 1991.

A subject of extensive debate and compromise during the Constitutional Convention of 1787, the National Guard finds its formal origins in provisions of the United States Constitution. This language reads, in part:

"to provide trained units and qualified persons available for active duty in the armed forces, in time of war or national emergency and at such other times as the national security requires, to fill the needs of the armed forces whenever, during, and after the period needed to procure and train additional units and qualified persons to achieve the planned mobilization, more units and persons are needed than are in the regular components."

In addition to the constitutional charter, a variety of statutes have been enacted over the years to better define the Guard's role in our nation's affairs. Detailed federal guidelines, both statutory and regulatory, govern the organization and operation of the National Guard.

While federal regulations dictate much of the Guard's organization and function, control of Guard personnel and units is divided between state and national levels. For example, the Federal government determines the number of authorized National Guard personnel and the unit mix available across the country. However, the States reserve the authority to locate units and their headquarters and Federal officials may not change any branch, organization, or allotment located entirely within a State without the approval of the governor. This state-federal relationship in Guard management and control continues to evolve today.

Where the colonial period saw Guard activities largely confined within the nation's borders, later 19th century conflicts found the Guard contributing to the nation's defense both at home and abroad. The first half of this century witnessed the foundation of the modern Army National Guard, as Guard soldiers contributed greatly to U.S. participation in both World Wars. The Guard's evolution continued in the years following the Second World War with participation in Korea and in several Cold War mobilizations. Finally, the Guard has found a dramatically increasing role at home and throughout the World during the 1990s.

The Army National Guard of today and tomorrow fulfills a vital national defense role. Strategic planning integrates Guard units into crucial combat, combat support, and combat service support elements of our nation's military forces. These elements provide a trained, capable, and cost effective military force, able to provide rapid augmentation, reinforcement, and expansion in time of call-up or mobilization. The National Guard has emerged as a well-armed fighting force and an important com-

ponent in the nation's emergency preparedness network, the only organization with this dual responsibility.

THE GUARD TODAY—CURRENT INITIATIVES

As the Army National Guard (ARNG) approaches the end of the century, we find the pace and variety of operations steadily increasing. These rapidly occurring events include tremendous strides in Active Component-Army Guard integration, on-going support to peacekeeping efforts in the Balkans, Counter-Drug activities and Homeland Defense.

Active Component/Army National Guard Integration

Efforts to achieve greater Active Component/Army National Guard integration met with far reaching success during the course of fiscal year 1998. At the heart of these intensive efforts were the Army National Guard Division Redesign (ADRS) effort, the AC/ARNG Integrated Divisions, Divisional Teaming and the AC/ARNG command exchange initiative. ADRS will result in a large scale conversion of ARNG combat force structure to Combat Support and Combat Service Support assets needed by the Total Army to implement the National Military Strategy. The associated AC/ARNG Integrated Division Initiative will place six ARNG combat brigades under the leadership of two Active Component Divisional headquarters in an unprecedented degree of AC/ARNG force structure integration. Even further integration will be realized through the division teaming effort, which has resulted in direct training affiliations between several ARNG Divisions and their Active Component counterparts. Finally, the placement of several AC officers in Guard command positions has increased understanding on all sides. These efforts, described further in Organizing for Success will ensure that the Total Army greets the new century as a seamlessly integrated land combat force.

The Army National Guard in Bosnia

Fiscal year 1998 saw a continuation of Guard support to the U.S. Stabilization Force (SFOR) in the Balkans. During the course of the year, over 2,000 Guard soldiers supported this effort under the auspices of OPERATION JOINT GUARD and OPERATION JOINT FORGE as detailed in Missioning the Guard.

As in previous years, Guard efforts in Bosnia required the deployment of troops and equipment from every ARNG division as well as numerous smaller organizations. These deployments complimented the efforts of Active Component troops in the region by providing personnel with expertise in areas such as aviation, fire support, public affairs, and other specialties found largely in the Reserve Component. Guard support to the U.S. mission in Bosnia provides a representative look at increasing AC/RC integration and cooperation.

Counterdrug Program

Throughout fiscal year 1998 the ARNG continued to provide assistance to law enforcement agencies and community based organizations in support of the President's National Drug Control Strategy. The bulk of the ARNG effort supported State Governors' plans for use of Guard personnel in drug interdiction and demand reduction activities while in Title 32, United States Code status. The ARNG provides a wide range of counterdrug support capabilities, including cargo inspection assistance at ports of entry, aerial and ground reconnaissance, intelligence analysis, training, construction of border roads and fences and production of over 33,000 map products. The Guard is also providing training to law enforcement agencies and community based organizations at the National Interagency Civil-Military Institute in California the Multi-jurisdictional Counterdrug Task Force Training Program in Florida and the Regional Counterdrug Training Academy in Mississippi. Army National Guard Drug Demand Reduction activities in fiscal year 1998 reached millions of people as a result of support to communities throughout the nation. The ARNG provided 552,543 mandays in support of 13,212 domestic counterdrug missions during the year.

Although the law enforcement community and community coalition demand for National Guard counterdrug support is increasing, the Guard counterdrug resources will remain static over the next several years. Despite this challenge, the ARNG plans to increase emphasis on drug demand reduction support in accordance with the priorities established by the National Drug Control Strategy.

Homeland Defense

Another emerging Guard mission area involves the growing Homeland Defense requirement. This emerging threat area encompasses a variety of potential missions,

including such far reaching requirements as National Missile Defense and supporting State and Federal agencies in combating terrorism on U.S. soil.

Weapons of Mass Destruction (WMD)

In keeping with the emerging Homeland Defense mission, one of the most important new initiatives for the Army Guard involves Weapons of Mass Destruction (WMD) consequence management. Operating from a 1996 Congressional mandate, the Department of Defense and the Army National Guard are working diligently to assist local first responder personnel and agencies nationwide with identifying requirements needed to respond effectively to potential terrorist use of WMD on U.S. soil.

Efforts in this important mission area, which are described in detail in the Missioning the Guard segment, are already bearing fruit. A landmark WMD study was completed during the year and ten Army National Guard WMD consequence management teams have been established across the United States.

Background

The Congressionally mandated "Defense Against Weapons of Mass Destruction Act of 1996" charged the Department of Defense (DOD) with the domestic anti-terrorism mission. Congress directed that a program be established "to improve the capabilities of state and local emergency response agencies [to deal with the WMD threat]. The National Guard provides the States with a ready asset to augment first responders."

In keeping with this sentiment, the Emergency Response Assistance Program (ERAP) was signed into law as a part of the Fiscal Year 1997 Defense Authorization Act. This law mandated that DOD assist state and local emergency responders in training and the loan of appropriate equipment. This legislation further designated the National Guard as a means of support for these state and local organizations.

The Deputy Secretary of Defense, in November 1997, directed the Under Secretary of Defense for Personnel and Readiness to oversee the development of a plan to integrate all reserve components into DOD plans for consequence management response to domestic Weapons of Mass Destruction (WMD) attacks. The Under Secretary of the Army was given the lead for plan development. The objective of the DOD plan is to improve the military capabilities required to effectively support local, State, and Federal level consequence management response to domestic terrorist attacks involving WMD. Because of its experience in working with state and local organizations, the National Guard is uniquely positioned to support these agencies and is actively engaged in the implementation of the DOD plan.

Information and Architecture

Information management and an effective communications architecture will be critical parts of the Guard WMD consequence management effort. The Army National Guard is fielding the Emergency Information System (EIS) software as part of the Reserve Component Automation System (RCAS) to provide a variety of standardized emergency management functions, including near real-time mapping, communications and integrated information flow at the state and local levels. EIS is the Federal Emergency Management Agency's (FEMA) standard for emergency information management. The Guard will also use the Reserve Component Automation System to interface with EIS as it integrates ARNG capabilities with those of FEMA. The National Guard Distributive Training Technologies (DTT) Network (See Training Technologies—Distance Learning) is also available to other agencies for WMD and related instruction on a space available basis.

With the full integration of FEMA and ARNG information architectures, the Guard communications infrastructure can function as a national communications and information highway and training support vehicle to assist a myriad of local, state and federal agencies preparing for or responding to a WMD incident.

Infrastructure

A central reason for the emerging Guard WMD mission lies in the unique Guard domestic support capability. With a wide variety of communications and logistics assets in all 54 states and territories, the Guard continually responds to a variety of natural and man-made disasters. At the implementation level, the Guard can provide planning and exercise coordination for disaster response training, as well as assisting in the procurement of urgently needed equipment. Additionally, in 45 percent of the states, the Adjutant General is also the State Emergency Management Officer, thus providing a direct link between the Guard and the state agencies it supports. Finally, when the Guard completes EIS communications integration, every Army National Guard armory and Air National Guard air base can serve as a Joint Operations Center or Disaster Field Office if necessary. The combination of Guard

infrastructure and state level integration will greatly improve the nation's ability to deal with the use of WMD and all other disasters as well.

Training

No effort as broad and far-reaching as the anti-terrorism/WMD program can be effective without proper training for those involved in the program. The National Guard Bureau intends for its Distributive Training Technology network to facilitate bringing cost effective, required training to remote areas of the country, at the "grass roots" level. Upon full fielding, the goal is to have a distance learning classroom within 60 minutes of every Army and Air National Guard facility. The National Guard Bureau's National Interagency Counterdrug Institute (NICI), the Florida National Guard's Multi-jurisdictional Counterdrug Task Force Training (MCTFT) program, and the Mississippi National Guard's Regional Counterdrug Training Academy (RCTA) are in the forefront. These institutes provide important training on many aspects of the Weapons of Mass Destruction program to DOD agencies. These institutes, in coordination with NGB, have developed new courses to train Guardsmen as well as civilian first responders with the goal of developing a unified, coordinated WMD incident response capability and knowledge base.

Force Structure

The integration of all reserve components into domestic preparations to respond to terrorist or other incidents involving WMD is another step in fulfilling DOD's mandate. In May 1998, the Secretary of Defense announced the stationing (effective in fiscal year 1999) of ten Military Support Detachments (MSD) Rapid Assessment and Initial Detection (RAID) teams to be stationed in California, Colorado, Georgia, Illinois, Massachusetts, Missouri, New York, Pennsylvania, Texas, and Washington. Each RAID detachment is located within one of the ten Federal Emergency Management Agency regions. RAID Detachment missions include (1) Deploy rapidly, (2) Assist local first responders in determining the nature of a possible WMD attack, (3) Provide medical and technical advice, and, (4) Pave the way for the identification and arrival of follow-on DOD response assets. Each RAID detachment will consist of 22 highly skilled, full-time Army and Air National Guard personnel who will act as the tip of the national military support spear. These detachments are scheduled to be fully fielded, trained and mission ready by 5 January 2000. Additionally, Congress has directed that chemical/biological response teams be fielded in those states not receiving one of the ten full-time RAID detachments.

DOD will also leverage the capabilities of existing National Guard (and other reserve components) chemical and patient decontamination force structure to provide additional response support to civilian authorities. These units will be provided with additional training and specialized equipment to accomplish this mission. Twenty-eight specialized decon teams and sixty-four patient decontamination teams will be designated using personnel from existing ARNG and United States Army Reserve chemical companies as well as Air National Guard and United States Air Force Reserve patient decontamination units.

Further future steps also involve the integration of Guard medical force structure in DOD response plans. Potential missions include providing WMD specific medical advice, triage support and casualty evacuation support to civilian authorities.

Current Status

When formed and trained, Guard units with WMD capabilities will retain day-to-day mission requirements of being first and foremost viable, deployable warfighting assets, while maintaining a stand-by national consequence management capability.

In the changing world climate, our enemies may resort to covert, asymmetrical, transnational attacks within the borders of the United States. Recognizing this support for the development of a robust Guard WMD consequence management capability comes from the highest levels of government. Secretary of Defense William Cohen noted, "The Guard and Reserve are going to play a major role in dealing with detection of chemical and biological weapons. These responsibilities will include how to intervene and how to deal with the victims of terrorism when it occurs."

LOOKING TO THE FUTURE

In order for us to provide our soldiers (our most important asset) with the resources they need to produce mission ready units, we must anticipate the requirements of today's world while looking forward to the challenges of tomorrow. To do this, we have focused ourselves on defining the keys to readiness needed to create the emerging Army National Guard. These keys are encompassed in our eleven Army National Guard goals.

Manning.—Develop and execute a Total Army integrated human resource system to acquire, distribute, manage, compensate, retain and transition people, enabling the Army National Guard to provide combat ready units.

Organizing.—Provide the maximum possible number of missioned ARNG units based on the Total Army Analysis (TAA) process, with required support as part of the Army's total force structure required to achieve directed capabilities.

Equipping.—Obtain and distribute mission capable equipment to optimize Army National Guard unit readiness, modernization, and force relevance.

Readiness.—Ensure all Army National Guard units are resourced to attain and sustain readiness levels needed to meet CINC mission requirements and deployment timelines.

Sustaining.—Provide appropriate and efficient support for personnel, equipment and operations to accomplish all ARNG missions.

Training.—Produce ready units to meet the National Military Strategy. This requires the development of strategies and the planning, acquisition, distribution and execution of resources to train individual, leader and collective tasks in the live, virtual and constructive environments.

Quality Installations.—Provide state-of-the-art, environmentally sound, community-based power projection platforms that integrate all functions required to sustain and enhance unit readiness and community support.

Missioning.—100 percent of all ARNG Force Structure Federally Missioned—All MTOE units and Table of Distribution and Allowances (TDA) structure included within Time Phase Force Deployment Data (TPFDD) or supporting the Commander in Chief (CINC) War plans.

Quality of Life.—Provide an environment and culture that promotes equal opportunities for all, fosters environmental stewardship and provides for the safety, health and fitness of the force, families and communities.

Knowledge Infrastructure.—The infrastructure necessary to capture and create information and knowledge, store it in an organized manner, improve it, clarify it and make it accessible in a usable format to anyone who needs it in the enterprise.

Resourcing.—Secure resources for all statutory and critical requirements. Achieve parity by Force Package across all components to provide trained and deployable forces for the Army and CINCs.

By remaining firmly focused upon these goals and the readiness that results, the Army National Guard will successfully meet the coming challenges.

Army National Guard Vision 2010

No successful plan for mastering our future can be complete without a thorough understanding of that environment. The cornerstone of this future vision for our organization lies in Army National Guard Vision 2010. This document is the link between Army Vision 2010, Army After Next and the Department of Defense Joint Vision 2010. Together, these integrated planning documents provide the Army National Guard guidance for meeting its goals, objectives, missions and responsibilities in the new millennium.

In fulfilling its role as a part of this integrated road map to the future, Army National Guard Vision 2010 notes that the development of a full spectrum land force will be critical to meeting long-term ARNG readiness objectives. This force must possess an unprecedented degree of operational and strategic flexibility, allowing Army National Guard troops to fulfill a wide variety of mission requirements. With capabilities ranging from sustained, high intensity combat to the conduct of disaster relief and assistance operations, this full spectrum land force will draw on traditional Guard strengths as well as a variety of new capabilities in meeting the nation's military and civil needs.

Recognizing the need for both traditional and non-traditional capabilities in the years ahead, Army National Guard Vision 2010 notes that the ARNG's heritage as a community based force will play a critical role in meeting these challenges. With over 3,100 armories in all 54 states and territories, the ARNG's 362,000 personnel are well positioned to meet both existing and emerging state and federal mission requirements. Diverse capabilities ranging from Combat to Combat Service Support combine with the Guard's community orientation to provide unparalleled capability and responsiveness both at home and abroad. The unique attributes of the ARNG, coupled with rapidly emerging capabilities, will make Army National Guard Vision 2010 a reality.

A National Guard Frontier of the Next Century

Even as the ARNG leverages its existing capabilities in meeting the challenges ahead, much has already been accomplished in developing new capabilities to meet these emerging requirements. The Army National Guard White Paper, A National

Guard Frontier of the Next Century examines the new and emerging threats that will confront the nation and the Guard in the future. A National Guard Frontier provides detailed insights into emerging defense missions, including the increasing need for Homeland Defense. This emerging Homeland Defense requirement may include such diverse missions as managing the consequences of Weapons of Mass Destruction use by domestic terrorists and defense against ballistic missiles. This ground breaking document goes on to discuss specific measures for dealing with these new threats, to include new capabilities as well as new and different command and control paradigms. With its insights into future Guard roles and responsibilities, A National Guard Frontier provides many of the conceptual underpinnings critical to the ARNG's success in the first years of the next century.

The Future is People

Most of all, success in meeting the challenges ahead depends upon Army National Guard soldiers and families. Guard men and women, ably supported by their families, represent the bedrock upon which the Guard is founded. Just as importantly, the continuing support of Guard employers nationwide plays a critical role in the readiness and availability of Guard soldiers for any mission. Working together Guard members, families and employers equal readiness.

MANNING THE FORCE

At its core, the Guard and its capabilities are a direct function of its quality people. Manning the force—recruiting and retaining quality soldiers—remains a critical leadership and management function within the ARNG. During the course of the year, the Guard met its strength goals through an ambitious program of recruiting and retention incentive programs. Additional efforts were devoted to ensuring the continuing vitality of ARNG full-time manning programs during the year. Building on these successful force management efforts, the Guard is actively involved in planning for future manning challenges through initiatives like Officer Personnel Management System (OPMS) XXI and implementation of the Reserve Officer Personnel Management Act (ROPMA). These programs, along with continued leadership emphasis on recruiting and retaining quality personnel, will enable the Guard to meet the emerging personnel challenges of the new century.

Recruiting and Retention

The Guard's fiscal year 1998 end strength objectives included achieving a selected reserve strength of 362,000 (40,291 commissioned and warrant officers and 321,709 enlisted personnel). To attain this goal, enlisted gains were programmed at 56,638, officer gains at 3,682 and enlisted extensions at 45,318. Enlisted losses were projected not to exceed 64,219.

FORCE COMPOSITION

Category	Total	Strength
Minority Officers	5,197	13.2 percent of assigned officers.
Minority Enlisted	88,674	27.4 percent of assigned enlisted.
Total Minority Membership	93,871	25.9 percent of assigned personnel.
Black Officers	2,564	6.5 percent of assigned officers.
Black Enlisted	53,880	16.7 percent of assigned enlisted.
Total Black Membership	56,444	15.6 percent of assigned personnel.
Hispanic Officers	1,607	4.1 percent of assigned officers.
Hispanic Enlisted	23,613	7.3 percent of assigned enlisted.
Total Hispanic Membership	25,220	7.0 percent of assigned personnel.
Female Officers	3,391	8.6 percent of assigned officers.
Female Enlisted	32,321	10.0 percent of assigned enlisted.
Total Female Membership	35,712	9.9 percent of assigned personnel.

Enlisted Personnel Recruiting and Retention

Enlisted accessions of 55,401 were 97.8 percent of the programmed objective of 56,638 for the year. Non-prior service accessions of 25,817 were 101.2 percent of the objective, while prior service accessions were 29,584, or 94.9 percent of objective. These numbers reflected an accession mix of 46.6 percent non-prior and 53.4 percent prior service personnel. The overall Army National Guard Loss Rate through the end of fiscal year 1998 was 18.1 percent. ARNG quality accessions fell slightly below established goals. High school diploma graduates accounted for 84.8 percent, short of the established goal of 90 percent. However, when Alternate High School Certificate Holders (GEDs) are included, this percentage increased to 100 percent. The Guard goal for CAT I–IIIA accessions for the year was set at 67 percent. While CAT I–IIIA accessions totaled 54.5 percent for the year, the Guard came in below the CAT IV goal of 2 percent by finishing at 1.8 percent. The breakout of NPS accession quality for fiscal year 1998 is as follows:

	Personnel	Percent
Non-prior service accession quality:		
HSDG	21,882	84.8
AHSCH	3,923	15.2
Test category:		
I–IIIA	14,071	54.5
I–IIIB	11,280	43.7
IV	466	1.8

Enlisted:	
Accessions	55,401
Non prior service	25,817
Prior service	29,584
Losses	61,539
ETS	14,664
Non ETS	46,875
Extensions:	
First term	9,607
Careerist	31,882
Fiscal year 1998 loss rate (percent)	18.1

Incentive Programs

The Army National Guard employed a wide variety of incentive programs in fiscal year 1998. These programs included the Selected Reserve Incentive Program (SRIP) and educational programs like Service members Opportunity Colleges (SOC), educational tuition assistance and the Montgomery GI Bill (MGIB). Together, these initiatives contributed significantly to successful ARNG recruiting and retention efforts during the year.

The Selected Reserve Incentive Program (SRIP)

The Selected Reserve Incentive Program (SRIP) for fiscal year 1998 offered the following:

—$2,500 Enlistment Bonus for Non-Prior Service (NPS) enlistees into high priority units.

—$4,000 Enlistment Bonus for NPS enlistees entering into high priority units with hard-to-fill low density MOSs (CAT I–IIIA only)

—$2,500 Enlistment Bonus for NPS enlistees in selected units with hard-to-fill low density MOS (CAT I–IIIA only),

—$5,000 Civilian Acquired Skills Program (CASP) Bonus for NPS enlistees, an Affiliation Bonus for prior-service enlistees based on their remaining Military Service Obligation (MSO), the Student Loan Repayment Program (SLRP) for NPS soldiers.

—$2,500 3-year Reenlistment/Extension Bonus. A second 3-year Reenlistment Bonus of $2,000 was offered effective 17 November 1997 for soldiers with less than 14 years of service. Soldiers are eligible for two 3-year Reenlistment Bonuses as long as the contracts are consecutive.

Education Tuition Assistance

The Guard has traditionally used educational incentives as a recruiting and retention tool. Educational benefit programs benefit the Army National Guard as well as the individual service member.

Tuition Assistance was provided to over 15,000 M-Day soldiers in fiscal year 1998. Soldiers were offered 75 percent tuition assistance for 15 semester hours during the fiscal year for post-secondary education courses.

Distance Learning and external degree tuition assistance were available for both soldiers and ARNG federal civilian employees in fiscal year 1998. This assistance was provided upon registration for traditional semester length courses required to be completed within 18 weeks or less. Tuition reimbursement for courses greater than 18 weeks in length was also available. Enrollment in Distance Learning programs increased threefold as a result of the up front tuition assistance offered for the shorter courses.

Distance Learning programs allow soldiers to pursue vocational, baccalaureate, graduate, and doctoral studies without entering a traditional classroom. A one-time

fee of $75 is reimbursed for both M-Day and AGR soldiers to allow for an evaluation of service members' military education and training, previous college credit and any college level exams a soldier could successfully complete for college credit. The evaluation could offer a plan for soldiers to obtain an Associate or Bachelor's degree through an external degree program. Additionally, College Level Examination Program (CLEP) and DANTES Subject Standardized Tests (DSST) were offered free to soldiers, their spouses and ARNG federal civilian employees. These programs are designed to enhance recruiting and retention by allowing soldiers to earn college credit.

All 32 nationally recognized certification exams offered through DANTES were funded through the Army National Guard tuition assistance program in fiscal year 1998. Previously, only the Automotive Service Excellence (ASE) Exam and the Food Protection Certification Program (FPCP) Exam were funded. Other exams funded under this effort include the Educational Institute of the American Hotel and Motel Association (EIAHandMA) and the Institute for Certification of Computing Professionals. Soldiers are eligible to take certification exams once they completed Initial Active Duty for Training (IADT) and are awarded a MOS.

Working with the Army National Guard, the Servicemembers Opportunity Colleges (SOC) Guard continued to provide college workshops to encourage increased enrollments of non-member accredited colleges and universities to join SOC in support of the local ARNG community with post-secondary education programs. SOC colleges limit their on-campus requirements to 25 percent of required attendances, a necessary precondition for many Guard soldier-students who would otherwise be unable to attend. SOC Guard also worked in the recruiting and retention arena along with Strength Maintenance NCOs to encourage young men and women to enlist.

Another primary education program is the Montgomery GI Bill (MGIB) for members of the Selected Reserve. When a soldier signs a six-year contract, completes Initial Entry Training and remains a member in good standing during the period, he or she may be entitled to education benefits totaling $9,036, effective 1 October 1998. The MGIB funds undergraduate, graduate, postgraduate, vocational and flight training. As a drilling Guard member, soldiers have ten years after gaining eligibility to use the program. In fiscal year 1999, the ARNG will offer an additional MGIB financial incentive to selected units and MOSs at a rate of $100, which will increase monthly benefits for these selected full time students to $351 per month.

Officer Personnel Management

Officer personnel attrition continued to decline in fiscal year 1998 to a low of 10.9 percent. Initiatives such as a new officer evaluation system and implementation of the Reserve Officer Personnel Management Act (ROPMA) contributed to the retention of officer personnel throughout the ARNG. Total officer strength at the end of fiscal year 1998 was 39,307. This was 984 officers below the identified objective.

The Army National Guard began fiscal year 1998 by implementing the transition plan to the New Officer Evaluation Reporting (OER) system, which is designed to significantly improve the existing system. The Army National Guard's program essentially mirrors Active Component efforts in this area. The Army National Guard implemented the Title 10 AGR portion of the new OER system on 1 October 1997 followed by the Title 32 AGR and M-day programs on 1 June 1998.

Another important Officer Personnel Management initiative for fiscal year 1998 involved implementation of ROPMA. By the end of the fiscal year the primary provisions of this important program were integrated into the Guard personnel management structure. A majority of ROPMA goals have been achieved and work to improve the system continues. Suggestions for better adapting ROPMA to the unique needs of ARNG officer personnel are also being reviewed and will move forward as regulatory and legislative proposals when it is determined that they will enhance the ARNG program.

While implementation of ROPMA represents a vital step in reforming the ARNG Officer Personnel Management System, the future of officer management lies in OPMS XXI. OPMS XXI is designed to meet the emerging personnel management challenges of the 21st century. The ARNG has established a transition team tasked with implementing OPMS XXI. The goal of the transition team is to complete this important process on or ahead of the Army's five-year time line.

Short term personnel management challenges include meeting the Guard's company grade officer needs. In working with the Guard to meet these requirements, the Army introduced the ARNG Combat Reform Initiative (CRI), a program designed to enhance ARNG officer strength at the company grade level. This program approved 150 active duty lieutenants for early release from their active service commitments. These officers will fulfill their remaining 18–24 month commitments in

ARNG Troop Program Units (TPU). The first officers available under this program began arriving in April 1998. AC and ARNG Leaders have high expectations for this program, which may be expanded if it proves successful.

Another AC/ARNG leadership program places selected Active Component Officers in key Army National Guard positions. This program is in its second year. Lieutenant Colonel John Hennigan, Commander of the 1–141 Field Artillery Battalion Louisiana Army National Guard completed his tour in September 1998 and was reassigned to the Army's Office of the Deputy Chief of Staff for Operations. The second phase of this program is already underway with a total of thirteen AC officers reporting to six states during the period May to October 1998. These officers will serve in a variety of positions from battalion command to brigade level operations and executive officer slots. This program has been well received and promises to provide significant benefits in the effort to promote the Total Army concept. The Army Deputy Chief of Staff for Personnel formed a working group to examine expanding the program to allow Army Guard officers to serve on active duty in a direct one for one exchange program of commanders, executive officers, operations officers and company commanders.

Warrant Officer Personnel

The Army National Guard met with continuing challenges in its efforts to effectively manage Warrant Officer Personnel strength throughout fiscal year 1998. Guard Warrant officer strength for the fiscal year revealed a shortage of 1,536 in technical specialties at the end of fiscal year 1998. The ARNG is currently at 72 percent fill for technical warrant officers and 100.8 percent for rated aviators. Authorized Warrant Officer strength in fiscal year 1998 totaled 9,491, with an assigned strength of 7,988.

Enlisted Personnel Management

Guard fiscal year 1998 efforts to initiate personnel management reform were not confined to the Officer ranks. An Enlisted Personnel Management Review Panel was formed and directed to examine the present promotion system in order to propose changes to existing policies and procedures. The panel was composed of ARNG members from ten states and representatives of the Army Guard Directorate staff. Among the significant issues examined by the committee were proposals to review enlisted promotion system point values and the relative weight with which the points were spread over nine administrative point areas. The committee also studied devising a means to improve promotion and assignment cycles, improving individual training seat use during the first quarter of the fiscal year, and improving language testing and the use of the Civilian Acquired Skills Program. Finally, members examined the future of weapons qualification and the Army Physical Fitness Test in the promotion system and addressed the purpose and efficiency of the Qualitative Retention Board.

These issues, along with a number of related questions, will be staffed through the State Command Sergeants Major and Military Personnel Management Officers for input from all levels through December 1998. Feedback from this effort will lead to decisions and staffing of approved changes during 1999.

Changes in Noncommissioned Officer Structure

Efforts to bring the ARNG NCO structure in line with Total Army objectives met with considerable success during fiscal year 1998. Objectives included a return to 1989 NCO force levels. The changes will have far reaching impacts; revised base Tables of Organization and Equipment have been applied to the fiscal year 1999 Army National Guard Modified Tables of Organization and Equipment that will take effect in fiscal year 2000. Previously, the Army National Guard Noncommissioned Officer content baseline was 43.6 percent of the enlisted force. Application of the new policies resulted in a one-half percent reduction to 43.1 percent. The longer term effects of this important initiative have not yet been fully measured. Because the overall program objective is to adjust noncommissioned officer distribution in order to assure career development and management opportunities, there will be increases and realignments within military occupational specialties and career management fields. These are generally grade increases as well as specialty consolidations. The most profound effect will be cuts in the noncommissioned grades in companies and detachments without resultant increases in similar or related units elsewhere in the state. In these cases, soldiers will be forced to accept reduction in grade or reclassification training to remain in a unit within commuting distance. The service member may also transfer to the Retired Reserve, the Individual Ready Reserve, or an United States Army Reserve unit or accept discharge.

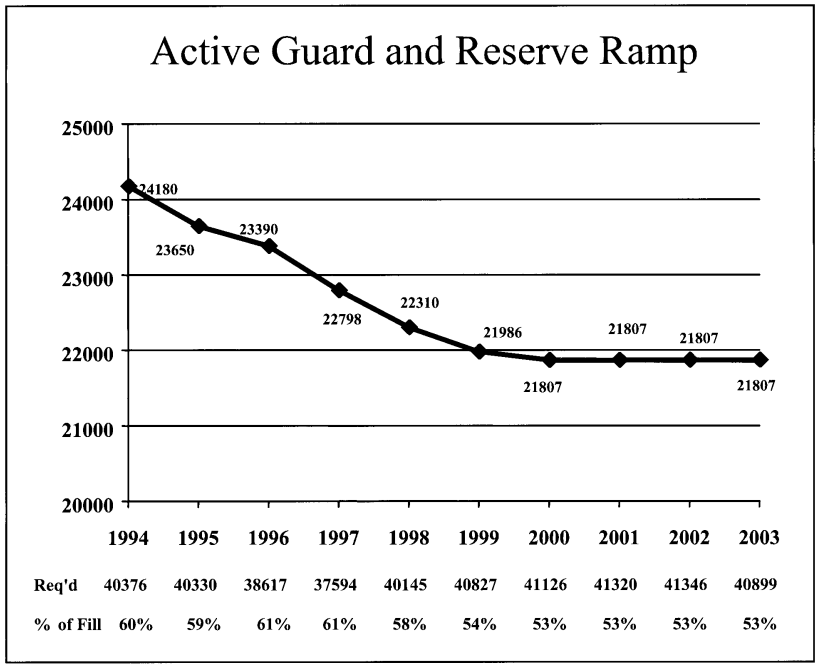
Increases in transition benefits and increases in both the number of enlistment's required to replace potential losses and initial entry training seats for non-prior service enlistees will be necessary to compensate for expected losses.

Full-Time Support

The Army National Guard's (ARNG) Full-Time Support (FTS) program provides a cadre of over 45,000 full-time personnel to organize, recruit, administer, train and maintain the Army National Guard. The fiscal year 1998 FTS military force is composed of 25,108 Military Technicians (MT) and 22,310 Active Guard Reserve (AGR) personnel, soldiers who perform the bulwark of day-to-day operations for the Guard.

Full-time support requirements are established by detailed analysis of workload. Grades are determined by classification studies. Congress authorizes FTS, which is then allocated to the states by NGB in accordance with the deployment criteria of various Force Support Packages.

The Army National Guard continues to work with the Department of the Army, Department of Defense, Congress and other interested parties to ensure directed missions are supported with adequate levels of FTS personnel. A central challenge of our full-time support effort lies in meeting increasing missioning requirements with reduced authorized strength and budget.

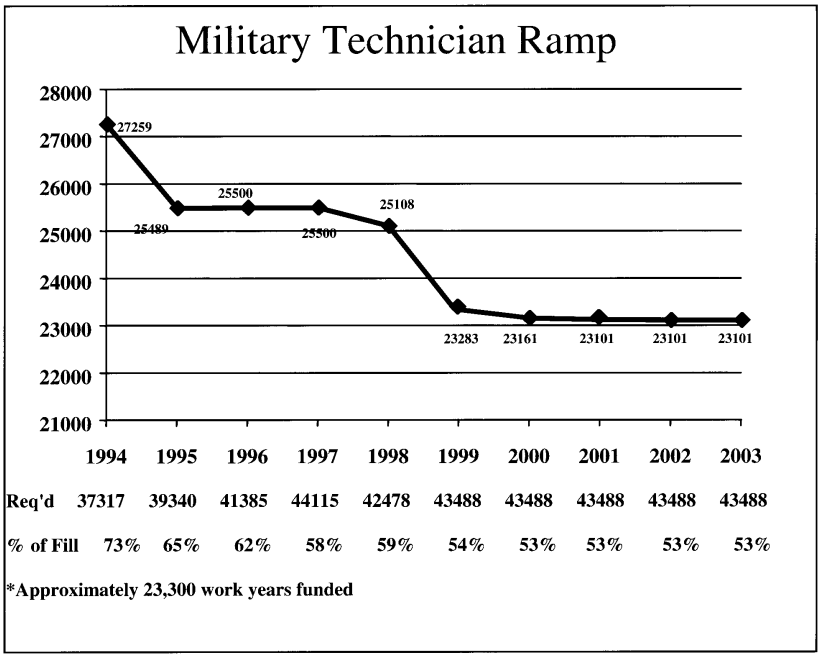


Active Guard Reserve (AGR)

AGR soldiers throughout the country provide vital management and leadership essential to ARNG readiness. Support for AGR requirements for fiscal year 2000 is programmed at 55 percent.

The development of an effective AGR officer career management program poses challenges for the ARNG. In fiscal year 1998 the ARNG requested and received an increase in the number of controlled grades to promote career AGR enlisted soldiers and officers. These are the soldiers who delayed their promotions because of lack of adequate controlled grade authorizations. The additional AGR controlled grades will also provide junior soldiers with an opportunity for developmental progression.

Despite increasing mission requirements and operational tempo, AGR ranks are being reduced. The Temporary Early Retirement Authority (TERA) program was used as a force shaping tool to assist in achieving a Congressionally mandated reduction in AGR authorization levels. Shaping allows for the reassignment of authorizations among the states.



Military Technicians

Military Technicians are force multipliers as well as mobilization assets. The Military Technician level of support for fiscal year 2000 is programmed to be 56 percent percent of authorized requirements.

Force structure reductions, equipment modernization and restructuring has caused technician requirements to increase. Complex modern equipment such as the Apache helicopter, Abrams tank, Bradley Fighting Vehicle and Multiple Launch Rocket System require more maintenance manpower than the equipment these systems replace. While Guard units can maintain these systems at significant savings to the Total Force, critical full-time support levels must still be maintained.

ORGANIZING FOR SUCCESS

The organization of the Army National Guard reflects the combined federal-state mission with which it is tasked. On the national level, the Army National Guard maintains properly trained and equipped units available for prompt mobilization for war, national emergency or as otherwise needed. To meet this requirement, the ARNG maintains a large number of combat, combat support and combat service support units, structured to integrate seamlessly with Active Component units as needed. The ARNG state mission requires that the Guard provide trained and disciplined forces for domestic emergencies or as otherwise required by state laws. Meeting this requirement requires significant flexibility among Guard leaders and soldiers, who must execute state missions ranging from civil disturbance to various type of natural disasters even as they maintain the capability to perform federal missions. These widely varied organizational challenges have resulted in a Guard force structure that is fully prepared for war, yet ready on short notice to respond to the needs of local communities across the United States.

Organizational Evolution

The end of the Cold War and the approach of the new millennium have combined to present unparalleled organizational challenges for the Department of Defense. Guard efforts to provide the maximum number of missioned ARNG units with the necessary support to meet the requirements of the Total Army continued in 1998. These efforts included implementation of initiatives such as the Army National Guard Division Redesign (ADRS) and the Active Component/ARNG Integrated Division. Additional AC/ARNG integration initiatives, coupled with continuing studies

like Total Army Analysis (TAA)–07 and Reserve Component Employment-05 (RCE–05) will allow the Guard to meet the 21st century challenges as a seamless part of the Total Force.

Army National Guard Division Redesign Study (ADRS)

Total Army efforts to ensure that the total force is properly structured to meet the needs of the National Military Strategy continued in fiscal year 1998. The most important of these initiatives, the Army National Guard Division Redesign Study (ADRS), achieved significant milestones during the year.

ADRS—Background

Efforts to mold a force capable of addressing the likely threats of the next century have been the subject of intense interest throughout the 1990s. In May 1995, the Commission on Roles and Missions recommended that the Army reorganize lower priority Reserve Component forces to fill force shortfalls in higher priority areas. In keeping with this recommendation, the Army conducted Total Army Analysis-03 (TAA–03) in late 1995 to determine potential shortfalls in personnel required to implement the National Military Strategy (NMS). As a result of TAA–03, the Army determined that nearly 124,800 additional Combat Support and Combat Service Support (CS/CSS) personnel would be required to fully implement the NMS. Following this conclusion, the ARNG commissioned the Army National Guard Division Redesign Study (ADRS) to examine ways it could address this shortfall in CS and CSS personnel.

As a result of the study, the Guard will convert a number of units from Combat to Combat Support and Combat Service Support formations in the coming years. Among other suggestions, the ADRS recommends the conversion of up to 12 ARNG combat brigades and their associated divisional slice elements to CS/CSS units during fiscal year 1999–2012.

Implementation of the ADRS will occur in four phases. Three combat brigades will be converted in each of phases one and two. Phases three and four will see conversion of remaining units in the two ARNG divisions affected by the redesign. The end state will find the equivalent of up to 12 combat brigades converted to CS/CSS or composite divisions. The first brigades designated for conversion were tentatively identified at the Division Project Action Committee (DIVPAC) in December 1997.

In June 1996, the Army began to develop a costing methodology study for both TAA–03 and ADRS to define the total conversion cost. The entire process received intensive oversight from both the Army Secretariat and the Army Staff to ensure all related issues were addressed. The Vice Chief of Staff of the Army approved the cost analysis on 27 March 1997 and directed ADRS be highlighted in the Quadrennial Defense Review (QDR) as a major initiative.

Total Army Analysis—2007

Total Army Analysis (TAA) is a multi-phased force structure process that uses quantitative and qualitative analysis to determine total Army force structure requirements for future years (fiscal years 2002–07). The combat forces are specified in the Defense Planning Guidance (DPG) and further detailed in the Illustrative Planning Scenarios (IPS). TAA simulations develop the Echelon Above Division (EAD) through Theater Forces required to support the war fight.

The latest in this series of analysis efforts, TAA–07, will result in large-scale functional and organizational changes within the Total Army. TAA–07 will attempt to incorporate Force XXI organization designs, and review Institutional Army requirements. TAA–07 was preceded by a new process called Total Army Requirements Determination (TARD). Through the TARD process Mission Task Organized Forces (MTOF) are built for several scenarios with each CINC area of responsibility (AOR). The MTOFs are then incorporated into the TAA process to more closely link CINC requirements to TAA. As a result of TAA–07 and the TARD process, a greater percentage of ARNG combat forces will receive relevant warfighting missions.

Reserve Component Employment Study RCE–05

The Reserve Component Employment Study (RCE–05) is a study of alternative concepts for employing reserve component forces in the future. The Defense Planning Guidance includes developing and assessing alternative RC employment roles and force-mix concepts, to include an evaluation of costs, benefits and risks of each option.

The purpose of the study is not to provide recommendations but to examine costs, benefits and risks associated with different aspects of increasing the use of the RC.

Current Status

The Army is accelerating the pace of the Army National Guard Division Redesign Study conversions by increasing both near-term and mid-term funding. The Secretary of the Army signed a memorandum to include appropriate funds in future POMs for equipment procurement no later than fiscal year 2002, with complete ADRS conversions by fiscal year 2009. Meeting this objective requires approximately the same level of effort for the fiscal year 1998–03 POM (approximately $600 million per year).

The initial 1996 cost analysis estimated that total funding requirement for TAA–03 and ADRS was approximately $4 billion. Subsequent revisions have amended the estimate to $5 billion. In the fiscal year 1998–03 POM, the Army programmed $743 million, which includes $83 million—AC, $468 million—ARNG, and $192 million—USAR.

The fiscal year 1998 BES included an additional $200 million for ADRS. In the fiscal year 1998–03 POM, the Army invested an additional $1.1 billion for TAA–03 and ADRS, which includes $968 million—ARNG and $106 million—USAR, to fully fund TAA–03 requirements and accelerate the ADRS plan. Total funding programmed for TAA–03 and ADRS is $2.017 billion (including fiscal year 1998) with an approximately $3 billion shortfall to be programmed in subsequent POMs.

Active Component/Army National Guard (AC/ARNG) Integrated Divisions

An additional proposal contained in ADRS established two AC/ARNG Integrated Divisions, each consisting of an active Army headquarters (staffed by some of the 5,000 AC support personnel) and three eSBs. The Division Commander would become responsible for the combat readiness of the three brigades and the other elements necessary to create a full division capable of deploying in wartime.

This concept was approved by the Secretary of the Army in fiscal year 1998 and Forces Command (FORSCOM) is now in the process of implementation. One division will be headquartered in Fort Riley, Kansas, with a forward element in Fort Jackson, South Carolina. ARNG units making up this division will include the 30th Mechanized Infantry Brigade (North Carolina), the 218th Mechanized Infantry Brigade (South Carolina), and the 48th Mechanized Infantry Brigade (Georgia). The other Integrated Division, to be headquartered at Fort Carson, Colorado, will be composed of the 39th Infantry Brigade (Arkansas), the 45th Infantry Brigade (Oklahoma), and the 41st Infantry Brigade (Oregon).

A formal Memorandum of Agreement between the MACOMs establishing these integrated divisions was signed by the Adjutants General of each state, the Director, Army National Guard and the FORSCOM Commander. The activation of these divisions is set for October 1999.

EQUIPPING THE GUARD

Modern, mission capable equipment is an essential element in the Army National Guard readiness equation. State-of-the-art weapons, aircraft, communications devices, and other equipment are necessary for Guard units to seamlessly interface with their Active Component counterparts. Recognizing the importance of equipment modernization, Active Component and Army National Guard leaders worked through the year to bring about needed upgrades and fielding of current generation equipment. While the ARNG received significant quantities of new equipment during fiscal year 1998, much remains to be accomplished in this vitally important area of readiness.

Equipment Modernization

The goal of the modernization strategy for the Army National Guard is to provide the nation with a relevant, compatible and interoperable force. This force must be capable of fulfilling state, national and international missions in war and peace. Resourcing this force with modernized equipment and associated training packages is key to maintaining the quality force the nation expects in its Army National Guard.

During fiscal year 1999 significant modernization initiatives will include the M109A6 Paladin 155 mm artillery systems and Multiple Launch Rocket Systems (MLRS). Through fiscal year 1998, the ARNG has been modernized with three Paladin battalions and is programmed to field an additional 15 Paladin battalions by fiscal year 2001. MLRS fielding to the ARNG is also continuing. To date, 10 MLRS battalions have been fielded to the ARNG. Based on a Chief of Staff of the Army (CSA) directed MLRS restructuring initiative, the Department of the Army (DA) is currently staffing a plan that will convert an additional 11 battalions of ARNG force structure to MLRS over the next two to six years.

The Javelin is the new infantry anti-armor weapon and is critical for a self-defense capability for light forces and M113 equipped mechanized infantry. The current budget addresses 100 percent of the ARNG Javelin requirements. However, fielding to the ARNG will not begin until fiscal year 2004, with completion in fiscal year 2006.

Congress appropriated $95 million in fiscal year 1998 for the procurement of 80 M2A2ODS Bradley Infantry Fighting Vehicles (BIFV) in the ARNG. Follow-on fiscal year 1999 congressional appropriations are required to complete a brigade set for the ARNG. The ARNG anticipates fielding these M2A2ODS to the 218th eSB (SCARNG) in fiscal year 1999 and fiscal year 2000. This fielding begins to address the need to provide the enhanced Separate Brigades with upgraded BIFV's. Along with the cascade of older Bradleys into ARNG Divisions, this initiative will assist in moving toward pure fleeting the force with BIFVs.

The ARNG has assumed the Corps level Air Defense Artillery (ADA) role within the Total Army with the standup of nine Avenger battalions. Seven of the nine Corp Avenger Battalions are fully fielded with the weapon system. The two remaining battalions, 2–265 and 2–263 ADA are in the process of fielding the last of the required systems. Currently, one Corps Avenger Battalion (1–204 ADA) is being fielded to the Forward Area Air Defense Command Control and Intelligence system ($FAAC^2I$). This is an out of cycle action and is ahead of schedule.

The heavy enhanced Separate Brigades are currently equipped with M1A1 Abrams tanks. Actions are currently being taken to upgrade tanks in non-eSB units in the ARNG from the 105 mm M1 tank to the 120 mm M1A1. Not only will this give these units greatly increased firepower and survivability; this modernization initiative will provide ammunition compatibility with the rest of the Army.

Communications have been supported with the continued fielding of SINCGARs Radios, a key component in interoperability with the Total Army. Currently five enhanced Separate Brigades are equipped with the system and the remaining ten are scheduled to receive them in the next two years. In addition, ARNG artillery brigades that support early deploying forces are also receiving the system.

The Enhanced Position Location Reporting System (EPLRS) provides the backbone of the tactical Internet by generating real-time, GPS based position data to the maneuver commander. The Active Component's first digitized corps has been scheduled to receive EPLRS. The Department of the Army is in the process of identifying which ARNG units will support the corps, and these will be the first to receive EPLRS. This system is also a critical component of the air defense artillery Slew-to-Cue tracking system.

Several successful modernization efforts have taken place with small arms and night vision equipment. The MK19 Automatic Grenade Launcher will resume fielding in fiscal year 1999 and the Army National Guard is scheduled to receive 1,000 weapons. The M240B Medium Machine Gun will be received by ARNG combat arms units in fiscal year 1999. The Army National Guard has received several thousand M249 Squad Automatic Weapons (SAW), and will receive a total of over 30,000 SAWs by fiscal year 2003, filling 80 percent of the ARNG requirements. The ARNG has received over 70,000 M16A2 rifles during fiscal year 1997–98 and anticipates being pure-fleeted by fiscal year 2003. During fiscal year 1999 the ARNG eSB and Special Forces battalions will be fielded the PAQ4C and PEQ2 Laser Aiming lights, although there is still a funding shortfall in this acquisition area.

Nuclear, Biological and Chemical (NBC) equipment is being upgraded with the fielding of the M40 Chemical and Biological Protective Mask to Force Package 1 and 2 units. The M42 Combat Vehicle Crewman's mask is also being fielded to FP 1 and 2, as well as the M41 Protective Mask Test Kit (PATS). The PDR–75 Radiac Set, designed for use in detecting radiation in the atmosphere, is being fielded through all Force Packages (1–4).

Aviation Modernization

The UH–60 Blackhawk helicopter remains the main focus of aviation modernization through fiscal year 2000 for the Army National Guard. Planned procurement of new UH–60L aircraft and the cascading of refurbished UH–60A models from the active component will increase the ARNG inventory. Other modernization initiatives include OH–58D, AH–64A, and the potential procurement of a new Light Utility Helicopter (LUH).

The UH–60Q, Search and Rescue Aeromedical Evacuation helicopter, has been a National Guard development priority for over six years. After testing several variant prototype Aeromedical platforms, using Tennessee Army National Guard (TNARNG) aircraft, the Army has approved a UH60Q production aircraft for future air ambulance requirements. Four type-classified demonstration aircraft have been built by a team of aerospace contractors and these are operated by the TNARNG. The Army

is negotiating final approval of a multiyear procurement budget to support an Army-wide fielding plan.

The ARNG purchased 28 UH–60 utility helicopters in fiscal year 1998 and is scheduled to purchase another eight in fiscal year 1999. Initiatives are being developed to speed modernization of the attack helicopter fleet and retire aging AH–1 Cobra attack helicopters.

While significant progress has been made in all Guard modernization areas, almost all these initiatives stretch out into the future and require management and guidance to ensure their success. In addition, a variety of shortages persist, such as tactical wheeled vehicles, Patriot Air Defense systems, rotary wing aircraft, Bradley Infantry Fighting Vehicles and engineer equipment. The Army National Guard is working hard with the Army Staff to meet these modernization challenges.

National Guard and Reserve Equipment Appropriation

The National Guard and Reserve Equipment Appropriation (NGREA) provides supplemental funding to acquire urgently needed equipment for the modernization of high priority Army National Guard units. This support allows the implementation of modernization initiatives that lie beyond the budgetary authority available to the Total Army.

The NGREA has resulted in urgently needed modernization for the Guard in recent years. During fiscal year 1998 the Guard received $70 million in NGREA funding. Equipment procured with these funds included night vision goggles, engineer construction equipment, tactical wheeled vehicles and training simulation equipment.

The fiscal year 1999 Defense Appropriation authorizes the ARNG $20 million in NGREA funds. These resources will support a limited amount of critical modernization for enhanced Separate Brigades, Force Support Package and other ARNG units. The $20 million in fiscal year 1999 funding will also support constrained day-to-day operations, domestic support, training, and wartime readiness efforts.

READINESS

The Army Guard sustains and maintains the force through a variety of support initiatives. The Guard philosophy is to utilize the organic assets of our existing force structure while maintaining a baseline of readiness across the broad spectrum of units and missions.

Sustaining the force involves the combination of Readiness, Resourcing, Logistics Operations and Knowledge Infrastructure. By maintaining a well sustained force, the Army National Guard continues to meet the challenges of the next century.

Readiness

During the year the Guard managed overall readiness by prioritizing resources to units that are designated as "First to Deploy". This method of resource tiering ensures that high priority units receive necessary resources to meet operational readiness requirements and effectively support the National Military Strategy. While high priority, early deploying units received adequate funding during fiscal year 1998, lower priority units like the eight combat divisions worked to meet minimal readiness goals with the resources provided to them.

Despite a variety of innovative resource management initiatives, Unit Status Reports (USR) indicated overall unit readiness levels in the Army National Guard declined by 5 percent in fiscal year 1998. Several factors contributed to this decline, including decreased training levels, equipment serviceability challenges and non-duty qualified military occupational specialty (MOS) personnel. Additionally, the number of nondeployable soldiers decreased by approximately 2,000 from the previous fiscal year. This was due primarily to soldiers receiving appropriate MOS training.

Force Support Package (FSP) Readiness

The 218 ARNG units designated in the FSP are the highest priority units for the Army National Guard. Combat Support (CS) and Combat Service Support (CSS) units primarily comprise the Guard's FSP roster. Consistent with the National Military Strategy, these units are doctrinally aligned to support the nearly two simultaneous Major Theater War (MTW) strategy. They feature one full and one partial corps HQ, one theater element, and one theater opening element. The FSP is divided into two Packages: FSP 1 supports 5⅓ divisions, one full corps HQs and one theater element and FSP 2 supports the remaining crisis response forces. During fiscal year 1998, Unit Status Reports (USR) indicate a 4 percent increase in overall FSP readiness.

Enhanced Separate Brigade (eSB) Readiness

The fifteen ARNG enhanced Separate Brigades (eSBs) are the Army's principle reserve ground combat maneuver forces and are fully integrated into the two MTW scenarios. The eSBs are expected to meet established ARNG readiness goals by the end of fiscal year 1999. Additionally, all of the eSBs have achieved the Army Mobilization and Operations Planning and Execution System (AMOPES) deployment standards.

Divisional Readiness

During fiscal year 1998, training readiness within the ARNG Divisions declined due to insufficient OPTEMPO and execution funding. As a result, pre-mobilization training levels and the overall readiness of these units dramatically decreased. Fiscal year 1998 USR data indicated overall unit resources and training levels in the Division's declined 15 percent due to decreases in DMOSQ, equipment serviceability and training readiness. Despite tremendous fiscal constraints and training obstacles, the ARNG Divisions have proved resilient. For example, the 49th Armored Division (TX ARNG) has been selected as the command and control HQs for an OPERATION JOINT FORGE rotation during fiscal year 2000.

Home Station Mobilization

Home Station Mobilization (HSM) is an ARNG initiative that empowers the STARCs with greater responsibilities for the mobilization and deployment of selected units. STARCs assume responsibility for all the mobilization inprocessing activities now conducted by mobilization stations. A unit selected for HSM moves directly to ports of embarkation. STARCs also validate HSM units for deployment. This increases accessibility of Reserve Component units to CINCs by delivering them to the theater of operation earlier and allowing them to be in theater longer.

The Army National Guard has successfully demonstrated its capability to conduct Home Station Mobilizations throughout the past three years. To date, eighteen units have Home Station mobilized and deployed in support of Operation JOINT ENDEAVOR/GUARD/FORGE.

SUSTAINING THE FORCE

Along with resourcing, meeting Army National Guard sustainment goals involves efficient, seamless logistical operations. Throughout fiscal year 1998, the ARNG devoted extensive efforts to streamlining existing logistics operations while planning for future challenges. Highly successful on-going efforts like the Controlled Humidity Preservation (CHP) Program, logistics velocity management and AC/ARNG logistics integration continued during the year. At the same time, initiatives like velocity management and Army Aviation Support Facility-2000 will enable ARNG logistics efforts to evolve in response to new and emerging requirements. Together, these programs allow the Guard to meet its sustainment goals in the next century.

Logistics OPTEMPO

The Army National Guard fiscal year 2000 Surface OPTEMPO program continues to manage the resource challenges confronting the Guard. While fiscal year 1998 OPTEMPO funding presented the Guard with difficult resource management choices, the future promises challenges as well. The Budget Estimate Submission (BES) position for Surface OPTEMPO in fiscal year 2000 is $27 million more than the BES position for fiscal year 1999, which represents a 5 percent rate of growth. Unfortunately, this rate of growth means that, from fiscal year 1999 to fiscal year 2000 PB Surface OPTEMPO funding remains constant when adjusted for inflation. Current resourcing supports surface OPTEMPO at a level $206 million less than established requirements, which directly impacts unit readiness.

OPTEMPO Programming

OPTEMPO resources are routinely reallocated between various categories of units as a result of Force Modernization initiatives, ARNG Division Redesign Study (ADRS) implementation, force structure changes and updates to the War Trace Plans. OPTEMPO must be viewed as a comprehensive program for all units, and resources cannot be fixed each year to a specific category. As an example, during fiscal year 2000 the initial conversions mandated under ADRS will begin. ADRS will convert significant portions of ARNG Divisional Force Structure to Combat Support/Combat Service Support. This will cause funding for units to move between categories.

In recognition of the resource constraints affecting the Guard, Congress increased OPTEMPO funding for the Guard in the fiscal year 1999 Defense Appropriation Bill by $100 million.

Guard Material Management Center (GMMC)

Located in Lexington, KY, the GMMC is a Surface and Air Class IX (repair parts) distribution activity, which supports the Army National Guard in all states and territories. The GMMC was established to identify high dollar and high demand Class IX items turned in to Defense Reutilization and Management Offices (DRMOs). These Class IX items are recovered from DRMO's and made available for redistribution within the Guard. The GMMC provides the focus to aggressively pursue and redistribute assets needed by the ARNG. Initial cost avoidance as a result of this innovative program is estimated at $10–$20 million a year with significant potential for increased savings. To date, the GMMC has saved the Army National Guard over $9 million.

The GMMC redistributes Class IX repair parts on a "FREE ISSUE" basis. Available assets are listed on the Internet at www.ngmmc.com. Anyone can browse this site, but authorization is required to place an order for the free issue. The GMMC has the capability to electronically accept any authorized user's Unfinanced Requirements Listing and match it against GMMC on hand assets. The GMMC is user friendly and with prior coordination, can make special Class IX searches to accommodate units during Annual Training.

Controlled Humidity Preservation (CHP)

Another innovative cost avoidance initiative undertaken by the Army National Guard involves the use of Controlled Humidity Preservation techniques. This storage technique significantly reduces maintenance requirements resulting from environmental wear and tear on Guard equipment. The Guard was faced with equipment deterioration caused by long periods of non-use and exposure to the environment, coupled with declining OPTEMPO resourcing and full time maintenance manning. The ARNG CHP program was the solution to maintaining equipment readiness rates while compensating for increasingly scarce resources. By storing operational equipment under environmentally controlled conditions, CHP saves manpower and OPTEMPO dollars and returns a cost savings over expenditures on a magnitude of seven to one.

The CHP program evolved from an initial concept in 1994 to full-scale implementation by 1998. In fiscal year 1998, the ARNG was designated as the lead agency for CHP implementation Army-wide. A vital force readiness multiplier, it is currently available in 31 States. Fielding plans include CHP for every ARNG State and Territory by fiscal year 2006.

Fort State

The Army National Guard's Fort State initiative seeks to leverage existing infrastructure, experience and capabilities within states and territories to perform services such as maintenance, calibration, controlled humidity preservation, supply and transportation. Utilization of ARNG capabilities through the Fort State concept will provide the Department of Defense (DOD) alternative methods to acquire cost effective services. Additionally, the Fort State concept enhances the "One Army" concept by fostering day-to-day working relations between the three Army components.

A Fort State feasibility analysis, undertaken at the request of the Active Army leadership, has examined Total Army requirements as set against ARNG state level capabilities. This analysis has indicated the potential for the ARNG to support the Department of Defense (DOD) in certain logistical areas. Economies achieved through the more efficient use of various support functions at the state level will save money and further strengthen Active Component and ARNG integration, cohesion, and cooperation.

Surface Maintenance Facilities

The ARNG currently operates 787 surface maintenance facilities. As a result of a concerted effort to close and consolidate small and co-located facilities, this number represents a drop of 33 facilities from 1997 levels. These facilities provide organizational (user level), direct support (repair/replace and return to user) and general support (commodity oriented repair of components and end items) levels of maintenance for all Army National Guard issued equipment. The 820 current facilities include: Organizational Maintenance Shops (656); Combined Support Maintenance Shops (67); Unit Training Equipment Sites (40); and Maneuver Area Training Equipment Sites (24). These facilities employ a full time support strength of 10,901 federal technicians.

Depot Maintenance

The Army National Guard depot maintenance program is based on a "repair and return to user" premise. This means equipment is repaired to deployable standards

and returned to the owning units. The Army Guard does not currently maintain an equipment maintenance float.

Projected depot maintenance resourcing will continue to provide challenges for the Guard. Funding for depot maintenance supports 78 percent of requirements for fiscal year 2000. Funding for depot maintenance requirements for the enhanced Separate Brigades has increased over the fiscal year 2000 funding level to 80 percent of requirements. However, funding levels for ARNG Divisional units currently supports 50 percent of total ARNG depot maintenance requirements.

Maintenance of adequate resource levels on an annual basis is an essential contributor to overall ARNG readiness. Backlogs and carry-over from year to year increase the unserviceable equipment that must be supported. A depot maintenance backlog decreases the Guard's capability to meet assigned materiel readiness goals, decreases the quantities of serviceable equipment available to support training programs, and impairs the capability to rapidly mobilize and deploy high priority units. Depot level maintenance of aging equipment is the key to obtaining the highest possible level of equipment readiness.

Velocity Management

The 1990s have seen dramatic changes in the nature and effectiveness of logistical operations within civilian industry. Taking advantage of these advances, Velocity Management (VM) is a Total Army process designed to improve Army logistics responsiveness in garrison and when deployed. The program objective is to decrease reliance on stockpiled commodities and rely on automation, speed, and transportation to move logistics support into the hands of soldiers as fast as any first-rate commercial activity, while providing a hedge against unforeseen interruptions in the logistics pipeline. Implementation of VM will assure outstanding supply performance by finding and eliminating sources of delay and unreliability in the Total Army's logistics processes. In order to effectively implement VM, the ARNG logistics community will measure its performance closely in order to identify obstacles and bottlenecks and implement changes that improve its support to the commanders in the field. Ultimately, VM will result in reduced stocks while providing real dollar savings as the ARNG replaces logistics mass with precision and speed. The ultimate goal is to improve the effectiveness of the logistics processes in sustaining mission accomplishment by working better, faster, and smarter.

Logistics Systems Automation Integration

The Army logistics community has made great strides in recent years in its efforts to make maximum use of every dollar. Initiatives taken by Guard logistics personnel include a wide variety of cost avoidance efforts:

—The Army Guard has made great strides in improving logistics automation through a transition from the ARNG unique automated supply management systems to the Standard Army Management Information Systems (STAMISs).

—The ARNG has virtually eliminated manual property books through fielding of the Standard Property Book System-Redesign (SPBS–R) within its units. It is supported by the Standard Property Book System-Resign Installation/TDA (SPBS–R I/TDA) within the office of the United States Property and Fiscal Officer (USPFO). These information systems significantly improved equipment accountability and enhanced property reporting accuracy.

—The ARNG is currently engaged in the fielding of the Unit Level Logistics System-S4 (ULLS–S4). This effort was initiated in fiscal year 1997 with the training of cadre personnel in each of the 54 states and territories in the use of the system. Upon receipt of the hardware in fiscal year 1998, units across the country began rapidly automating day to day supply operations. It is estimated that all appropriate ARNG units will be operating ULLS–S4 by fiscal year 2000.

—The ARNG eliminated the use of the Supply Accounting Management Information System (SAMIS), a Guard unique supply management system in fiscal year 1997 with the implementation of the Standard Army Retail Supply System (SARSS) within the USPFOs and those Divisions/Brigades operating full-time Class IX (repair parts) support activities. Fielding of SARSS to the remaining or part time Modified Table of Organization and Equipment (MTOE) units continues as hardware becomes available. A completion date for this initiative has not been established. To enhance equipment management, the ARNG is in the process of fielding the SARSS gateway (SARSS–G) system allowing for an improved lateral redistribution system of Class IX. Projected completion of the fielding of SARSS–G by early fiscal year 2000.

—The ARNG is a full partner and is actively working with the Combined Arms Support Command (CASCOM) in the development of the Global Combat Service Support—Army (GCSS-Army) system which will replace those systems dis-

cussed above with a fully integrated networked system beginning in fiscal year 2000.

—The Guard maintains one significant unique supply system, the Objective Supply Capability Adaptive Redesign (OSCAR). OSCAR provides a fully automated system to manage Class VII (major end items) of equipment including trucks, radios, tanks and a variety of other equipment. This system allows for day to day distribution and redistribution decisions from item managers at the National Guard Bureau (NGB) level to the appropriate personnel in the state and territories. OSCAR covers functions not currently available in supply STAMISs and has been effective in enhancing ARNG readiness. Development/refining of OSCAR will continue through fiscal year 2000.

The Reserve Component Automation System (RCAS) continues to provide supply management functions and reports needed for daily operations but not found within the STAMISs. Additionally, Project Manager (PM) RCAS is working closely with CASCOM in the development of programs to allow STAMISs to operate on RCAS hardware. This will result in further automation improvement to ARNG logistics management.

Use of the supply STAMISs has not only improved day to day supply operations within the ARNG but has enhanced readiness by easing integration into the Active Army upon mobilization. The ARNG will continue to support the STAMISs through fiscal year 2000 and well into the next century.

Operational Support Airlift Agency (OSAA)

The Operational Support Airlift Agency is a Department of the Army Field Operating Agency under the National Guard Bureau which provides management and oversight for the Total Army Operational Support Airlift (OSA) program. Headquartered at Fort Belvoir, VA, the Brigade (OSAA) and Battalion level commanders (OSACOM) share a common staff for economy and efficiency. OSAA/OSACOM managed assets are stationed in 72 locations throughout CONUS as well as five locations OCONUS (Alaska, Hawaii, Panama, Puerto Rico and the Virgin Islands). These geographically dispersed locations provide the best mix of operational and training support to Army, ARNG and USAR units distributed throughout the area of operations.

The OSAA/OSACOM is a multi-component organization missioned to provide training and seasoning of fixed wing aviators, as well as a CONUS rotation base for Active Component fixed wing pilots and immediate OSA support for contingency operations. In fiscal year 1998, ARNG OSA aircraft flew 56,915 hours, supported 66,996 passengers and transported 566,806 pounds of cargo in direct support of Army missions. All of this transportation was provided while accomplishing training in support of their wartime mission. This effort provided the added benefit of cost avoidance totaling approximately $42 million in commercial transportation costs for the DOD.

The Operational Support Airlift Agency is at the forefront and leading the charge to leverage the efficiency of the Reserve Components in multi-component units as proof of the concept for the Total Army's "One Team, One Fight, One Future" concept.

Aviation Maintenance

Army Aviation Support Facilities (AASF) and Aviation Classification Repair Area Depots (AVCRAD) provide the foundation for the Army National Guard aviation logistical support efforts. These facilities are designed to provide logistical support for non-modernized aircraft. While these facilities have successfully supported ARNG aviation logistical support needs in the past, doctrinal procedures governing the operation of these facilities must be updated to effectively support an increasingly modern, complex and expensive aircraft fleet. The ARNG Aviation Logistics Program is meeting this challenge through the reengineering of our AASFs and AVCRADs with two innovative logistic concepts, AASF–2000 and AVCRAD 21.

AASF–2000

The AASF–2000 Test Plan is focused on the management and accountability of logistics processes by forming teams to support the Army's modernized aviation fleet. The main concepts of AASF–2000 are:

—A Quality Assurance Section (QAS) dedicated to ensuring maintenance processes are completed in a safe, high quality operation with random in-work inspections.

—A Production Control Section (PSC) dedicated to managing logistical services to satisfy operational and supported unit readiness requirements with emphasis on developing and managing production schedules. The PSC is the primary point of contact for all automation actions.

—Systems Teams dedicated to inspecting and correcting deficiencies found on Phase Maintenance Inspections or other scheduled maintenance actions and also having Technical Inspectors assigned to ensure quality work.
—Phase Teams dedicated to inspecting and correcting deficiencies found on Phase Maintenance Inspections or other scheduled maintenance actions and also having Technical Inspectors assigned.
—Material Management Section dedicated to managing the budget, repair parts, hardware, HAZMAT, Facilities Management and POL functions.

AVCRAD 21

The second major modernization initiative, AVCRAD 21, seeks to change the aviation logistical support "management philosophy" within the aviation community as a whole. The AVCRAD 21 Logistic Program mission statement is "a quality oriented group of aviation professionals, committed to a common goal of enhancing Army National Guard aviation logistics objectives, capable of meeting the challenge of the 21st century". This will be done primarily by changing the philosophy of doing business at the AVCRADs in order to realize greater efficiencies and by procuring and fielding new test equipment and tools to the AVCRADs for repair of modernized aircraft and components. The main concepts of AVCRAD 21 are:
—AVCRADs transition to specific areas of concentration (80 percent of man-hours in component repair and 20 percent of man-hours spend in airframe repair).
—Reduction of wholesale requisitions through repair of items that are most costly in terms of readiness and resources.
—Establish regional Authorized Stockage Lists (ASL) and Reparable Management (RM) programs with all Class IX (repair parts) managed by the AVCRADs.
—Use of AVCRAD contact teams for airframe maintenance.

RESOURCING THE FORCE

The Army National Guard is funded by three separate budget appropriations: National Guard Pay and Allowances (NGPA), Operations and Maintenance (OMNG), and Military Construction (MCNG). The ARNG fiscal year 2000 Budget Estimate Submission (BES) for these three accounts totals more than $6.2 billion. This represents approximately 9.4 percent of the Army's $65.9 billion budget for this period.

In addition, the Army has identified in its investment accounts, equipment that will be distributed to the Army Guard for implementation of ADRS, which converts up to 12 ARNG Brigades to Combat Support and Combat Service Support to meet the needs of the Army.

Military Construction

Fiscal year 1998 saw a number of much needed Army National Guard military construction (MILCON) projects initiated throughout the nation. In all, 29 major construction projects worth over $123 million were awarded in fiscal year 1998. An additional 27 projects projects are scheduled to be awarded in fiscal year 1999.

The fiscal year 1998 appropriation of $122 million funded 24 projects, including $105 million for major construction, $6.33 million for planning and design and $10.90 million for unspecified minor construction. This appropriation includes $3.7 million for a supplemental appropriation to repair storm damage in Georgia.

ARMY NATIONAL GUARD APPROPRIATIONS, BY FISCAL YEAR

[Dollars in millions]

	Fiscal year—			Change from fiscal year 1998 (percent)
	1997	1998	1999	
Personnel	$3,397	$3,459	$3,494	2.13
O&M	2,298	2,419	2,437	.74
MILCON	78	122	145	16.39

KNOWLEDGE INFRASTRUCTURE

Modernization and increased utilization of knowledge infrastructure will decrease the time spent on maintenance of databases and increase the speed in which units can be mobilized and deployed. The key to the ARNG knowledge infrastructure ef-

fort is the design, maintenance and upgrade of a system that will be cross dimensional within the Active and Reserve Components.

Information Access

Seamless, integrated access to information represents a critical objective for the Army National Guard as the 21st century begins. Efficient information access will play a vital role in meeting many Army and DOD reform initiatives, which include efforts to reduce operational costs and make more efficient use of scarce resources. High speed information access will make important contributions to efforts in areas such as distance learning, electronic publications and forms, training simulation and World Wide Web technology applications.

The ARNG met with considerable success in its efforts to leverage high-speed information access during fiscal year 1998. Chief among these successes was the use of existing Distance Learning and RCAS telecommunications infrastructure to develop a single network combining voice, video and data capabilities. This initiative cut costs and improved efficiency by consolidating and upgrading numerous telecommunications functions that had previously operated in solitary "stovepipe" environments. During the year, the ARNG completed the task of integrating the RCAS data network into the Asynchronous Transfer Mode (ATM) Distance Learning Network. Additionally, minor modifications to the RCAS design enabled two States to integrate voice traffic into their network, significantly reducing long distance telecommunications costs. This new approach will be expanded to include an additional six states in the first quarter of fiscal year 1999. When fully operational, this system, dubbed Guardnet XXI, will provide more efficient, effective and economical high speed communications throughout the 54 states and territories.

Software Development

In addition to its efforts in leveraging the efficiency of existing networks, the Guard is leading the way in creating a more efficient software development paradigm. Throughout the year, the Guard continued to expand the use of integrated Computer Assisted Software Engineering (CASE) tools and structured engineering methodology in streamlining Information Operations. Expansion of the CASE tool set provides the capability to develop reusable software components, enforces the use of "business rule" and data integrity, and is platform and database independent. In one example of the system's application flexibility, a management system for Title 10 soldiers was recently completed using components from an ammunition fielding software system fielded in 1997. The ultimate objective is to create a broad array of reusable software objects and components that can be used by application designers to meet a wide variety of ARNG programming requirements.

Information Security

Even as the Guard looks to the future in leveraging information technologies, efforts continue to safeguard existing information based hardware and software. Working in conjunction with DISC4, the ARNG began a phased implementation of intrusion detection systems and firewalls designed to control network access and increase security. The intrusion detection system was implemented in eighteen states during fiscal year 1998 with remaining states scheduled for implementation in fiscal year 1999. Firewalls were implemented at all three NIPRNET access points and many of the States have implemented firewalls at the local level. Program goals for fiscal year 1999 include implementation of firewalls between military network and state network connections. Ultimately, the information security program must meet DOD security standards while guaranteeing State access requirements.

Year 2000 (Y2K) Compliance

Along with information security concerns, the Guard continues to prepare for the potential effects of the Y2K phenomena on computerized information systems. During the course of fiscal year 1998, the Guard made significant strides toward meeting DOD Y2K compliance objectives for its automation systems. Various legacy platforms and operating systems have been transitioned to compliant Commercial off the Shelf (COTS) software and hardware. Additionally, two of the nineteen critical Guard automation systems were certified as Y2K compliant during the course of the year. Testing and code fixes have been initiated on the remaining seventeen identified systems, which will be certified as Y2K compliant by the end of fiscal year 1999. Finally, a study was performed on the ARNG telecommunications infrastructure, and funding was reprogrammed to procure replacements and upgrades to ARNG PBXs and key systems as a result of this analysis. RCAS officials also undertook to ensure that their infrastructure was Y2K compliant. All of these measures will ensure that the Army National Guard is fully prepared for the challenges of the year 2000.

Reserve Components Automation System (RCAS)

The Reserve Component Automation System (RCAS) is an automated information management system that provides the Army the capability to more effectively administer, manage, and mobilize Army National Guard and United States Army Reserve forces. RCAS supports daily operational, training and administrative tasks at all Guard and Reserve locations, providing timely and accurate information to plan and support mobilization. Fully deployed, RCAS will link over 10,500 Guard and Reserve units at over 4,000 sites located in all 50 states, the District of Columbia, Guam, Puerto Rico, the Virgin Islands, Europe and the Pacific Rim.

RCAS consists of commercial off-the-shelf (COTS) hardware and office automation software, government off-the-shelf software, and newly developed software applications integrated into an open system personal computer based architecture. The system has been designed to take advantage of the latest technology while providing the Army with the most cost-effective solutions to meet the automation needs of the Reserve Component.

RCAS will support eleven user prioritized functional areas: aviation, facilities, logistics, force authorization, human resources, information management, internal review, mobilization, resource management, safety, and training. The RCAS program management office works closely with both Active and Reserve Component information management personnel to facilitate the software development effort and ensure cost effective software acquisition.

Fielding and Implementation

RCAS Infrastructure fielding, which includes wide area network interconnectivity, COTS office automation software, and unclassified as well as classified capable workstations, began in fiscal year 1997 and is scheduled to be completed in fiscal year 2002. Data servers and logistics applications were released to the field in September 1998. Functionality in force authorization, security, and training is scheduled for approval in the summer of 1999. Full RCAS functionality is expected to be achieved in fiscal year 2002.

As a part of the overall ARNG information management effort, RCAS has teamed with the National Guard Distributive Training Technology Project (DTTP) to migrate Army National Guard State Area Commands to the GuardNet XXI Asynchronous Transfer Mode (ATM) telecommunications backbone. All states and territories are now passing RCAS traffic over the Guardnet XXI backbone. Integration of RCAS and DTTP into the Guardnet XXI network will result in significant benefits for both of these important information systems.

The RCAS program is on schedule and within cost. To date, 43,425 out of over 56,000 personal computers that compose the majority of the system hardware have been placed in the hands of the user community. Through the end of fiscal year 1998, fielding has been completed at 28 of the 94 commands that will ultimately receive RCAS. By the end of fiscal year 1999, 39 commands will be completed. The system has already been used to communicate with soldiers in Bosnia and to respond to disasters such as Midwest floods, Northeast ice storms, and El Nino on the West Coast. Imagination is the only limiting factor for its use.

TRAINING THE FORCE

The Guard continued to place great emphasis upon the training and education of ARNG personnel in fiscal year 1998. Existing training and education activities like Guard participation at the Combat Training Centers and the Guard Aviation Training Sites were complimented by a variety of new initiatives. Taken together, these efforts provide Guard soldiers with unparalleled training and educational opportunities for a better trained and educated force in the future.

Training Sites and Centers

The ARNG participates in all of the Army's Combat Training Centers (CTC); The National Training Center (NTC), Fort Irwin, CA, the Joint Readiness Training Center (JRTC), Fort Polk, LA, the Combat Maneuver Training Center (CMTC), Hohenfels, Germany, and the Battle Command Training Program (BCTP), Fort Leavenworth, KS. The Brigade Command Battle Staff Training Program (BCBST) is a subset of BCTP. The Army CTC program is divided into live simulation (NTC, JRTC, and CMTC) and constructive simulation (BCTP and BCBST). The ARNG CTC program schedules units to attend the CTCs in the following capacities; rotational (BLUFOR) units, augmentation to other ARNG and AC rotational (including BLUFOR) units, augmentation to CTC Opposing Forces (OPFOR), and other types of support based on the needs of the Combat Training Centers.

National Training Center (NTC)

The National Training Center, located at Fort Irwin, CA is the Army's premier heavy maneuver Combat Training Center. As large as the state of Rhode Island, the fully instrumented NTC allows live Brigade level force-on-force exercises to be conducted several times each year.

Participation at the NTC is a growing part of the Guard training strategy, with over 20,000 Guard soldiers participating last year alone. The ARNG completes one brigade NTC rotation each year. Rotations are allocated to the eight mechanized infantry/armored enhanced Separate Brigades (eSBs), making the rotation schedule once every eight years for each brigade.

Based on associated Active Component unit input and using FORSCOM/ARNG Regulation 350–2, dated 12 June 1998, (FORSCOM Commander's Assessment Matrix), the Adjutants General of the eSB's state/territory validates that the unit met the training requirements and approves their participation in it's scheduled rotation. The 155th enhanced Separate Armored Brigade (MS) is scheduled to attend in fiscal year 1999 and the 218th eSB (mechanized infantry) is scheduled to participate in fiscal year 2000.

In addition to unit based NTC rotations, the ARNG also receives and allocates three NTC Leader Training Program (LTP) rotations annually. The LTPs are six days in length, and enhance staff coordination and combat decision making skills. The three LTPs are allocated to heavy brigades that attend NTC. LTPs include a Tactical Exercise Without Troops (TEWT) and a JANUS battle staff trainer simulated exercise tied to the CTC terrain and fought against the CTC OPFOR.

Joint Readiness Training Center (JRTC)

The Joint Readiness Training Center (JRTC) is the light infantry equivalent of the Army's NTC. Located at Fort Polk, LA, JRTC hosts light infantry and special operations forces from all components for rotations throughout the year. The ARNG receives one brigade rotation each year. The rotations are allocated to the seven light infantry enhanced Separate Brigades (eSBs). As with the other eSBs, the Adjutant General determines if the unit will attend. The 29th eSB (HI) is scheduled to attend in fiscal year 1999 and the 76th eSB is scheduled to participate in fiscal year 2000.

The ARNG receives and allocates two JRTC LTP rotations annually. These rotations are allocated to the eSBs based on units' relative calendar proximity to scheduled JRTC rotations.

As with the NTC, training opportunities exist for Combat Arms, Combat Support and Combat Service Support units to augment BLUFOR and OPFOR units and to provide installation support.

Combat Maneuver Training Center (CMTC)

The Combat Maneuver Training Center (CMTC), Hohenfels, Germany, combines aspects of the NTC and JRTC for U.S. Forces assigned to U.S. Army Europe. Attendance at the CMTC involves Overseas Deployment Training (ODT). The scheduling of units and training opportunities is managed by NGB. During fiscal year 1999 the ARNG trained over 3,600 soldiers at the CMTC. These units included 17 OPFOR infantry, 16 engineer sapper teams, 6 construction engineer battalions, 16 DS/GS maintenance companies, 6 military police companies and various smaller cells/individual soldier augmentations in finance, judge advocate general, public affairs, aviation, chaplain and signal branches. ARNG support for the CMTC is considered vital to the Center's continued viability as a CTC.

Training Opportunities

In addition to dedicated Guard rotations at NTC and JRTC, numerous opportunities exist for Guard units to augment Active Component maneuver forces at the CTCs. Units required by the CTCs for the augmentation of Active Component rotations include field artillery MET sections and Tactical Operations Centers (TOC), Main Support Battalions, air defense artillery Batteries, military police platoons, chemical companies, and military intelligence companies. In addition, each NTC and JRTC rotation requires engineer and infantry elements to serve as Opposing Forces (OPFOR), and various CSS assets to provide general rotation support.

Leveraging Training Technology

Maintaining peak combat readiness on an average of 39 training days annually requires that the Guard make extremely effective use of its limited training time. With this constraint in mind, the Army National Guard made extensive use of simulation in training again this year. As in the past, these simulations have provided a stressful training environment for commanders, staffs, units, and individual soldiers to practice skills necessary for fighting and winning on today's battlefield. Sim-

ulations provide equivalent difficulty and greatly enhanced repetitive training at a fraction of the cost of "full-up" live training experiences. The Army National Guard plans to aggressively pursue the leveraging of simulation technologies to enhance training in the future.

ARNG Aviation Training Sites (AATS)

The ARNG missions four Aviation Training Sites designated as national training assets for the Total Army. The Eastern ARNG Aviation Training Site (EAATS) is located at Fort Indiantown Gap, Pennsylvania and conducts Aviator Qualification Courses, Enlisted Training Courses, NCOES and Foreign Military Sales training for UH–1, UH–60 and CH–47D helicopters. The Western ARNG Aviation Training Site (WAATS) is located at Silver Bell Army Heliport, Marana, Arizona and conducts Aviator Qualification Courses, Enlisted Training Courses, NCOES, and Foreign Military Sales training for AH–1F, OH–58 helicopters and RAID aircraft. AH–1F training is only conducted at the WAATS for the Total Army and future plans are to conduct AH–64A helicopter training at this location in fiscal year 2000. The High Altitude Aviation Training Site (HATS) is located in Gypsum, Colorado and conducts high altitude power management courses in Utility and Observation aircraft for Active Component, Reserve Component and Foreign Military Sales. The Army National Guard, under the Operational Support Airlift Agency (OSAA) also operates the Fixed-Wing Army Aviation Training Site (FWATS) in Clarksburg, West Virginia. The FWATS conducts Aircraft qualification courses in C–12, C–26, and C–23 fixed wing aircraft for the Total Army. Both the EAATS and WAATS are regional simulation sites, offering simulation support to the Total Army in AH–1F, UH–1H, UH–60, and AH–64 helicopters. A CH–47D and a UH–60 simulator are being added to EAATS and an additional AH–64 Combat Mission Simulator (CMS) to WAATS.

Aviation Combined Arms Tactical Trainer

The Army National Guard is developing an Aviation Reconfigurable Manned Simulator (ARMS) as a cost-effective solution to enhance flying safety and readiness. This system is being developed with the mutual cooperation and support of the U.S. Army Aviation Center (USAAVNC) and the Army's Simulation, Training and Instrumentation Command (STRICOM). It can be quickly reconfigured to each of the rotary and fixed wing airframes flown in the ARNG. The device is a collective training simulator that provides for a 360 degree virtual environment, a helmet mounted display system, accurate cockpit housing, realistic controls and essential panels, and tactile-interactive cockpit panels. Each ARMS provides training in individual and crew tasks, and focuses on collective, combined arms, and joint service operations. Reconfigurable simulators such as ARMS complement existing older technology simulators as well as future training technologies. Army National Guard Aviation has established a requirement for six company-size sets of 6 cockpits each for a total of 36 cockpits. Each of these company sized simulator sets will be transportable to Army Guard units as needed.

The U.S. Army Aviation Command (USAAVNC) recognized ARMS satisfies many of the collective training simulation tasks of the Army's planned Aviation Combined Arms Tactical Trainer (AVCATT) in an extremely cost effective manner. As a result, USAAVNC merged it into the Total Army's simulation strategy, and it is now called AVCATT-ARMS (AVCATT–A).

Distributed Learning Initiative

The Army schoolhouse is becoming multi-dimensional. The Total Army Distance Learning Program (TADLP) will provide this capability by leveraging distance learning (DL) methods and exploiting the growing power of computer-based systems and the internet. The Army National Guard Distributed Learning initiative will extend the reach of the TADLP and the Total Army School System (TASS) to soldiers in their communities by providing high-quality, locally-accessible training and education in support of the total force.

The DL initiative represents the future of training and education in the Army National Guard. It significantly expands the potential to improve readiness by making training more readily available to soldiers. The goal is to shift from the traditional resident training methodology to greater reliance on DL technology, methods and materials. The strategic plan is to maintain readiness through high-quality, locally accessible training in support of the total force. The strategy consists of four components: network and classrooms, courseware, instructor training and student/training support.

Network/Classrooms.—A critical component to the success of the DL initiative is GUARDNET XXI. This provides a robust and dynamic telecommunication infrastructure consolidating existing educational programs into an efficient and economical integrated network. The National Guard Distributed Training Technology

Project (DTTP) provides this technological component. During the first quarter of fiscal year 1998, the DTTP succeeded in connecting NGB to all State Area Commands. This network is expanding through the installation of high-tech classrooms at our training sites, armories and surrounding communities, exceeding 150 by the end of fiscal year 1999. By the end of fiscal year 2002, 639 sites will offer fully interactive learning facilities for both military and non-military studies. The DTTP infrastructure of 639 sites will extend the reach of TADLP from proponent schools and TASS training battalions to soldiers in their communities.

Courseware Development.—The TADLP calls for the redesign of 525 DMOSQ courses over a 12-year period ending in fiscal year 2010. The National Guard Professional Education Center (PEC) developed eight courses and is targeting seventy as a total program inventory.

Instructor Training.—The PEC is currently conducting DL instructor training courses to supplement the Army Training Support Center (ATSC) course teaching the additional DL capabilities of the DL classrooms.

Student/Training Support.—Army Training and Resources Requirements System (ATRRS) now supports DL course enrollment and reporting. Distance Learning orientation videos created specifically for commanders and students facilitate the transition to DL. The four pillars that support a successful transition to DL include Student Administration, Program Orientation, Instructor Resources and Student Support Services.

SIMITAR Training Exportable Package (STEP)

While ARMS revolutionizes the way in which Guard aviators train, the STEP Program will bring similar advances to the world of ground systems training. The Simulation in Training for Advanced Readiness (SIMITAR) program launched the SIMITAR Training Exportable Package (STEP) as a viable cost-effective method of training Brigade Combat Teams (BCT) in preparation for Combat Training Center (CTC) rotations. The package contains a training strategy, methodologies and technologies necessary for the preparation of ARNG brigades to conduct Brigade Combat Team (BCT) operations during a CTC rotation.

STEP is a unit sustainment-training program that is home station based and employs simulations to the greatest extent possible to conduct structured training. The strategies, methodologies and technologies developed for SIMITAR are refined, packaged and presented to ARNG separate brigades during years six, seven, and eight of their eight year training cycle.

STEP provides training in three key areas:

—*Battlestaff Training*.—This component uses the JANUS constructive exercise system to train battalion and brigade battle staffs in a rigorous and structured way. JANUS exercises are conducted at home station.

—*Unit Collective Training*.—This component employs both virtual maneuver and virtual gunnery devices to conduct home station training. The Compressed Gunnery Strategy is the centerpiece of the collective training aspect allowing a unit to conduct both gunnery and maneuver in the same year.

—*Combat Service Support (CSS) and Individual Training*.—STEP uses computer based training systems to the maximum extent possible. The CSS training strategy emphasizes a focus on CTC support to maneuver battalions in all three combat missions.

STEP is the necessary system to prepare a BCT to meet the rigors of a CTC rotation. The implementation of a sequential, device-based progressive training strategy complimented with demanding live training will help produce successful CTC rotations for ARNG enhanced Separate Brigades.

TROUPERS

While hardware infrastructure is critical to the Guard's growing training capability, management and decision making resources are also extremely important components. The Training, Readiness and Operations, Unit Planning, Execution and Resourcing System (TROUPERS), provides Army Guard leaders with the tools to maximize training benefits and support the full execution of training funds. TROUPERS is a reports generator that draws information from existing Standard Army Management Information Systems (STAMIS) databases.

This application provides the state and national leadership the tools to plan training, allocate resources and monitor the execution of annual training, schools, special training and Inactive Duty Training.

The system allows senior leaders access to budget information relating to reservation, obligation, execution and forecasted year-end execution for Annual Training, Individual Duty Training, Schools and Special Training.

QUALITY INSTALLATIONS

State-of-the-art installations provide the foundation upon which Army National Guard readiness is built. Many Guard facilities do not yet provide the community based, power-projection platforms outlined in the ARNG Quality Installations goal. Military construction and revitalization efforts aimed at meeting Guard installation objectives met with considerable successes during fiscal year 1998. Nonetheless, much more remains to be done.

Facilities Overview

The Guard operates over 3,100 armories in nearly 2,700 communities in 54 states and territories. In addition, the Army National Guard federally supports the operation and maintenance of more than 19,000 training, aviation, and logistical facilities located throughout the nation.

Facility Operations and Maintenance

In fiscal year 1998, $235.7 million, or $3.03 per square foot, was provided for Real Property Operations and Maintenance, $40.4 million more than in fiscal year 1997. This program pays for salaries required to support facility operations and maintenance as well as providing funds for engineering services, utilities, minor construction, maintenance and repair projects, and supplies required to extend the useful life of Guard facilities. The federally supported square footage increased from 65.0 million square feet in fiscal year 1997 to 70.7 million square feet in fiscal year 1998, while equipment modernization and aging facilities have increased overall maintenance requirements. In fiscal year 1988, $3.41 per square foot was available to operate and maintain Army Guard facilities. In fiscal year 1999, that amount is $3.03 per square foot, or $1.82 in constant fiscal year 1988 dollars, a decrease of almost 50 percent.

Base Realignment and Closure Commission (BRAC)

BRAC findings and recommendations in 1995 resulted in the transfer of four active component installations to the National Guard. The transfer of Fort Pickett, VA, and Fort Chaffee, AR, took place in fiscal year 1998. Fort Indiantown Gap, PA, will transition in fiscal year 1999, and Fort McClellan, AL, will transition in fiscal year 2000.

Environmental Programs

The Army National Guard Environmental Program emphasizes responsible stewardship of the land and facilities managed by the ARNG and compliance with environmental laws and regulations. This is accomplished by promoting the Army's environmental goals through ARNG environmental compliance, conservation and restoration efforts in all 54 states and territories.

Compliance

The Army National Guard environmental compliance strategy emphasizes early identification of problems and immediate corrective action. Army Guard environmental self assessment programs, such as Environmental Compliance Assessment System (ECAS), Internal Compliance Assessment System (ICAS) and Installation Status Reports (ISR), will greatly improve early identification of activities and installations requiring a corrective action to meet regulatory standards. Unfortunately, constraints in the fiscal year 2000 budget will make compliance with regulatory requirements difficult. Continued deferral of corrective actions due to resource constraints may increase the magnitude of the corrective action costs and risks the loss of funds to the payment of fines and penalties.

In keeping with its environmental strategy, the Guard is acquiring pollution prevention technologies which will support military operations and training while reducing the expense of hazardous waste management and disposal. "Green Ammunition" for 5.56 mm weapons should begin to replace lead based bullets in fiscal year 2000. This will dramatically reduce potential threats to surface water and groundwater posed by lead ammunition.

New pollution prevention technologies, such as improved paint stripping equipment will require additional resources. Much of the funding of pollution prevention initiatives requires the return on investment time of five years or less.

Camp Edwards at the Massachusetts Military Reservation (MMR) consumes nearly 10 percent of the total ARNG compliance budget. Although little actual contamination was discovered in the first year of the investigation, intense regulatory and community pressure to identify potential contamination will extend the investigation beyond fiscal year 2000. Our ability to determine whether military training over the past seventy years has impacted the underlying sole source aquifer will be

based upon the results of an extensive field investigation and the data forthcoming from Army munitions tests. Training will continue to be impacted until these costly and time consuming requirements are completed. Continuance of compliance funding for MMR is essential to answering environmental questions, which not only affect MMR but can be asked at other similar training locations.

Conservation

The ARNG has successfully used programmatic environmental assessments to evaluate equipment fielding in the Paladin, MLRS and UH–60 programs in order to ensure environmental issues are nationally addressed as required by the National Environmental Policy Act (NEPA).

Planning level surveys involving pest management, wetlands, soils and cultural resources using national contracts are nearing completion. These efforts will ensure that all ARNG training sites have Integrated Natural Resource Management Plans, Pest Management Plans and Cultural Resource Management Plans in place by fiscal year 2001.

Currently 43 states are using Geographic Information Systems (GIS) as decision-making tools ensuring operational and stewardship missions of the training sites are met. The ARNG sponsored GIS support contract at Utah State University is one of four DA sponsored Regional Support Centers around the country. The ARNG is also supporting six AC installations.

The Forestry/Agricultural program continues to provide funding back to the training sites and local communities in the form of timber sales and grazing fees. In fiscal year 1999 over $1.4 million will be returned to the ARNG.

Restoration

The ARNG's most significant environmental challenge continues to be the cleanup of past-practice contamination. To meet this challenge, the ARNG places cleanup priority on sites determined to have a high relative risk for impacts to human health and the environment.

In order to determine the relative risk for their sites, the ARNG is conducting Preliminary Assessments and Site Inspections (PA/SI). These PA/SI are resourced with program management funds from the Environmental Restoration Army (ER,A) account. Army Guard sites cannot receive further ER,A account funding without completion of the relative risk evaluation. If the number of PA/SI required exceeds the amount of available program management funds, Operations and Maintenance funds may be needed to meet this requirement.

Army Guard environmental restoration efforts can be found at sites across the country. The cleanup at Camp Edwards is currently the ARNG's largest restoration program. Remedial action design and approval for all of the known restoration sites should be completed in fiscal year 2000. Operation of the various remediation facilities will be required for some 20 to 50 years before the installation can be removed from the National Priority List.

The restoration of sites within Base Realignment and Closure (BRAC) 95, Reserve Component enclaves will also require a determination of relative risk. PA/SI for areas of concern within these BRAC 95 Reserve Component enclaves will be conducted with Department of the Army BRAC funds. Sites requiring investigation beyond the PA/SI phase will compete with other sites for ER,A funding.

MISSIONING THE GUARD

The Army National Guard Worldwide

Army National Guard personnel supported numerous missions at home and around the world during the year. Some of these efforts came in response to the needs of theater Commanders in Chief (CINC), while others filled the needs of Presidential Selected Reserve Call-ups to support missions in Europe and Southeast Asia. Domestically, Guard men and women answered the call for numerous state missions throughout the year.

U.S. European Command (USEUCOM)

Over 2,000 Army National Guard soldiers were mobilized to support Commander in Chief, U.S. Army Europe (CINC USAREUR) in Operation JOINT GUARD/JOINT FORGE in the Balkans during fiscal year 1998. Units deployed in support of this effort included Infantry, Firefighting, Special Forces, Military Police, Public Affairs, Transportation, Aviation, Finance, Personnel, Field Artillery Target Acquisition, and Medical assets. To date, approximately 5,000 soldiers from more than 160 units have mobilized for active duty during all rotations in support of this mission. The total deployability rate was 99 percent for the first rotation, 98 percent for the second rotation, 100 percent for the 3d rotation, 100 percent for Supporting Force 1

and Supporting Force 2 and 100 percent for the Follow-on Force. Eighteen units have mobilized at Home Station and deployed directly to Europe without the aid of a Mobilization Station. Two other units which deployed through a mobilization station have redeployed directly to Home Station.

TASK FORCE ABLE SENTRY (TFAS).—The ARNG provided elements of a Combat Support Company consisting of 65 soldiers from Missouri, Colorado and Illinois in support of Task Force Able Sentry in Macedonia. The TFAS Mission is to ensure that the unrest in the Former Yugoslavia does not spill over the border to the South, into Macedonia. These soldiers provided Engineer, Military Police and Aviation support for base camp operations at Camp Able Sentry. Following a successful six month rotation, the unit redeployed in February 1998. The ARNG has also committed to support future TFAS rotations with another Combat Support Company, an Infantry Company or Infantry Battalion.

In addition to deployments directed by the President, the Guard deployed 9,395 soldiers and units into the European Command (EUCOM) to conduct training and to provide the Unified Command with a variety of requested capabilities. In the EUCOM area of responsibility, Guard soldiers participated in a variety of Joint Chiefs of Staff (JCS) exercises including Operations STRONG RESOLVE, COOPERATIVE DETERMINATION, BALTIC CHALLENGE, CORNERSTONE and PEACESHIELD. While supporting these efforts, Guard personnel conducted maintenance activities, executed engineer projects, and performed military intelligence, infantry and military police missions.

U.S. Central Command (USCENTCOM)

OPERATION SOUTHERN WATCH (OSW).—The Army National Guard continues to support CENTCOM with deployments in support of OSW. The first rotation of Army National Guard unit deployments occurred in February 1998 mobilizing soldiers from the South Carolina and Florida ARNG. A second rotation of ARNG units deployed to Kuwait as an Aviation Task Force in September 1998. Units from the North Carolina and Alabama Army National Guard provided the task force headquarters, aviation crews (AH–64s and UH–60s), AVUM and AVIM maintenance. Florida and Pennsylvania ARNG units provided air traffic controllers for the task force. A second aviation task force rotation consisting of aviation crews from the Alabama Army National Guard (UH–60 Blackhawks) and air traffic controllers from the Maine ARNG will deploy in February 1999. Another aviation task force rotation consisting of aviation crews from the South Carolina ARNG (AH–64 Apaches) and Mississippi Army National Guard (UH–60 Blackhawks) will deploy in August 1999. Air traffic controllers from the Minnesota Army National Guard will be provided for this rotation. A company level force protection mission in Saudi Arabia will be provided by the 39th eSB, Arkansas Army National Guard beginning in June 1999. Future aviation missions and force protection missions are expected.

U.S. Southern Command (USOUTHCOM)

The Army National Guard played a key role in the successful execution of U.S. Southern Command missions during fiscal year 1998. In all, 10,513 Guard soldiers deployed into the region during the year. These training deployments focused on force protection activities, theater-wide equipment maintenance support, explosive ordnance detachment support to range clearing operations, and special forces training provided to foreign soldiers. During fiscal year 1998, the Guard participated in JCS exercises NUEVOS HORIZANTES and TRADEWINDS, providing both aviation and engineering support.

U.S. Pacific Command (USPACOM)

The Army National Guard was also active in supporting mission requirements in the U.S. Pacific Command. Over 1,000 Guard personnel participated in a variety of operations including JCS exercises COBRA GOLD, YAMA SAKURA, FOAL EAGLE, RSOI, NORTH WIND, KEEN EDGE/KEEN SWORD and ULCHI FOCUSED LENS.

In addition to these JCS sponsored exercises, Guard soldiers supported Commander in Chief—Pacific requirements for engineers, special forces, infantry and military intelligence capabilities.

The Army National Guard at Home

In addition to Guard deployments in support of federal missions, the Guard plays an extensive and highly visible role domestically. As part of its unique "dual-mission" responsibilities, the Guard routinely responds to domestic requirements within each state. Local governments in 48 states requested emergency support through their state Governments 308 times in fiscal year 1998. The Army National Guard provided 374,115 soldier man-days in response to these requirements in reducing suffering and meeting critical support needs in local communities. Services provided

by the Guard in support of state requirements included security, electrical power, heat, water, transportation services, food, and shelter. In addition, the Guard provided emergency engineering support to victims of numerous natural disasters, including floods, drought, ice storms, and tornadoes.

In addition to responding to local emergencies, the Guard routinely performs missions that allow units to assist communities while performing required training activities. Under the Innovative Readiness Training (IRT) Program, the ARNG provided in excess of 205,000 soldier man-days to improve schools, parks and recreation facilities, build and maintain roads, and administer immunizations and provide medical care to under-served areas.

Guard IRT projects can be found in communities throughout the United States. In California, for example, the Guard is leading an effort to construct access roads to the U.S. Mexican border to assist the Border Patrol in dealing with the growing tide of illegal immigrants and narcotics. In Alaska, the Guard is leading a five year project that will result in a 15 mile road connecting two villages on Annette Island (currently the trip can only be made by boat), while Maine, Oregon, and Alaska's ARNG medical exercises provide under-served populations with inoculations, physician contacts, dental care and optometrist services. IRT projects benefit both the ARNG and the communities it serves by increasing Guard training readiness and community support for the Army Guard at the same time.

Another important Guard program in support of domestic needs involves counter-drug activities. In a program dubbed "the war on drugs", Guard soldiers provided in excess of 411,336 soldier man-days in support of local law enforcement and the Drug Enforcement Agency (DEA). Through these efforts, the Guard plays a significant supporting role in the battle to stem the flow of illegal narcotics into and across the United States.

QUALITY OF LIFE

Support for our soldiers requires that we increase the overall quality of life each service member enjoys. This quality of life extends from coverage for family members to safety both on and off duty. Our soldiers may not wear the uniform every day, but their total welfare is a day-in, day-out concern.

National Guard Family Program

Support of National Guard families is a critical component of readiness and retention. The National Guard Family Program provides an extensive infrastructure with a national network linking over 2,700 communities within the 54 states and territories. This network includes 54 full-time State Family Program Coordinators, who work with military points of contact and volunteers at every organizational level. This team promotes family member volunteerism, family support groups and networks, and quality of life issues, and facilitates family readiness training throughout the National Guard.

Augmenting this family support network during periods of mobilization and as required by the situation, approximately 3,000 ARNG strength maintenance personnel are tasked with the mission of supporting Family Programs in Family Assistance Center operations throughout the United States. Family Program services include basic family readiness training and counseling in preparation for the deployment of military family members; information, referral, and follow-up; community involvement; emergency assistance; crisis intervention; reunion preparation and activities; and youth outreach programs for children of Guard personnel. A key Army National Guard quality of life goal is to provide assistance to all military families, regardless of branch or component, who find themselves beyond the support capability of active duty military facilities or their home units.

Employer Support of the Guard and Reserve (ESGR)

Obtaining employer support for Army National Guard soldiers is a vital element in quality of life and force retention. To foster employer-ARNG partnerships, the National Committee for Employer Support of the Guard and Reserve (NCESGR) was chartered by Presidential proclamation in 1972 under the Office of the Secretary of Defense. It is the sole DOD agency directed to "promote public and private understanding of the National Guard and Reserve in order to gain employer and community support to ensure the availability and readiness of National Guard and Reserve forces." NCESGR has 54 state-level employer support committees, comprised of over 4,200 volunteer members and is supported by a small joint service staff in Washington. The volunteers implement a variety of programs and services for both Reserve Component members and their employers. They provide information on employment rights and responsibilities related to military leave; offer informal employment conflict mediation; and conduct employer recognition and public af-

fairs events that promote understanding of the vital role of the Reserve Components and activities. Army National Guard members can find out more, toll-free, at 1–800–336–4590 or through the internet web site (www.esgr.org).

Army National Guard Risk Management

As the OPTEMPO increases throughout the Army National Guard, Risk Management has become a critical tool for commanders and leaders throughout our force. The Guard's goal is for all unit commanders and leaders to use Risk Management techniques in every day mission planning and execution. This is a continuing program and training is ongoing. In fiscal year 1998 over 960 soldiers were trained in Risk Management techniques. It is projected that over 2,000 soldiers and leaders will be trained in Risk Management during fiscal year 1999 in 50 courses offered throughout the U.S.

Motor Vehicle Accident Avoidance

A primary focus in fiscal year 1999 is to fully integrate risk management into the motor vehicle accident avoidance strategy. Motor vehicle travel is the primary means of transportation in the Army National Guard. It provides an unprecedented degree of mobility. Unfortunately, driving presents a serious problem in the Army National Guard that leads to numerous motor vehicle crashes annually, especially in privately owned vehicles (POVs). Historically, much progress has been made in reducing the number of vehicular deaths and serious injuries. Despite these advances, the economic cost alone associated with motor vehicle crashes continues to total millions of dollars Army-wide. In view of this unfortunate reality, the Army National Guard has formed the "Motor Vehicle Accident Avoidance Task Force" whose charter is to investigate, formulate and recommend options to better prepare our soldiers to avoid motor vehicle accidents.

Ground Safety

As a result of several factors, to include better safety management and the application of risk analysis, the Army National Guard experienced a 13.2 percent decrease in ground accidents during fiscal year 1998. Of the total number of ARNG accidents that occurred that year, 50.7 percent resulted in personal injury, 25.1 percent involved Army Motor Vehicles, 19.8 percent involved POV and 4.3 percent involved Combat Vehicles. With such a high proportion of our accidents involving motor vehicles, the Army National Guard has created an ambitious Motor Vehicle Accident Avoidance Taskforce.

Occupational Health Program

The Army National Guard's Occupational Health Program (OHP) manager and selected state Occupational Health Nurses have been working with the Reserve Component Automation System to integrate the Occupational Health Managers' software. This software tracks comprehensive occupational illnesses and injuries, case management, liability costs, physical examinations and medical testing for medical surveillance, health promotion and wellness, vaccines and titers, employee training and has a host of other features. This system will assist in optimizing soldier readiness, expedite access to medical data, and improve efficiency in reporting statistics to the National Guard Bureau for analysis. Our goal is to provide the most effective medical tools and services possible for our full time support technicians and AGR personnel.

Aviation Safety

The ARNG is committed to taking an active approach to ARNG aviation accident prevention. During fiscal year 1998 the ARNG experienced only 1 Class A Aviation flight accident for a Class A rate of only .52 per 100,000 flying hours. All crew members completed crew coordination training in fiscal year 1998. The focus for the ARNG Aviation accident prevention for fiscal year 1999 is situational awareness and to sustain crew coordination training. In fiscal year 2000, Aviation accident prevention focus will emphasize spatial disorientation training.

The ARNG Aviation community faces the challenge of increasing deployments and an increase in OPTEMPO. We must ensure that missioning does not exceed individual and unit capabilities.

CLASS A–C AVIATION ACCIDENT DATA (AS OF 28 OCTOBER 1998)—TOTAL ACCIDENTS

	Fiscal year—		Percent change
	1998	1997	
Class A	1	3	−67
Class B	1	3	−67
Class C	17	6	+180

CLASS A–C GROUND ACCIDENT DATA (AS OF 15 OCTOBER 1998)

	Fiscal year—		Percent change
	1998	1997	
Personal injury	105	144	−37.1
AMV	52	41	+26.8
POV	41	24	+70.8
CBT VEH	9	7	+28.5
Totals	207	216	−4.3

CLASS A–C GROUND TOTALS

	A	B	C	D	Total
Fiscal year 1998	23	6	147	36	212
Fiscal year 1997	15	10	163	52	240
Percent change	+53.3	−40.0	−9.8	−30.77	−11.67

APPENDIX A: SOLDIERS AND NCOS OF THE YEAR

The Army National Guard consists of far more than equipment or funding. The people that make up the Guard represent its greatest resources. Accomplishing Guard missions would be impossible without the dedicated work by Guard members throughout the nation. This page is dedicated to those Guard soldiers who distinguished themselves during fiscal year 1998. We salute them, and Guard members like them everywhere.

SGT Paul Dahlen, 147th Aviation, Minnesota ARNG, 1st Army NCO of the year.

SGT Michael O'Connor, 220th Military Police Co., Colorado ARNG, 5th Army NCO of the Year.

SGT Iven Sugai, HSB, 487 Field Artillery, Hawaii ARNG, USARPAC NCO of the Year.

SPC John Joyce, Jr., 123d Armor Regiment, Kentucky ARNG, 1st Army Soldier of the Year.

SPC Todd Loughney, 635th Armor, Kansas ARNG, 5th Army Soldier of the Year.

SPC Mi Soon Han, 29th Support Bn., Hawaii ARNG, USARPAC Soldier of the Year.

APPENDIX B: CONSTITUTIONAL CHARTER OF THE GUARD

OUR CHARTER IS THE CONSTITUTION OF THE UNITED STATES OF AMERICA

Militia Clauses.—Article I, Section 8 of the U.S. Constitution contains a series of "militia clauses," vesting distinct authority in the Federal government and the State governments.

Clause 14 provides that the Congress has three constitutional grounds for calling up the militia: "to execute the laws of the Union, suppress insurrections, and repel invasions." All three standards appear to be applicable only to the Territory of the United States.

Clause 15 gives Congress the power "to provide for organizing, arming, and disciplining the militia, and for governing such part of them as may be employed in

the service of the United States." That same clause specifically reserves to the States the authority to establish a State-based militia, to appoint the officers, and to train the militia according to the discipline prescribed by the Congress. As written, the clause seeks to limit Federal power over State militias during peacetime.

Armies Clause.—The "armies clause" in Article I, Section 8 conferred on the Congress the power to provide for the common defense of the United States, declare war, raise and support armies, and make rules for the "government and regulation of the land and naval forces." The Congress also was granted authority to make all laws "necessary and proper" for carrying out such powers. Under this provision, congressional power over the National Guard appears to be far-reaching.

Other Relevant Provisions.—Other sections add to the constitutional underpinnings of our national defense structure. Article I, Section 10 provides that no State, without the consent of the Congress, shall keep troops or ships of war in time of peace, or engage in war unless actually invaded. This section was qualified, however, by the Second Amendment to the Constitution, which was intended to prevent the Federal government from disarming the militia. Part of the Bill of Rights that the Anti-Federalists insisted on, states: "A well-regulated militia, being necessary to the security of a free State, the right of the people to keep and bear arms shall not be infringed."

In addition, Article IV, Section 4 provides that the Federal government "shall guarantee to every State in this Union a republican form of government," and shall protect each of the States against invasion. At State request, the Federal government was to protect the States "against domestic violence." Through these provisions, the potential for both cooperative Federalism and for tension between the "militia" and "army" clauses was built into the Constitution.

Article II, Section 2 places all forces, including the militia when in Federal service, under the control of the executive branch by making the president commander-in-chief. Article I, Section 8 gave the ultimate control to the Congress, however, by granting it the sole power to collect taxes to pay for the military, to declare war, and to employ the militia for common purposes of internal security. Existing State militias could be maintained, although troops could be called into national service. But the founding fathers moderated that authority by leaving the individual States with the explicit responsibility for appointing officers and for supervising peacetime training of the citizen-soldiers.

Militia Act of 1792.—Federal policy subsequently expanded and clarified the role of the militia. The Militia Act of 1792 required all able bodied men aged 18–45 to serve, to be armed, to be equipped at their own expense, and to participate in annual musters. The 1792 act established an idea of organizing these militia forces into standard divisions, brigades, regiments, battalions, and companies, as directed by the State legislatures.

For the 111 years that it remained in effect, this act defined the position of the militia in relation to the Federal government. The War of 1812 tested this unique American defense establishment. To fight that war, the new republic formed a small regular military, and trained it to protect the frontiers and coastlines. Although it performed poorly in the offensive against Canada, this small force of regulars, when backed by a well-armed militia, accomplished its defensive mission in the War of 1812. Generals like Andrew Jackson proved, just as they had in the Revolution, that regulars and militia could be effective when employed as a team.

With the coming of the Civil War, State militias played a pivotal role. Because the Regular Army was so small throughout the nineteenth century and the Army Reserve did not exist, the majority of Army units which carry Civil War battle honors are from the Army National Guard.

Posse Comitatus.—In 1867, the Congress suspended the southern States' right to organize their militias until a State was firmly under the control of an acceptable government. The U.S. Army was used to enforce martial law in the South during Reconstruction. Expansion of the military's role in domestic life, however, did not occur without debate or response. Reaction to the use of the Army in suppressing labor unrest in the North and guarding polls in the South during the 1876 election led to congressional enactment of the Posse Comitatus Act in 1878. Designed to limit the president's use of military forces in peacetime, this statute provided that:

". . . it shall not be lawful to employ any part of the Army of the United States . . . for the purpose of executing the laws, except on such cases and under such circumstances as such employment of said force may be expressly authorized by the Constitution or by any act of Congress . . ."

Concern over this new domestic role also led the States to reexamine their need for a well-equipped and trained militia, and between 1881 and 1892, every State revised the military code to provide for an organized force. Most called their State militias the National Guard following New York's example.

Beginning in 1903 through the 1920s, legislation was enacted that strengthened the Army National Guard as a component of the national defense force. The Dick Act of 1903 replaced the 1792 Militia Act and affirmed the National Guard as the Army's primary organized reserve.

The National Defense Act of 1916 further expanded the Guard's role and guaranteed the State militias' status as the Army's primary reserve force. Furthermore, the law mandated use of the term "National Guard" for that force. Moreover, the President was given authority, in case of war or national emergency, to mobilize the National Guard for the duration of the emergency. The number of yearly drills increased from 24 to 48, and annual training from five to 15 days. Drill pay was authorized for the first time.

The National Defense Act Amendments of 1920 established that the chief of the Militia Bureau (later National Guard Bureau) would be a National Guard officer, that National Guard officers would be assigned to the general staff, and that the divisions, as used by the Guard in World War I, would be reorganized. Subsequent amendments to the act, the National Guard Mobilization Act of 1933, created the National Guard of the United States as a component of the Army at all times, which could be ordered into active Federal service by the President whenever Congress declared a national emergency.

Following the experience of fighting an unpopular war in Vietnam, the 1973 Total Force Policy was designed to involve a large portion of the American public by mobilizing the National Guard from its thousands of locations throughout the United States when needed. The Total Force Policy requires that all active and reserve military organizations of the United States be treated as a single integrated force. A related benefit of this approach is to permit elected officials to have a better sense of public support or opposition to any major military operation. This policy echoes the original intentions of the founding fathers for a small standing army complemented by citizen soldiers.

APPENDIX C: ECONOMIC IMPACT OF ARNG PRESENCE, BY STATE

State/Territory	Number of Armories	Number of Cities	Total Economic Impact
Alaska	117	88	$136,442,500
Alabama	147	129	448,942,500
Arkansas	76	74	330,302,500
Arizona	29	22	197,242,500
California	131	119	711,567,500
Colorado	36	24	131,035,000
Connecticut	31	22	198,845,000
District of Columbia	4	1	75,002,500
Delaware	16	12	70,927,500
Florida	73	63	340,365,000
Georgia	76	73	351,725,000
Guam	16	1	33,220,000
Hawaii	22	17	146,892,500
Iowa	58	53	232,570,000
Idaho	41	31	224,420,000
Illinois	53	50	261,312,500
Indiana	74	69	324,717,500
Kansas	59	57	205,892,500
Kentucky	61	53	212,130,000
Louisiana	90	66	352,655,000
Massachusetts	68	58	225,127,500
Maryland	40	34	217,882,500
Maine	29	26	102,237,500
Michigan	65	54	312,042,500
Minnesota	56	58	278,682,500
Missouri	64	64	339,052,500
Mississippi	93	93	562,600,000
Montana	53	38	149,765,000
North Carolina	103	103	322,005,000
North Dakota	26	26	127,562,500

APPENDIX C: ECONOMIC IMPACT OF ARNG PRESENCE, BY STATE—Continued

State/Territory	Number of Armories	Number of Cities	Total Economic Impact
Nebraska	31	31	129,972,500
New Hampshire	24	23	70,075,000
New Jersey	54	42	219,072,500
New Mexico	29	29	156,542,500
Nevada	21	13	75,455,000
New York	80	72	364,925,000
Ohio	79	79	285,295,000
Oklahoma	83	79	254,007,500
Oregon	50	37	271,650,000
Pennsylvania	138	96	488,300,000
Puerto Rico	49	30	215,875,000
Rhode Island	16	13	89,375,000
South Carolina	82	78	364,057,500
South Dakota	34	31	131,642,500
Tennessee	119	92	382,905,000
Texas	125	102	502,225,000
Utah	33	27	241,122,500
Virginia	77	50	252,407,500
Virgin Islands	31	2	43,622,500
Vermont	24	22	127,080,000
Washington	52	35	249,707,500
Wisconsin	67	67	226,820,000
West Virginia	38	34	143,130,000
Wyoming	23	17	72,340,000
NG2			16,037,500
NGB			1,880,660,000
Totals	3166	267	14,877,467,500

Senator STEVENS. Thank you very much.

STATEMENT OF MAJ. GEN. PAUL A. WEAVER, JR., DIRECTOR, AIR NATIONAL GUARD

SUMMARY STATEMENT

General WEAVER. Mr. Chairman, thank you for the opportunity to appear before this great committee that gives us so much support in our Air National Guard, not only on behalf of the 107,000 men and women of our great Air National Guard, but also as part of the total Air Force team.

We are at a historic crossroads, as we are in the midst of a fourth Presidential selective reserve call-up (PSRC) since Desert Shield/Desert Storm. Our citizen soldiers and airmen are preparing to execute an incremental call-up plan that will initially impact four States, Arizona, Pennsylvania, Alabama, and Wisconsin.

This PSRC reaches the grassroots of our America, and we do not take this tasking lightly. This has the potential of being the largest call-up of our Air National Guard forces ever in our history. Answering the call to service is nothing new to our Air National Guard members. Throughout history, these fine men and women have been in every major conflict in which this Nation has been engaged.

For close to three decades, our Nation's Total Force Policy has brought the Air National Guard forces into the spotlight, requiring them to deploy with little or no notice for real world contingencies. For the current Kosovo mission, the Air National Guard has had hundreds of volunteers already serving on active duty. They are performing a variety of missions, including air refueling, airlift, special operations to NATO's ongoing efforts in the region.

On any given day, you can find the Guard on duty anywhere in the world, serving their communities, their States, and their Nation. The Air National Guard has and will continue to serve whenever and wherever asked. National Guard members who take the dual oath to State and Nation know that one day they may be called, that they are full partners with their sister services in our Nation's defense. They embrace this responsibility knowing they must count on the continued support of their families and their employers. They are the keys to our success. Family readiness and employer support are certainly vital members in preparing our airmen and women to perform their missions.

We have made significant effort and progress to combine the capabilities of all components to support the families of the Total Force. The Air National Guard is included in total Air Force family readiness and support provided by the services. Employers are an integral part of the Guard triad, our guardsmen, their families, and their employers. The Air National Guard supports congressional recognition of the invaluable contribution of our employers of our guardsmen and women and reservists in support of national defense.

Mr. Chairman, our citizen airmen are prepared. In the past decade, they have been in the forefront in Operation Southern Watch, the Persian Gulf, and Haiti, as well as ongoing operations in Turkey, Bosnia, the Caribbean, and Central America. The Air National Guard has responded to all requests for additional forces with volunteers. Rarely has our Guard family lived through so much change in so many ways in so short a time.

Our Air National Guard personnel regularly rotate with active duty personnel to Central America, Europe, the Balkans, the Middle East, and Southwest Asia in support of our Air Force objectives. Today, we have over 472 of our 1,150 aircraft of the Air National Guard deployed and 6,500 Air National Guard personnel deployed around the world.

UNITS

In 1998, our units logged in excess of 370,000 flying hours while making 1998 our safest flying year in the history of our great Air National Guard. Our units accomplished this with the highest number ever of outstanding and excellent ratings on our readiness inspections. At the same time, we worked toward increasing our state of readiness, modernizing our forces, equally critical to our efforts. As we stay involved with real world activities we must keep real-time pace with active duty modernization.

As the age of our aircraft and combat support system increases, we incur greater cost and workload to maintain that readiness. If we do not modernize by replacing aircraft beyond their useful life, and revitalizing those with life left in them, we can expect addi-

tional maintenance requirements, reduced reliability, and increased cost as these aircraft continue to age. Inevitably, this also takes a toll on all of our people who must maintain and fly them.

Additionally, we must equip our forces with the most modern equipment available compatible with our active duty counterparts if we are to stay an equal Total Force partner.

Mr. Chairman, even with these challenges, we are making modernization a reality, thanks to you and this great committee. Part of our modernization program progress is being made in the support arena. Suffice it to say that we are working very hard to keep all of our Air National Guard aircraft and support equipment combat-ready and seamlessly compatible.

In closing, our people, readiness, and modernization program supported through congressional action is necessary to help us build an Air National Guard for the new millennium. It is imperative that we maintain our force structure and organization suited to the national military strategy.

Today, sir, our Air National Guard is the most sought-after Reserve component force of all Reserve component forces. We are the busiest, along with the Air Force Reserve. We are the most combat-ready and most of all we have got the best retention rates of all the Reserve components, and we are very proud of that.

MODERNIZATION

Our challenges in modernization and becoming fully combat-capable continue to have requirements and we would appreciate all the support that you continue to give to us and in the future. Our support for our employers goes without saying, and for our families.

PREPARED STATEMENT

Our Air National Guard thanks you for all your support. We are confident that our people, our readiness, and our modernization programs will continue to lead us into the 21st century, as they have done in the past, and I thank you for allowing me this opportunity, sir.

[The statement follows:]

PREPARED STATEMENT OF MAJ. GEN. PAUL A. WEAVER, JR.

Mr. Chairman and members of the committee: Thank you for the opportunity to appear before this committee, not only on behalf of the 107,000 men and women of the Air National Guard, but also as part of the Total Force team. It is no accident that we are on the threshold of a new millennium, a time in human affairs that will define our course and our character for the era to come.

We are at a historic crossroads as significant as September 1947 when the Army Air Force and the Air National Guard became separate components. We are witnessing a golden opportunity for change and transformation. Secretary Cohen stated, "Our goal, as we move into the 21st century, must be a seamless Total Force that provides the National Command Authorities the flexibility and interoperability necessary for the full range of military operations." The Air National Guard has great flexibility and is stepping up efforts to meet post-cold war realities by re-shaping our internal operations, shedding cold war missions and signing up to new missions from the Air Force.

With a vision for the Guard 21st Century, we are seizing our future now! With the advent of changing defense strategies the Guard stands by the Air Force in meeting the security needs of the Republic. I am proud to provide you our current Air National Guard posture.

Because the nature of how we fight wars is fundamentally changing we must understand that a basic paradigm shift is underway. Previously, the cold war scenario defined us primarily as a stay-at-home force focusing on containment and operating abroad from fixed bases with self-sustaining infrastructures. Those days are gone. Due to changing political and economic realities, we have had to close many of those fixed locations and transition to a capabilities-based, light and lean expeditionary force responding to "pop-up" contingencies, operating out of forward bare-bases for the duration of a mission. As our Chief of Staff sums it up, we have become an expeditionary force that is "on the road." In light of today's environment of fiscal limitations and political influences, this is a far superior and absolutely essential way to respond to world crises.

Rarely has our Guard family lived through so much change, in so many ways, in so short a time. Quietly, but with gathering force, the ground has shifted beneath our feet as we ready ourselves for a new age. Just as we have met the challenges of these changes at every turning point by widening the circle of opportunity, deepening the commitment of our warrior spirit, and forging a stronger union—so too will we rise to meet the challenges of the expeditionary age.

Mr. Chairman, please allow me to share with you an array of relevant Air National Guard issues for congressional consideration in reviewing our role as an integral part of the national defense strategy. These issues will give you a sense of our current posture and roles with regard to people, training, readiness and modernization. Additionally I include other issues relating to facilities and general items that are shaping our force structure to meet the demands of our nation.

An overview of the Air National Guard roles and missions is essential to keep our unique focus on national as well as domestic responsibilities. The federal mission of the Air National Guard of the United States is to maintain well-trained, well-equipped units available for prompt mobilization during war. During peacetime, combat-ready aviation and support units are assigned to most major Air Force Commands to carry out missions compatible with training, mobilization readiness, and contingency operations. The DOD has an essential role to play in shaping the international security environment in ways that promote and protect U.S. national interests. DOD's Reserve components routinely participate in these day-to-day shaping operations. The Air National Guard helps to build coalitions, promote regional stability, prevent conflict and deter aggression on a routine basis in key regions of the world. To do so, the Air Guard deploys overseas and performs exercises, combined training, and military-to-military interactions.

Air Reserve Component personnel regularly rotate with active duty personnel to Central America, Europe, the Balkans, the Middle East, and Southwest Asia in support of Air Force objectives. In 1998 alone more than 6,000 Air Guard members contributed to the U.S. Air Forces in Europe mission. Air Reserve Component tasking will continue to increase. These roles are crucial to building and maintaining the security relationships needed for successful coalition operations in both wartime and peacetime.

Unlike the Reserves, the Air National Guard has a dual federal-state mission. There are 54 State National Guard organizations, including the 50 states plus Puerto Rico, Guam, the Virgin Islands, and the District of Columbia. Each such state organization is led by an Adjutant General who reports to the Governor. In their state capacities, members of the Air National Guard are subject to state call-up to protect life and property in state emergencies like riots, floods, forest fires, etc.

The men and women of the Air National Guard continue to play a major role in our nation's involvement around the world and at home. In daily support of the USAF mission, the Air National Guard can be found at work on—or over—every continent in the world. The greater our participation, the broader our experience base becomes. Guard skills are sharpened with use and we become better able to serve the nation. Readiness is nothing new to us. We have demonstrated our readiness for years, responding, mission-ready, on short notice, exactly as advertised. However, we must closely monitor our resources to preserve our current readiness.

The Air National Guard, and the Air Force generally, have led the way in providing responsive reserve forces, available immediately, to meet service and national needs. The responsiveness and availability of Air National Guard assets is illustrated by the fact that although Presidential Selected Reserve Call-up authority was authorized for Operation Uphold Democracy in Haiti, it was unnecessary to involuntarily recall any personnel. Since that time, the augmentation of Operation Southern Watch has also been accomplished using volunteers only. In the Persian Gulf and Haiti, as well as ongoing operations in Turkey, Bosnia, the Caribbean and Central America, the Air National Guard has responded to all requests for additional forces using only volunteers.

The Air National Guard continues to remain on the leading edge of using volunteer participation in peacetime operations. By using volunteers, we minimize potentially adverse impact on readiness and training, recruiting and retention. Air National Guard volunteers consistently provide trained and ready forces to gaining commands. These forces are available for short-notice contingency operations as well as for longer-term mobilizations. With this increasing OPTEMPO and PERSTEMPO, the Air National Guard is aggressively pursuing ways to better leverage the time of Air Force Guardsmen and women.

Mr. Chairman let me first acknowledge where we are today. Because of the hard work of our guardsmen and women, we are not only indispensable at home but now are also crucial in keeping the United States Air Force the world's most respected air and space power. Yet our reenlistment rates are the highest. Much like our reserve counterparts, we can boast the highest combat readiness status of our flying units which collectively are near 90 percent "C1" or "C2", the two highest categories, as we actively participate in real world missions around the globe. Moreover, our units logged in excess of 370,000 flying hours, while making fiscal year 1998 our safest flying year in Air National Guard history. Our units accomplished this with the highest number ever of "outstanding" and "excellent" Operational Readiness Inspections (ORIs). As a crowning capstone, we closed out the fiscal year achieving our personnel end strength goals demonstrating that we are wise and prudent stewards of our resources as well.

Mr. Chairman, the focus on EAF, in turn, brings readiness to the forefront. Several years of continued high operations tempo, reduced funding in real terms, steadily declining mission capable rates for all weapon systems, full time pilot retention shortfalls, higher infrastructure costs to provide our quality people with quality facilities in which to live and work—all of these issues and more stress the importance of maintaining the readiness of our force.

Ominously, our projections indicate a continued budget decline in the key areas of aerospace power, forces, people, and infrastructure unless we can reverse the trends now. We are particularly heartened that the President and many in Congress have endorsed efforts to secure additional funding for defense. Now, it is up to us to use our precious and limited resources wisely. Force readiness is fragile. If we do not reverse these trends through substantial and sustained funding for our forces, the concern expressed today could turn rapidly into a readiness crisis tomorrow.

One of our concerns is quality of life for our Airmen. The Air National Guard's biggest infrastructure challenge is the simultaneous programmatic reductions to both Military Construction (MILCON) and Real Property Maintenance (RPM). Having constrained funding levels for both programs is forcing tough, short-term tradeoffs. As personnel are forced to operate and maintain weapon systems in unsatisfactory and degraded facilities, Air National Guard readiness and quality of life will be adversely affected. Already the Air National Guard has the oldest facility inventory in the Air Force, and mission conversions generate new facility requirements. Without MILCON dollars for replacement, the Air National Guard is retaining its antiquated facilities longer and requiring more RPM dollars to operate and maintain them. In addition, backlogs for both MILCON and RPM are increasing.

Another related component of readiness is Modernization. Our transition into the Shaping Mission and EAF approach demands that we keep real-time pace with active duty modernization. As the age of our aircraft and combat support systems increase, we incur greater costs and workloads to maintain readiness. If we do not modernize by replacing aircraft beyond their useful life and revitalizing those with life left in them, we can expect additional maintenance requirements, reduced reliability, and increased costs as these aircraft continue to age. Inevitably, this also takes a toll on our people who must maintain and fly them.

Mr. Chairman, even with these challenges, we are making modernization a reality. We are incorporating many critical modernization programs into our aircraft as we speak. Let me recount where we are in terms of our major programs. We have strong teams working each of these programs and they are becoming experts at leveraging limited resources and building partnerships. First, our Air National Guard F–16s are the first in the world to be equipped with Night Vision Imaging System (NVIS) to enhance 24 hour combat operations. Most of the fleet will be equipped by the year 2000. Additionally, we are taking the lead in installing Situational Awareness Data Link (SADL) to improve combat ID, mission targeting and situational awareness, revolutionizing how we fight and save countless lives. More than 500 of these systems are being built for us today. We also have the most successful fighter modernization effort by anyone's standards in the Guard-led CUPID program, which in one speed line installs GPS, SADL, NVIS and counter measures on all F–16 block 30 aircraft. This unprecedented approach to modernization will

save the Air Force several millions of dollars and give these aircraft combat capabilities that surpass new aircraft coming off the factory line. CUPID installations began in October and will be complete by 2000.

Additionally, the Precision Attack Targeting System (PATS) is our number one modernization requirement for our existing fighter fleet. The addition of the Litening II Targeting Pod allows full Air Reserve Component participation in contingency operations and provides a "precision strike" capability for our theater commanders. The Litening II Pod provides a 3rd generation target designator that we expect to be our "silver bullet" on the battlefield. We awarded the contract in August of 1998 and expect first pod delivery early by 2000.

Other successes this year include final delivery of the F–16 Unit Training Device (UTD), one to every unit. This high fidelity, in-squadron training system has lowered costs and improved the quality of our cockpit simulation training for our aircrews. Look for improvements to the UTD as we explore other advances in visual and networking technology. Lastly, we also delivered the first Digital Terrain Systems to five units, giving the F–16 Terrain-Avoidance Guidance for enhanced mission planning and safety. All F–16 units will eventually get this capability.

Similar to our F–16 modernization program, we have aggressively pursued acquisition of Fighter Data Link (FDL) for the F–15 community. Fighter Data Links were not programmed in the original Air Force contract. However, I am happy to announce that we have just signed an agreement with the Air Force to acquire 51 FDLs for our F–15s. Now our F–15s will be able to operate seamlessly with the active Air Force. We are working to outfit the entire fleet. We have also equipped each F–15 unit with Night Vision Goggles and have approved a low-cost field modification to equip their cockpit lighting.

We are also equipping our theater and strategic aircraft as part of our modernization program. For example, in January our KC–135 aircraft began PACER CRAG. This program adds Global Positioning System, color radar, glass displays, and other avionics enhancements. PACER CRAG will take several years to complete and we will add other upgrades as the program matures.

Most important to the tanker community is an aircraft to replace the aging KC–135E fleet. We envision this aircraft to be a multi-mission platform compatible with existing commercial systems, fulfilling cargo and refueling needs. We are in the planning stages of a Total Force effort with the Air Force Reserve, Air Mobility Command and the Air Staff. In the meantime, we will field additional R-model conversions as funded by Congress or as directed by force structure changes. We are upgrading selected E-models with Hush Kits and TF–33 engines to achieve improved reliability and maintainability cost. We also closely monitor stage III noise and emission restrictions and will respond as required by regulatory agencies.

In the area of our C–130's we recently dedicated our new C–130–H3 Simulator in partnership with Air Force Reserve. We are acquiring new C–130J and EC–130J aircraft and we have added Night Vision Capability to the rescue C–130's as we continue to work spares and support equipment shortages. We are also testing Situational Awareness Data Link improving self-protection capabilities and night vision solutions for the C–130. We are in the design of a major upgrade program for the C–130H fleet to bring it into a standard configuration. In all, we have dedicated huge resources to modernizing our important C–130 community.

Our A–10 modernization program includes acquisition of a new 8MM-color video recorder for the A–10. We received delivery of four unit training devices in the first quarter of 1999. We are also planning upgrades for the A–10 fleet. We are looking at Situational Awareness Data Link, Global Positioning Systems installations, and countermeasures and avionics upgrades similar to a CUPID-like program that will tie these together. Additionally, we are looking to replace the C–141 with C–17's and upgrading the C–5 with much-needed avionics, engines, and other enhancements. Most of these initiatives are Air Force led programs in partnership with the Air National Guard.

As you are aware, the F–22 is an important modernization program for the Air Force and for the Air National Guard. The need for swift and decisive air-supremacy in any future battle is paramount. The F–22 will bring that capability and more to the Total Force benefiting all of us who share arms. We will continue to support the acquisition of the F–22 and encourage its eventual flow into the Air National Guard.

Part of our modernization program progress is being made in the support arena. We are working with the Air Staff and Air Combat Command to ensure our Combat communications units are fully equipped with the latest Theater Deployable Communications. For example, in Air Traffic Control we recently gained congressional funding for an initial test package for a new air traffic radar to include a new range instrument package for our Alpena Control Radar Training Center.

Suffice it to say we are working hard to keep all Air National Guard aircraft and support equipment combat ready and seamlessly compatible with our active duty counterparts. Bottom line: we are laying the groundwork for the greatest modernization program the Guard has ever seen.

Well, it is one thing to have the needed hardware, but where and how will we employ it? New missions are one of our highest priority topics. We are in an unparalleled time when the Air National Guard will be coming into it's own. We will be increasingly called on for our ability to leverage our core competencies of professional knowledge, airpower expertise, and technological know-how that produce superior military capabilities. When we are called, we will be ready. We are going to be called on for new future-oriented missions. It is a future in which dramatic changes wrought by technology will be the norm, a future that plays well to our Air National Guard strengths.

We are already reaping benefits as we move into the areas of Space, Expeditionary Forces, Information Assurance, Battle Management, Force Protection, and Unmanned Aerial Vehicles. These new missions are stepping stones in our transition from an Air Force to an Aerospace Force. We are continually scanning the horizon through initiatives such as Future Total Force to explore new ideas and foster innovative technologies to improve our capabilities to meet the challenges of our future.

We are at the portal of an entirely new way of operating—we are at the beginning of the new expeditionary aerospace force. With good reason, we are enthusiastic about how the new Expeditionary Air Force will meet the real-world defense needs of our nation while simultaneously addressing our force management and employment concerns.

The EAF offers the Air National Guard the ability to meet the full spectrum of global engagement needs mandated by our Defense Department to include major theater war as well as recurrent contingencies. Specifically, the April 1998 Defense Planning Guidance states that the Air National Guard will now become actively involved in these commitments through "shaping, preparing, and responding" activities (This is the overriding policy and guidance that directs us into these new arenas). It offers us integrated Active, Guard, and Reserve units who will train and deploy as they will fight. It also offers us specifically tailored responses to a particular contingency requiring decisive firepower or humanitarian support. This enables our forces to be more lethal and responsive than ever before. Ultimately, EAF will achieve an equitable redistribution and leveling in personnel and operations tempo for our air warriors deployed abroad with anticipated reductions in work requirements for troops who remain at home bases. And finally by redistributing among the components PERS and OPTEMPO and work demands at home, we provide a more stable and predictable schedule for us, our families, and our civilian employers.

Through the EAF initiative, we will address these concerns and in the process achieve better retention rates among all our people. The Air Force is already in the process of shifting 2,600 jobs in fiscal year 2000 into the career fields that deploy most often thereby leveling OPTEMPO and work demands even more. Look for similar and necessary redistribution within our own force structure. This new expeditionary aerospace concept is our lifeblood! As important as it is to honor the past, it is just as necessary to envision the future in a way that promises invigorated purpose and possibility.

This year the Guard will provide maximum participation. The Air Force EFX 98 was the first in a series of experiments designed to explore new operational concepts and advanced technologies. This year's experiment concentrated on better ways to command and control the air component during expeditionary operations. It explored improving reachback to rear area support centers, reducing the personnel and logistic requirements in the forward area, and commanding and controlling en route aerospace forces.

We have spent years building strong foundational relationships between the active and the reserve components that yield the kind of trust and interdependence on which the EAF concept rests and our futures depend. This is no small feat and is a synergy that promises a win-win for all.

To fully embrace the new, we need to let go of some of the old. We need to take an honest account of those missions that no longer have relevance. The Guard has been given the dramatically new and over-arching mission of "shaping." In our fiscally constrained environment, this requires that we optimally task and allocate each of our units. Given the increasing interdependence of the modern world, we recognize that we will be called on to defend in situations beyond the national and international arenas. Because our nation also depends on our inherent strengths at the state and community levels, we are in full partnership with our Army National

Guard counterparts to stem the proliferation of Weapons of Mass Destruction. Threats to our homeland strike us at our core and we will engage every resource in restoring security.

We are enthusiastic because our future is bright and holds unlimited opportunities. It is also a future in which our core values of integrity first, service before self, excellence in all we do, commitment to the citizen soldier heritage, and strength in our diverse family will continue to sustain our Air National Guard family. Despite the ongoing nature of change, what makes us successful will not change. Our core values are fundamental and timeless and are reinforced in everything we do. They provide a framework to establish how we want to work and live.

Let me spend a moment on that framework that I first laid out in terms of a road map almost a year ago when I took over as the Director of Air National Guard. In that four year road map, I described how we would organizationally move forward together to fulfill our Air National Guard legacy. This road map will not only guide us into our shared future, but it will be an important means to measure our progress.

Getting ready is the secret of success. The first year of my term, the "year of transition," began with preparing ourselves for the ensuing years. We set our foundation before we began to build our skyscraper. Architectural law teaches that form follows function so we set up a way of operating to improve connectivity between the field and the Air Directorate. The improved relationship would be measured from the eyes of the unit Commanders. Our objective, listening to the field, while instituting positive change, means incorporating the right leadership, processes and structures to make this happen. Achieving this goal has been neither easy nor without confusion both internally and externally. Yet with the help of our field units we continue moving forward.

A centerpiece of the year of transition is our new Air National Guard corporate process. This process leverages our unique field expertise by establishing participatory decision making in all vital actions. Field issues focused on mission execution are surfaced and acted upon in our Air Directorate field advisory council and enlisted field advisory council. Then, those issues that need programmatic visibility are brought up through our Air National Guard panels and group prior to being folded into the Air Force corporate process.

To better meet our cross-functional needs, we set up our core and executive leadership teams to address issues which require the entire Air Directorate leadership perspective.

The means by which we all come together and connect our plans to deliberate actions is known as our Integrated Planning and Programming (IPP) process. I take a moment to highlight this because this is one of our core competencies which the Air Force benchmarked off us to refine their own planning and programming. Our IPP helps us maintain an atmosphere of relative stability within this wide sea of change. The IPP, which includes long-term and strategic planning, is our means for moderating change at a pace we can live with.

One of our major success stories is that we are seen as full Total Force partners and as such we sit at the planning table as equals when our fate is being decided. This has taken years of relationship and trust building. Now, as architects of our own destiny, we will use that authority responsibly in tempering the pace of change and to balance the needs of our Air National Guard with those of the Total Force. The bottom line is we are all working together to create a better operating environment suited to our unique needs.

Additionally, to underscore our new operating philosophy, we established a new Air National Guard theme line and logo "Fuel Your Future—Air National Guard". These will complement our future recruiting and retention campaigns while emphasizing our common identity and strategic focus.

My second year theme is "The Year of the Enlisted Force." We are very excited about this yearlong focus on our enlisted force. This has been a Guard-wide collaborative effort. It is only right that we single out our enlisted personnel because they have technological know-how required in our new mission areas.

Visioning and strategizing together is becoming our new operating norm. This is true of each of our theme years. Much work has already been accomplished for year 2000, "The Year of the Family" and we are building plans with a special interactive town meeting to continue sharing ideas. A lesson to the wise: while we recruit individuals, it is families we retain. We are building to create the strong synergy we need for us to operate at our potential both in the home and on the work front.

Taking care of families is vitally important for the Guard. Family readiness is an essential element in preparing our airmen to do their missions. Significant efforts and progress have been made in combining the capabilities of all components to support families of the Total Force. The Air National Guard is now included in Total

Force family readiness and support provided by the Services. The Air National Guard uses active component inspections as well as Operational Readiness Evaluations (Exercises and Inspections) to evaluate family support programs. We have been able to integrate with state level programs, establishing networking and professionally prepared guides and brochures which also are available to facilitate information about family support programs in the Guard.

Because every part of our guard family needs to stay strong, in 2001 we will kick off "The Year of the Employer". The traditional character of our militia heritage is at the core of our citizen-soldier concept. As you know, that relationship is being severely tested due to the current high PERS and OPTEMPO. Just as we owe our members and their families predictability and stability in their lives, we also owe this to our civilian employers. We support legislative initiatives that assist employers of Guardsmen and women. Employers are an integral part of the Guard triad (Guardsmen, their families and their employers). We have vigorously pursued feedback from employers and they have expressed an interest in relief. The Air National Guard supports congressional recognition of the invaluable contribution of employers of Guardsmen and reservists in support of national defense.

To finish out my term, we have declared 2002 "The Year of Diversity." Diversity holds such a prominent place on our road map because of one simple reason: it is a readiness and leadership issue. If we do not engage the hearts and minds of all our people to maintain our high performance, we put ourselves at risk for squandering the fine talent we have been blessed with. Our unit commanders are the direct link to our success—we cannot succeed without them being fully committed. I am heartened by the definite strides being made—we are giving everyone equal opportunity to participate because we know it is the right thing to do. More than goals, a cultural change is occurring. This cultural transformation will become the changeless core of our Air National Guard family. We promote a working environment, which allows each employee—military and civilian—to realize his or her full potential. Bottom line—diversity reaffirms the importance of equity of treatment and opportunity for readiness.

Mr. Chairman, in completing the first year's cycle of this road map, we already are seeing the fruits of our labor. I have several success stories to share with you that have positively affected the Air National Guard.

We have made significant strides in moving closer to the field. We have designed and implemented an organizational structure that includes them in issue development and decision making in our Integrated Planning Process and through our Air National Guard corporate process. To facilitate more effective leadership and management in our units, we are maximizing our funds distribution early in the fiscal year. We have also partnered with the field units via Unit Training Assemblies visits and enlisted Warrior Network Broadcasts will also be held on Unit Training Assemblies to further enhance our communications.

We have established an Air National Guard corporate strategic plan that reflects all of our goals and endeavors. This is our planning road map in which all our voices, field and Air Directorate, are heard. Together we wrote this document and together we will carry it out.

Furthermore, to more completely integrate into and influence the Air Staff budget process, we have developed the Guard Planning and Programming Guidance (GPPG). This documents our federal, state and community roles by giving critical visibility to our missions that require funding priority.

We are working together aggressively pursuing the re-role of combat communications units. We are actively engaged in finding new missions for those of our units in which traditional missions have gone by the wayside—either because of outdated equipment or simply because the new, post-cold war realities require different tasks of us. We realize every mission that gets proposed may not be a perfect fit. But we will have our sights set on the 21st century and do what is right for the nation and what is right for our people.

Using our Air National Guard corporate process we have responded to our units with Flight Training Instructor (FTI) assistance. We listened and acted on the units concerns regarding pilot retention and OPTEMPO and gave our unit Commanders flexibility to recruit and retain a pilot workforce and reduce OPTEMPO for our rated force.

In the area of education and training, we achieved a 75 percent increase in specialized undergraduate pilot training production. We have also stood up a joint distance learning working group to share funds and resources in meeting training requirements. Units are broadcasting among each other as well as receiving standard Air Force developed courses.

Airman leadership schools are being expanded and enhanced to include a complete correspondence course update and a regional site at the Training Education

Center. Additionally, we are testing a "night school" program format. Also, the NCO academy satellite program continues to increase and includes Total Force representation.

Our first students are attending the Kingsley, Oregon, Air National Guard Base flight training unit instructor course; basic course students will begin in mid fiscal year 1999.

The F–16 Flight Training Unit is another initiative that resulted from our close partnership with the active duty and concerns the issue of F–16 training shortages. Both our corporate processes tackled this problem and together we leveraged our Total Force resources to resolve this issue. Solution: we have established two F–16 Rated Training Units, one at Kelly Air Force Base and the other at Springfield, Ohio, Air National Guard Base. We will stay actively engaged in this issue to enhance our training needs.

Warrior Network Broadcasts are changing the way the Air Directorate and units communicate. Technology can best serve us by connecting us real time and instantaneously. We have now participated in several broadcasts where our staff links face to face with our 54 states and territories to discuss the issues important to all of us. To stay in close touch, we do these broadcasts at least quarterly.

In the area of career management and compensation, we are unique among the Total Force in terms of traditional and full-time status, personnel programs and incentives needed to ensure a parity of benefits for everyone. Our group councils in conjunction with our staff are spearheading efforts with the goal to improve compensation and retirement packages, speed up promotion review and streamline our personnel system.

One of our most promising initiatives is Staff Integration. Team Langley Air National Guard and our Aerospace Command Control Center have identified six potential new mission areas with a total personnel requirement of 1,200 personnel; in the future, 40 percent of our force structure will be in this arena. Additionally, USAFE is already actively engaged in placing Guard members in senior command positions at the Expeditionary Air Base Group at Istres, France, Tuzla, Hungary, Bosnia and the Air Expeditionary Wing at Aviano, Italy.

The new Expeditionary Aerospace Force puts the Air National Guard in the forefront as it relates to command positions as well. We have already set the precedent with a Guardsman called up to command active duty forces. As we fully engage in EAF, command slots will increase and we must and will be ready to step up to this challenge.

Another success story is the Predator mission Unmanned Arial Vehicle (UAV). Our staff is collaborating with Air Combat Command and is in the process of standing up a team of Guard members at Indian Springs, Nevada, in direct support of the active duty to alleviate the high OPTEMPO and PERSTEMPO. This is a specialty mission associated with a low density/high demand asset—another chance for the Air National Guard to excel.

Our premier core competency is Maintenance. As the life span of our weapon systems and primarily our aircraft is extended to new levels, meeting maintenance and reliability thresholds rests on the superior knowledge and expertise of our maintenance and logistics community. There is no near competitor that can match the talents of our maintenance force and we will not rest until we leverage our unique capability across the Total Force. We are putting together proposals with the field's help to develop the best ways of doing this. Bottom line: we will leverage our maintenance capability for the active duty to cut costs while providing better service.

Our Guard performance is second to none. Not only do we accomplish the mission, but also we do it in a manner that removes any doubt about our professionalism. The statistics speak for themselves: 40 percent outstanding, 45 percent excellent, 15 percent satisfactory ratings in Air National Guard flying units. With 3 percent outstanding, 48 percent excellent, 46 percent satisfactory in support units. These are the best inspection results in the last three years!

In closing, we share a common past and we depend on a common future. Building the strongest Air National Guard is our most important mission, the foundation of many generations. Our people, readiness and modernization programs supported through congressional action is necessary to help us build an Air National Guard for the new millennium. The Total Force mission remains to fight and win the nation's wars, and the force structure is constantly evolving to support this mission. However with the current emphasis on the growing involvement of Reserve component forces in small-scale contingencies, the challenge to the Air National Guard force structure is more complex. We must now support peacetime missions and crisis response, as well as wartime mobilization. It is imperative that we develop a force structure and organization suited to the National Military Strategy.

Mr. Chairman, we have faith that congressional support is there for our finest Airmen, missions and national security. We are confident that our people, readiness and modernization programs will continue to lead us into the 21st century as they have done in the past. I thank you for allowing me this opportunity to give you the Air National Guard posture, God bless America.

COMBAT READINESS

Senator STEVENS. General Davis.

General DAVIS. I would like to close by talking about a couple of things that we think are very key and vital. At the same time we are producing combat readiness as part of our Federal mission, we are also using that same training and the same paradigms to allow us to do State missions as we respond to hurricanes and tornadoes and other emergencies throughout this great Nation of ours. Our National Guard, with the training they have to do combat missions and the combat support and the combat service support missions, those same Guard members have a dual responsibility to take care of the citizens of the State, the county, and the city or town in which they live, and they do that very ably as part of our national strategy to shape, respond, and prepare.

YOUTH PROGRAMS

I would like to make a couple of comments. In the area of our young people, which is the future of our Nation, we are very much involved there with the National Guard Youth ChalleNGe Program, currently on board in about 26 States, and with a couple more States to come on board this year, programs which allow us to take young people off of the street, who might otherwise be in trouble, high risk young men and women, and then turn them into outstanding citizens, and we have got about a 5½ year track record on that, and we think we are moving down there and making great progress.

Another program, the Youth Conservation Corps, and Star Base. In Star Base, we focus on math and science in the schools. Most of you will remember the days of Sputnik when we got behind. We are trying to avoid that as a proactive step in working with the young people. As I said, they are the future of the Nation.

In spite of what happened in Colorado, we know that the bulk of the people in the United States, our young people, are on the right track and we are helping them to stay on that same right track. One of the impediments to doing that is drugs, so we have got a very active counterdrug program where we go out and we interdict drugs, and we try to destroy drugs on the ground, and at the same time we are talking to a lot of these young people and other young people to get them to stay away from drugs, reduce the demand for drugs.

No point in saving all these young people unless we can make it a better world, so our State partnership program, we are working with some 31 States and 28 nations to make it a better world. I was just returning yesterday from Cincinnati, where we had a workshop on flood, and most of you are aware, last year they had massive floods in the northern part of Europe. We are talking to them about working together.

As I met with some of the gentlemen, one of them, who was in a contiguous country, said that for the first time we have gotten

along with our neighbors next door, and we have shared resources in a common project dealing with flooding, and they have an agreement. They would love to have a treaty, but they have got an agreement, which is the first step, so we are making a lot of progress in that arena, and the Guard is right in the middle of it, facilitating.

As we look to emerging missions, and you talked about them, Mr. Chairman, national missile defense, and the weapons of mass destruction, and homeland defense, and information operations, we look forward to those challenges. As both Directors have said, we have got men and women standing by trained and ready, and we can do additional training as is necessary.

In the area of OPSTEMPO we have been involved in the Sinai, and Bosnia, and Southwest Asia, and we are capable of doing this, and we want to be called upon, because we think we can respond to our Nation's needs.

I want to close by saying that as our soldiers, our citizen soldiers and citizen airmen leave their homes to go forward to do America's business, to take part in executing our national military strategy, they leave behind their homes and their jobs, and we have got great concerns about that, and they leave behind their communities.

We have an outstanding program, family programs to take care of these families and dependents of these young men and women as they move forward, and we have got another program where we work with the Department of Defense and the employees. To support the Guard and Reserve we need to reinforce these programs and pay a lot more attention to them.

I think we are doing a great job of it, but as with readiness I think we can do a better job, but our job is a military calling to service to our great country, and our men and women stand forward and step forward to serve our country in whatever way they ask.

Sir, we await your questions.

Senator STEVENS. Thank you very much. Senator Bond, I understand you have to leave.

Senator BOND. Yes, sir.

Senator STEVENS. We would be glad to defer to you.

Senator BOND. I very much appreciate that.

General Davis, given the recent events in Kosovo, how do you anticipate the Guard will be utilized in that theater, and what do you anticipate will be needed to support these units when they are called up?

General DAVIS. Well, first of all, Senator Bond, I think we will need additional forces. They have indicated with the PSRC that it will be about 33,102 personnel. The first increment is 2,100 air refuelers, depending on what direction that goes in, and I think a lot of that will depend upon what happens as a result of the current activities and the reaction of Mr. Milosevic as to what additional things will be needed, but we have got capabilities for additional air refueling, airlift. We have got a number of Army Guard resources in like manner which could be used. We do not really know, and it is very difficult to speculate in that arena.

Senator BOND. Do you have any idea of the cost, what we are going to have to provide in terms of the cost of your activities?

General DAVIS. The cost of our activation will typically be borne by the active component. As we work with them on the Kosovo supplemental, we have decided that our numbers are really going to need to be incorporated with the active component, and I will defer to either one of these gentlemen, if you do not mind, sir.

F–15 DATA LINKS

Senator BOND. General Weaver, I spoke earlier of the need to update the F–15's data links. Could you explain why this is critical to the mission's success, and if you would also address the criticality of the 220–E reengining to the capability of the fighter force.

General WEAVER. Sir, two great points. The fighter data link (FDL) for our F–15's will interlink our aircraft with those of our active duty counterparts. That is singly—our FDL requirement is our number 2 priority on our Guard and Reserve equipment account. The quantity which would take us through and fulfill our F–15 requirements, about 70, for about $17 million. It is centrally—it is key to making our F–15's integral to the war fight, and for the CINC's requirements, and it is also link 16 compatible.

Senator STEVENS. If they are going to be flying together, it would make some sense.

General WEAVER. Yes, sir, it would. I cannot agree with you more.

As far as the requirements on the engines, our engines are getting old, and even though they are extremely well-maintained, our additional requirement of additional funding for 220 engines would really help both our F–16 and our F–15 community.

SHORTFALL IN ARMY PERSONNEL ACCOUNTS

Senator BOND. General Schultz, I mentioned in my opening statement that I believe there is a $184 million shortfall or over in your personnel accounts, using the Army's current program objective memorandum (POM) plan, how long do you think it would take to fix the problem if at all? In your opinion, what would the effect of such a shortfall be on the unit preparedness and the effect on individual soldiers and technicians?

General SCHULTZ. Senator, we could fix the problem in 1 year, and yet the answer comes back with an affordability question, so when you look at the Army's POM you will see our spread of our technician and active Guard Reserve requirements over a 5-year period. We could execute the numbers, 3,000 technicians and 1,600-plus active Guard and Reserve (AGR) soldiers in year one with one caveat, and that is, some of the technicians could be in a temporary status, meaning not fully processed, and so we could execute the program.

But budget development is a consensus-building effort in the Pentagon, and so we spread those numbers out because we could not convince the Army staff that executing it in the first year was even possible, and so it is a difference of opinion we have had with the Army staff. I am not changing my position. At the maximum, 2 years would be the limit for our execution of both technician and AGR numbers.

Now, the impact on not realizing any adjustment, and the question you are asking specifically is, we have units today, commanders are commenting to us, units today that are not realizing their readiness-related standards because we do not have technicians and AGR soldiers in the right places, a person to process an individual's promotion, to order the person's supplies, individual equipment, to be in the armories, to represent our units on a day-to-day basis, so it becomes a quality of life issue on the one hand and a readiness-related issue on the other.

The short answer is, we can execute this program in a maximum of 2 years.

AIR GUARD MILITARY CONSTRUCTION

Senator BOND. Let me finish up with the dreaded military construction account. Nationwide, our armory system is in pretty bad shape. Combined, I understand the Army and Air Guard Milcon account is $5.6 billion, billion with a B.

That said, I might ask first General Schultz and then General Weaver to give a brief summary of your outstanding components requirements, and then I would ask General Davis for any comments, and if you would submit for the record an account of the critical, what you view as the critical Milcon projects which languish in the unfunded category.

[The information follows:]

MILCON UNFUNDED REQUIREMENTS

For fiscal year 2000 the Air National Guard has a significant unfunded requirement, $75,000,000, which is comprised primarily of deferred new mission requirements. These projects support mission beddowns or conversions, but could not be included in the fiscal year 2000 program due to funding shortfalls.

Deferred new mission requirements

Project	*In thousands*
Robins AFB, GA—B–1 Aircraft Beddown	$33,000,000
Munitions Complex	9,800,000
Operations & Training Complex	6,100,000
Supply Warehouse	5,400,000
BCE Complex	3,200,000
Vehicle Maintenance	2,100,000
Avionics Shop (not yet in FYDP)	6,900,000
Kelly AFB, TX	6,500,000
F–16 School House	3,400,000
F–16 School House (not yet in FYDP)	3,100,000
Springfield ANGB, OH	6,000,000
F–16 School House	1,700,000
F–16 School House (not yet in FYDP)	4,230,000
Atlantic City ANGB, NJ	1,400,000
F–16—General Purpose (not yet in FYDP)	1,400,000
Puerto Rico ANG, PR	1,600,000
ADAL Squadron Operations (not yet in FYDP)	840,000
ADAL Aerial Port (not yet in FYDP)	740,000
Boise ANG, ID	5,300,000
Supply Complex	3,000,000
Upgrade Fuel Cell and Shops	2,300,000
Jacksonville ANG, FL—F–15 Conversion	2,400,000
Add to Fuel Cell Hangar	2,400,000
Key Field, MS—ASOS Conversion	6,400,000
Comm-Electronics Training/ASE Facility	6,400,000
Hancock ANG, NY– ASOS Conversion	8,900,000
Comm-Electronics Training/ASE Facility	8,900,000

Deferred new mission requirements—Continued

Project	*In thousands*
March ANG, CA—KC–135 Conversion	3,600,000
KC–135 General Purpose Shops	3,600,000
GRAND TOTAL	75,000,000

Beyond the fiscal year 2000 program there are a large number of valid requirements which could not be included in the funded portion of our program. These unfunded projects include a variety of current mission requirements totaling roughly $400,000,000.

[In thousands of dollars]

Installation/State	Project Title	Cost
Fiscal year 2002:		
Birmingham, AL	Replace Base Engineer Maintenance Complex	4,200
Fort Smith, AR	Operations and Training Facilities	6,500
Hickam, HI	Aircraft Rinse Facility	1,200
New Orleans, LA	Replace Vehicle/ASE Maintenance Complex	4,400
Barnes, MA	Replace Base Supply Complex	5,900
W K Kellogg, MI	Replace Munitions Maintenance & Storage Complex	8,800
Selfridge, MI	Replace Crash Fire Rescue Station	7,400
Atlantic City, NJ	Communications and Security Forces Complex	3,450
Gabreski, NY	Replace Vehicle/ASE Maintenance Complex	4,250
Salt Lake City, UT	Composite Ops and Training/Squad Ops Complex	10,400
Yeager, WV	Replace Base Engineer Maintenance Complex	3,500
Various	Planning and Design	7,396
Fiscal year 2002 total unfunded requirements		67,396
Fiscal year 2003:		
Hunter, GA	Replace Vehicle Maintenance Facility	2,400
McConnell, KS	B–1 Aircraft Live Munitions Loading Ramp	6,900
Minn-St Paul, MN	Composite Maintenance Complex	6,900
Jackson, MS	C–17 Upgrade Fuel Cell and Shops	5,100
Jackson, MS	C–17 Upgrade Squad Ops/Hangar and Shops	12,100
Camp Shelby, MS	C–17 Shortfield Runway	7,700
McGuire, NJ	Medical Training Facility (w/AFRC)	2,900
Schenectady, NY	Base Supply/Base Engineer Complex	7,400
Tulsa, OK	Replace Composite Support Complex	10,800
Camp Pendleton, VA	Replace Troop Training Quarters	2,500
Fairchild, WA	Replace Composite Support Complex	9,800
Various	Planning and Design	7,107
Fiscal year 2003 total unfunded requirements		81,607
Fiscal year 2004:		
Barnes, MA	Relocate Taxiway	3,200
Pease, NH	Replace Medical Training Facility (VA Joint Use)	3,200
Will Rogers, OK	Replace Composite Aircraft Maintenance Complex	19,500
Portland, OR	Replace Joint Dining Facility (w/AFRES/ARNG)	8,200
Pittsburgh, PA	Add/Alter Squad Ops/Support Complex	9,400
Quonset, RI	Replace Aircraft Maintenance Hangar	16,500
McGhee Tyson, TN	Aircraft Hydrant Refueling System	9,500
Kelly, TX	Replace Vehicle/ASE Maintenance Complex	3,000
Cheyenne, WY	Aerial Port/Air Traffic Control Complex	7,000
Various	Planning and Design	6,980
Fiscal year 2004 total unfunded requirements		86,480
Fiscal year 2005:		
New Castle, DE	Upgrade Aircraft Parking Apron and Taxiway	9,500
Jacksonville, FL	F–15 Add/Alter Fuel Cell/Corrosion Control Facility	2,400
Boise, ID	Replace Joint Medical Training Facility (w/ARNG)	2,250
Forbes, KS	Replace Operations and Training Facility	8,900
New Orleans, LA	Munitions Storage Igloo	1,350
Alpena, MI	Replace Operations and Training Facility	4,500

[In thousands of dollars]

Installation/State	Project Title	Cost
Jackson, MS	Expeditionary Forces Center	9,000
Jackson, MS	C–17 Upgrade Aeromedical Evacuation Facility	600
Stanly County, NC	Relocate Comm/Electronics Training Facility	4,300
McGuire, NJ	Replace Base Engineer Maintenance Complex	4,000
Toledo, OH	Upgrade Aircraft Maintenance Hangar	8,400
Will Rogers, OK	Replace Base Supply Complex	5,800
Nashville, TN	Replace Aircraft Maintenance Complex—Phase I	10,400
Burlington, VT	Replace Aircraft Maintenance Complex	8,600
Various	Planning and Design	7,963
Fiscal year 2005 total unfunded requirements		87,963
Charlotte, NC	Replace Supply Warehouse	3,800
Hector Field, ND	Weapons Release Systems Shop	2,500
McGuire AFB, NJ	Replace Aircraft Maintenance Hangar/Shops	17,000
Reno-Tahoe, NV	Base Infrastructure	4,500
	Replace Supply Warehouse	7,000
	Jet Fuel Storage Complex	4,800
Springfield, OH	Aircraft Parking Apron	7,000
Willow Grove, PA	Replace Composite Support Jt HQ Complex	17,500
Ellington, TX	Replace Base Supply Complex	5,800
Volk Field, WI	Replace Control Tower	5,100
Gen Mitchell, WI	Aircraft Parking Apron	1,500
Total other unfunded requirements		76,500
CUMULATIVE TOTAL		399,946

General SCHULTZ. Senator Bond, the impact on the Milcon issue looks like this in the Army National Guard. The $16 million will for us mean two projects, two Milcon projects in fiscal year 2000. As I say that, we have validated $473 million Milcon-related projects by the Army staff, so it has already been cleared and reviewed, endorsed by the Army leadership.

So that gives you a difference, between the $60 and $473 million, of where we really are in terms of impact there. If you look at the total backlog, we have $4.4 billion in military construction backlog in the Army National Guard.

General WEAVER. Sir, on the air side, our Milcon deficit is approaching I believe $1.2 billion, with a Reserve personnel management (RPM) deficit of about $850 million. We have been very fortunate in the Air National Guard. If you look at whether the glass is half full or half empty, thanks to this committee, we have been helped greatly with our needed Milcon requirements. Our deficit would have been a lot worse had we not been able to get your support in the past.

We have challenges there, because of requirements of hangars and facilities for our test equipment and what-not this year. Our Milcon probably has reached the lowest point ever as far as the request, and there is going to be some very big challenges for us if we cannot turn this around.

Senator BOND. General Davis, your comment.

General DAVIS. Well, we have got, as both of the Directors have said, some major challenges in this area of Milcon, because with emerging missions come emerging requirements for the physical facilities in which our people operate, and we have a different view,

I think, than some of our physical facilities. That is really quality of life to our young soldiers and airmen.

That is where they spend their day. It is not a bus stop. It is not where they just stop by and change clothes. It is where they spend those 8-plus hour days on Saturday, and 8-plus hour days on Sunday to do their work, and we think we owe them the quality facilities that they deserve as top notch soldiers and airmen, so we work pretty hard at that, and we think that is very important.

I do not think we have been as successful with getting our message across in some quarters, but we thank you for the outstanding support we have gotten from this committee.

Senator BOND. We look forward to working with you, and thank you very much, Mr. Chairman. I very much appreciate your courtesy.

Senator STEVENS. Thank you. That is about the longest 10 minutes you have ever had, General.

Let me recognize Vice Chief of the National Guard Bureau, Major General Fred Reese from Oregon. We are happy to have you back again, a second tour of duty at the bureau, or the Guard, and we look forward to having your advice as we go ahead.

And General Davis, if you would accept a little, just a little suggestion, I am not a capable semanticist, but I do believe that you referred to your parent services. Maybe brothers and sisters, maybe even big brothers and sisters, but no parent services here when you deploy right along with them.

General DAVIS. I was talking to the total Air Force, sir, and the total Air Force from my viewpoint, and I certainly would not presuppose that I am correcting you, but it is just my perspective, sir, would be to say the Air Force and part of the Air Force is the active component, the National Guard, the United States Air Force Reserve, and then the civilians who work as a part of our total Air Force, sir, and so the parent would be the Air Force, but the active is only a component of that, as is the Guard, sir, so I did not mean they were our parent. I apologize if I gave that misimpression, sir.

FUNDING DEPLOYMENTS

Senator STEVENS. We are still fighting this fight to make sure there is equality there. I believe when people deploy together, there ought to be equality.

By the way, let me ask the first question, just to show my stupidity, really. When you deploy right now, for instance, in Kosovo, do you go onto the budget of the regular service, or are you carrying your funds on to the deployment?

General DAVIS. It will be kind of a mix. Most of it would be picked up by the active component Air Force and active component Army when we have folks involved.

Senator STEVENS. They pick up the incremental costs, or you continue paying the money, right?

General DAVIS. Yes, sir. It is just an administrative thing we do in a PSRC.

Senator STEVENS. But if there is combat pay, they pay it?

General DAVIS. Yes, sir. They reimburse us.

Senator STEVENS. I would like to straighten that out and make sure we are not getting short-changed, is what I am saying, be-

cause these deployments are becoming more often, and for more intensive and for longer periods, and that is going to soon wear on your budget if you have to pick up that and they get emergency funds, that you are spending your regular money.

General DAVIS. Sir, in the past they had reimbursed us for that, or they have given us their checking account and we write checks out of it.

Senator STEVENS. It sounds like my wife. [Laughter.]

She has her account, but she writes checks on mine, too, but that is all right. It all comes out in the end.

General DAVIS. And we do the same thing in the Army, and one of the issues has been in the Army, that is so expensive to call up in a PSRC. It is much more expensive to call up the Army Guard, because that comes out of the active budget.

General Schultz, you may want to comment.

General SCHULTZ. Yes, Mr. Chairman. As we transition on active duty we are just like any other soldier on active duty, and so we fall under their budget requirements.

EQUIPMENT COMPATIBILITY

Senator STEVENS. Well, I am worried about the compatibility issue you mentioned, General Schultz, because you know, when you deploy your people, if they have been training with hand-me-downs they are not at the state of readiness as the regular Army or the regular Air Force would be.

How is the compatibility going? We have tried to transition and get you new equipment. A portion of each new buy should go to each of you, the Air Force and the Army Guard. Is that working? Are your people really training in the equipment they are going to be deployed to operate?

General SCHULTZ. Mr. Chairman, what you are describing is working. We are, of course, always at the end of the line saying we are ready for the next generation of equipment, as are others on active duty, but we have clearly made some progress in this issue of modernization and compatibility.

As the active units, and these are active divisions, change out their tanks and Bradleys, they are making available to us really state-of-the-art systems, tank and Bradley systems and other systems that are cascaded. General Reimer made a decision to change the configuration within the multiple launch rocket system battalions, and all of those launchers that are made available come right to the Army National Guard, so we are making progress.

We still have a long ways to go. Communication systems, for example, in our enhanced brigades, we have a requirement for 6,000 radio systems in our enhanced brigades alone. We are making progress within the Army staff for support on that particular critical line item. So the answer is yes, making progress.

B–1

Senator STEVENS. General Weaver, I notice some of the systems the B–1, for instance, were sent to your people and are proving themselves. In terms of this current operation, are those guardsmen flying the B–1's?

General WEAVER. No, sir. Even though I am parochial, I think we have got the best B–1 units in the total Air Force. We still lack some requirements on those B–1's that we are looking to be able to hopefully get funded this year through our Guard and Reserve equipment account as well, to make them compatible to what the CINC's requirements over there are.

Senator STEVENS. You should tell us about that. We are working on money now.

General WEAVER. Yes, sir. I will get with the committee.

[The information follows:]

B–1

System modifications/upgrades and equipment acquisitions to bring all Air National Guard B–1 aircraft up to theater CINC requirements are in work at this time. All requirements are being coordinated with Air Combat Command and the B–1 System Program Office, and are currently in the Air Force modification schedule for the B–1, and/or are being coordinated for acquisition in the Air Force budget or through the use of ANG funds. All active duty and ANG B–1 aircraft are scheduled for these modifications/upgrades—Guard B–1s are currently scheduled to start depot modification in August 1999. Note: Only six (6) B–1s in the entire Air Force inventory (of 93 aircraft) had the required equipment and modifications required for the Kosovo conflict.

Senator STEVENS. General Schultz, the Guard has had greater success in maintaining end strengths than the regular Army and Air Force, and as I indicated, I am concerned about this conflict between the QDR, that you have got to get rid of 21,000 people, and the report that you need 4,700 more now. I do not know, is this just Army, or is it both Air Force, Army Guard and Air Guard?

General SCHULTZ. Mr. Chairman, a couple of questions in what you are asking. One full-time staff is really from within our current levels of end strength. That is where the 3,000 technicians and the 1,600 AGR soldiers come from. That is the 4,600 you are describing.

The 21,000 coming from the QDR is what is loaded in the Army program today. I must also say, though, that that decision has not been made by the Secretary of the Army, but if you look inside of the Army program, 21,000 end strength is going to be cut from the Army National Guard in fiscal year 2001.

Senator STEVENS. But are you funded for 2000 for the full amount? You do not have to cut it yet?

General SCHULTZ. No adjustments in 2000. We were actually going to 350,000 in fiscal year 2000, so we are on track through the end of the year 2000.

Senator STEVENS. Do you know it is the position of this committee that we are better off to maintain the Guard readiness and not to have any further reduction in the end strength? I am going to have to talk to the Armed Services Committee. Has that been mandated by the Armed Services Committee yet?

General SCHULTZ. Mr. Chairman, I am not aware of the Armed Services Committee.

Senator STEVENS. The 2001 reduction, have you a mandate to come down to that yet?

General SCHULTZ. Not from that committee, Mr. Chairman. We have clearly not volunteered from the Army National Guard's point of view, and I have told General Reimer and the Secretary we are not volunteering to turn in any soldiers beyond the 350,000, but

based upon the QDR decision there is 25,000 soldiers yet to be apportioned between the Guard and Reserve if that original decision holds, and that is really where we are in the process.

Senator STEVENS. Well, let me congratulate you, because I understand that Pentagon leadership added $690 million to your operation and maintenance (O&M) account above the level that the Guard was programmed to receive. That shows some real progress in terms of relationship between you and the regular service, and I think General Reimer is to be congratulated for that, also.

But I do think we have still got some problems about backlog, and Senator Bond mentioned the tiered basis of allocating resources. That is like shooting your foot every time you want to go down another step, because if the top step is fully funded, then the next step is not, and you get to that one, you are in real trouble. I do not like that too much.

General SCHULTZ. If I can respond to that point, 48 States' guardsmen have supported the mission in Bosnia to date, and what is of interest to us is all of those later-deploying units are among the set that we are sending to Bosnia, meaning they are at the bottom of the food chain.

They are later in the tiering, which means we clearly have not sent them adequate money in past years. That is why I mentioned the support of this committee last year, putting our divisions back on a road to a reasonable level of readiness, and we have made some progress, but clearly in the past those units have not been appropriately funded.

KOSOVO OPERATIONS

Senator STEVENS. I am in a battle up here now. We are spending $1.6 billion in Bosnia for 5,400 people, and yet with 20,000 people in the Kosovo area we are supposed to get by on about $10 million. You know, you do not need an abacus to figure out there is a misconnect there somewhere, but I cannot get anyone to listen to that. At least so far they are not listening. Are you fully funded now in what you are getting for your deployments?

General DAVIS. Mr. Chairman, our OPTEMPO account is really the only one that is a little short this year, in addition to full-time staffing, and we are at $139 million short or unfunded for fiscal year 2000.

Senator STEVENS. How about you, General Weaver?

General WEAVER. We are OK. Our Air Force does very well by us. Any time we are either through volunteerism or PSRC we are taken care of quite well. As far as manpower, back to the manpower, we have got a potential problem. We are working within the Air Force. That mandates that we take out 1,500 civil engineers.

We are working that problem within our Air Force, and trying to make sure that does not happen, because if it did it would take down 26 Air National Guard civil engineering units in 26 different States, and we are working very hard with Secretary Peters, and he believes strongly we should not take those down, and we are working with him.

Senator STEVENS. I want to get back with you on military construction. I will recognize Senator Inouye now.

Senator INOUYE. Thank you. I would like to first ask questions on the rapid assessment initial detection team, RAID. I believe the goal is to have a team available within a couple of hours of any major metropolitan area. Alaska and Hawaii, because of their locations, are put together with California, and naturally California is going to get the RAID team, and this has been the name of the game from day one. Hawaii and Alaska are foreign countries, I believe.

I hope you are seriously considering setting up these RAID teams in Alaska and Hawaii, and I am not saying this from a parochial standpoint. The tempting targets are Alaska and Hawaii, number 1, militarily. We have significant military activity in those two States. Second, our level of visitors, tourism and otherwise, dignitaries, I would say would far outdistance most States, and I would think that because of the vulnerability as potential targets our two areas should be considered. Do you agree with me, sir?

General DAVIS. Yes, sir, and I know as a part of the effort, looking at somewhere between 5 and 10 teams this year, the Department of Defense is establishing criteria to look at that, and I know that Hawaii and the arrival of RAID teams on-site is one of the factors they are using, one to which you alluded. Some of the other factors are population density, the availability of aircraft to move the RAID teams and that kind of thing.

And I know that as a part of that consideration, I know last year when the 10 teams were given out to the 10 Federal Emergency Management Agency (FEMA) regions, Hawaii and Alaska received major consideration there, and I know that there has been a lot of discussion of additional RAID teams, that would be very, very likely and logical candidates.

I do not know where we are in that process. Hawaii and Alaska, I know I will carry that message back to the Department of Defense.

Senator INOUYE. Senator Bond brought up the matter of Milcon and armories. I would like to add a little different dimension to that. In my assessment of armories throughout the Nation, and more closely with the ones in Hawaii, I note that unlike regular military buildings, an armory is also a community center, and I think it serves a good purpose.

For one thing, it advises our people, the nonmilitary, that there is someone looking after your interest all the time, and I would hope that the active forces would take that into consideration. The average American does not often go onto military bases, but they are in your armories to attend everything from high school dances to community bazaars. So, I think they serve a good purpose.

COMBAT READINESS OF ARMY NATIONAL GUARD

General Schultz, you mentioned that 79 percent of your units, or your personnel, are combat-ready.

General SCHULTZ. Today, Senator, 71 percent of our units are deployable. If you take out the units that are undergoing new equipment conversion and so on, it is really 76 percent, so it is the 76 percent of our units, plus those later deploying units, the divisions that make up our total capability.

Senator INOUYE. Now, what standards do you apply in determining what is ready and what is not ready?

General SCHULTZ. In the case of combat units their requirement for premobilization is that they demonstrate platoon-level skills, platoon-level maneuver. That is a lieutenant and a platoon sergeant, demonstrating that they can maneuver and control the squads that are subordinate to them. In the case of service support units it is really company-level training that is required.

Senator INOUYE. Is this the standard set by the active forces?

General SCHULTZ. It is the standard set for Reserve components, yes, by the active forces.

Senator INOUYE. I ask this because during Desert Storm there was some severe criticism about our Guard troops not being ready, and yet at that time we were told that the Guard troops were ready, so I was wondering who was determining who is or who is not ready.

General SCHULTZ. Senator, as you are familiar, the 29th Brigade will go through joint readiness training, Senator, this summer, another example of an ongoing evaluation of our combat unit formations, and we can—the Army Guard can deliver brigade-level combat formations without any question. Today, the standard is within or less than 90 days.

GUARD READINESS

Senator INOUYE. And my other question is, how can you maintain this level of readiness if you are not permitted to have the full-time manning requirements met? For example, I do not know what the national average is, but for Hawaii they are limited to 54 percent, so 46 percent of the slots are unfilled. What is the situation nationwide?

General SCHULTZ. Across the country, Senator, we have 51 percent of our requirements filled. That is from the higher priority to the later deploying units. What it means is every unit in the Army National Guard shares a piece of the pain that you are describing. What it means is, we are less ready than we should be, and it means that we cannot look after our soldiers like we should, and also the equipment component that I talked about earlier is also another factor.

Senator INOUYE. And you are still able to present 76 percent readiness level at this time?

General SCHULTZ. Yes. I say, Senator, we are operating right on the margins. When the commanders say to us, I am OK with this level of readiness, but it is right at the tier of falling from one category to another, and full-time staffing is showing up in more of the reports than we have ever seen.

Senator INOUYE. As a commander, are you satisfied with that situation?

General SCHULTZ. No, I am not, Senator.

Senator INOUYE. What is the shortfall involved in this, to have a fully manned organization? I was told it is $186 million.

General SCHULTZ. Senator, it is $185 million for fiscal year 2001. I mentioned earlier the costing factor. There is an adjustment in how we had costed our technicians. When you take out the $57 million costing error, our requirement is $128 million to bring back

both technicians, military technicians and active Guard and Reserve soldiers to levels that are validated by the Army.

Senator INOUYE. Do you think you can find $128 million, Mr. Chairman?

Senator STEVENS. If you ask for it.

Senator INOUYE. You heard the answer. He says if you ask for it, we can find it.

General SCHULTZ. Senator, I am asking.

Senator INOUYE. General Weaver, are you asking for it, too?

General WEAVER. Boy, I need some new F–16's, sir. [Laughter.]

Senator INOUYE. General Davis, are you asking for it?

General DAVIS. Yes, sir. I think it is very key. One of the things that we might mention as a part of our capability of maintaining our readiness at a very high level, we have a large number in the 60 to 70 percent range of people who have been on active duty before.

The other thing is, they do not shift units from year to year. In a typical active unit an individual will stay there from 2 to 3 to 4 years, probably max. In the Guard, they are in the same unit doing the same job as a squad leader with the same people year after year after year.

We have got about a 20-percent turnover rate in the National Guard, and many of these combat units, these folks stay there and work together for a long time, and so they are very comfortable with what they do, and that is why they are able to maintain the readiness standards, because they have got 16 years or 18 years as a squad leader, or in a squad.

F–16

Senator STEVENS. Would you yield just a second, and I know Senator Cochran is next, but I prefer we look at these increments on a structural basis and not on a 1-year basis, General, and yours, too, General Weaver. I think we ought to look at maybe saying we could get you 10 more F–16's a year for a period of years, rather than try to get you a lump sum and not be able to go on out.

With your money, I do not know what it means, but I would have to analyze that, but I would much rather see us start something that we can keep up, than to have some blip on your screen as far as your figures are concerned. Would you take a look at that and see what kind of a program you would need funded for, say, 4 to 5 years, and I think there would be probably a little bit lower than the figure you mentioned, but the total would be a lot more than is in the QDR right now for both of you, but I do think you need more F–16's, and your people are going to be flying them over there in Kosovo, are they not?

General WEAVER. Yes, sir.

[The information follows:]

F–16

The Air Force will procure 30 new F–16CJ aircraft over a four (4) year period of time: fiscal year 2000 = 10, fiscal year 2001 = 0, fiscal year 2002 = 10, fiscal year 2003 = 10. The unit cost (in fiscal year 2000 dollars) is $26,600,000. This 30 aircraft procurement will create an additional (i.e. tenth) active duty SEAD squadron. Therefore, an additional cost of $40,000,000 exists for support equipment unique to

the F–16CJ Suppression of Enemy Air Defenses (SEAD) mission. This will hold true for any subsequent unit that converts from pre-block 50/52 to the block 50/52.

These new aircraft will replace active duty F–16 Block 30s, which in turn will be assigned to ANG units currently flying older F–16A aircraft. This Total Force solution will result in an increased capability in both the active duty and ANG, while enabling us to save money by retiring our aging A-models.

Senator STEVENS. If we win the argument, you will get some.

Senator INOUYE. I have just one final question, Mr. Chairman. There is a difference between the active forces and the Reserve forces, and as a result, problems differ. Before the hearing began, General Davis, we were discussing some of the problems, and you came up with something that I thought was very important, that we are not saying enough about the sacrifices that have to be made by families. It is one thing to be a spouse, or family member of an active duty soldier, because you know that certain things are to be anticipated, but with the Guard, that is another story. Are we doing enough to take care of our families?

General DAVIS. We are doing a lot. Enough? I doubt it. As I go around the country and talk to families, as is typical of most military families, and I think in the Guard we are not any different, people understand there is going to be some sacrifice, so they tuck it in and sacrifice.

But the additional hardships with two parents working—and it is not really any different than the active component, except that they have health care and they have day care, or child care and that kind of thing, and we do not have that in the Guard, sir.

And so—and everything comes at a price, and I understand the requirements of dollars, but we are not able to take care of our people as well as we would like when they get mobilized and they come into the same requirements of pay, as was mentioned a little bit earlier, and entitlements, so they are just like any other active soldier or any other active airmen, and so they can go to the base and they can request to get their young kids, dependents into child care, and so the spouse is there doing that.

We have not done as good a job, I think maybe, in terms of some of the preparation, things we could do in the Guard, and part of that is a function of having the full-time people on board. General Weaver has engaged in the last year-and-a-half in a major program to upgrade his family program, so we have not been able to find the exact dollars we need in that arena.

We are not doing nearly enough, and so I think we need to, and we are talking about having a seminar this summer in Dallas, and we are going to look at what additional things do we need to be doing to support our families. As opposed to, we are doing these things and this is nice, what are we missing, what are we not doing.

Senator INOUYE. Thank you.

Senator STEVENS. Senator Cochran.

GUARD FORCES

Senator COCHRAN. Mr. Chairman, thank you. General Davis, we know that you are busy complying with the call-up order that has gone out to Guard forces. General Weaver talked about some of the units who would be sending airmen to the Adriatic, Kosovo and re-

lated bases. As you are well aware, there are many Guard and Reserve forces already supporting the Kosovo operations.

In fact, in our State the 186th Air Refueling Wing, which is based at Meridian, Mississippi, is refueling combat aircraft over the Adriatic Sea today, and there are a number of others throughout the country who are active in this conflict.

You mentioned what you are doing to try to help deal with family situations and requirements, and you pointed out the employers and the sacrifice that they are making when their employees are mobilized and are sent off to active duty.

Could you describe in a little more detail what the Department is doing, and what the Bureau is doing to ensure that we continue to get the support we need from employers around the country, who have to lose critical members of their staff and their businesses who become members of the total force? How does the National Guard help the small businesses, in particular? In my State, we do not have many big corporations involved in this, but we have a lot of small businesses that are affected. What is being done to deal with that?

General DAVIS. Well, one of the things we do is, we conduct seminars so that we can explain to them what it is all about. I was in Dayton, Ohio about 3 weeks ago on a Sunday to visit with about 300 of these volunteer patriots who have come there because they are willing to help us explain to employers—Employers to Support the Guard and Reserve is the committee, and it is chaired here in Washington, DC, and that works out of the Department of Defense—explaining to them how we are doing, what we are doing, and why it is necessary for them to have their employees away, and these are people who volunteered, great American patriots, to help us explain to other employers.

We have a law that was passed a few years ago, Uniformed Services Employment and Reemployment Act, that gives the statutory basis for what employers have to do. We do not want to rely just on the statute. We want the goodwill of the employers, so it is important and very key we have the employers in each of the States and territories, here in the District, where we have those folks come together and meet to try to talk to employers.

We have what we call an ombudsman as a part of that process who can go out and talk to employers when an employee has a difficulty being rehired following a deployment, or for a contingency, or just a normal, routine annual training deployment, and so we are doing a number of things.

Are we doing enough? Probably back to the same issue with the family. I think we could probably do a lot more.

MISSISSIPPI NATIONAL GUARD

Senator COCHRAN. General Schultz, the Mississippi National Guard is going out to the National Training Center this summer.

Last fall I was down at Camp Shelby observing the preparations that were underway so they could have a successful training exercise in California at Fort Irwin, and it reminded me, with this call-up and General Clark commanding our forces in Kosovo for the entire NATO alliance, that I first met him when he was a Brigadier General in charge of the National Training Center, when the Mis-

sissippi 155th Armored Brigade was sent out there for training during Desert Shield/Desert Storm. And here we are now seeing our unit go back again to prepare to be a part of whatever total force requirements they may be called upon to fulfill.

I hope I can go out and observe this training this summer. I would not be in the way, I hope, if I went out there, would I?

General SCHULTZ. Senator, I hope you can visit. I spent this last weekend with the leadership of the Mississippi Guard, and General Robertson and the team are prepared for this mission, I assure you.

Senator COCHRAN. We are very proud of the work that they do, and one of the things I observed was the tank range exercise at Camp Shelby. They are working now to try to enhance the training as possible there. They have got a multipurpose range which they are hoping to complete. An environmental impact study has been completed.

I hope you will look into that and be sure that everything that is needed from up here in Washington is being provided in terms of support for the efforts of the Mississippi Army National Guard and that training center. Do you think the improved range that is contemplated will contribute to Guard and Reserve readiness?

General SCHULTZ. Senator, we look at the ranges at Camp Shelby as one of our treasures in terms of resources for training soldiers. We are awaiting Phase 3 of that construction project right now. There are no impacts that I am aware of holding up that project. We have completed the environmental impact statement, and we are proceeding on schedule, of course with the clearance of the Congress on this particular budget. It is in our future years defense plan (FYDP) right now as a project.

Senator COCHRAN. Good. Well, we want to be sure we try to get the support we need from this committee and the Congress to fund that effort.

C–17

General Weaver, the C–17 aircraft have been identified as the next generation, and we are happy that the Mississippi Air National Guard unit in Jackson, Mississippi, will be the first Guard unit in the country to receive those aircraft. Even though it is some distance in the future, I hope we are planning to accept those planes when they are able to be allocated to that unit, and I hope you will help us by providing for the record what needs to be done in terms of military construction or equipment or training to prepare and be ready for that eventuality. We are very pleased that the plan is still on track. I wonder if you could just bring us up to date and give us an overview of what the timetable is for that deployment?

General WEAVER. The exact timetable in fact, sir, with General Robertson, the commander of the Air Mobility Command certainly has recognized the importance of making sure that this conversion is a textbook conversion, and we at the Guard Bureau as well will ensure that that will happen.

Everything right now is on track, to include the military construction. We are looking at possibly updating the simulator building by 1 year to accept the simulator earlier, if we are able to get

the simulator, and so we are—actually, all of us are leaning forward to accept the C–17 not only on time, but we hope to break that time schedule, and I can give you that for the record, sequential, but as far as assistance and help, I think we are pretty set in that conversion, and we are really looking forward to the C–17 being up there in Mississippi.

[The information follows:]

C–17 AIRCRAFT

The MILCON for C–17 beddown at the 172nd Airlift Wing is "on track". A C–17 flight simulator building is scheduled for fiscal year 2000. In fiscal year 2001, a C–17 Corrosion Control/Maintenance Hangar is proposed. In fiscal year 2002, a C–17 Conversion project is planned that combines several base facilities. In fiscal year 2003, the Fuel Cell Hangar and Shops will be upgraded to accommodate the C–17, and the aircraft ramp will be modified to meet C–17 requirements. The flight simulator equipment installation is also planned in fiscal year 2003. In fiscal year 2004, a C–17 Maintenance Training Facility is planned, and a C–17 Shortfield Runway is proposed for construction at Camp Shelby. To round out the ANG MILCON requirements, an Expeditionary Forces Center is planned in fiscal year 2005.

All Support equipment is planned and funded in the Future Years Defense Program.

The Air Force Air Education and Training Command will accomplish all training for the 172nd Airlift Wing personnel on-site, using existing Air Force C–17 facilities.

Additionally, circumstances may preclude all training taking place on-site. Definite training requirements will be forthcoming following the Site Activation Task Force (SATAF) visit in October 1999.

Senator COCHRAN. We had heard that there is a possibility that the delivery of the C–17's might actually occur ahead of schedule, and I think right now it is fiscal year 2004, is the plan for the arrival date. If there is a possibility of delivering the planes ahead of schedule, there is a chance or possibility that the C–17's will be delivered to the Mississippi Air Guard in Jackson earlier than 2004?

General WEAVER. Yes, sir. That is not only our comment but the comment of General Robertson as well.

Senator COCHRAN. Well, we appreciate the support that you have provided to the units in our State, and we are pleased that we were able to get some additional funds because of hurricane damage on the gulf coast to improve and repair Gulfport units, and the facilities in that area. They are very important, as I understand it, to the Air Guard requirements.

General WEAVER. Yes, sir. That is a great cooperative threat reduction (CRT) force.

Senator COCHRAN. Thank you very much, Mr. Chairman.

Senator STEVENS. Yes, sir. I appreciate your raising the subject of the C–17. Senator Inouye and I want to talk about the C–17's with you one of these days, too. We have forward-deployed forces, but we are going to have to wait for transportation to come and take them to areas of crisis, and I think that as these transitions take place, that that consideration ought to be taken into account. We are going to have after 2000 and what, 7 or 8, that will be a major air transport capability, the C–17's.

General WEAVER. Yes, sir. It is a great airplane.

Senator STEVENS. I think we are going to have to build some more of them if this current situation shows what happens when you get a small crisis, and it is a small crisis, 20 million people standing up against 780 million people. The difference is their abil-

ity to resist based upon where they are located, and that basis raises some questions.

I understand, General Schultz, the training center that Senator Cochran is talking about, and it is a very vital one, but you know, if we have to stay in Kosovo during the winter, and Albania during the winter, that training is not going to be worth that much. I hope you get some people thinking about letting people learn the ability to survive in cold weather and to come up to Wainwright training range with some of these people, too. They come up in the summertime, but they very seldom come up in the wintertime. That has always bothered me a little bit about our ranges.

General, I understand that you have two Army division headquarters associated with enhanced Army brigades, Army Guard brigades. Is that an ongoing thing, or is this just an experimental thing?

General SCHULTZ. Mr. Chairman, it is a test. We have two active component division headquarters that we are going to stand up this October. We are going to raise the organizational colors here in June, but officially the divisions stand up on October 1, and subordinate to these two major general commands on active duty will be three enhanced brigades each, three light and three heavy brigades that will be subordinate to an active component division headquarters for training, readiness, and oversight. It is a test program.

Our thoughts right now include looking at these units at some point in the future, perhaps 2 years away yet, where we confirm that these new divisions could be deployable as division sets.

MILITARY CONSTRUCTION BACKLOG

Senator STEVENS. You know, General Davis, according to my calculations, last year, 1998, was the lowest funding on a comparable basis for the military since 1939. We have tried to bring that back up again. I asked my staff to look into it. We are informed the Army Guard backlog for military construction is $4 billion, and the backlog for the Air Guard is $1.6 billion, and you continue to receive a disproportionate share of the Department's Milcon resources.

The military construction funding for this year is abysmally low. I understand the budget restrictions, but at the same time, this cannot continue if you are really going to be full active partners with the other services. Did you request—and I know you are not supposed to answer unless asked specifically, so I am going to ask you. Did you request more money from the Office of Management and Budget (OMB) for Milcon?

General DAVIS. Well, sir, we make our request through the Army and the active. In terms of the way——

Senator STEVENS. Did you request more?

General DAVIS. Yes, sir. We requested additional funding.

Senator STEVENS. Did the Department send that on to OMB?

General DAVIS. Some of it got sent on. Some of it did not. Normally, that is a process that is a dual review process, so DOD works in conjunction with OMB as they do their review process. We requested additional funding.

Senator STEVENS. I see the result, much too low. We cannot see that backlog continue to increase. Do you have any figure of how much it continues to increase, to build up and compound per year?

General DAVIS. On an annual basis, we think it is somewhere in the area, I think in the Army Guard about, something on the order of about $400 million a year, and slightly less than that in the Air Guard, I think something like $200 million, I believe, are the numbers we have done.

One of the concerns, and one of the difficulties I think in that process has been in the past this committee has really done a magnificent job of providing funding, and there are some people who feel that there is no purpose in, or point in adding it in, because the money will get added once it gets over here.

Senator STEVENS. We cannot add that much every year to even keep up with the backlog, and the regular services have this same backlog. We are funding our overseas deployments by failing to take care of our assets and to maintain our bases, and maintain our equipment, and really keep up with the backlog, even in the basic infrastructure that Milcon will take care of, and I really do not know the answer.

I was just telling my colleague, we are facing considerable opposition in what we are trying to do, and make people realize we just cannot keep up this tempo of operation in South Korea and Iraq and Saudi Arabia and Bosnia, and now around the Kosovo area, without recognizing that all of that is wear and tear not only on the personnel but on the equipment.

And I think we are seeing it in terms of the reenlistment rates, and the enlistment rates as far as personnel, but we certainly are seeing it even more so in terms of the basic inability to keep up with this normal wear and tear on the systems. It bothers me a great deal, and I will talk to you later about that.

SHORTFALLS

I mentioned you did get $690 million in O&M. Did that cover your critical shortfalls?

General DAVIS. It covered a significant number of them, sir, not all of them. As General Schultz said, we are still about $139 million short of what we need and require to train at the required levels for our individual crew squad training in the Army Guard and its Army related question, sir, and so we do not have enough yet.

We are working our way through that. We are getting better and getting well. In the 2001 budget there is even more funding involved in that, as we look at the program, now. It is not budgeted until we actually have the dollars, but it does look like there is some more improvement in the deficit, in our shortfalls.

This year for the first time I think, as I said, we have been able to send people to both training to do their training in their military occupation specialty (MOS) and training in their professional development training in the Army, in addition to be able to go to annual training. That was not the case in the past few years.

So we are able to do that. We still require that additional $100 million, and then we have to have that as a continuing stream in the long term. It is not just a 1-year incremental. We need that,

and it needs to be programmed out in the future, so it is that kind of a situation.

Senator STEVENS. Now, how about the emergency supplemental we have got before us now. Is there any part of that, have you been notified, will come to you?

General DAVIS. Yes, sir. I believe our part is something on the order of about $800 million, and that is all of the requirements we have placed in there. I am not sure how that will fair. There have been some additional scrubs to the dollars, actual dollars for that, and I know early this week there were some additional review, in-depth review justified line by line, each of the items, so we are trying to get a more pure figure, I think, from the Department of Defense to bring over to you. I think you asked on the Hill here.

Senator STEVENS. We are going to have a classified briefing this afternoon with the military, with one of the Generals from the Joint Chiefs. I would hope that you can tell them if you have any items that are in that area, that classified area that have not been covered in this pending request, because it is going to be difficult to have a second supplemental.

General DAVIS. I think we have expressed our requirements day-to-day, and I would defer that to the two Directors, since their people are working at the working level with all of the programmers and all of the budgeteers in the building in both the Army and——

ROTATION

Senator STEVENS. Those reservists have been called up to guard the Apaches, have they not?

General SCHULTZ. The Army Reserve, yes, does have an Apache rotation in Operation Southern Watch, so the Guard has already pulled one rotation, and we are scheduled to go back with a unit from South Carolina this fall.

Senator STEVENS. You have a limitation of 180 days?

General SCHULTZ. The limitation is really 270 days, and we are really in favor of shorter duration deployments than longer, for the very reasons that have already been mentioned.

Senator STEVENS. We talked about that yesterday. There is no provision in that request of the President's for any rotational costs, and that bothers me considerably.

I do want to urge you to take a look at that and would welcome you to have a Guard trip to Alaska this summer, if one of you can take that on. We do have an annual trip up there, or biannual trip, visiting some of the smaller units, and that is a very important visit to them, and I would like to see it take place, if it can be arranged.

General DAVIS. Yes, sir. We have an interest in going up there and looking at the units also, so we will work with your staff and see if we can possibly do that and invite you along, sir.

COMBAT TO COMBAT SUPPORT CONVERSION

Senator STEVENS. You are going to have a conversion of our people, are you not, to combat support? Didn't I hear that you are going to convert our people?

General SCHULTZ. Mr. Chairman, the Army Guard leadership has agreed to convert up to 12 combat brigades to combat support

and combat service support missions. We are in the first phase of that program right now, and it is a four-phased accomplishment overall, and so we are really in the early stages of that execution.

Senator STEVENS. I would be remiss, General, if I did not mention Littleton here because of your National Guard ChalleNGe Program. I do not know whether there was a program there in that area of Colorado. Is there an armory in Littleton?

I do not know that area that well, but I do know that the work that you are doing in regard to the National Guard ChalleNGe Program, and the general equivalency diploma (GED) capability that you have to take young people through, young men and women through a critical period of their life where they are not making it in high school, and your program is really—is a fantastic one. As you know, I know from personal experience, that it has been very successful, and it is something that I hope we can make certain that you have the ability to continue.

One of the problems is the cost-sharing from the States is increasing, and many States are complaining they do not have the ability to increase that cost-sharing. I would like to see if we cannot find some way to work with you so that there is an amount that will enable you to continue and expand some of those programs with lesser contributions from the States once the programs are underway. I think you have the capability to provide additional opportunities for young people.

You had, as I understand it, just 15 States last year. This year, by the end of this year you will have 26 States and one territory. Twelve more States have told us they want into that program, and the contribution of the DOD is capped at 60 percent of the program. That just will not work, because States will not pick up the additional cost of success, really. I think they will participate, but I think you have got a chance to really have an increasing impact on these young people that have sort of lost their way, and it has been highly successful in Alaska. I am told you have 16,000 graduates so far.

General DAVIS. Yes, sir, 16,000 graduates and 12,000 of them managed to get their GED, so it has been a very, very effective program, one of the most cost-effective programs we have for young people. Also, young people are staying free of crime. We are in a major study now to look back at the 5 years of graduates to see what they have done and where they are, and I was just down in Louisiana 2 weeks ago and had the opportunity to visit some of those fine young people in the program.

Senator STEVENS. I wish we would get more Members of Congress to visit them and find out what they mean, because I think it is the most effective program to deal with juvenile delinquency in the whole country.

The next one is the Boys and Girls Clubs, and we have been increasing funding them. They are generally a younger group, but you are picking up really young people who have been partially through high school and for one reason or another have run afoul of the law, or run afoul of just drugs, and the accomplishment is really staggering, and I think the Guard should be really commended for what it is doing.

I have met some of these people that have come back, and they are really retired military in many instances who are the instructors and the mentors. It is just a fabulous, fabulous program. Every single parent that I have met that has had children go through that course have sought me out and said, if you can possibly expand that, do it, because that is the one that is working.

I want to encourage you to tell us, you ask how much money we can find for that other program. We can find any amount that you want to take on to expand that National Guard ChalleNGe Program. I can tell you that without any question the Congress will support that, and what you are doing, you really ought to get recognition from the President as far as basic unit citations for the people that are working on this National Guard program.

It is the most fabulous thing I have seen the military do in all my time sitting here. It is just a tremendous thing, and you have to be involved in it to understand it, I think. As an old friend of mine said to me once, I puddle up too easy, but that one affected the future of my grandson, and I will never forget it, so thank you very much.

Senator INOUYE. If you would yield, sir, I cannot say enough about ChalleNGe, also. It is very successful, as you know, in Hawaii. I think the record should show the costs as shown in your report. For ChalleNGe, it is $14,000 per corps member, for boot camps, $30,600, for the Job Corps, $30,000 per member. We have got a bargain here, and I think of all the three programs ChalleNGe is much more successful.

Senator STEVENS. And it is turning out to be one of the finest recruiting mechanisms, far and away. Almost half of those young people, men and women, are going into the service and being accepted. It is really a tremendous thing.

Senator INOUYE. And to think we were ready to dump it at one time.

General DAVIS. Well, it started as a test program. That was one of the difficulties. It started as a test program, and people said, we do not think the test has proved what we think it ought to prove, but the alternative for many of these young people, because they are unemployed, and because they are in that high threat group, 16 to 18 years old, and they are not involved in school, they are drop-outs, there is a very great tendency for them to get involved in the penal system and the judicial system, and the result is that about $20,000 to $30,000 a year also, to keep them incarcerated, so we think we are making a big difference, and hopefully we are taking those young people and putting them on a path to become contributors to society, and not detractors from society.

ADDITIONAL COMMITTEE QUESTIONS

Senator STEVENS. Well, that ChalleNGe Program will not decline as long as the two of us are here, either, but I think the two of us sat here and listened to people who said we did not need the C–17. Three years in a row they tried to kill the C–17 and the F–22. Sometimes I wonder what is going to happen when some of the old heads from our war are no longer here.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO GEN. ROGER C. SCHULTZ

QUESTION SUBMITTED BY SENATOR RICHARD C. SHELBY

ARMY NATIONAL GUARD FULL-TIME MANNING

Question. The size of our Army National Guard is shrinking while operational tempo has remained the same. What can be done to improve the level of full-time manning in the Army National Guard units?

Answer. The reduced size and increased tempo of the remaining units of the Army National Guard make adequate resourcing of Full-Time Support even more critical. I am requesting, but do not expect full funding and authorization in fiscal year 2000 to support the Army National Guard request of 23,500 Active Guard Reserves (AGRs) and 25,500 Military Technicians. The Army National Guard will work through the POM (2001–2005) incrementally increasing our Full Time Support objective levels, however, if authorizations and resources are provided prior to 2001 we will fully execute those authorizations. Army National Guard Full Time Support levels directly impact Army readiness by providing critical training, command and control, technical, functional and military expertise required to efficiently and effectively sustain required peacetime readiness levels and transition to a wartime posture. The shortfall of Full Time Support significantly increases the risk of mission failure for those units in support of operations for the unified and combatant commands as well as Homeland Defense. Today, an aggressive modernization program exists which significantly increases the number of high tech, maintenance intensive weapon systems and equipment in the inventory. The impact of reduced Full Time Support manning levels manifests itself in a significant downward trend in equipment and training readiness. New Active Component/ARNG Integrated Divisions, including multiple-component units, Force XXI Division Redesign and Division Teaming have also generated the need for support, which may adversely impact our currently undermanned organizations. Without additional Full Time Support resources, the Army National Guard will not be able to fully support the integration initiatives without further reducing the level of support to our later deploying units. Implementing a phased approach is the best solution to begin on a "road to recovery".

QUESTIONS SUBMITTED BY SENATOR BYRON L. DORGAN

FULL-TIME MANNING SHORTFALLS

Question. How is the Army addressing the shortfall in full-time positions for the Guard and Reserve?

Answer. Current and future Army operations depend on a fully integrated force with the flexibility to respond quickly to meet rapidly changing operational requirements. Full Time Support personnel are critical links to the interoperability of the Army components. The Army leadership has conducted a rigorous analysis of Full Time Support requirements in its reserve components and endorses the requirements and the methodology used to determine those requirements; however, current resourced levels of Full Time Support manning do not meet the responsibilities of my office. I have submitted requests for additional Full Time Support authorizations. To begin on a "road to recovery", the Army National Guard has requested Full Time Support end strength and resourcing to support 23,500 Active Guard Reserve (AGR), (an increase of 1,627 AGRs—funding phased over POM 2001–2005) and 25,500 technicians, (an increase of 2,399 military technicians—funding phased over POM 2001–2005). During this timeframe, Full Time Support requirements will be reviewed in conjunction with realigned TAA07 force structure allocations during the POM 2002–2007 process. However, the Army has not been able to meet the required levels of manning due to an affordability issue (i.e., the Army Total Obligation Authority (TOA) has not been sufficient to cover the requirements).

READINESS AND RETENTION PROBLEMS

Question. Will a phased approach (fixing the problem over the FYDP) to fixing this problem mean readiness and retention in the Guard and Reserve components will get worse before they get better?

Answer. The drawdown of Full Time Support end-strength has had a severe impact on the ability of all Army National Guard units to maintain readiness standards and contributes to the degradation of quality of life for our citizen soldiers and their families. Implementing a phased approach is the best solution to begin on a "road to recovery". I do not expect full funding and authorization in fiscal year 2000 to support the Army National Guard request of 23,500 Active Guard Reserves (AGRs) and 25,500 Military Technicians. The Army National Guard will work through the POM (2001–2005) incrementally increasing our Full Time Support objective levels, however, if authorizations and resources were provided prior to 2001 we would fully execute those authorizations. During the interim, as we phase the increase in Full Time Support force, our challenge lies in meeting increasing mission requirements. Implementation of force structure changes (Multiple-Component, Force Integration, Total Force, Weapons of Mass Destruction, Information Operations, etc.) and modernization of equipment has intensified training and maintenance demands on Full Time Support manpower. There is a negative impact on units/armories when validated requirements are resourced at less than half. Soldier overall morale is low when there are only one or two soldiers in an armory or unit performing the work of three or four soldiers to recruit, supply, train, administer, organize and maintain the unit. When traditional soldiers do not receive adequate service due to shortages in unit level Full Time Support, some of them decide to leave the Army National Guard. Losing fully qualified soldiers impacts on unit readiness. Quality of life is degraded because there is insufficient manpower to provide fundamental services and support for the soldier and family. In light of all this, soldiers are being required to increase their commitments to accomplish implementation of force structure changes, additional mission requirements and equipment modernization initiatives.

Question. Would the Army be able to address this problem more quickly if additional resources were made available?

Answer. Yes. Army National Guard Full Time Support levels directly impact Army readiness by providing critical training, command and control, technical, functional and military expertise required to efficiently and effectively sustain required peacetime readiness levels and transition to a wartime posture. The shortfall of Full Time Support significantly increases the risk of mission failure for those units in support of operations for the unified and combatant commands as well as Homeland Defense. Today, an aggressive modernization program exists which significantly increases the number of highly technical, maintenance intensive weapons systems and equipment in the inventory. The impact of reduced Full Time Support manning levels manifests itself in a significant downward trend in equipment and training readiness. Initiatives such as new Active Component/Army National Guard Integrated Divisions, multiple component units, Force XXI, Division Redesign and Division Teaming have also generated the need for support, which may adversely impact our currently undermanned organizations. Without additional Full Time Support resources, the Army National Guard will not be able to fully support the integration initiatives without further reducing the level of support to our later deploying units. It is necessary to begin a "road to recovery" to increase the Army National Guard Full Time Support manning levels so I can fill vital positions in support of Total Army operations.

QUESTIONS SUBMITTED BY SENATOR RICHARD J. DURBIN

ILLINOIS GUARD FULL-TIME MANNING

Question. The Illinois Adjutant General of the Army National Guard says that the Illinois Guard is woefully understaffed, and the lack of Full Time manning is affecting readiness. A number of state Adjutants General say that $184.6 million is needed for increased staffing, and that staffing requirements should not be handled through the Army POM process, which they say could take up to five years to reach desired staffing levels. Are more personnel critical for the Army National Guard? Will the Army process take five years? If so, can the Army National Guard afford to wait five years for the staffing shortage to be remedied?

Answer. The Army National Guard's resourcing for its Full Time Support force is woefully low. We are now taking measured risks against deployment criteria with our lesser priority units to ensure a larger portion of required strength to resource our highest priority units. The failure to provide an adequate level of full time manning in our Army National Guard units is creating an unacceptable risk of mission failure if called upon for a national or state crisis. The current Full Time Support force is resourced at 54 percent of the overall required manning levels, less in lower

priority units. When our current force is arrayed against deployment timelines, the Army National Guard is only able to support Force Package 1 units at 65 percent Active Guard Reserve (AGR) and 70 percent Military Technician (MILTECH) while Force Package 4 units are only able to be supported at 36 percent AGR and 40 percent MILTECH. Additionally, during the last three year period the Army National Guard has recorded a significant downward trend in equipment and training readiness rates. We immediately need 23,500 AGRs and 25,500 MILTECHs. Implementing a phase approach is the best solution to begin on a "road to recovery" because I do not expect full funding and authorization in fiscal year 2000 to support the Army National Guard request of 23,500 Active Guard Reserves (AGRs) and 25,500 MILTECHs. The Army National Guard will work through the POM (2001–2005) incrementally increasing our Full Time Support objective levels but if authorizations and resources are provided prior to 2001 we will fully execute. During the interim as we phase the increased Full Time Support force the challenge lies in meeting increasing mission requirements. The composition of force structure in the Army National Guard has changed significantly due to modernization of equipment, the fill of equipment to authorized TO&E levels and the realignment of Force Structure Allowance among the Army's components. Today's more modern equipment is more manpower intensive with respect to routine maintenance and repair. Too many of our armories have only one Full Time Support soldier assigned which has caused a severe lack of support for soldier and family care as well as an unrealistic expectation for this lone Full Time Support soldier to perform in multiple functional areas. We also need more manpower to handle both Weapons of Mass Destruction and the emerging mission of Information Operations. Additionally, the ARNG has been assigned many additional missions, which are absolutely necessary to facilitate the integration of the Army National Guard into one common force with the Active Component and United States Army Reserve. Increasing our full time support force to 23,500 AGR and 25,500 MILTECH will put the Army National Guard on the "road to recovery".

DANVILLE ARMORY AND MILCON ISSUES

Question. The Danville Armory in Danville, IL is a structure that was built more than 75 years ago. It is severely dilapidated and has no military or civilian car parking. In short, unless a new readiness center is built soon, the community faces the very real threat of losing its National Guard presence.

To that end, the community has identified a new site near the Danville Airport for a readiness center. Danville would donate the land to the National Guard for the purposes of a new readiness center. The state of IL has earmarked more than $1.1 million for the project. This project is 100 percent design complete and it is the number one priority of the IL National Guard, as submitted to the National Guard Bureau in the Long Range Construction Program.

Answer. Concur. This is an accurate statement of the facts.

DANVILLE IL, ARMORY STATUS

Question. Currently, a new Danville readiness center is 82 out of more than 1,300 projects on the Future Years Defense Plan (FYDP) wait list. However, of concern is the fact that last year the project was 37 on the list. Thus, construction of a new facility is several years away. Is the National Guard aware of the need for a new readiness center in Danville, IL? Can the Guard explain why the Danville project is moving farther from the FYDP rather than closer to it?

Answer. The Army National Guard is well aware of the deteriorating conditions of its readiness centers, including the one in Danville. Currently over 25 percent of all readiness centers are rated inadequate. In addition, many more are short space because the rapidly changing force structure has increased readiness center requirements. Finally, the average age of all readiness centers is 45 years, and over 700 are 57 years old or older. The Danville Readiness Center ranked lower on the Infrastructure Requirements Plan last year, because more States are using the master planning tools we have provided them. Thus, they are providing more precise and detailed project listings in the Long Range Construction Program they submit each fall. Last year's Infrastructure Requirements Plan included almost 30 percent more projects than the year before. Because the plan's methodology gives priority to projects supporting the first-to-fight units, the Danville project will continue to fall as long as other States submit additional projects that support units of a higher priority than a division. It should be noted, however, that the Future Years Defense Plan has severe financial limits placed on it. It can only support about 5 percent of the projects that the States have planned for. The Infrastructure Requirements Plan is the only document that provides a complete, prioritized listing of Army Na-

tional Guard military construction projects. That the Danville Readiness Center ranked 82 out of 1,340 projects shows how worthy it truly is.

QUESTIONS SUBMITTED TO MAJ. GEN. PAUL A. WEAVER, JR.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

F–16

Question. In keeping with the spirit of the total force concept, does this process include modernizing Air National Guard F–16s for future deployment with the Air Expeditionary Force?

Answer. The USAF plans to retire our aging ANG F–16As within the FYDP, replacing them with more capable F–16Cs. The ANG presently has four units equipped with LANTIRN Targeting Pods, and have procured 40 Litening II targeting pods: fiscal year 1999 = 8, fiscal year 2000 = 32. The ANG Precision Guided Munitions (PGM) roadmap was recently approved by the SECAF, outlining the Air Force's intent to continue procuring Litening II pods at a rate of 24 per year until all units are equipped. Additionally, we have a significant number of modifications planned for our C-model fleet.

Question. If so, will this modernization be accomplished by procuring more modern F–16 aircraft, or by installing precision bombing package upgrades on existing aircraft?

Answer. The current plan calls for the modernization of the existing ANG F–16C fleet. Four units currently flying the older F–16A variant will upgrade to the F–16C within the FYDP.

Below is a listing of the mods/upgrades recently completed or currently funded for ANG F–16Cs between now and fiscal year 2005.

All Blocks

DTS
AIM–9X

F–16 Block 25/30/32

Falcon-up Structural Improvements
SLIP
CUPID: GPS, NVIS, ALQ–213, and SADL
Litening II Targeting Pod
TARS Recce Pod
EEFCC Fire Control Computer Upgrade
Advanced Weapons Pylons /OFP: JDAM, JSOW, WCMD

F–16 Block 40/42

Falcon-up Structural Improvements
CCIP: Modular Mission Computer (MMC), Color MFDs, Link–16, and Joint Helmet Mounted Cueing System (JHMCS)
ALE 47 Dispenser
ALE 50 Towed Decoy
ALE 56M Radar Warning Receiver
Improved Data Modem (IDM)
Advanced Weapons Pylons/OFP: JDAM, JSOW, WCMD, JASSM

F–16 Block 52

CCIP: Modular Mission Computer (MMC), Color MFDs, Link-16, and Joint Helmet Mounted Cueing System (JHMCS)
Color AVTR
Harm Targeting System (HTS) R6/R7
ALE 47 Dispenser
ALE 50 Towed Decoy
Improved Data Modem (IDM)
Advanced Weapons Pylons/OFP: JDAM, JSOW, WCMD, JASSM

117TH AIR REFUELING WING

Question. Yesterday, elements of the Air Guard's 117th Air Refueling Wing in Birmingham were activated for the current war in Kosovo. As I am told, the Air Force would like to incorporate tanker units like the 117th into its Air Expeditionary Force structure. However the 117th needs a few additional tankers to optimize its

utility to a unified commander in chief (CINC). How does the 117th acquire additional aircraft to ensure the Wing's deployability with the AEFs?

Answer. The Expeditionary Aerospace Force (EAF) concept was designed as an effort to better manage force employment in the new global security environment. EAF provides a prepackaged response to all challenges from Smaller Scale Contingencies (SSCs) and other operations up to and including Major Theater War (MTW). EAF is a Total Force effort and includes participation from the 117th ARW.

The Air National Guard and Air Force Reserve Command determined "rainbowing" units is the best way to support the EAF concept. The Reserve Components team with Active forces to form Aerospace Expeditionary Forces (AEFs). By assuming responsibility for a certain number of deployable tankers in each AEF, the Reserve Components support the National Military Strategy while maximizing opportunities for "volunteerism." Taking available volunteers and aircraft from several units maximizes use of available manpower and aircraft to reduce active force OPSTEMPO/PERSTEMPO while continuing to support the local employer and unit training needs. The rainbow concept also ensures every Reserve Component unit is a full participant in the Expeditionary Aerospace Force without the need for additional aircraft. There are no "excess aircraft" in the tanker fleet, so acquisition of additional aircraft would be at the expense of another existing unit.

QUESTIONS SUBMITTED BY SENATOR BYRON L. DORGAN

AIR NATIONAL GUARD AND RESERVE FORCES

Question. What is the department doing to ensure that Air National Guard and Reserve forces have the proper equipment and training needed when these men and women are placed into harm's way?

Answer. The combat readiness of Air Reserve Component (ARC) aircrews is dependent on current and future training devices. All aircrews within specific weapon systems train to the same requirements and standards ensuring total force readiness. However, the ARC must also focus on the unique training needs of the individual Reservist and Guardsman, their location, employment, and weapon system in order to provide quality training.

The ARC continues to work with Air Force, DOD, and Congress to modernized and equip its force to "fly, fight, and win." Funding for modernization remains the top priority for the ARC. National Guard Reserve Equipment Account funding and AF program funding is critical to ARC modernization. Modernization and sustainment investment must continue after the AF has transitioned combat capability to the ARC in order to meet the warfighters' needs.

A training strategy of the Air National Guard led to establishing regional trainers for multi-engine aircrews, unit level trainers to meet the continuation training for tactical fighter aircrew, and "rangeless" air combat training systems [formerly Air Combat Maneuvering Instrumentation (ACMI)] which is used in any ANG "backyard" range. The Air Force Reserve, however, has concentrated on developing some of the most creative training options by using existing technology, combined with low-cost, available resources, to deliver unit training devices and multi-task trainers that allow crewmen to significantly strengthen their air proficiency.

The ARC's primary training occurs using actual equipment with which units deploy, and secondary training is completed with simulators, trainers, and debriefing equipment. Continual increases in the cost of using actual equipment and advances in simulation technology will drive the use of secondary training sources.

The Air Force generally procures training systems based on one simulator per active wing or base (typically an organization of three or more squadrons). Since ARC units are generally organized with a single squadron per base, elaborate motion simulators are not always cost-effective to procure and operate. Recognizing this, the Air National Guard and Air Force Reserve instituted a training concept designed to provide home unit training or regional training centers.

Question. Is there a shortfall in the F–16 Attrition Reserve?

Answer. Yes. The table below reflects the projected shortfall for each Block of our F–16 Fleet.

TABLE 1.—PROJECTED F–16 ATTRITION RESERVE SHORTFALL OF 42 AIRCRAFT

F–16 Block	Attrition Rate (Acft/Year)	Current AR (As of 8 Jun 99)	Fiscal year—					
			2000	2002	2004	2006	2008	2010
Block 25	1.0	11	10	8	6	4	2	.....
Block 30	2.6	28	25	20	15	10	5	−1
Block 32	.6	3	2	1	.....	−1	−2	−4
Block 40	2.2	2	.....	−5	−9	−13	−18	−22
Block 42	1.3	4	3	.....	−3	−5	−8	−10
Block 50	1.6	12	10	7	3	.....	−4	−8
Block 52	.4	7	7	6	5	4	3	3
Totals	9.7	67	57	38	18	−2	−22	−42

In fiscal year 1996, the USAF estimated our AF shortfall to be 120 aircraft (i.e. 15 aircraft per year).

In fiscal year 1997, the attrition rate was revised to account for numerous safety modifications accomplished. The revised shortfall became 40 aircraft (i.e. 9.7 aircraft per year).

—This shortfall was reduced to 24 aircraft by the purchase of 16 AR aircraft: fiscal year 1996 = 6, fiscal year 1997 = 6, fiscal year 1998 = 3, and fiscal year 1999 = 1.

—The fiscal year 1996–1999 procurement has been offset by higher than forecasted mishap rates, combat losses (are not programmed), and required QDR force structure changes to enable retirement of the ANG F–16As.

The fiscal year 2000 PB contains a purchase of 30 new F–16 aircraft: fiscal year 2000 = 10, fiscal year 2002 = 10, and fiscal year 2003 = 10. These are not attrition reserve aircraft.

These 30 new F–16 aircraft will partially backfill 66 F–16 programmed to replace our aging F–16A aircraft in four ANG units: Great Falls, Duluth, Fargo, and Ft. Smith.

Question. Are there concerns that the Joint Strike Fighter schedule could slip, leaving the Air Force with a shortage of ground attack aircraft?

Answer. No. The JSF Program is on track to replace our aging F–16 and A–10 fleets with operational aircraft beginning in fiscal year 2008. Recent contractor and DOD replanning efforts for the remaining portion of the Concept Demonstration phase had little impact on the overall program schedule. The Joint Operational Requirements Document (ORD) is on schedule for Joint Requirements Oversight Council (JROC) review and approval in Fall 1999. Assembly of the contractors' Concept Demonstration aircraft is progressing well, leading to first flight in Spring 2000, and the subsequent start of Engineering and Manufacturing Development in fiscal year 2001. Extensive technology maturation, cost and operational performance trade studies, modeling and simulation, and Cost As An Independent Variable (CAIV) have all worked together to reduce risk lower than that of previous fighter development programs.

SUBCOMMITTEE RECESS

Senator STEVENS. Thank you all very much.

If nobody has anything further, the hearing is recessed.

[Whereupon, at 11:53 a.m., Wednesday, April 28, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, May 5.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2000

TUESDAY, MAY 11, 1999

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:03 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Specter, Domenici, Bond, Gregg, Hutchison, Inouye, Lautenberg, Harkin, Dorgan, and Durbin.

DEPARTMENT OF DEFENSE

OFFICE OF THE SECRETARY OF DEFENSE

STATEMENT OF HON. WILLIAM S. COHEN, SECRETARY OF DEFENSE

ACCOMPANIED BY GEN. HENRY H. SHELTON, CHAIRMAN, JOINT CHIEFS OF STAFF, U.S. ARMY

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning, Mr. Secretary and Mr. Chairman. We are delighted to have you with us this morning.

These are turbulent days for all of us, but I want you to know we are as proud of the two of you as we are of the people over there carrying out the Commander-in-Chief's direction. So we welcome you here today.

We hope the committee will join us in wanting to discuss the fiscal year 2000 budget request, but I have an idea you might get off on a few other trails before the morning is over. That should not surprise anybody.

We believe this fiscal year 2000 budget request that you have given us makes considerable progress towards improving readiness, modernization, and quality of life for the men and women in the armed forces. But that is put at risk by the contingency operations that have not been specifically authorized in our budget. We will want to discuss that with you.

Later today, as you know, we want to commence and hopefully conclude the conference on the current funding needs for the operations in and around Kosovo. Our work on that bill does not address the level of funding that may be required to continue those operations or a new peacekeeping mission beyond fiscal year 1999.

We know that you realize that the Balkans are not our only national security priority, and I would hope that while we may be

preoccupied by what is going on in and around Kosovo we could discuss some of the critical security questions that face us here in our own hemisphere and Asia, and particularly in and around the former Soviet Union.

We want to try and discuss also whether those priorities in other areas of the globe are suffering because of the emphasis now on the operations there on the continent.

As I indicated at the beginning, all of us—I believe I can speak for our whole committee—have great confidence in you, each of you, and we want to have that reflect also our support of the men and women who serve under your command.

The problem that I have right now is whether or not we are in fact lessening our readiness in other areas, such as the Pacific or the Persian Gulf. Our committee, just for your information, plans now to try to report the fiscal year 2000 defense bill on Tuesday, May 25. We have been asked to see if we can get that bill ready to go to the floor prior to the Memorial Day recess. Of course that is somewhat contingent upon the Armed Services bill getting out there before us.

But I think it can be done, and I think it would be very helpful to all of us if we would get that bill out as the first bill this year rather than the last bill, as we normally do.

I want to again commend you for what you are doing and yield now to my friend from Hawaii.

STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. Thank you very much, Mr. Chairman. I wish to join you in welcoming the Secretary of Defense and General Shelton. May I ask that my full statement be made part of the record?

Senator STEVENS. Yes, sir, it will be.

[The statement follows:]

PREPARED STATEMENT OF SENATOR DANIEL K. INOUYE

Good morning, I want to join my chairman in welcoming you, Mr. Secretary and General Shelton.

During the course of our hearings this year, there has been one issue that keeps coming up—readiness.

Our field commanders tell us their forces are ready to meet any challenge. Their personnel are capable and confident.

But, when we look a little deeper we see that all is not well. For example, we are told that it is taking much longer to get our units ready to deploy; that there is neither the qualified manpower nor equipment available for them to deploy as quickly or as ready as before; that our workers at home are putting in longer hours because they are short in personnel and resources, but our forces overseas must be fully supported; and that our aging equipment is requiring more maintenance, stressing the wrench turners whose task is to keep the equipment running.

We have the best military in the world and it is ready to respond.

But, it is teetering on the edge.

Pilots and other key personnel are still voting with their feet. Yes, pay and retirement are important, but many of our personnel tell us they are leaving because they have been deployed and re-deployed to the desert or Bosnia enough times that their families are no longer willing to accept the time apart, no matter how much you increase pay.

We continue to defer property maintenance and our bases are feeling the strain.

Our privatization efforts are demoralizing to our dedicated public servants who don't see an end to the process or a silver lining in this dark cloud.

Mr. Secretary, it is a good budget which you have presented to the Congress this year.

I am confident the improvements you recommend for our personnel will help our recruiting and retention efforts somewhat.

But, we are living in an unprecedented era of global challenges. As the world's only superpower there have been many emergencies to which we simply have had to respond. This has forced us to expend our reserves.

There is no longer any margin for error.

The administration is wise to try and achieve efficiencies, but we must be sure our aim is true.

We are investing in many costly modernization programs. There are those who contend that some of these new weapons might not be urgent or relevant to the future threats we are likely to face.

Our defense accounting systems have been improved under your tenure, but we still cannot always be sure that we know all our dollars are being spent wisely.

I, for one, believe you and General Shelton are doing excellent work and the nation should be indebted to you both.

But, to survive in this world of budget caps, and global uncertainty, we must all redouble our efforts to ensure our dollars are spent wisely and that we do what is required to sustain our United States military.

Mr. Chairman, I thank you for calling this hearing, and I look forward to the testimony of our witnesses.

Senator STEVENS. Does any other Senator have an opening statement? Senator Specter.

STATEMENT OF HON. ARLEN SPECTER

Senator SPECTER. Thank you, Mr. Chairman. I commend you for calling this hearing. We are going to be marking up today, and the Department of Defense budget is a very, very big item.

The recent events with the accidental striking of the Chinese embassy is a very big question. I note in this morning's media that there are going to be some more satellite transfers to the Chinese, and I will want to ask both the Secretary and the Chairman of the Joint Chiefs of Staff about that, whether the Department of Defense is privy to that and approving of it, and whether this is an appropriate time to be transferring technology to the Chinese at a time when they will not take a telephone call from the President.

So these are very important questions and a very important time for this Defense Appropriations Subcommittee to have these two very important officials before us.

Thank you, Mr. Chairman.

PREPARED STATEMENT OF SENATOR SHELBY

Senator STEVENS. Senator Dorgan, do you have an opening comment?

Senator DORGAN. Mr. Chairman, no I do not.

Senator STEVENS. We will include a statement received by Senator Shelby.

[The statement follows:]

PREPARED STATEMENT OF SENATOR RICHARD C. SHELBY

Good morning gentlemen, it is a pleasure to see you both again. Mr. Chairman, it is impossible to consider the fiscal year 2000 Defense Budget in a vacuum. For the past seven weeks, American military forces have been participating in a NATO led aerial campaign in the Balkans.

Mr. Chairman, like many of my colleagues, I have traveled to the region. I have been briefed by General Clark, spoken to troops in the field and visited refugee camps in Albania. There is no question that our military personnel are the best in the world and are doing an outstanding job under extremely difficult circumstances. However, I have concerns over NATO's ability to salvage the humanitarian situation through aerial bombardment and its policy of war by committee. The United States

led a coalition force during the Persian Gulf War. Yet in that war it was our military leaders and not politicians in Brussels who called the shots. Mr. Chairman, we won the Persian Gulf War; we are not winning this war. America should not fight wars to a stalemate, it should fight them to win or not fight them at all.

A greater concern to me is the effect that this operation is having on the readiness of our military forces worldwide. Can we adequately defend South Korea, Taiwan and Kuwait while waging a full scale war against Serbia? Some of the facts are alarming. We have no carrier battle group in the Western Pacific. The Air Force has committed one-third of its combat aircraft to the Balkans. The President has authorized the activation of over 33,000 reservists. The United States is still involved in an undeclared shooting war with Iraq. Last month, the Administration informed the Appropriations Committee that the nation's stated ability to simultaneously fight and win two major regional conflicts is tenuous at best. In short, we are pushing the envelope of our military capabilities. Are there more Kosovo like conflicts in America's future? Do we have the force structure to engage in such conflicts? Mr. Chairman, the answer to these questions will impact defense budgets well beyond the year 2000.

Make no mistake, I want this nation to succeed. However, I have concerns about our vital interests in the Balkans, the NATO command structure, and the effect of this operation on overall military optempo and readiness. The Balkans are not a place for the faint of heart. It is a harsh region and if there is a national interest in fully prosecuting this war we must be prepared to pay a heavy price in both dollars and maybe American lives. Success in any form, will not be cheap.

Mr. Chairman, I would like to conclude by reiterating my support for our military forces throughout the world, especially those personnel fighting in the Balkans. Like their predecessors throughout history, the Americans who today go in harm's way wearing the uniform of their country lead a noble pursuit. Their service is not just another job as some would have us believe. I pledge my continued support to those Soldiers, Sailors, Airmen, Marines, and Coast Guardsmen who are in the field as we deliberate here today.

Gentlemen, again welcome to the Committee. I have a number of questions regarding my stated concerns. I look forward to hearing your responses.

Senator STEVENS. Thank you very much. Senator Gregg.

Senator GREGG. Pass. I would like to hear from the Secretary.

Senator STEVENS. Senator Lautenberg.

Senator LAUTENBERG. No. I would like to hear from the witnesses, Mr. Chairman.

Senator STEVENS. Senator Bond.

STATEMENT OF HON. CHRISTOPHER BOND

Senator BOND. Mr. Chairman, there are a lot of things that have gone wrong. We have managed to align the Russian extremists with the Chinese communist government. We have had problems in intelligence.

Our job here is not to rehearse the problems, which seem to grow every day. We are looking for guidance and leadership from you gentlemen. We have confidence in you personally. There are an awful lot of questions, but our challenge today is to provide the resources that you must have, and we hope that we will get a clearer sense of mission and how we are going to achieve a favorable outcome when everything that we have done so far has led us in the wrong direction.

So we want to help, but we need to know what direction you are going.

Senator STEVENS. Thank you very much.

Gentlemen, we really need to know what you need in terms of funds before the end of this fiscal year, what you think needs emphasis for fiscal year 2000, and any guidance you can give us beyond that.

I would hope we will stay with the problems of this committee, because they are very, very pertinent today because of our meeting on the supplemental. Thank you very much. Secretary Cohen.

KOSOVO UPDATE

Secretary COHEN. Thank you very much, Mr. Chairman.

Let me simply submit my statement for the record and I will try to be as brief as possible so as to allow the maximum time for questions.

A brief word on Kosovo. There were reports yesterday that Mr. Milosevic was preparing for a partial pullout. Number one, we have seen no evidence of any partial pullout. Number two, a partial pullout would mean a total victory for him. Partial pullout is not acceptable.

He must comply with all of the five component requirements that have been laid out by the North Atlantic Treaty Organization (NATO), and that means he must pull all of his forces out, both army and police, from Kosovo; he must allow the refugees back in to a safe environment; and he must allow for an international peacekeeping force with NATO at its core; and he must grant autonomy to the Kosovar Albanians.

Anything less than these key components would mean a victory for Milosevic, and so we will insist upon this. And the notion that somehow if he just makes a partial pullout and goes back to what he claimed peacetime conditions would mean that he would have successfully purged a large number of the ethnic Albanians from Kosovo, creating a humanitarian catastrophe of immense proportions, and then said let us make peace.

In other words, he would have codified Tacitus's observation that they made a desert and they called it peace. That is something that we simply cannot accept.

As we have indicated before, Mr. Chairman and members of the committee, we have tried diplomacy. We tried deterrence. And when both failed we set about to damage his military capability. And, as the Chairman I am sure will indicate, we have been successful in achieving our goals and will continue to be successful as we intensify the campaign.

INTELLIGENCE FAILURE BEHIND CHINESE EMBASSY BOMBING

Which brings me, of course, to the supplemental. But before I do one word about the Chinese embassy. I made a statement yesterday from the Pentagon indicating that it was an intelligence failure. It was not a pilot error. It was not a mechanical error. It was an intelligence failure. Some interpreted my remarks as trying to shift blame to the State Department—completely wrong.

This was an intelligence failure, a series of mistakes that were made throughout the intelligence community which in fact ended up by allowing the Chinese embassy to be misdesignated in terms of the targeting.

And so it is not a question of pointing any fingers. The fingers point clearly to an intelligence breakdown as far as failing to identify the movement of the Chinese embassy from Old Belgrade to the so-called New Belgrade.

I think there is also a difference or distinction between righteous indignation and calculated exploitation. I think we have to be very concerned about that. I think many of the Chinese people were justifiably angry in terms of what had happened, but we must keep in mind that they are seeing a very small part of the total picture.

They do not have freedom of the press. They do not have unlimited access to world news. They do not see what Milosevic has done in terms of his forces executing several thousand, if not more, of innocent civilians, of causing 1.5 million refugees, displaced persons of 300,000 or 400,000 who are now roaming the hills in search of safety.

They have seen none of that, and what they have seen is a stream of invective directed at the United States and NATO against a supposedly innocent and unarmed country by the power of 19 countries.

And so if you put that in that context, you can understand why they expressed the outrage that they have.

But it must also be said that those in government at high levels must know—indeed we have made every attempt to convey to them—the message that this was a mistake, an error on our part. It was not an intentional attack upon the Chinese embassy.

And we have said it several times, and only today do I believe that President Clinton's message was allowed to get through, and we will continue to point out that this defies all logic. It defies all logic to say, for anyone to say this was a deliberate attack, Mr. Chairman, because we have tried to promote better relations with the Chinese.

I myself have made a number of trips to meet with my counterparts in China, including the leadership of China, and had planned to be there earlier this year, had planned to go again in June. And so I believe that our long-term relations are important, and it would be contrary to every shred of logic that we would seek to deliberately undermine that relationship by deliberately targeting the Chinese embassy.

FISCAL YEAR 1999 SUPPLEMENTAL

Now, Mr. Chairman, let me come to the supplemental first. We have requested approximately $5.5 billion as far as the defense portion of the supplemental request, with another $0.5 billion, roughly, going to the State Department.

We believe that that is necessary for us to carry through the current air campaign at its current operational tempo. The funds, I would point out very quickly, do not include anything for peacekeeping. It would not include any funds for any kind of land force, should any ever be required. And again the President has indicated he does not intend that, but even if there were a peacekeeping force there are not funds in the supplement for that.

This is purely to continue the air campaign at its current pace and rate until the end of this fiscal year.

FISCAL YEAR 2000 BUDGET REQUEST AND PRIORITIES

With respect to the budget itself, budget 2000, that this hearing is focused on, we, as you know, have requested a total of a $112 billion increase over the next 6 years. That is short of what the

Joint Chiefs of Staff testified to before the Senate Armed Services Committee.

The Joint Chiefs indicated they needed roughly $148 billion over the 6-year period. We were able to recommend and support $112 billion as meeting our most immediate needs.

In that $112 billion request, we have focused in three areas. First of all, people. I think all of you are aware, many of you have made trips around the world to visit with our troops, and you would verify that we have the finest fighting force in the world. We have the best people, the best educated, the best equipped, the best led force in the world.

And we want to keep it that way, and we have found that we have seen some real stresses being placed on that force. And as a result of that we are having more difficulty recruiting and retaining the quality people which make us the best fighting force in the world.

So we have tried to address that in our recommendation for the 2000 budget and those that follow, with a pay raise of 4.4 percent, with pay table reform, trying to take those mid-grade officers and non-commissioned officers (NCO) who are the most attractive to the private sector, to see if we cannot provide additional compensation, anywhere from a half of 1 percent up to 5 percent, on top of the pay raise.

So we have tried to target those benefits to the individuals who really have performed in an outstanding fashion, and are the most attractive to the private sector.

And then there is a retirement package, the so-called Redux. We have put the retirement base from 40 percent back up to 50 percent, where it was prior to 1986.

We believe that the combination, the triad, of those three components will help with our recruitment and also with our retention. The Chairman can address those in a moment.

Also with respect to operation and maintenance (O&M), here I know from my past experience that many times when it comes to a budget crunch, so to speak, there are always undistributed reductions that are handed to the Defense Department, and where they come out of, clearly, is operation and maintenance.

And so we find ourselves denying funds for either training or maintenance or maintaining this wonderful force that we have. So I would hope that we would fully fund the O&M accounts as we have requested.

The final component is that of procurement. Mr. Chairman, I spent a good deal of my time on the other side of this table trying to reverse the decline in procurement in our defense budgets. We have witnessed over the years, ever since the height of the cold war, roughly a 70 percent reduction in our procurement budgets.

We got down to the level of $40 billion, $41 billion, $42 billion when in fact you had the uniformed services coming before you, and the former Chairman of the Joint Chiefs, General Shalikashvili, saying we really have to have approximately $60 billion on an annual basis in order to replenish the stocks that we have and to modernize them in a way that will keep us one or two generations ahead of our opponents.

We have been climbing up that ladder now, and this year I had had a goal of $54 billion. I fell roughly $1 billion short. I am at $53 billion. But by the year 2001 we will be above the $60 billion mark, so we are on an upward climb that will take us to where we have to be in order to modernize our forces for the future.

So it is people in terms of the pay and the compensation, retirement. It is O&M in terms of maintaining our operational readiness. And readiness, as you know, has been a problem for us. We have always had to try to balance readiness, O&M, and procurement. And they are never in perfect static balance.

Some years we have had very large amounts devoted to readiness and we have let the procurement go down. In other years we tried to bring the procurement up, and readiness starts to drop down. In this particular package we have tried to achieve a balance by increasing the funding for readiness and increasing the funding for procurement, and also increasing the funding for people.

FUNDING TOPLINE

In order to do that, I have had to request an increase. When I first took over this position about two and a half years ago, we had just completed, Congress had just completed negotiating with the White House in terms of what the top line was going to be. And at that time it was fixed, in my judgment, having taken over this position, we were unlikely to get an increase in the foreseeable future and the immediate future.

So we had to work within the confines of those budget caps, and we still are. But I must say that after serving in this position and really trying to do whatever we can in the way of reforming the way in which we do business—and I can talk about that in a moment—that we simply cannot carry out the missions that we have with the budget that we have.

There is a mismatch. We have more to do and less to do it with. So that is starting to show in wear and tear—wear and tear on people, wear and tear on equipment. And that is the reason why I went to the President and Office of Management and Budget (OMB) and said we have to have an increase. Again, the Chiefs said $148 billion. We were able to get $112 billion, and we believe that meets the most immediate pressing needs in terms of revising and modernizing our force.

A final word on the revolution in military affairs. You have heard me speak about this before, but there also is a revolution in business affairs. We have really undertaken to revolutionize the way in which the Pentagon operates. We are engaging in reengineering practices. We are consolidating agencies. We are competing positions. We will compete some 229,000 positions over the next 6 years, and that, we anticipate, will save us about $11 billion.

And we are eliminating. And here I would just say a brief word about base realignment and closure (BRAC). The Senate Armed Services Committee is about to mark up their bill. I have sent a letter, which has been endorsed by all of the members of the Joint Chiefs of Staff, that we need at least two more rounds of BRAC to get the savings in the future, not now, because the money that I have put in the budget really costs us to close bases, and I have

added some almost $3 billion in the budget in order to pay for the costs of achieving these two rounds, two more rounds of closures.

But they will, by the year 2008 to 2015, they will during that period of time save us approximately $20 billion cumulatively, and after that roughly $3.5 billion on an annual basis.

So it is not for me or for the Chairman or for our military at this moment that we need to adopt these two more rounds and to pursue them. It is for those who are coming behind us and who will need the money to put into pay and compensation and pay table reform and Redux and more procurement, because there will be a bulge coming in terms of procurement, and unless we are able to start saving funds that we know we need to save, then we are going to put them in some jeopardy.

PREPARED STATEMENT

Mr. Chairman, I have more to say, but I think I will abide by my own admonition of not speaking too long and defer to the Chairman and then try to answer your questions.

[The statement follows:]

PREPARED STATEMENT OF WILLIAM S. COHEN

Mr. Chairman, members of the Committee, it is a pleasure to be here for this wrap-up hearing on President Clinton's fiscal year 2000 Department of Defense (DOD) budget request. You previously received my full statement explaining our fiscal year 2000 request, so today I will only highlight its major themes.

Before getting to fiscal year 2000 issues, I want to comment briefly on our operations in Kosovo. Thanks largely to the exceptional performance of the men and women of America's armed forces, our intensified air campaign continues to go very well. We continue to degrade the structure that President Milosevic has used to destroy the Albanian majority in Kosovo. We are systematically choking off the Yugoslav army and security forces in Kosovo by cutting their supply lines and are directly attacking those forces on the ground. And we are continuing to attack Milosevic's command, control and communications and other elements of the infrastructure that supports his machinery of repression.

Meanwhile, NATO nations remain resolved to achieve NATO's aims. President Milosevic must withdraw his forces from Kosovo and allow all refugees to return, with full access for humanitarian assistance and with the deployment of an international military force that must have NATO at its core.

With our intensified operations consuming considerable resources previously budgeted for other needs, I urge Congress' prompt completion of action on President Clinton's request for supplemental fiscal year 1999 appropriations for Kosovo and other requirements. We must ensure that our armed forces have what they need to fulfill the missions given them and to stay ready for future missions as well.

PRIORITIES IN THE FISCAL YEAR 2000 BUDGET

Turning now to next year's budget, President Clinton's proposed budget authority for fiscal year 2000–2005 reflects his plan to make available to DOD $112 billion in additional resources. These added resources will enable us to fund the most critical priorities identified by our military leaders. I am delighted that most members of Congress seem to agree with President Clinton's conclusion that defense resources must be increased substantially over the next several years. I also perceive strong support for the spending priorities reflected in our multiyear program. Indications are that the Congress agrees with the need to: Put people first with major increases in pay and military retirement benefits; protect readiness with strong funding for operations, training, and maintenance; and achieve critical weapons modernization through increased Procurement funding.

Congressional leaders have been especially receptive to our proposals to improve military pay and retirement benefits. As you know we put forward a triad of compensation enhancements:

(1) The REDUX change in military retirement would be reversed by raising benefits from 40 percent to 50 percent of base pay for members retiring after 20 years. Restoring military retirement benefits was the military leadership's top priority.

(2) Military base pay in fiscal year 2000 would be raised 4.4 percent—the largest military pay increase since fiscal year 1982. This raise exceeds the forecasted rate of civilian wage growth (employment cost index or ECI) and is more than two percentage points above the general inflation rate as reflected in the Consumer Price Index.

(3) Pay also would rise in connection with military pay table changes to increase the raises associated with promotions. This change will reward performance, compensate people for their skills and experience, and encourage them to continue their service.

We are very proud of our efforts to put people first and to compensate better the tremendous sacrifices of our military men and women.

PROTECTING READINESS

For fiscal year 1999, prompt approval of Kosovo supplemental appropriations will ensure that our forces remain fully ready to support our national military strategy. Currently, most of the costs of our Kosovo operation are being accommodated from within the military services' Operation and Maintenance (O&M) accounts by borrowing funds that will be required for 4th quarter training. The services are continuing to conduct normal training for those forces not involved in Kosovo operations, and readiness is not yet being affected. However, expeditious action on this supplemental is needed to restore previously budgeted fiscal year 1999 funds and avoid serious readiness impacts later in the year.

For fiscal year 2000, I urge you to fund fully our Operation and Maintenance (O&M) request, which funds the military services' most pressing readiness requirements. It supports traditionally high OPTEMPO, flying time, and other readiness enhancers; readiness-related maintenance and improvements at DOD facilities; and readiness-related modernization, in areas like electronics and maintainability.

I especially ask you to keep in mind the consequences of undistributed cuts to O&M accounts. These cuts often are justified as a way to compel the Pentagon to cut waste or bureaucracy. But their ultimate effect is to hurt force readiness by underfunding O&M. I am sparing no effort in streamlining infrastructure and preventing waste. We are making tremendous progress, and I urge your support so we can do much more. But extracting greater savings takes more than legislative provisions mandating such savings as a bill-payer for other desired funding. As I have stressed repeatedly, by far the best way to achieve greater streamlining is for Congress to approve two additional base closure rounds.

ACHIEVING MODERNIZATION GOALS

As reconfigured by the QDR, the Department's weapons modernization plans include development of cutting-edge capabilities as well as cost-effective upgrades to existing systems. Helped substantially by the President's addition of resources, our fiscal year 2000 request meets the QDR recommendation to increase Procurement funding to $60 billion per year by fiscal year 2001. To stay on track for this and subsequent modernization goals, we need your support both for our total dollar request and for all our program's schedule and components.

CONTINUING VALIDITY OF OUR FISCAL YEAR 2000 BUDGET

Our Kosovo operations validate the conceptual foundation of my department's budget and programs. Most notable is the importance of preserving the high quality of our military people. The Kosovo campaign demands peak performance and leaves precious little room for error. Every pilot, support technician, air and ground crew member—everyone is critical to successful missions. By putting people first, the fiscal year 2000 request reflects our conviction that America's superior military professionals will be the most critical determinant of battlefield success in this post-Cold War era.

Kosovo operations demonstrate why we must retain high standards of readiness. When certain forces are needed, there may not be much time for them to recover from personnel shortages, deferred maintenance, and supply shortages. Evident as well is why we must make every O&M dollar count. As done in our fiscal year 2000 request, the budget must fund the requirements that our military leaders have assessed to be the most critical to battlefield success.

Kosovo shows why, even in the face of pressing current needs, we must set aside substantial sums for the future. We must modernize our weapons, electronics, and other critical systems because they need to be exceedingly accurate, fast, reliable,

and capable of giving U.S. forces an overwhelming advantage. We are not looking for a fair fight. Indeed, we want to destroy targets before a fight can develop. Missions in this new era will continue to be highly demanding.

CLOSING

In closing, I urge your strong support for our fiscal year 2000 budget request. The details of our program reflect the enormous effort of our civilian and military leaders to include in the request the most critical needs of our armed forces. While there is more to be done to improve our military's quality of life, accelerate modernization, and acquire more assets that are in high demand, we are convinced that ours is a balanced and very strong plan to ensure the future superiority of America's armed forces. I urge your approval of that plan, as reflected in our fiscal year 2000 budget request.

Senator STEVENS. Thank you very much, Mr. Secretary.

Mr. Chairman?

General SHELTON. Mr. Chairman, Senator Inouye, and other distinguished members of the committee, it is an honor to appear again before this distinguished committee, and I would like to submit a written statement for the record and take only a few minutes to highlight some key points of that statement.

Two weeks ago I appeared before the full Appropriations Committee to discuss Operation Allied Force and the Defense Department's request for emergency funding to cover the cost of this operation, the ongoing humanitarian efforts in the Balkans, as well as the munitions expended in Allied Force and Desert Fox.

In the past 2 weeks I have had the opportunity to visit our troops in Bosnia, Italy, Albania, Germany, and, most recently, Macedonia. In every case, I have been very impressed with their unswerving patriotism and sense of duty. Our troops operating in the Balkans are great representatives of America, and we should be grateful that we have men and women in uniform to carry out the missions that we have given them.

They still face a high risk in Operation Allied Force, but thanks to their superb planning and their outstanding execution, our air forces have not only substantially degraded the robust, multi-layered, integrated air defense system in Yugoslavia, but they have also been able to attack the Serbian army and police units with great effect.

These NATO air strikes are having a significant impact on Milosevic's forces in the field. Nonetheless, the risk of casualties remains high, and, of course, it remains very real. In spite of our best efforts to the contrary, the possibility of unintended casualties and damage remains very real.

As you are all aware, there is no such thing as a risk-free military operation, a fact that has been made very clear to all of us by the tragic deaths of Chief Warrant Officers David Gibbs and Kevin Reichert on a training mission in Albania, as well as by the erroneous strike on the Chinese embassy which Secretary Cohen commented on in his statement.

It is important to remember that these risks are always present, and so our thoughts and prayers go out to the families and those brave aviators and brave Americans and their NATO colleagues, and all the innocent victims of Milosevic's brutal actions.

On my last trip I was able to meet with a large number of soldiers, sailors, airmen and marines in the theater participating in Operation Allied Force. I found their dedication, morale, and sense

of professionalism almost overwhelming. And the even better news is that we are not alone. Our NATO allies are performing magnificently. It is truly a well-oiled machine.

During my testimony in closed session 2 weeks ago before the full committee, I asked for the swift approval of the $5.5 billion request for a non-offset supplemental. This money is needed now to replenish the funds that our outstanding people in the field and our fleet units have had to borrow from fourth quarter operations and training accounts in the current fiscal year 1999 budget. Unless these funds are added very soon, the readiness of non-deployed units will slip, leaving them less ready to replace or reinforce our forward-deployed units.

Furthermore, the progress made in the aviation spares program could be undone, and in fact the situation could be made even worse by the increase in our operating tempo.

While the focus of attention recently has been on the ongoing operations in the Balkans, I know that this committee is focusing on the fiscal year 2000 budget, which, if funded by the Congress, will mean an increase in defense spending of more than $12 billion in fiscal year 2000, and $112 billion over the next 6 years. This budget, as Secretary Cohen said, will fully fund our critical readiness requirements and provide the resources needed for essential retirement and compensation reforms. It will also enable us to achieve the procurement goals outlined in the Quadrennial Defense Review (QDR).

The ongoing combat and humanitarian operations carried out in Europe today have once again demonstrated that our deployed and first-to-fight forces remain very capable, and the true foundation of a world-class military is our people and not our hardware. Therefore, we must reform our personnel retirement and military pay, and these initiatives remain the Joint Chiefs' highest priority.

I am fully aware that these initiatives—across-the-board pay raises, pay reform, and return to a retirement formula based on 50 percent of pay at 20 years—have very strong support from members of this committee, and on behalf of all the Joint Chiefs, as well as all of our men and women in uniform, I would like to express our appreciation for your strong support.

As we continue to grapple with the competing requirements of current readiness and providing adequate compensation, we must also continue to move forward on our plans to prepare for the future, and the President's budget meets the QDR goals of funding for our modernization programs and will be a major step in the right direction.

We are also making progress toward making our conceptual framework for future military operations, spelled out in Joint Vision 2010, a reality. We realize that we must also have an accompanying vision for how best to organize our forces and how to support the future joint battle. That conceptual framework, which we call the Unified Command Plan 21, will be included as an annex to the 1999 Unified Command Plan recommendation.

Finally, as I have testified before and as Secretary Cohen mentioned in his statement, the Joint Chiefs of Staff remain firm in our belief that we need additional BRAC rounds to reduce the remain-

ing excess infrastructure and the accompanying drain on already-strained fiscal resources.

Mr. Chairman, today the United States has the finest military in the world, a force that is substantially sound and still capable of executing our national military strategy and defending our interests around the globe. It is a force, as you know, that is extremely busy and is being used frequently to meet our global responsibilities and our global commitments. Every step that this committee takes to ensure that we have the right training, the equipment and the compensation will be a step in the right direction toward preserving this excellence for the future.

PREPARED STATEMENT

Again, I appreciate the opportunity to appear before this committee, and I look forward to your questions. Thank you, Mr. Chairman.

[The statement follows:]

PREPARED STATEMENT OF GEN. HENRY H. SHELTON

It is an honor to report to the Congress today on the state of the United States Armed Forces. At the outset, I would like to pay tribute to our men and women in uniform. As always, they serve our country selflessly, often far from home and loved ones, defending our Nation and its interests and helping to keep the peace in a still dangerous world. America can—and should—be proud of its soldiers, sailors, airmen, and marines. They represent the United States at its very best.

SUSTAINING A QUALITY FORCE

America's military strength rests on a foundation of quality people, ready forces, and an effective modernization program. While each of these elements is absolutely essential, one must come first—people. Without skilled, committed people, we will be unable to exploit the full potential of our advanced weapons systems on the battlefield. And without the support of strong military families, we will be unable to field a force capable of meeting the demands of the next century. To preserve a high quality, professional military we must act decisively now to ensure the quality of life that our service members and their families deserve.

The building blocks of a quality volunteer force are the "Big 4:" an attractive, equitable retirement system; competitive pay; accessible, quality health care; and adequate housing. Providing the resources to meet our needs in these critical areas is essential to the long-term health of the force and our future readiness.

Reforming Military Retirement

The success of the National Military Strategy hinges on our ability to attract and retain high quality personnel. Without bright, motivated, and technically skilled people we will be unable to exploit the promise of our future weaponry, operational concepts, and advanced technology.

In our units, the perception of an inadequate retirement program consistently surfaces as a primary cause of our recruiting and retention problems. Survey results, combined with feedback gathered by leaders from all the Services during field and fleet visits, have convinced us that long-term retention is not well served by the Redux retirement plan. Our men and women deserve a retirement system that more appropriately rewards their service.

Restoring an attractive retirement program for all active duty members is therefore my top legislative priority in the fiscal year 2000 Budget. The system adopted must provide an incentive to serve until retirement. Redux does not do that; in fact, it has emerged as a disincentive to continued service.

Fixing our retirement system is an urgent priority because the lifetime value of military retirement has declined by as much as 25 percent following the reforms of the 1980s that created the High-3 and Redux programs. Two-thirds of the current active duty population is now under the Redux "40 percent of base pay" formula after 20 years of service, instead of the 50 percent enjoyed by all others. In addition, these members will not be provided full Consumer Price Index cost-of-living adjustments (COLAs), as their predecessors are. This variance in the value of military re-

tirement programs gives career service a diminished value. As a first step to correcting this disparity, I urge the Congress to eliminate the 40 percent Redux retirement formula and to restore the "50 percent of base pay" formula for 20 years of active-duty service, as proposed in the President's fiscal year 2000 budget.

Competitive Pay and Pay Reform

Competitive pay is the other core element of a comprehensive compensation package essential to sustaining a quality, all-volunteer force. To recruit and retain high quality men and women, military pay levels must compare favorably with salaries in the private sector. The recent challenges faced by the Services in meeting accession and retention goals are clear signs that the growing disparity between military and civilian pay levels must be resolved.

Much of the discussion about the pay gap between the military and civilian sectors has to do with the Employment Cost Index, or ECI (the ECI reflects civilian wage growth and is identified in law as the appropriate guideline for federal pay raises). Depending on which year and associated ECI value is used to begin pay comparisons, the current gap between military and private sector pay ranges from 5.5 percent to 13.5 percent. Military pay raises have lagged behind average private sector raises for 12 of the last 16 years. This decline is significant because it affects both active and retired pay and communicates a lack of commitment to pay equity.

Secretary Cohen has noted in the past that while we can never pay our men and women in uniform enough, we can pay them too little—and in my view, we are.

To maintain a professional, ready, all-volunteer force, we must resolve this problem. Congress and the Administration have recently taken important first steps in leveling off the long decline in military pay levels. The full ECI pay raise enacted for fiscal year 1999 and the commitment to provide such raises over the Future Years Defense Program are very positive indications that our Nation's leadership is committed to restoring military-civilian pay comparability.

We should also undertake long-overdue reform of basic pay. This idea is not new. Both the 7th and 8th Quadrennial Reviews of Military Compensation called for a restructured pay table emphasizing promotion over longevity as the primary basis for pay increases, as this would send a clear signal that superior performance is valued and rewarded. Such an initiative would help us achieve two important and related goals: first, to provide enhanced pay raises for our mid-career commissioned and non-commissioned officers, those who serve at the grade levels where the most significant pay gaps between the military and the private sector exist; and second, to achieve greater retention of our high performing service members.

In sum, if we are to compete more favorably with the private sector, we must close the pay gap, sustain military pay at full value with annual pay raises linked to full ECI, and provide enhanced pay to our mid-careerists. We are confident that these actions, together with return to a retirement system that provides 50 percent of base pay at 20 years, will help substantially in our efforts to reverse the negative trends in recruiting and retention. A recent RAND study concluded, for example, that our proposed pay and retirement reforms could increase overall retention by 14 percent and enlisted retention to the 20-year point by 20 percent. To keep our Armed Forces strong and healthy, I urge the Congress to approve these programs as quickly as possible.

Military Health Care

We are currently in the midst of a long-term program to restructure the military medical community to better support its wartime mission. The full implementation of managed health care for military members and families was just completed in June, and in upcoming months we will assess the level of success TRICARE has achieved in meeting its goals of improving access and holding down costs. We are also anxious to see whether our other initiatives, such as the National Mail Order Pharmacy, have improved health care services.

As we transition to new programs and procedures, I want to stress that our commitment to quality health care for military retirees remains firm. To that end, we appreciate Congressional legislation that will allow the Department of Defense to test various retiree health care initiatives, such as Medicare subvention and participation in the Federal Employees Health Benefits Program. We believe these will be important steps in the effort to ensure uninterrupted medical care for our retirees, steps that will also send a strong signal to those considering a career in uniform.

Military Housing

For our active duty military families, the status of military housing is a particular concern because of its immediate impact on quality of life. As I reported last year, the condition of many of our family and single-member housing units is alarming. One-third of our military families are housed in approximately 320,000 units, 66

percent of which are substandard. Beyond that, 25 percent of DOD's 383,000 barracks spaces do not meet current standards, with the Services reporting a shortfall of 42,000 additional spaces. Currently, all the Services have submitted, or are drafting, plans to conform to the most recent DOD guidance to bring single member and family housing up to acceptable standards by 2010. Congressional funding to implement Service plans and to correct the shortcomings in military housing is vitally important, and will do much to upgrade the quality of life enjoyed by our service members and their families.

Family Support Systems

Support for family services on military installations also contributes significantly to the effort to retain our best personnel. Given the demanding pace of military operations, service members should be allowed to focus on their mission free from worry about the welfare of their families. Accordingly, funding for quality DOD schools, child development activities, and other family assistance programs is important, particularly today when the stresses of operational deployments are higher than ever before. Other family support initiatives, such as morale-enhancing communication links with deployed members and spouse employment programs, are helping to counter the effects of frequent moves and separations on military households. Especially today in an era of repeated deployments, family support programs must continuously evolve to respond to the unique demands of military service. It has often been said that to sustain a quality all-volunteer force, we recruit the individual but we reenlist the family. While that has always been true, it has never been more true than today.

Equal Opportunity

One of the U.S. military's great success stories is its ability to accomplish difficult missions under challenging circumstances with a force composed of men and women from many different ethnic, cultural, and religious backgrounds. Our Armed Forces today reflect American society, with its diverse experiences, goals, and expectations. Our task is to transform young enlistees into a cohesive, well-trained force, always cognizant of the right of our service members to be treated with dignity and respect. America's sons and daughters deserve the opportunity to succeed and work in an environment free of discrimination and sexual harassment. Throughout our military, equal opportunity and fair treatment are core values that reflect an enduring, bedrock commitment by military leaders at every level.

SUPPORTING THE NATIONAL SECURITY STRATEGY

Though the United States currently enjoys relative peace and security, the international security environment remains complex and dangerous. While the threat of global war has receded and former enemies now cooperate with us on many issues, very real threats to our citizens and interests remain. Though we currently face no peer competitor, openly hostile regional adversaries fielding potent forces have both the desire and the means to challenge the United States militarily. Additionally, in a number of cases, transnational movements threaten our interests, our values, and even our physical security here at home. And, while our military strength remains unmatched, state or non-state actors may attempt to circumvent our strengths and exploit our weaknesses using methods that differ significantly from our own. Attacks on our information systems, use of weapons of mass destruction, domestic and international terrorism, and even man-made environmental disasters are all examples of asymmetric threats that could be employed against us. Indeed, some already have.

To deal successfully with these challenges, the National Security Strategy stresses the "imperative of engagement." If the United States were to withdraw from international commitments, forsake its leadership responsibilities, or relinquish military superiority, the world would surely become more dangerous and the threats to U.S. interests would increase. Within their capabilities, therefore, our Armed Forces are committed to engagement as the best way of reducing the sources of conflict and preventing local crises from escalating.

The National Security Strategy also recognizes that America's security is a function of all elements of national power. The Armed Forces play a central role, of course, by focusing on the principal objectives outlined in the National Military Strategy—to encourage peace and stability, and to defeat adversaries. To help ensure that all elements of American power are engaged, the military will continue working to improve interaction and coordination with the other government agencies that contribute to the common defense.

Though peacetime engagement can reduce potential sources of conflict, the ability to fight and win our Nation's wars must remain the fundamental, overarching pur-

pose of the military. The core military capability of deterring and, if necessary, defeating large-scale aggression in more than one theater, in nearly simultaneous time frames, defines the United States as a global power. The defense of American lives, territory and interests has been, and always will be, the principal mission of America's Armed Forces.

Readiness

Though military readiness has been challenged in many ways over the past year, our Armed Forces remain fundamentally capable of performing their assigned national security tasks. The combat operations conducted against Iraq in December and Operation Allied Force demonstrate that our first-to-fight units remain very capable of executing a demanding range of missions. As I told the Senate Armed Services Committee last September and again in January, we remain fully capable of executing our current strategy. As I highlighted in those hearings, however, the risks associated with the most demanding scenarios have increased. Under normal conditions, we assess the risk factors for fighting and winning the 1st Major Theater War as moderate and for the 2d MTW as high. Operation Allied Force should be considered a major theater war for air assets. While it has a significant impact on our forces, we retain the ability to respond to an MTW in another theater, albeit at a higher risk level.

As I have explained in the past, this does not mean that we doubt our ability to prevail in either contingency. We are not the "hollow" force of the 1970s, a force that I served in and know well. Nevertheless, increased risk translates into longer timelines and correspondingly higher casualties, and thus leads to our increasing concern.

Prolonged deployments in Southwest Asia, the Balkans, the Sinai, and elsewhere have taken a toll in readiness. The effects are apparent both in the areas of personnel and, to varying degrees, materiel readiness. The latter is also the result of aging combat systems and the demands placed on them in the last ten years. And, as noted earlier, recruiting and retention efforts have been made tougher by a strong economy and a growing perception that military pay and benefits, including housing, medical care, and the retirement system, have eroded substantially. Reversing these trends will not be simple or easy; however, it is clear that the time has come to take decisive steps before the downturn in readiness becomes irreversible. In this regard, the substantial increases in readiness funding included in the President's fiscal year 2000 budget are a significant and important step forward.

Readiness Reporting System Improvements

In the previous 12 months the Joint Staff and the Services have continued to improve and refine our readiness reporting systems. Our objectives were to increase the level of detail, shift the focus to highlight key warfighting deficiencies, and reinforce the link to budgetary solutions. Inputs from the CINCs and Services have helped us better understand the specific shortfalls that underlie our risk assessments, particularly for the Major Theater War scenarios.

Rather than providing readiness snapshots in the Joint Monthly Readiness Review (or JMRR), the Services now brief detailed trend indicators covering personnel, equipment, and training readiness. These indicators show us where we've been and will help us project future readiness trends based on current funding and OPTEMPO. As part of every JMRR, Services brief their top readiness concerns and corrective actions, while high priority deficiencies in the Unified Commands are briefed every quarter. The additional detail allows us to replace anecdotal reports with rigorous, fact-based assessments and to communicate to Congress our specific problems in areas like equipment availability, aviation mission capable rates, recruiting and retention, and aging infrastructure. I believe a review of our recent Quarterly Readiness Reports to Congress would reveal an unprecedented level of detail regarding CINC and Service readiness concerns.

In addition to more accurate readiness assessments, we are also making fundamental improvements to the Global Status of Resources and Training System (GSORTS) to make it more timely, accurate, automated, and user-friendly. These improvements to the readiness reporting process will help keep us properly focused on identifying and fixing our most critical readiness concerns.

OPTEMPO/PERSTEMPO

It is clear that the current pace of peacetime operations has a major impact on service members and their families. To alleviate the stress of ongoing deployments, we have implemented several initiatives to better manage the increased tempo brought on by a changed security environment and our strategy of global engagement. Through the Global Military Force Policy (GMFP), we are working hard to

monitor and control the use of Low Density/High Demand assets to preclude their overuse. Further man-day reductions in the Joint Exercise Program are planned as well, and other approaches, such as increased use of Reserve Components, global sourcing, and more comprehensive use of contractors and allied support will also help.

In the long term, high tempo rates can dangerously erode our readiness across the board. Consequently, we are looking closely at proposed deployments and carefully weighing the anticipated benefits against the expected costs. Too many unprogrammed deployments will inevitably disrupt operating budgets, sap morale, cause lost training opportunities, and accelerate wear and tear on equipment. Most importantly of all, uncontrolled OPTEMPO destroys quality of life and jeopardizes our ability to retain quality people.

Each Service reports its OPTEMPO assessments as part of the JMRR and the Senior Readiness Oversight Council (SROC). The results are published in the Quarterly Readiness Report to Congress (QRRC). TEMPO indicators that exceed Service guidelines are then raised as issues in the Feedback JMRR. The Army's goal is no more than 120 days away from home per unit per year. The Navy uses three criteria: no continuous deployment longer than six months; at least a two-to-one turn around time in homeport between deployments; and a goal of 50 percent of the time in homeport over a five-year period. The Marine Corps limits deployment away from home station to no more than 180 days per year, averaged over three years. The Air Force goal is for individual airmen to spend no more than 120 days away from home base per year. The Air Force has also reduced the length of Southwest Asia (SWA) flying unit deployments from 90 to 45 days to better manage tempo.

These guidelines reflect our recognition that high tempo places great strain on the force and that senior leaders must provide effective oversight and make timely decisions to better manage the pace of operations. Together with a well thought-out, disciplined approach to potential uses of force, the guidelines should help us manage OPTEMPO and PERSTEMPO to ensure the force remains combat ready and able to respond to any contingency around the world.

Recruiting

Both in terms of quantity and quality, fiscal year 1998 proved to be a very challenging recruiting year. Though recruit quality, defined as recruits with high school diplomas and top-half military entry test scores, declined slightly, all Services did meet quality goals. However, both the Navy and the Army fell short in achieving their quantity goals, with the Navy missing its goal by 6,892 recruits and the Army by 776. The Air Force met its quantity goal, but was forced to dig deep into its reserve of delayed entry applicants.

A reduced propensity to enlist, coupled with a strong civilian economy and low unemployment, has reduced recruiter productivity and driven accession costs to an all-time high. Although expensive to recruit, high quality young people are essential to the health of the force because they are easier to train, perform better, and stay longer. For these reasons, the Services are committed to maintaining quality goals and are increasing recruiting budgets to improve their competitive position in the marketplace.

Successful recruiting is the lifeblood of our all-volunteer force. With today's reduced forces and increased tempo of operations, the value of quality personnel is at a premium. To meet the demands of our National Security Strategy, we must provide the appropriate incentives and compensation to attract educated, motivated, and technically capable people into military service.

Retention

In addition to a tougher recruiting environment, the Services are also experiencing declining retention rates. The growing loss of pilots is troubling, not only because of its direct impact on combat effectiveness, but also because of the heavy investment we make in training them, the costs of replacing them, and the many years required to produce competent combat pilots. Mounting losses of junior NCOs who elect not to reenlist after their first term are also alarming. These skilled men and women represent the future of the Noncommissioned Officer Corps in every service; they are the backbone of our military.

In many critical skill areas, such as those associated with high-technology systems, retention levels are below sustainment levels. The Navy and the Air Force in particular are experiencing retention gaps with their first, second, and third term enlisted members. For example, Air Force second-term reenlistment rates have dropped 13 percent in the last five years. Similar declines are appearing in officer inventories as well, and the Navy currently has a 9 percent shortfall in junior Surface Warfare Officers. These trends, which are complicated by significant attrition

among first termers who fail to complete their first enlistment, spotlight today's retention shortfalls—a crucial readiness issue that has captured the attention of senior leadership within the Services and Department of Defense.

Because of the quality of the people we recruit and the significant training they receive, the private sector is anxious to outbid us for their services. The Services have increased Selective Reenlistment Bonus offers to persuade these experienced and talented members to stay with us, and in some cases this approach has met with success. However, this compensation adjustment is most effective only for short-term retention gains. In several important critical skill areas, bonus dollars have not stemmed the losses. For instance, the Navy has steadily increased bonus levels for their electronics technicians over the past three years, essentially doubling the offer, but first-term retention continues to decline rapidly. In spite of nearly doubling the value of Aviation Continuation Pay bonuses, the bonus "take rate" of Air Force pilots is down 50 percent since 1995 and pilot shortages are expected to reach 2,000 by fiscal year 2001.

The stable and predictable lifestyle of the private sector also presents an attractive alternative to military service because of the increasing demands we are placing on a much smaller force. Long duty hours, frequent moves, extended family separations, and disruptions in a spouse's employment are just a few of the burdens currently being borne by our service members. The decreased value of retirement benefits and lagging pay are being interpreted by many as a lack of appreciation for their commitment and sacrifices. Improved military compensation is the most direct and effective solution to a growing retention problem that cannot be ignored.

Recapitalization/Maintenance/Spares

Another factor affecting readiness is the growing cost of maintaining our inventory of aging weapons systems. The stressful pace of operations in this decade has meant higher than anticipated wear on our equipment and systems, many of which were fielded in the 1970s and 1980s. High OPTEMPO, in addition to causing increased wear-and-tear on aging systems, has also forced commanders to tap maintenance and training accounts to help fund operational deployments. Significant increases in the cost of repair parts have compounded the problem, leading to shortages and maintenance backlogs.

In this regard, the timely approval of the fiscal year 1999 emergency readiness supplemental for maintenance and spare parts proved a great help. The fiscal year 2000 budget builds on fiscal year 1999 efforts, and is a product of our determination to ensure the right level of funding for spares and maintenance. However, as our equipment continues to age, it will be increasingly difficult to keep our equipment combat ready at current funding levels. Adequate funding for spares and maintenance, as proposed in the President's budget, is urgently needed to help us reduce the migration of funds from modernization accounts—a trend that has cut deeply into our modernization efforts in recent years.

AC/RC Integration

In coping with an increasingly demanding security environment, the role of our Reserve Components has grown markedly as the active force has drawn down. In virtually every significant deployment of military forces, our Reserve and National Guard personnel have played key roles. Often the capabilities they provide are found predominantly in the Reserve Components (RC).

In virtually every domestic and overseas mission, from disaster relief in the continental U.S. to humanitarian assistance in Central America to peacekeeping operations in Bosnia, our reservists and guardsmen have performed magnificently in important and in some cases indispensable roles. The wide range of potential contributions by the RC has proven to be a bright spot as we strive to match available resources to a demanding mission load, and demonstrates clearly the enduring value and relevance of the citizen-soldier. This experience is also helping to inform the Reserve Component Employment 2005 Study, which began in 1998 and is reviewing the employment of the RC as a vital part of the Total Force. Of note as well, the addition this past year of two RC Major Generals as Assistants to the Chairman, one from the Army National Guard and one from the Air Force Reserve, has greatly assisted in our efforts to integrate RC forces more effectively into the Total Force.

One area that holds considerable promise for RC involvement is Information Operations. By exploiting the technical skills that many reservists use on a daily basis in their civilian jobs, the military can take advantage of industry's latest techniques for protecting information systems. Similarly, defending our homeland from terrorism and responding to chemical attack are natural roles for our Guard and Reserve forces. Their knowledge of their communities as business people, city managers, facility operators, and local law enforcement officers, makes them the ideal

first response force. In these and many other areas, we will continue to look for innovative ways to capitalize upon the strengths of our Reserve Components, our trump card for maintaining high readiness levels in these challenging times.

Force Protection

Wherever our forces are deployed, force protection is the top priority for commanders. The tragic bombings of our embassies in Dar Es Salaam, Tanzania and Nairobi, Kenya reminded us that terrorists can strike anywhere, at any time. During my testimony last year, I noted that our adversaries, unable to confront or compete with the United States militarily, spend millions of dollars each year to finance terrorist organizations that target U.S. citizens, property and interests. Consequently, our Combatant Commanders and the Services continue to focus on force protection issues as a first order priority.

Over the past year the Joint Staff conducted a comprehensive Mission Area Analysis to review the CINCs' and Services' Anti-Terrorism programs. We have also commissioned a study to examine how our program "stacks up" against some of our allies' best efforts to combat terrorism at the strategic and operational levels. Results from this study will be used to reevaluate our strategy and improve our techniques.

We continue to conduct Joint Staff Integrated Vulnerability Assessments (100 this past year) worldwide in order to help the CINCs and Service Chiefs enhance their force protection posture. Lessons learned from these assessments are used to improve readiness and physical protection worldwide, providing commanders a benchmark from which to evaluate and reinforce their efforts to eliminate vulnerabilities and keep our people safe. Advanced technology also plays a key role in the fight against terrorism. Our intent is to develop the most advanced, reliable, and effective equipment and to field it when and where it's needed, using the Chairman's Combating Terrorism Readiness Initiative Fund in addition to resources allocated by the formal budget process.

Our best efforts notwithstanding, we know that terrorism will remain a serious threat as we move into the 21st century. More than a "war," international terrorism is a part of the strategic environment that will not fade away. Our enemies will continue to test our resolve, both at home and abroad. To protect our forces, our citizens and our facilities, we must continue to move forward with renewed emphasis and awareness. While we cannot prevent every attack, we can lower both the threat and the consequences of terrorist incidents.

Arms Control

In a very real sense, one of the best ways to protect our troops and our interests is to promote arms control in its many different forms. In both the conventional and nuclear realms, arms control can reduce the chances of conflict, lower tensions, generate cost savings, and encourage peaceful solutions to international and intra-state disputes.

In the conventional area, we remain committed to providing world leadership to end the use of anti-personnel landmines (APLs), while ensuring our ability to meet our international obligations and provide for the safety and security of our armed forces. The President has directed DOD to end the use of APLs outside Korea by 2003, to aggressively pursue and develop alternatives to APLs in Korea by 2006, and to search for alternatives to our mixed anti-tank systems that contain anti-personnel submunitions. Furthermore, the President announced that we will sign the Ottawa convention by 2006, if we succeed in identifying and fielding suitable alternatives to our APLs and mixed anti-tank systems by then.

Perhaps our greatest contribution to this worldwide problem is in the field of demining. Today, the U.S. leads the international demining effort, providing more funding, trainers, and other resources than any other nation. DOD has trained over one-quarter of the world's deminers to date and has demining programs in place in 21 countries.

The Strategic Arms Reduction Treaty (START) process continues to evolve, with START I implementation proceeding even as we continue to push for final ratification of START II. Currently, all parties have exceeded START I Phase I (December 1997) reduction requirements and are already approaching Phase II (December 1999) limits. As for START II, although we have worked hard to address Russian concerns through the NATO Founding Act, the New York Protocols to the START II Treaty, and other initiatives, the prospects for ratification by the Duma remain uncertain. It remains our position that the Duma must ratify START II before formal negotiations can begin on START III.

Our efforts to lower the numbers of strategic nuclear weapons coincide with efforts to control testing of nuclear weapons. In the 1999 State of the Union Address, the President asked the Senate to approve the Comprehensive Test Ban Treaty,

now, to make it harder for other nations to develop nuclear arms. To date, 152 nations have signed the treaty and 27 have ratified it. The Joint Chiefs of Staff support the ratification of this treaty, with the safeguards package that establishes the conditions under which the United States would adhere to the treaty.

Global Hot Spots

Around the world, our military supports our strategy of engagement and is ready to respond to threats anywhere in the world. However, three specific areas occupy center stage: the Korean peninsula, the Balkans, and Southwest Asia. These areas pose the greatest potential threats to stability and consume more energy and resources than any others.

Korea

The divided Korean peninsula remains a potential flashpoint, with recent developments complicating an already tense security situation. North Korea represents one of the few major military powers capable of launching a major conventional attack on U.S. forces with minimal warning. Despite its collapsed economy and struggle to feed its own population, the North Korean government continues to pour resources into its military and to pursue a policy of confrontation with South Korea and its neighbors in the region.

More than one million North Korean soldiers serve on active duty, the vast majority deployed within hours of the DMZ and South Korea's capital city, Seoul. Infiltration by North Korean special forces continues to exacerbate tensions between the two governments, and the launch of a previously unknown long-range variant of the Taepo Dong One ballistic missile represents a significant improvement in the North's capability to threaten the region and beyond. Finally, North Korea's repeated threats to walk away from the Agreed Framework that curtailed their nuclear production program have been unsettling to the international community.

The North Korean threat remains one that we must—and do—take very seriously. We have pursued a number of initiatives in recent years to enhance the capabilities of both our forces forward-deployed on the peninsula and our reinforcing elements, as well as the forces of our South Korean Allies. We now have better U.S. tanks, better infantry fighting vehicles and better artillery, as well as improved attack helicopters and aircraft, on hand in Korea. We have also deployed Patriot missile defense systems and improved surveillance capabilities, and assisted with a number of upgrades to South Korean forces. Our naval forces have greatly stepped up their anti-SOF activities, while forward-deployed marine units stand ready to reinforce the peninsula on short notice. We have upgraded our prepositioned stocks as well, substantially improving our ability to reinforce the peninsula with ground troops from the continental United States.

These actions have significantly improved our defensive posture. Still, the threat remains, and North Korea's substantial chemical and biological weapons capability, coupled with its continued pursuit of ballistic missile technology, will demand our attention for the foreseeable future.

Southwest Asia

Our recent military operations in Southwest Asia underscore how both our longterm interests and the prospect of continuing regional instability combine to keep the area a major source of concern. The ongoing disputes with Saddam Hussein and the military threat Iraq poses to its neighbors require a substantial, capable, and ready military force in the Persian Gulf region, as well as powerful reinforcing units in the U.S. prepared to move quickly should conditions require rapid deployment of additional assets.

As we showed in December, we are ready to act swiftly, in concert with our coalition partners or alone if necessary, to protect U.S. interests and those of our friends and allies. Forces in the region include powerful land-based bomber and fighter forces, an aircraft carrier battle group with a significant number of cruise missiles, and strong ground forces that can be reinforced within days. In recent years we have built up our pre-positioned stocks of weapons and supplies, considerably improved our strategic lift, and developed a crisis response force in the United States that can deploy to the Gulf region on very short notice. The development of this force is one example of our efforts to reduce the number of soldiers, sailors, airmen, and marines deployed overseas on contingency operations, while still maintaining sufficient capability to meet our security needs around the world.

Balkans

The world's attention is focused on the ongoing crisis in Kosovo. After the collapse of the Rambouillet talks, and in the face of continued Serb intransigence and ethnic cleansing directed at civilian Kosovar Albanians, NATO had no choice but to com-

mence military operations against Serb forces. Operation Allied Force is designed to systematically disrupt and degrade the capability of the Yugoslav military and security forces to continue their campaign in Kosovo. Our objective is being achieved despite considerable challenges, including bad weather, rugged terrain, a robust air defense system, and the efforts by the Serbian forces to disperse and camouflage their equipment to avoid detection and destruction.

We began our air operation by degrading the multi-layered, integrated air defense network in Yugoslavia, an essential first step in reducing the risk to pilots and aircrews in subsequent missions. We have also effectively disrupted command, control, and communications links, attacked and destroyed POL facilities, and severed lines of communication. The fielded forces are facing increasing fuel and supply difficulties and are now facing the brunt of our air attacks. The air campaign is working and NATO resolve remains strong.

Thanks to thorough planning and superb execution, U.S. forces have suffered few casualties and have lost a minimum of aircraft, despite flying thousands of sorties. However, the risk of additional casualties remains a very real possibility. There is no such thing as a "risk free" military operation. In addition to minimizing the risk to Allied aircrews, NATO has exercised extraordinary care to avoid civilian collateral damage from these air operations, but we cannot eliminate the risk in this area either.

The U.S. Armed Forces are fully involved in relieving the human suffering caused by the Yugoslav army and security forces. A humanitarian air bridge has been established to bring badly needed relief supplies to the Balkans. Military aircraft and military-chartered commercial aircraft have brought in food, water, tents, blankets, and medical supplies. Construction has begun on a 20,000-person refugee camp in Albania, and plans for a second camp are underway. In addition, the military is supporting other government agencies in accepting refugees into the United States.

Other areas of the Balkans continue to be of intense U.S. interest and involvement as well. Most prominently, in Bosnia-Herzegovina, we are reducing the number of U.S. servicemen and women deployed in support of the NATO multi-national Stabilization Force, or SFOR, to 6,200, down from 18,000 in 1996. U.S. troops are performing magnificently in Bosnia, providing a secure environment so that political and economic activities can go forward smoothly. No fatalities occurred in fiscal year 1998 and the health and morale of our forces there remains excellent.

SFOR operations in Bosnia over the past year have contributed to a number of successes. The recent elections were characterized by high voter turnout and an absence of violence—real achievements given the recent history of that troubled region. Since 1996 more than 200,000 weapons have been destroyed, heavy weapons have been put into cantonment areas, and military parity has been established between the former warring factions. The recent activation of a Multinational Specialized Unit, composed of police organizations from several countries, has enhanced SFOR's ability to provide public security. These steps, and SFOR's success in sustaining a secure environment for the further implementation of civil tasks, have done much to reduce the chances of future conflict.

The outstanding performance of U.S. and other NATO military units has enabled SFOR to fulfill the military tasks spelled out in the Dayton Accords. Nevertheless, success in achieving the civil, political, and economic tasks identified at Dayton has been slower in coming. The focus now must be on pressing forward with those tasks as we plan to reduce and eventually withdraw our ground forces from Bosnia.

Funding for Contingency Operations

Last year our Armed Forces benefited greatly from the prompt approval of the emergency supplemental for Bosnia and Southwest Asia, totaling $1.9 billion and $850 million respectively. This strong support has enabled us to execute these missions without taxing our already-stressed readiness and modernization accounts. We are requesting that the same quick approval be given to the almost $5.5 billion request for an emergency, non-offset supplemental for operations in Kosovo, as well as recent operations in Southwest Asia. If approved, this money will be applied directly to the field and fleet to replenish the funds borrowed from fourth quarter operations and training accounts.

Without these funds, training needed to maintain combat readiness will have to be cancelled. The readiness of non-deployed units will slip, leaving them less ready to replace or reinforce our forward-deployed forces. The progress made in the aviation spares program could be undone and, in fact, the situation could be made even worse as a result of the increase in the operating tempo. In short, without the assistance from Congress in quickly funding the costs of these vital operations, we will pay a price in degraded readiness and quality of life and find ourselves with an aging inventory of systems and weapons.

BUILDING TOMORROW'S JOINT FORCE

Even as we focus on the present we must look to the future to ensure that tomorrow's force is just as ready, just as capable, and just as versatile as today's. Given finite resources, maintaining current readiness and funding modernization for the future will often conflict—but both are equally important. To ensure that tomorrow's Joint Force remains the world's best, we are moving forward to "operationalize" Joint Vision 2010—our conceptual framework for future joint operations—on a number of fronts.

Joint Experimentation

The principal mechanism for translating JV2010 into reality will be the Joint Experimentation process, a multi-year series of simulations, wargames, and exercises designed to rigorously test JV2010's key operational concepts. In 1998, the Secretary of Defense assigned USACOM the mission of serving as the controlling headquarters for joint warfighting experimentation. USACOM's Joint Experimentation Program incorporates lessons learned from Service experimentation and exercises, and includes a comprehensive schedule of joint exercises of increasing scope and complexity over the years ahead. Our intent is to focus on the seams that exist between Service core competencies, leading to an enhanced and continuous exchange of ideas and results. This approach will include Strategic Development Experiments focusing on capabilities we believe we'll need beyond 2010, and Operational Capability Experiments that deal specifically with desired operational capabilities needed before 2010.

Ultimately, the Joint Experimentation process will influence everything about the Joint Force of 2010: systems, strategy, force structure, doctrine, training, recruiting, and professional military education. By examining our assumptions and refining our concepts in the crucible of Joint Experimentation, we can best achieve the full potential of JV2010—a Joint Force capable of defending the Nation against any conceivable threat or enemy.

Unified Command Plan

A major part of our modernization effort is our long-range vision of how to organize the Unified Commands for the future. As part of the current Unified Command Plan (UCP) review cycle, the Joint Staff worked with the CINCs and Services to study a wide range of options, including the recommendations of the National Defense Panel. I intend to include the results of this review, called UCP 21, as an annex to the 1999 UCP. It will lay out a flexible plan, with decision points based on the biennial UCP review cycle, to establish a Joint Forces Command, a Space and Information Command, and a joint command for homeland defense.

The first step along the path for UCP 21 is the establishment of the Joint Forces Command in the 1999 UCP. This will help guide us to the next level of jointness by focusing more attention and resources on joint training, experimentation, interoperability, and doctrine. We will also establish a Joint Task Force for Civil Support to provide military support and planning for threats to the homeland from weapons of mass destruction. At the same time, the newly created Computer Network Defense Joint Task force will evolve into a Joint Task Force for Information Support designed to help protect our critical defense information systems, both at home and abroad. These three steps, taken in the 1999 UCP, will lay out a flexible, evolutionary path to the future designed to improve jointness and protect our national interests against evolving threats well into the next century.

National Missile Defense

An important element to be considered in providing for the defense of America is National Missile Defense (NMD), particularly in light of developing ballistic missile programs that could pose a threat to the United States. The NMD program objective is to develop and provide the option to deploy a system that will defend the U.S. against a limited strategic ballistic missile attack by a rogue nation and to provide some capability against a small accidental or unauthorized launch from a nuclear-capable state. Our NMD program is structured to demonstrate a system-level capability that could permit a deployment decision as early as the Year 2000.

This has been a very ambitious endeavor. Beyond the tremendous technological challenges associated with the development of an NMD system, we have also been striving to develop a system that could potentially be fielded sooner than is typically required for such an effort. The decision to deploy an NMD system will be based on several factors, the most important of which will be assessments of the threat and the current state of the technology. A threat is clearly emerging; however, the technology to "hit a bullet with a bullet" remains elusive. We will continue to press

hard to develop an effective NMD system, very mindful that the growing threat is placing a deployment decision in clearer context.

Defense Reform Initiatives

A key component of defense modernization is the Revolution in Business Affairs. Over the last year, the Services have worked closely with OSD and the Defense Agencies to reengineer business practices, consolidate and streamline functions, outsource defense activities, and eliminate excess infrastructure. By bringing competition and proven business efficiencies to DOD, we can generate substantial savings in future years that can be applied to our modernization efforts. Each of the Military Departments has made significant progress over the past year, highlighted by success stories like the Army's supply and distribution Velocity Management initiative; the Air Force's utilities privatization and electronic commerce programs; and the Navy's reform initiatives in the areas of recruiting, retention, personnel training and assignment, commercial business practices and housing.

The Service Chiefs and I strongly support the Secretary's Defense Reform Initiative as an essential complement to the Revolution in Military Affairs. Both will be vital to preparing our military for a challenging and demanding 21st Century. By combining the best business and management practices with leading edge technology and the world's best-trained force, we will continue to provide the American people with the number one military in the world.

Modernizing the Force

For most of this decade, current readiness funding has come at the expense of future modernization. During the early and mid-1990s, procurement accounts served as bill payers for short-term readiness, contingencies, and excess infrastructure. Consequently projected procurement funding necessary for modernizing the force repeatedly slipped further into the future with each succeeding budget year.

Our goal is to meet programmed modernization targets by having a fiscally executable fiscal year 2000 budget and FYDP. Our current plans take us down that path. The previously programmed QDR adjustments to endstrength, force structure, and modernization initiatives, combined with planned business efficiencies, provided resources that were redistributed to both modernization and current readiness accounts to yield a more stable and sustainable Defense program. As a direct result, and in line with our QDR goals, procurement has increased from $49 billion in fiscal year 1999 to $53 billion in fiscal year 2000, an increase of nearly $23 billion for procurement over the FYDP to address our most critical modernization needs.

However, despite these adjustments, significant risk still remains. This risk stems from unprogrammed contingency operations, aging equipment, and unrealized efficiencies that could make achieving our future QDR procurement goals difficult. As long as we remain at current funding levels, we will continue to face the readiness vs. modernization dilemma.

The time has come to act on our long-range readiness problem—modernizing the force. We must act now to reverse the cycle of escalating maintenance costs prompted by aged and overworked systems. While the QDR gave us a roadmap to do so, our plan was contingent upon savings from two additional rounds of base closures and greater efficiencies in DOD business practices. Without the additional BRAC rounds, the only real answer to achieving our programmed modernization targets is to adjust the budget top-line upwards.

The U.S. is the dominant military power in the world today. Our armed forces are fundamentally sound and capable of fulfilling their role in executing our national security strategy. However, the combination of multiple, competing missions, recruiting and retention shortfalls, aging equipment, and fixed defense budgets has frayed the force. The warning signals cannot and should not be ignored. With the support of this Committee and the Congress as a whole, we can apply the right kind of corrective action now and avoid a downward spiral that could take years to overcome. As we look to the future, we should move forward with a clear understanding of what must be done and with confidence in America's sons and daughters in uniform. They represent the heart and soul of our Armed Forces, and it is our responsibility to ensure they remain part of a military worthy of their sacrifice and commitment.

FUNDING PECULIARITIES IN FISCAL YEAR 2000 BUDGET

Senator STEVENS. Thank you very much.

On this 2000 budget, I discussed with Deputy Secretary Hamre last week some of the problems. For instance, Mr. Secretary, there is a $1.65 billion unspecified rescission in this proposal, and there

is also a proposal to fund military construction on an incremental basis.

We have a series of technical assumptions by the OMB that were rejected by the Congressional Budget Office (CBO). We are hard-pressed to try to understand some of the shortfalls and there is no other better word for it but gimmicks in this budget.

What do you suggest we take out for the $1.65 billion?

Secretary COHEN. Mr. Chairman, there were several items that you touched upon. Number one, the rescissions. Those were to be negotiated with the members of Congress because they were items that are of concern to individual members. That was not something that I would propose to do unilaterally.

Senator STEVENS. Well, we do not even have a list of them.

Secretary COHEN. Well, we can sit down and do that at any time with you, Mr. Chairman. I thought that there was a process under way whereby we could in fact reach some kind of an accord on that.

But let me just address the other issue. This $3.1 billion, you are right, on the military construction is what we call split funding, which is not a happy occasion for me to come before you to ask for that. As a general rule, I do not support it as a policy and, frankly, the reason we had to come up with the $1.6 billion and $3.1 billion in those two categories was to try to get the funding up as close to $12 billion as we could and still stay within the caps.

Now the program that we have submitted is executable. Is it necessarily desirable? That is something that I am sure that you and other members may take issue with. But we believe that we could in fact execute the military construction budget for this one year, allocating just the funds necessary for the construction for the year 2000 and paying the balance in 2001. But it was a way for me to have to get under the budget caps.

That is the very direct reason why we did that. So if you do not agree with the split funding or the incremental funding, and if you do not agree that we have to have rescissions, then there will be the shortfall that you have indicated. So it will have to be paid for in some other fashion. That was the best fashion I could come up with, given the restrictions that are in the budget.

Senator STEVENS. Well, I think if we asked the committee we would have 29 different suggestions as to how to deal with the $1.65 billion, and I think, in all fairness, if you want us to rescind something, you ought to tell us what we should rescind.

Secretary COHEN. I will be happy, as soon as this meeting is over, to sit down with you and other members and come up with a list of rescissions.

Senator STEVENS. By the way, gentlemen, we are running a 7-minute clock so we will try to keep it going.

MISSILE DEFENSE DEPLOYMENT

We provided for this fiscal year $1 billion as a special add on to accelerate the missile defense programs, and we have been working with General Lyles to try to ensure that those funds are applied only to accelerate or enhance the integration of the systems and the testing.

Do you think that we are still on track to maintain the course so we will get a deployment decision in June 2000?

Secretary COHEN. I do, Mr. Chairman. I think that a decision has to be made at that time, and that is the pledge that I made and it is part of the budget submission in terms of the funds that we put in to allow for the President to be in a position to make that determination by June of next year.

Senator STEVENS. Mr. Chairman, do you support the concept that this national missile defense system should defend all 50 States?

General SHELTON. I do, Mr. Chairman.

BOMBING OF CHINESE EMBASSY

Senator STEVENS. Thank you. Let me tell you, you are both good friends. I was out of town when I saw the television reports on the terrible mistake that was made in Belgrade in striking the Chinese embassy.

As you know, I served in China in World War II, and I have tried to maintain a strong relationship with those people since we had the opening following President Nixon's visit there, and I think this committee has done everything we can to try and enhance that relationship. I think the ordinary people have been basically desirous of expanding their relationship to us.

This terrible accident has now put that into a very tenuous position. I hope that there is some way we can find an avenue to explain to them just our national regret about this incident. But one of the problems that bothered me was that, with this elaborate target selection mechanism we have, working through NATO, is the fact that such an accident could happen.

We are here to provide money. Is there any problem there that could be solved by money as far as this target review? Where is the gap in the intelligence that led to this problem?

Secretary COHEN. Mr. Chairman, I heard yesterday that someone said that it was a resource-based problem. I do not believe that. I think it was an institutional failure. When you look at the series, almost concatenation of events that led to the mistaken identify of the Chinese embassy, I do not think you could associate that with inadequate resources.

They may feel that way in some segments of our defense intelligence community, but I think that there are adequate resources in order to have dealt with this. We made a number of recommended changes—things that are fairly elemental but apparently are not in operation today—and I laid those out yesterday during the course of a press conference in terms of making sure that we take every measure necessary to keep maps updated, to keep the data base which these maps really rely upon current.

You could point to a whole series of events. There are people who have been to the new Chinese embassy in Belgrade. That is why it is very difficult for some to understand how it is possible. You had high-level officials who have visited the new Chinese embassy, but they have not placed a call out to the agency or to the Department saying, by the way, we are at the new embassy.

You have various military personnel who have been there in the past. Again, it was not factored into the accumulation of the data base. So there are a whole series of omissions that we can now go back in retrospect and say can we do things differently to try to

make sure that we do our level best to prevent this from happening in the future. And we will.

But I must tell you, as the Chairman has said, that we are probably going to make mistakes again in the future. I was listening as Senator Bond, who is no longer here, indicated everything has gone all wrong.

Let me just point out we have had 18,000 sorties. We have had 4,000 attack sorties. We have had 380 separate targets. We have had over 10,000 munitions that have been dropped. And out of all of that roughly a dozen have involved unintended consequences. So we made a mistake here. It was a big mistake in terms of a case of mistaken identity.

We did in fact target that building, thinking it to be a federal procurement building as such and one that should have been on a target list. It happened to be several blocks down the street, the real building that should have been hit. And we regret that deeply. But we will do our best to correct that in the future and institute some changes as far as how the target list is put together and the level of supervision it must go through.

We think it is pretty extraordinary right now, but to the extent that this could happen it is unacceptable, and we will do our best to change that so it does not happen again in the future.

Is there any guarantee? I do not think anyone could sit here and say we will never make a mistake in the future. We will do our best to eliminate those mistakes.

Senator STEVENS. I am constrained to say that almost 3,000 tankers came into Valdez and one went aground, and we had a terrible, terrible, terrible incident that caused a total review of the whole vessel traffic control system. It required a lot of additional money to make sure that we have an information system that should, I hope to God, prevent that in the future.

I hope that you are looking at the cost factor, and see if anyone cut costs in terms of the maintenance of this data and information base that is necessary for intelligence, because we would like to put that money back in if that has happened.

Senator Inouye.

Senator INOUYE. Thank you very much.

Before I proceed with my questions, Mr. Chairman, I would like to commend and thank the Secretary for his forthright and strong statement on the unfortunate, tragic bombing of the Chinese embassy.

Having said that, Mr. Chairman, I find it strange, I find it most disconcerting that at a time when we are going out of our way to try to help the Chinese acquire information on satellite technology and communications technology, we are doing our best to assist them in becoming members of the World Trade Organization, that now they condemn us with inflammatory rhetoric. We have apologized. The President has apologized. The Secretary of State has apologized. Everyone has apologized. The flags at the embassy grounds are now at half-mast, honoring the Chinese dead.

I cannot help but recall that when the news of the Chinese stealing of our nuclear secrets became public, we did not react by condemning the Chinese. We did not urge our citizens to throw rocks at the Chinese embassy here. Instead, we involved ourselves in a

strange national masochistic practice. We blamed ourselves. No one knows who stole the secrets. He is almost forgotten. But we are pointing fingers at ourselves and condemning ourselves.

I hope the Chinese do not misinterpret this, because enough is enough. We have been good and decent, I believe, and when the President's call is not responded to, that is an insult of the highest nature. So I am glad you made a strong statement.

MILITARY MANNING

If I may ask General Shelton, we have been getting reports that our carriers are going to the Kosovo battle area not fully manned. They are short of personnel. For example, we have been told that the U.S.S. *Roosevelt* is about 400 personnel short, and the same thing can be said about U.S.S. *Kitty Hawk*. Is that correct?

General SHELTON. Those figures are approximately correct, Senator Inouye. Most of the carriers that are deploying today do in fact deploy in a C–2 for personnel status, based on the fact that they have had—the Navy, as you know, has had a recruiting shortfall. Last year it was in the neighborhood of 7,000. They are still struggling this year, but gaining some ground back now.

But they are fully trained, ready to go when they arrive in the operational area, although they are short on manning. And, of course, that drives the personnel tempo of those who are aboard the ship, and the Chief of Naval Operations, Admiral Johnson, is very aware of this and has been working very hard to try to make up the shortfalls.

Senator INOUYE. Will the shortfall have any negative impact upon the men carrying out their missions?

General SHELTON. It will have an impact in terms of the numbers of hours that they work, but in terms of their training and their ability to carry out their mission, they have been doing a magnificent job showing that they are fully trained and ready for combat.

Senator INOUYE. The matter of readiness. We have been told, at least by the letters that I receive, that it is really not the pay raise or the retirement program that would finally determine whether a man stays on in uniform. It appears that many of the spouses and children are getting a little tired about their husbands and wives staying out on one mission after the other.

We have a military force of 1.4 million, but we have called upon them to carry out missions, albeit unexpected, but nevertheless they are missions that they have to involve themselves in. Do we have too many missions for them?

Secretary COHEN. Senator Inouye, we have a situation where we have a smaller force and we have more missions, and so we are in fact, as I indicated in my opening statement, we are wearing out systems, wearing out people.

In addition, I would say that the pay raise and the retirement is of significance to many members who are now serving, but the quality of life—and I put quality of life in terms of being able to be home with one's family—is also of critical importance.

The services have tried to manage that. General Shelton has talked about the need to relook how the current end strength is structured so that we can put more people into those high demand

jobs where we have low density, fewer people. But it is a real challenge that we have to watch. We are either going to have to have fewer missions or more people, but we cannot continue the kind of pace that we have.

And I see the yellow light is on, but let me just continue one moment. When it comes to morale, there are several factors involved. If you go over and visit—and I know you have; you have been with me—whether you go over to the gulf or you go over to Aviano or Ramstein or where our people are currently engaged in rather serious operations, you will find that they are most satisfied when they are doing that which they were trained to do.

So you will find, notwithstanding the heat and the humidity in the Persian Gulf, where the temperatures climb at a combined level to 150 degrees during August and you have got 1,000 sorties taking off a day, those sailors are happy to be doing what they are doing.

The same thing is true in Ramstein. The humanitarian missions, all the C–17s carrying humanitarian relief missions to Kosovo, or the pilots who are carrying out these extraordinary air campaigns against Milosevic's forces, they are happiest when they are doing that which they are trained to do.

But if we do it too long, if we do it at such a sustained rate, then the morale will drop off eventually and it will then reinforce what has been taking place, and that is we can do better on the outside. Life will be easier. I will be home weekends or evenings with my wife or husband, and I will have a better quality of life for my family. That is the real danger that we face, and we have got to find a way to either increase the size of our forces or decrease the number of our missions.

Senator INOUYE. We are at the edge, are we not?

Secretary COHEN. I think we are at that edge, yes.

Senator INOUYE. Thank you very much.

Senator STEVENS. Senator Specter.

Senator SPECTER. Thank you, Mr. Chairman.

Secretary Cohen, yesterday the Clinton administration notified the Congress that it had approved the export of technology to China to permit the launching of a communications satellite, and this is pursuant to a requirement in last year's legislation for presidential certification.

Last week the Senate Intelligence Committee, where you and I served together not too long ago, made a finding that the monitoring of the launching of American-made satellites aboard Chinese rockets had enhanced the accuracy of China's ballistic missile arsenal. And the President said, in his transmission yesterday, that there would not be a "significant improvement in China's military capability in space."

There has been a lot of dispute about our export controls and the battle goes significantly between Commerce, which favors commercial enterprises, as opposed to State, which has been a restraining influence. But it seems to me that the Department of Defense is in the best position to really answer our national security concerns.

A two-part question, intimately related. First, was the Department of Defense, were you consulted about this approval on the satellite launch? And, second, what is hidden between the language

or within the lines of "not significantly improving China's military capability?" If there is any, it seems to me highly questionable that that approval ought to be given.

SATELLITE TECHNOLOGY TRANSFER

Secretary COHEN. Senator Specter, both the State Department and the Defense Department are always consulted on any satellite transfer such as this and have an opportunity to object to it and carry those objections to the President. My understanding is that both the State Department and DOD approved the satellite transfer in this case.

Senator SPECTER. Well, in the Department of Defense does it get to you, Mr. Secretary?

Secretary COHEN. It gets to my Under Secretary level, and then is brought to me, my attention, but basically it is handled at a technical level and then I get to have a recommendation in terms of approval.

Senator SPECTER. It seems to me, following up on what Senator Inouye eloquently said, that at a time when the Chinese are not taking the President's call that this is a particularly inopportune time. Do you think consideration ought to be given to at least delaying this transfer of technology?

Secretary COHEN. I think we ought to try to cool down the passions that currently have been inflamed. I think that at this point the Chinese have indicated their sense of outrage at the bombing of their embassy. And I think now is the time now to try to, either for them to exploit it or for us in return to exploit a negative reaction against them.

I think that if this satellite in fact will not substantially alter their capability that we ought to remain on good commercial terms with the Chinese. The timing happens to be unfortunate in the sense that I am sure that the approval was granted long before the attack on their embassy. So the timing may seem to be not propitious at this moment.

But to the extent—I think there is a danger. Let me just take a moment. There is a danger that if we allow this situation to get out of hand—I would point to the Chinese government in particular—I would urge them to accept the President's statement, to accept his phone calls, to find ways to minimize the tensions now rather than exacerbating them, because this is precisely the kind of situation which can be then exploited by us, by saying if you are going to react in that fashion, if you are going to start burning American flags, if you are going to destroy our embassy, then perhaps we should not be proceeding apace with our commercial transactions.

That in turn could produce other reaction from them, and you have a series of counter and other types of reactions going across the Pacific. I think that is not in our interest to do that.

Senator SPECTER. Let me move on to another question because of limited time. I would comment on commercial transactions. I would frankly be a little restrained on that, but when they are military, I would be just a little more hesitant.

APPREHENSION OF WAR CRIMINALS

Justice Arborough, Louise Arborough, the chief prosecutor in the War Crimes Tribunal, was in the Senate 10 days ago and met with a bipartisan group and made a very strenuous appeal to us for funding, and that is something that this committee is going to be taking up this afternoon. They have asked for $20 million. So far we have appropriated a gross sum of about $153 million, and I am hoping we can segregate that down.

But she made a point that if we were to take into custody Karadjic, whom we have identified in the French quarter—there is an issue as to whether we are getting adequate cooperation from the French, and there are a number of other sealed indictments which could be made public. If a number of other ranking officials on war crimes in Bosnia were taken into custody, these arrests could have a very profound effect on people right under Milosevic in the chain of command.

When the President met with a group of House Members and Senators recently, at a meeting you attended, he made a point of the War Crimes Tribunal being a collateral way to accomplish our objectives with Milosevic in addition to the military line.

Sixteen of us wrote to the President on this last week. I would urge you to do what you can, or perhaps you have some suggestions, perhaps General Shelton does, as to how we might take Karadjic into custody. There has been an indictment outstanding against him for 4 years. My visits to the area have led me to hear the military people saying they could take him into custody if they had the order.

But at a time when there is gathering of evidence, a large media disclosure this morning, gathering evidence about Milosevic as a war criminal, that, it seems to me, would be a very, very salutary move. How do we get that done?

Secretary COHEN. Well, we have in fact intensified our efforts to arrest, apprehend war criminals and bring them to The Hague. You have seen, I think, a rather dramatic increase in the number of war criminals who have in fact been arrested and transported to The Hague in the past year and a half.

With respect to Karadjic, he presents a more difficult challenge in terms of his location, what it would take to go in and get him, what kind of force would be necessary, and what the ramifications would be for our forces and for the security of stabilization forces (SFOR) itself.

But what we have done is, whenever we have intelligence, whenever we can in fact put together the right circumstances where a war criminal can be identified, tracked and apprehended, we have been doing so. And we should pursue that with Karadjic as well.

Senator SPECTER. Well, I would just hope you would intensify those efforts.

Thank you very much, Mr. Secretary, General Shelton. Thank you, Mr. Chairman.

Senator STEVENS. Senator Dorgan.

ADDED FISCAL YEAR 1999 EMERGENCY SPENDING

Senator DORGAN. Mr. Chairman and General, thank you very much. Mr. Secretary, $7 billion has been added to the emergency supplemental on the House side. We will go to conference this afternoon with $7 billion of added spending on the House side, most all of that for defense needs.

Those funds were not requested by the administration; is that correct?

Secretary COHEN. That is correct.

Senator DORGAN. Would it be your view that most of those funds are not emergency funds?

Secretary COHEN. What we have indicated is that the funds we have requested will satisfy our replacement needs between now and the end of this fiscal year. No one is going to come before you and say we could not use more. We can always use more. But we believe that will meet our needs to carry out the air campaign.

As I pointed out to the Chairman, there will be other costs that have not been budgeted for. We have not budgeted for a peacekeeping force, we have not budgeted for the return of our forces from the region. This will carry us through the air campaign to the end of September and that is it.

Senator DORGAN. Well, $7 billion is an enormous amount of money, as you well imagine, and to classify it as an emergency coming to us from the House of Representatives, it substantially increases this bill. But I guess your answer is you have not requested these funds. These are added by the Congress.

Secretary COHEN. That is right.

REDUCED PROCUREMENT OF D–5 MISSILE

Senator DORGAN. Let me just mention an area where I think you can save $2 billion, and I want to try to help you do that. That is with the procurement of D–5 missiles. You plan to equip only 12 of your Trident submarines from 2005 through the year 2019, because you are going to have approximately 2 of them out of service, at any one time, being refueled and having their fuel cells reactivated.

And yet in the year 2019 you will potentially have to load 14 boats. You are going to have 12 submarines with D–5 missiles for some 15 years out there, and you are going to have a procurement plan for the D–5 missile that will build to such an inventory that you can add 2 additional submarines after the year 2019. But you can save $2 billion by reducing that procurement of the D–5, and if you want to have the additional missiles you can use the C–4 missile.

I want to ask you to look at that, if you will, because we have done some work with the Navy on it, but it seems to me it makes sense to save the $2 billion and reduce the procurement schedule of the D–5 missile.

Secretary COHEN. Well, if we have an invigorated arms control reduction process with the Russians that will help as well. They have yet to ratify START II. We have indicated as soon as they do we will try to go to START III levels, which would have a substan-

tial reduction on both sides. So we would be able to save some money in that respect as well.

Senator DORGAN. Well, that is true. And we will perhaps be able to save more money. But my point is, if for 15 years we have 12 Tridents out there, 12 boats, with a certain number of missiles and warheads, we do not have to produce to increase that number in the year 2019 and beyond. It seems to me you can save a couple billion dollars there.

Let me say that I certainly support the comments by Senator Specter about prosecution of war crimes and so on. But I do want to ask one other question that deals with something Senator Bond indicated. You responded partially to it.

ACCOMPLISHMENTS OF AIR CAMPAIGN

He said everything has gone wrong, which kind of surprised me. The Chinese embassy bombing was a horrible mistake. I mean, I think all of us probably heard that news and shook our head and thought how on earth could this have happened. That was not just a dumb mistake but a horrible mistake, with tragic consequences for innocent civilians. But this country has profoundly apologized for it. I think all of us in this country deeply regret that happened.

The Chinese reaction to it, however, is very troubling to me as well. There is something at work here that is very troubling, and I hope they will think through what they have been doing in recent days.

But this issue of everything is wrong, this campaign now has gone on for some while. I have been in meetings with you at the White House and leadership meetings and various others. I have heard presentations by the General and by you, Mr. Secretary, about the air campaign. Give me a better description about where we are and what is happening. Some think everything has gone wrong, as you just heard this morning. Others, yourself, would make the case that this is the prosecution of an air war by NATO and the United States in which it is having an impact.

So let me have you and the General describe that in the context of an assertion that everything has gone wrong.

Secretary COHEN. Senator Dorgan, I would be happy to take the time. I was just handed a complete list of all that we have accomplished in terms of going after the army, the police, the air defense, the command, control, communications, his petroleum oils and lubricants (POL), his petroleum, his industry and his lines of communication.

I will let the Chairman get into a bit more detail and we will give you a copy of this. I think it will lay it out pretty clearly. But I will just take a few moments.

If you look at what has been accomplished in the 45-day period—again I have tried to place it in some balance—with the weather, geography, the redundancy of the air defense system this country has, if you look at the nature of the challenge, we have had only, let us say, a half dozen of unrestricted days where we have not had to pull our force, the air missions back.

We have had day after day or night after night when various flights of combat aircraft have had to turn around and come back because they could not penetrate the weather. We have had 5 or

6 really clear days out of that 45 days, so you place that in some perspective when we compare it to, let us say, Desert Storm.

In Desert Storm, we bombed for 44 days in a climate that was clear, flat land, certainly there were heavy defense systems in Iraq as well. But it was a much different challenge for the pilots under those circumstances compared to the one that we have now.

Again, not comparing. Comparisons are said to be odious, but nonetheless you have to look at what we had to accomplish in that mission plus what we had to accomplish in this one.

And I would say that if you look at the Desert Storm I think we lost an average of one aircraft a day during that time, again many more missions being flown under a different environment. But we had more losses than we have had today. We have tried to minimize our losses, and frankly that has been the subject of some criticism. Why are you hanging up so high? Well, because they have some very sophisticated air defense systems, and we could lose a pilot a day or a plane a day if we were to simply go down lower and lower. They are waiting for that.

I always felt that you do not fight on the enemy's terms; you fight on your terms. And you try to do that which will accomplish your goals. So what have we done? We have destroyed his entire oil refinery capacity. That is gone. 100 percent of it is eliminated.

We have taken out about 60 percent of his ammunition production capability, maybe higher now. We have eliminated 9 out of 14 of his Mig-29s that he had, his front-line aircraft. Those have been destroyed.

In terms of his ammunition supplies, they have been degraded, I would say, 30 or 40 percent. I will get the exact figure for you.

[The information follows:]

As of May 11, [deleted] of the [deleted] ammunition storage facilities in Serbia (including Kosovo) had been targeted and [deleted] percent of their storage capacity had been destroyed. Strikes against Former Republic of Yugoslavia ammunition production plants had degraded their production by [deleted] percent.

By the end of the air campaign, [deleted] percent of Serbia's ammunition storage capacity was destroyed. In addition, Serbia's ammunition, production, supply, and munitions armaments sustainability was degraded by [deleted] percent.

Secretary COHEN. His air defense, the C^3 communications, we have eliminated two presidential residences, the headquarters of the army, air force, air defense force, Socialist Party of Serbia, the national security services have all been either damaged or destroyed.

This list is quite lengthy in terms of the damage that is being done—the bridges taken out, the lines of communication interrupted. And now, in the last week, we have been focusing on the forces in the field. We are now going after and killing individual tanks, artillery pieces, forces who are gathered in the field.

So I would say, given the restrictions that we have had, given the enormous challenge that the geography, his dispersal of all of his forces in the woods, putting his tanks up against houses, all of the mechanisms he uses in order to defeat air power, we have had extraordinary success. But again I do not want to take the time to go through word by word. The Chairman may want to indicate this in a bit more detail.

But let me once again point out that out of the 18,000 sorties and 4,000 attack missions itself, 10,000 munitions that have been

dropped, we have suffered only 3 or 4 losses. We have had two Apaches lost in training. We had the F–117 that was also lost. We have had an F–16, and we have had some damage done to an A–10.

But out of all of these missions, if you look at the losses that we have suffered and the damage that we have done, and the fact that now he is even talking about, quote, a partial pullback, he is talking about a partial pullback because he feels, number one, he thinks he has achieved his goal. He has not. The Kosovo Liberation Army (KLA) is stronger today. They are getting more in numbers. They may be dispersed in the hills, but they are going to come back stronger and he is going to be much weaker.

And that is the reason I believe he is starting to show some willingness to meet the demands that we have insisted upon. He is not there yet, but we are intensifying this campaign. We will operate this campaign on a 24-hour-a-day basis. We now will have sufficient aircraft to operate 24 hours a day, all over Serbia, day and night, and we are going to intensify this campaign and hit the rest of the targets that we have on our list.

Senator STEVENS. Senator Gregg.

Senator GREGG. Thank you.

Mr. Secretary, there are a number of places where we have significant strategic interests. Obviously one is Russia, and unfortunately I think Kosovo has undermined the credibility of the more reasonable people in Russia to some degree. And another is China, where we have huge strategic interests.

And a lot is going on vis-a-vis China. And I wanted to talk to you about a couple of these items. First, it is fairly obvious that a very significant event of espionage has occurred relative to our nuclear capability and knowledge. Is that not true?

Secretary COHEN. I think that is a fair statement, Senator.

Senator GREGG. And I guess one of my questions to you is, there seems to have been within the administration, at least in the White House, an almost casualness about reviewing the issue of espionage that occurred at the labs. Certainly the time lapses that have been reported and the response to it that has been reported, and the briefings that we have received that have been intelligence briefings so they cannot be reviewed here reflect, to me anyway, a high degree of casualness, to be kind, relative to what is a severe breach of our national security.

WHEN NUCLEAR SECURITY BREACHES BECOME KNOWN

So I guess my question to us is, when did you learn about the labs being breached relative to, number one, the warheads and, number two, computer systems?

Secretary COHEN. I learned about the breach in security in the spring of a year ago, the spring of 1998, I believe the first report that was surfaced. It may have been sooner than that, but the first time it surfaced I was made aware of it. The Deputy Secretary of Defense was made aware of it. And we brought it to the attention of others in the administration the same day.

Senator GREGG. But the President's position is that he was not made aware of it until November.

Secretary COHEN. Well, I think that there were activities, initiatives undertaken before that. As a matter of fact, I believe that Secretary Richardson has testified to this, but I believe that there were a number of things instituted before that.

I will not go into it in open session, but I believe it would be important as you review this—and I know that you are on the Intelligence Committee—that you get a full briefing from the Federal Bureau of Investigation (FBI) as well, because I believe that a number of things were undertaken through Justice and the FBI that may perhaps not contribute to—the inability to discuss it in public may not contribute to the full understanding of what was taking place once these allegations surfaced about the activities of certain individuals.

I believe the FBI was notified immediately and then undertook its own investigation. I think that would help a complete understanding of what the reaction of the administration was, what steps were taken, what was the role of the Bureau and others.

Senator GREGG. When you say you communicated in the spring of 1998, are you saying you communicated it to the White House that you had become aware of these breaches of security?

Secretary COHEN. Yes, indeed. The National Security Advisor, Secretary of State and I gather frequently. We discussed this issue, along with the Department of Energy.

Senator GREGG. Now, looking at it from a defense standpoint, does the capability that was potentially removed from these facilities, does it represent a severe national security issue?

Secretary COHEN. If the allegations in fact are true and proven to be so, I believe it will represent a serious breach of security, and it will in fact have allowed the Chinese, if they acquired this information, to have accelerated their nuclear program, yes.

There is still some question in terms of what happened to the information, who had access to it. I am not in a position to verify it or even confirm it at this point, because it is still under investigation. But if in fact that information was transferred back to Chinese scientists and authorities, then it would certainly have allowed them to accelerate their nuclear weapons development program.

Senator GREGG. Does that mean that the Chinese missile capability today could better target American defensive structure, if they had this type of information?

Secretary COHEN. If they have this kind of capability, then certainly it would help them in their targeting, yes.

COST OF EMBASSY RECONSTRUCTION

Senator GREGG. The embassies that have been attacked, the Chinese embassy, have we offered to rebuild that embassy?

Secretary COHEN. No.

Senator GREGG. Do you expect as part of this process that we will offer to pay for the cost of reconstruction?

Secretary COHEN. I do not know what will be worked out, if anything, in terms of their embassy. This is something that I am sure the State Department and the White House will take under advisement, but there has been no request, nor have we made such an offer.

Senator GREGG. Have the Chinese offered in any way to assist in paying the costs of rehabilitating the embassy that they are in the process of destroying in Beijing, our embassy?

Secretary COHEN. Not our embassy and not the consulate, the home of the consulate that was destroyed.

REFUGEE RESETTLEMENT COSTS

Senator GREGG. On the refugees, do you have an estimate of how much it is going to cost us to move these refugees back into Kosovo, to resettle them, to rebuild their housing, to rebuild the electric infrastructure, the water infrastructure, and the commercial infrastructure?

Secretary COHEN. I do not have an estimate on that. We have requested some $330 million in this request, the supplemental, to just handle the 20,000 refugees, and frankly I think the number is going to be more than that. It is going to be closer not to 20,000 but closer to 60,000.

Senator GREGG. $300 million?

Secretary COHEN. There is $330 million, I believe, in the budget that has been requested.

Senator GREGG. Is it reasonable to presume that when we are dealing with a million refugees that the cost of returning them to Kosovo, rebuilding their housing, rebuilding the infrastructure—water, sewer, electricity—is going to be multiple billions of dollars?

Secretary COHEN. I would think that that would be the case.

Senator GREGG. Does the administration have a position yet on what portion of that cost the United States taxpayer will be asked to bear?

Secretary COHEN. I do not believe the administration has a position on this yet. We have indicated that we would share with our NATO allies and western European nations, the European Union (EU) and others, to help develop a Balkan strategy as such to try to stabilize that region so we do not see a repetition of what Milosevic has done. But I do not think any figures have been attached to it.

Senator GREGG. Thank you, Mr. Secretary.

Senator STEVENS. Senator Lautenberg.

Senator LAUTENBERG. Thank you very much, Mr. Chairman.

I want to start by responding to the Secretary and to General Shelton with a commendation for all of our people who are serving, because it is obvious that the task grows even as we pursue it. And our people deserve a commendation for the enormous and skillful effort they are putting forward.

We have, as Secretary Cohen said, decided that lives of our servicepeople were worth something else, whether it was time or money. That is the choice that we made. If we want to change it, we have the right to change it, but there will be considerable debate.

You know, this week was the 54th anniversary of the surrender of Germany in World War II, and three of us were there at the time—not in Germany but in uniform. There are still soldiers in Germany. There are still troops in South Korea. And when we talk about this—and I hear all the criticism about where we are going—we have to decide, "Is there a peace worth achieving instead of

spectatorship by this country and other civilized or advanced nations as people get murdered simply because of what they are—assaulted, raped?" That is a decision we make.

And I do not know what the bill is, frankly, if we went back and said well, how much have we spent keeping our troops in Germany. How long are we now in the Persian Gulf? How long have we been and how much has it cost in Korea? So I think that that has to be accounted for even as we look at where we are going. And again our people in service have been fantastic.

I just wonder whether or not a raise of and by itself, 4.4 percent, does what we want to do, because there is a fairly generous retirement program that will go back into place, if I heard, 50 percent of base wages in 20 years. And are we challenging our retention by giving more at the end than in the beginning. I think that we have to take a look at how it is we pay people, because if we give them a little bit here and a juicy retirement program that is out of sync, I think, with the amount of money we are paying now, then it is an inducement to leave.

And I wonder whether we can ever satisfy these multiple tasks that we acquire with an all-voluntary force, or whether some part of it has to be made up of people who have their educations paid for. This is not novel, but I do not think it is fully employed. But I suggest that we ought to be taking a look at that as we look at what our requirements are.

MILITARY CONSTRUCTION FUNDING IN FISCAL YEAR 1999 SUPPLEMENTAL

Mr. Secretary, is the military construction proposal that is in the House supplemental something that you see as urgent and current?

Secretary COHEN. We have indicated what we need is what we have requested as far as military construction. If you are talking about the supplemental or the 2000 budget——

Senator LAUTENBERG. The supplemental.

Secretary COHEN. We have indicated we need only what we have requested.

RESTRICTIONS ON USE OF APACHE HELICOPTERS

Senator LAUTENBERG. Are we restricted in resource from using the Apache helicopters as was planned as part of our military offensive there?

Secretary COHEN. I am going to defer to the Chairman on this question, but just let me say preliminarily it is not resource-restricted. The Supreme Allied Command, Europe (SACEUR), General Clark, is putting the pilots and their crews through a very rigorous training regime because this is a very unusual type of deployment for the Apache, under circumstances which are highly challenging. And we have seen we have lost two already in the training mission, and he wants to be satisfied that he has the proper training and the proper deployment for them before he asks for the employment of them.

But I think I will yield to the Chairman to give you a more professional judgment in terms of the use of the Apache. But it is not resource-constrained.

General SHELTON. Sir, I would underscore what the Secretary said. It really has nothing to do with resources. It is a matter of getting the training conducted, putting all of this relatively complicated operation, very similar to running any other type of air operation together, same types of resources required in terms of electronic warfare, support aircraft, et cetera, the suppression fire that has to be in place.

And all this has to be rehearsed, and then you weigh the risks versus the gain and you make a decision as to when and where the proper time is, and the proper place to employ them, and that is what is ongoing at this time.

ALLIED CONTRIBUTIONS TO KOSOVO CAMPAIGN

Senator LAUTENBERG. We have spent about $1.3 billion prosecuting this air campaign against Milosevic. What share have our allies produced in this campaign of ours?

General SHELTON. Sir, that is a difficult question to answer because, as you know, the United States contributes roughly 25 percent to NATO, but that is just the base operating costs, so to speak. The operation, the ongoing contingency operation, is paid by each nation. So to figure out how much theirs is costing versus ours, we do not have those figures at this time.

Secretary COHEN. We can say, however, Senator Lautenberg, that the ratio is roughly 60/40 overall. While we have the majority, the overwhelming majority, of the aircraft, in terms of missions flown it is basically 60/40, but when you get into the attack missions I think it goes to about 70/30, the ratio.

General SHELTON. It is 56 percent for us and the remaining 40-some percent for them on the attack alone.

Senator LAUTENBERG. I close with a wish for the strength to follow our conviction and to do it not any less skillfully than we have done, despite the tragic error that took place. Thank you.

Senator STEVENS. Senator Domenici.

Senator DOMENICI. Thank you, Mr. Chairman.

Senator Inouye, I want to congratulate you on your statement, and, if you would permit me, rather than repeat anything on the issue, I would like to indicate that I wholeheartedly support your remarks.

You could have added economic help to China. They have become our biggest trading partner in terms of the excess of imports versus exports. They are aware of that. Millions and millions of their people have a survival and economic opportunity now because they are trading with the United States. Thousands upon thousands of their students are being educated here.

I believe it is obvious that they could not believe we are the country they are accusing us of being. It is just so obviously such an irrational conclusion that I think you were right today in bringing up the issue as you did.

Having said that, Mr. Secretary, I want to praise you for your leadership, whether or not some of us support the undertaking, we support the men and women and we support you to give them what they need. And you too, General. I am positive we will come out of the supplemental, in spite of the delays, with the urgent part being the Kosovo military necessities, and we may, in our judg-

ment, think you need more than you are asking for. I am quite sure we are not going to do things that you will want to veto a bill over, because we understand.

It is very hard to calculate the real cost to our defense of that war, and if we err we are going to err on the side of more rather than less, because it is very hard.

Now I want to talk about the 2000 budget, and herein I am not as laudatory of you and the administration as I am of your performance in the face of this war. I do not believe the caps were a good excuse to limit defense spending in the year 2000. We increased the dollar numbers for defense in our budget, because there is no cap for the year 2000, 2001, and 2002. The only cap is the combined expenditure for all discretionary spending. There is no cap just on defense.

What we were willing to do was to reduce domestic spending more than you did, well below what you wanted, what the administration wanted, in order to beef up defense spending.

Now, having said that, not only did you not do that in spite of your warnings to the administration that we really needed additional money, you put in at least three items that are not going to work in terms of making money available to our men and women in the armed forces. Three of them are not going to work because they are unreal.

But the truth of the matter is you had a level that was too low, and then you added three items, that are not going to happen, to make it look bigger. First of all, your $1.6 billion rescission. You have a wonderful explanation and you are getting by with it here today because we all think you are great.

But the truth of the matter is, you do not know what you are going to rescind.

Second, $3.1 billion in military construction comes from funding a new approach to military construction, including housing. You simply failed to provide the money for the programs you asked us to support.

$3.8 billion of it are economic adjustments. Maybe we should ask you to revise the adjustment you must make because gasoline prices have gone up. You took a low estimate and hoped it would continue. We have already had the price per barrel of oil go up 30 percent. I do not think the military is going to get the oil and gas and the other things at the price they estimated. That money is gone.

So I am here to tell you it is going to be hard. But I think you are going to find on this side we are going to spend more money on defense than you recommended, and we are probably going to find it by spending less on domestic spending, and then we will have a big argument with the President about domestic spending.

And one of our arguments will be defense came first, and the other is he could spend Social Security money for his budget; we do not intend to.

DEPARTMENT OF ENERGY REORGANIZATION

Now, having said that, I want to move on to another issue. If you want to answer that, I will let you in a minute. The Secretary of Energy made a proposal on the "Imus Show" this morning, where

he is going to reorganize the Department of Energy so as to try to inhibit spying, which the Chinese have done a great job at. We ought to remind them that maybe they ought to reimburse us for our costs if they are wondering about relationships.

He recommends a reorganization, and I just want to say publicly that I believe the Defense Department should look at that. They should be part of this reorganization, looking at it, because every Secretary of Energy since I have been here has recommended a new program for the Department of Energy as it pertains to better organization and management. And with all those changes, some of which we are in, we find ourself in an institutional mess.

You know, people are going to blame individuals, but you will find when your people examine this carefully that the institutions that were set up to protect and preserve our security interests in nuclear weapons have failed us because they were created in such a way that they could not work. And it is very important that we fix it now as best we can.

Are you involved or anyone in your Department involved with the Secretary of Energy in terms of this issue at this point?

Secretary COHEN. Well, I did not hear the presentation on "Imus" this morning, but I will get a transcript of it and find out whether or not it is the same as he has been talking to other members of the Department—John Hamre has been very engaged in protecting our national security.

Senator DOMENICI. I met with Dr. Hamre. He knows a lot about the problem and he is very aware of the laboratories and their pluses and minuses, most of which he concludes are very plus issues, very positive.

SPARE PARTS AND MANNING

But let me move now to costs in your budget. I know that everyone is trying to tell us what issue is making the military men and women most upset about their tenure. You should know that Senator Stevens and I asked the General Accounting Office (GAO) to do an in-depth study. I am sure they are going to share it with you very soon, if they have not.

The number one issue GAO found to affect retention is the issue of spare parts and manning—spare parts and manning. The military are telling us they do not like to serve in a military where they have to borrow parts from one airplane to fix another one. They do not like to be in a military when there are so many vacancies in manpower and the person that comes in to take the place is not properly qualified, or you leave it unmanned for substantial periods of time.

Now these are important issues, because these issues money will fix, and it seems to me that we have to be absolutely careful that we put enough in the supplemental to take care of this and that in next year's budget we make sure we take care of spare parts, manning needs, and munitions shortages.

COMPARING MUNITIONS AND OTHER STOCKS

Now I am going to submit a series of questions, asking you to compare, in each of these areas, the situation today versus the situation a year ago. I think it is important for us to know what is the

spare parts or the robbing of parts from one plane to another, what is the situation today versus a year ago? I might add to it 2 years ago, so we get some objective notion of what this is all about.

We also want to ask about munitions storage. And I think we ought to compare it to the very best time you had versus now, because we understand we have got to be back up to the very best time in terms of munitions storages and availability of these kinds of things.

So, Mr. Chairman, I will submit those questions and hopefully they will answer them to this committee, and that should give us some idea in the areas you have been so concerned about, which are not really readiness in the long term but readiness in the very short term, for the men and women who have to serve and do things day by day.

Secretary COHEN. Senator Domenici, first, let me thank you for at least half of your statement, the first half. And the second part, I would point out in terms of comparisons on munitions, I think that comparisons are helpful, but we should not be dazzled by them, if you want to compare the stocks of certain types of older munitions with the stocks that we are building up now, where they are much more accurate and some much less costly.

For example, we have the joint direct attack munition (JDAM), which we are now starting—we have started production. We are tripling the production rate of the JDAM to make sure that those go into the force. They are much less expensive than prior munitions that we have used, particularly the cruise missile. So the comparisons may be helpful in some aspects, but not necessarily in terms of cost-effectiveness and also military effectiveness.

But I would be happy to do that.

Senator DOMENICI. I will review the questions and I will try to have a comparison. How much did you use in this air war, how much your inventory is, and what you plan under your new budget. That might be a good way to compare it.

Thank you.

Senator STEVENS. Thank you very much. Senator Cochran.

Senator COCHRAN. Thank you, Mr. Chairman.

Mr. Secretary, the Chairman asked about the ballistic missile defense funding requirements, and the intention to make a decision this next year to deploy a national missile defense system.

DEPLOYMENT DATE FOR MISSILE DEFENSES

My question is similar to his. We heard earlier from the Ballistic Missile Defense Organization that maintaining the option to deploy by the year 2003 would require more money than is being requested in this budget that is before the committee today, and up to $1 billion in additional funds each year until 2003, if the decision is made to deploy in 2003.

If that is a fair estimate of the funding needs, is it really an option that you could deploy by the year 2003, or have you not already made a decision, just not announced it, that the deployment is going to be delayed well beyond 2003?

Secretary COHEN. Senator Cochran, I think I indicated when I submitted the budget that I would expect a decision on the deployment to be made next June, July, roughly that time frame. And

then I had projected, in talking with General Lyles, that we would have a deployment actually by 2005.

You may recall I did testify to that because I felt that we should have more tests to make sure that we had the right system before we started on a production line, that if more money would—if it were a question of more money producing the technology that would allow a deployment by 2003, I certainly would support that.

But what I was told, based on listening to the BMDO, Ballistic Missile Defense Organization or Office, is that they believed a more responsible course of action was to make a decision by June of next year, July of next year, and then to allow for the actual deployment roughly 2005.

So if more money would accelerate that to 2003, then that is something that I would certainly be open to. But I was planning on the 2005.

ANTIBALLISTIC MISSILE TREATY CONSTRAINTS

Senator COCHRAN. We had a hearing the other day looking at the constraints that Antiballistic Missile Treaty (ABM) and compliance with Treaty terms is imposing on ballistic missile defense development, not only national missile defense but theater and area missile defense and the like.

Is this a matter of concern to you and, if it is, what recommendations are you suggesting to the President and others in the administration for getting with it and negotiating some changes in the Treaty so that those will not be impediments, or announcing that you are going to withdraw from the Treaty, or you are going to intentionally violate it, but stating the reason so you are not misleading the Russians.

Secretary COHEN. I do not think there is any testing that has been inhibited by the ABM Treaty. I think that all the testing that is being done is not violating the ABM, is not being inhibited by the ABM at this point.

The crunch will come next year. Now it is possible, it is conceivable that you could have a system located currently, let us say, in North Dakota that could cover 50 States. But if the technology proves to be insufficient to do that, then we have to explore a possibility such as Alaska, where they are now doing at least some land preparation or survey work.

I believe this year should be used and is being used in dealing with the Russians, saying we may have to modify the ABM Treaty to allow for the deployment of a system that will protect all 50 of our States.

And frankly that was one of the reasons why there was such a contention over the Cochran bill. It was felt that we needed this one year in order to deal with the Russians and talk to them and say we may have to make changes here, and we are telling you now that come next June a decision will have to be made.

And so we are trying to convey that right now and to negotiate whatever changes might have to be made during the course of this time. We still expect that that can be done and will be done.

Senator COCHRAN. It would be good to have for the record—you probably do not want to detail these at this point—to know what you think the specific changes are in the ABM Treaty that are re-

quired to accommodate the national missile defense architecture that is now being contemplated.

[The information follows:]

The Administration is currently working to assess the nature and scope of ABM Treaty modifications that may be required and which we would seek to negotiate. Specific changes will depend on decisions to be made about the NMD architecture that would be deployed. However, it is likely that we would need to address the Treaty's prohibition against a nationwide defense, and other examples of potential changes could relate to ABM deployment in Alaska, rather than or in addition to Grand Forks, and deployments location for ABM radars.

Senator COCHRAN. Also, let me bring to your attention the fact that this week, or last week, a member of the staff of the National Security Council acknowledged that the administration was reexamining the requirements for the national missile defense system to see whether changes in the requirements could resolve some of the potential conflicts with terms of the ABM Treaty.

My question of you is, do you think it is possible that the Department of Defense would approve changes in the requirements of the national missile defense (NMD) system so that conflicts with ABM Treaty provisions would be reduced?

Secretary COHEN. I would think it would be the other way around. I think that the Treaty would have to be modified to conform to whatever is required to defend our country against a ballistic missile threat.

NEEDED PROCUREMENT FUNDING

Senator COCHRAN. Let me ask you, on the question of procurement numbers that are in this budget, there was a Quadrennial Defense Review (QDR) goal of $60 billion for procurement. My understanding is that this budget submission falls short of the fiscal year 2000 intermediate goal of $54 billion.

We hear from a Congressional Budget Office (CBO) analyst that if we are really going to meet the goals we are going to have to spend about $90 billion a year to maintain procurement funding for today's force structure.

Is that inconsistent with the analysis that you have made of your budget needs in view of the QDR goals that were already approved?

Secretary COHEN. I would say $30 billion a year is a significant difference from our analysis, but I am happy to look at what CBO has said. We projected $60 billion based on the previous recommendations from the Chairman of the Joint Chiefs and others.

I would indicate also that if you look at the projections under the QDR and under our budget proposal, it is going well above $60 billion and will climb much higher at the out-years. So we are on an upward climb.

Senator COCHRAN. Thank you.

Senator STEVENS. Thank you very much. Senator Hutchison.

Senator HUTCHISON. Thank you, Mr. Chairman.

SUFFICIENCY OF FISCAL YEAR 1999 SUPPLEMENTAL APPROPRIATIONS

Mr. Secretary, we entered the current operation—I am talking now supplemental, because we are going into a conference this afternoon with the request from the administration on Kosovo and

the House adds. And it seems to me that when we entered this operation there were already some significant readiness problems—certainly recruiting and retention, depot level maintenance, spare parts, mentioned by Senator Domenici, as well as munitions stocks.

And I look at the adds that the House put on, and I see procurement for munitions, for rapid response, for contingent emergencies. That is about $1.08 billion. Spare parts, $1.4 billion, depot maintenance, contingent emergency almost $1 billion, and then the pay raises, increasing those at an earlier time to address our retention problems.

You didn't ask for that, but would it not be prudent to at least add those that would be necessary to replenish other places in the world, to increase our retention or recruitment at this important time? You are not saying that you do not need those or that you are against those particular adds, are you?

Secretary COHEN. What we have said is that in our request this will meet our immediate emergency needs. Those other issues we tried to address in the 2000 budget and beyond.

I would indicate, for example, you mentioned other areas. We have the funding request in the supplemental to reimburse the costs expended during the operations against Iraq last November and December, so we put money to replenish those stocks as well.

We have put roughly $850 million in terms of a wedge that deals with munitions and readiness issues combined. So we tried to build in some additional flexibility so in the event we do need more munitions we will have them through this emergency supplemental.

But as far as the other items, we tried to budget for those in the fiscal year 2000 and the so-called 6-year future year defense plan (FYDP) budget.

Senator HUTCHISON. Is there not a good effect or prudence about having the pay raise go in now rather than October 1?

Secretary COHEN. Actually, I think the pay raise was scheduled to go in starting next January in terms of going to the 4.4 percent. I think in my dealings with all the men and women who are serving us—and I think the Chairman can talk more about this—as long as they understand that we are listening to their needs, that we are responding to what they see as deficiencies, as long as we send the signal that the pay raise is coming, the changes in retirement, the changes in pay table reform, they are satisfied that we are listening to what they need.

Whether it comes in June or October or January, as long as they are satisfied that they are going to get it, I think that is the incentive they are looking for.

Senator HUTCHISON. And you do not think, then, that any of the procurement for munitions, the spare parts, the depot maintenance would be prudent at this time?

Secretary COHEN. Well, I think we are trying to deal with those issues in the normal appropriations process and deal only with the emergency issues on an emergency basis. Obviously there is room for disagreement on that, but we think that this meets our requirements, what we submitted.

Senator HUTCHISON. Well, it seems to me that in earlier testimony we have been told that we are stretched too thin already, and we want to make sure that we are putting the amount in that not

only would be used for Kosovo but would allow you to have an OPTEMPO that is escalated in other places.

It just seems to me that it would be prudent to address that issue now if we are going to see something happen in another part of the world that thinks that perhaps we are stretched.

Secretary COHEN. I think that is where the $850 million comes in in terms of readiness and munitions. That is the wedge that we have put in there on this emergency basis.

But again I would indicate even though we have requested this as an emergency supplemental, it does not deal with a number of issues that we will have to contend with. The redeployment of the forces back to the United States once this is over, that is not included in the supplemental.

We just did not know when that would take place, and so we have carried out the campaign as such to the end, to the end of this fiscal year on the emergency basis, and if we have to then come back in and say but now we have additional costs, we will have to come back to you during an amendment to the 2000 budget.

RISKS OF FUTURE BASE CLOSINGS

Senator HUTCHISON. Let me ask you a question about the 2000 budget, because I understand that you said before I got here that you are asking for another round of BRAC, actually two.

I am concerned about that, especially in a time where we are seeing new things come up that had not been anticipated, like this more extended effort in the Balkans. And here are some things that I would like for you to bring to us before we would be asked to vote on another two rounds of BRAC.

And that is you said earlier today that we may have to increase the size of our force structure or cut down on the number of missions. It seems to me that if we are looking at increasing the size of our force structure that that would have to be something that is anticipated for how many bases we would need or if we can close bases.

As I travel around the world and talk to our troops out there, there are training limitations in many parts of the world. So if we are going to have the total capability to train, are we going to be able to do it in overseas bases to the extent that we need do, or should we be taking another look at some of our own bases?

For instance, we closed and we now admit that we closed too many training bases for the Air Force, and you cannot reopen a base, at least not inexpensively. And so I would like to know if we have anticipated all of the training that we are going to need and if that is not going to be available overseas.

It seems to me that we are looking at more military construction overseas while we are looking at closing bases at home. Is that going to be a long-term strategy for us, and is it going to allow us to train our people well enough?

These are questions that I am not asking you to answer right now, but before I vote on closing more bases I want to know if we have ramped down our troop strength too much and if we are going to have to ramp back up, if we are doing more military construction overseas and closing bases at home, and is that going to be a training problem for us.

So that is, I think, important for us to have when we are asked to vote on closing more bases.

Thank you, Mr. Chairman.

Senator STEVENS. Thank you very much. Senator Durbin.

Senator DURBIN. Thank you, Mr. Chairman.

Secretary Cohen and General Shelton, thank you for being here. I would like to say as part of the record first that I join in the comments made earlier by Senator Inouye concerning the tragic bombing of the Chinese embassy, and I certainly hope that the Chinese people understand that this was an accident for which we are deeply apologetic, and I hope that message is communicated.

Second, I would like to commend both of you, because during the course of the last several months while we have been discussing and debating the development of our effort in the Balkans, you and your staff have been totally forthcoming in answering all questions posed.

When the chairman of this committee took us on a delegation trip just a few weeks ago, I was impressed both with General Clark and virtually every person we met, who bent over backwards to give us all the information that we could possibly want.

I might also add that you could not leave Ramstein Air Force Base or Aviano without a deep admiration for the men and women in uniform.

I think you are conducting yourselves very well under trying circumstances. I do not believe that Congress has given you the sort of support which you deserve. I think we are all outspoken in our support of the men and women in uniform, but when it comes to the direction of our undertaking, I think you would have to conclude that the House's action was, at best, contradictory, and the Senate's action ambivalent.

Though we supported by resolution the initiation of the air war, when it came to Senator McCain's resolution a week or so ago, we tabled it, leaving a lot of questions unanswered about our support. I will just say from my point of view that though I have misgivings about a ground war, I totally support your undertaking, and I think that those who joined with us in visiting these refugee camps understand what is at stake here.

I think the American people understand what is at stake here. And I commend you for that effort.

This afternoon we will have a conference committee over this supplemental appropriation bill. I am urging my chairman and others to consider adding some money in here for an item in the supplemental which is not included in any way. It is an item which, if you asked most American families, they would be surprised to find missing in any discussion of emergency need in America.

There is absolutely nothing, no resources in the supplemental relative to school safety and trying to do something to make certain that classrooms are safer and that our children have a better education, a safer education. I hope I can prevail on the conferees.

But I am sure one of the questions they will ask me is what would you cut out of the supplemental, and that is why your testimony today is so important. As I look, for example, at the House add-ons of some $7 billion over and beyond the administration's re-

quest, Senator Hutchison and others have tried to ask you, well, is it not prudent for us to spend more money for these things.

NATO SECURITY INVESTMENT PROGRAM

Let me ask you in specific terms. I take it that you have reviewed some of the items that the House included in their supplemental request beyond the administration's request. Can you explain to me what the $240 million that the House added in for continued support of the NATO security investment program? Do you know what that is about?

Secretary COHEN. The chairman can probably give you a better explanation of that program. I am not fully familiar with the security investment program they are talking about.

General SHELTON. Senator, we will have to provide you with a response for the record.

Senator DURBIN. I am sorry?

General SHELTON. We will have to provide you with a response for the record in answer.

Senator DURBIN. Is that because of security classifications or the fact that you are not certain as you sit there?

General SHELTON. I am not certain what that has been added for.

Senator DURBIN. That is an indication, I think, to the committee——

Senator STEVENS. Senator, we will be glad to tell you what those are, if you want to know. That is an advance of the 2000 request for the NATO security fund, and it pulls into this fiscal year the monies that would be in the 2000 bill.

The desire of the House is to pull some of those up so that we can have space available in the bill to take care of the things that the Secretary has mentioned are not funded. We are not funding the monies for bringing the troops home. We are not funding the monies for peacekeeping, we are not funding replacements of the Apaches, other things that are there. So they are pulling some of these things into this year so that the monies—we will be able to live under the cap next year and take care of things that have not been funded yet.

Senator DURBIN. Thank you, Mr. Chairman. I understand the rationale. If you can buy it in the emergency supplemental, you free up money under the caps for other spending.

What I would like to suggest is that we take a hard look and decide if these are of an emergency nature. When I look at the milcon projects, $800 million worth, it is hard for me as a layman and a member of the Senate and not involved in defense to really judge the merit of each.

But I find it difficult to explain back home how we find no money for school safety but money for, for example, centralized vehicle wash facilities in Europe, millions of dollars being spent on these things. And I would like to think that there could be some balance in this bill, and I hope that there can be.

DIFFERENCES ON MILITARY COMPENSATION INCREASES

May I ask you, on the pay raise, when the Senate authorized the pay raise and added some $17 billion to it, the administration

views this issue a little differently in how much is to be spent. Do you have an understanding, Mr. Secretary, of the $1.8 billion for pay raise and retirement, whether or not there are conditions attached, that it will follow the Senate authorization language or anything of that nature?

Secretary COHEN. I have not looked at the language. You mentioned $17 billion. I do not think that is the issue in terms of the pay raise.

Senator DURBIN. This was the Senate amendments on the floor, and we are told some $17 billion in cost to the pay raise program the President had proposed.

Secretary COHEN. I believe it fell in the range of $11 billion. As I recall, we were roughly at $36 billion and it came out about $47 billion roughly in that category.

So what they did in the Senate, adding to our proposal, they went from 4.4 percent to 4.8 percent. It also had a change in the Redux that allowed for a thrift saving plan. It added money to allow for a transfer of Government issue (GI) benefits to families and added something for food stamp recipients as well.

But it totaled up to roughly $11 billion over and above what we had requested.

Senator DURBIN. I see my time is up, but I would like to ask just one final comment or question. I wrote to you a little over a year ago about an extraordinary situation where they had identified a sergeant, a black sergeant who served in the Civil War, who many people had researched and believed that he should have been eligible for a Medal of Honor.

We are waiting, not to prompt any specific reply, but waiting for a reply. As hard as it may be to believe, the daughter of that Civil War soldier is still alive today, in her nineties, and we are hoping to get some answer back from the Pentagon about our request on a timely basis because of her advancing age.

His name is Andrew Jackson Smith, and if you would be kind enough to check into that, I would appreciate it.

Secretary COHEN. Senator Durbin, let me say of all the reforms that I have tried to institute at the Pentagon, the one I have failed at magnificently is getting a timely response to inquiries coming from Members of Congress.

And I will say publicly, as I have said privately, if you really have an issue that you want me to address, call me.

Senator DURBIN. How about face-to-face? Is that good?

Secretary COHEN. This is great.

Senator DURBIN. Thank you. Thank you very much.

MUNITIONS EXPENDED PER TARGET

Senator STEVENS. You are being very patient. Did I understand correctly that you said we have used 10,000 munitions on 380 targets?

Secretary COHEN. 380 separate targets.

Senator STEVENS. That ratio—that means each one of those targets have been hit a substantial number of times.

Secretary COHEN. When we say target we do not mean individual targets. These are target groups.

Senator STEVENS. Oh, target groups.

General SHELTON. An example, Mr. Chairman, would be like an assembly area. That is one target. But that is a very large area—troop assembly areas, vehicle assembly areas—where maybe you release 16 to 18 weapons within that one target area.

Senator STEVENS. Well, thank you. I did not want someone to do some rapid simply analysis arithmetic, as I did, and say that is a lot of bombs for one target.

Secretary COHEN. And, as a matter of fact, we tried to point out that if you look at the precision munitions that we have in fact used, they are much more effective and accurate than what we had just a few years ago during Desert Storm.

So the precision is getting better, so we are able to do more damage with fewer and fewer munitions than we were able to just a few years ago.

MEETING THE NEEDS OF THE NATIONAL GUARD

Senator STEVENS. I want to congratulate you for the progress you have made in meeting the needs of the National Guard. General, you appointed two special assistants for the Guard and Reserve matters. Could you tell us just briefly what role those new people are playing?

General SHELTON. I would be happy to, Mr. Chairman. First of all, I think they have been of immense assistance to me and, I think, in our overall total force effort to make sure that the Reserve and the National Guard are fully integrated in everything with the Pentagon.

They attend almost every meeting at which National Guard or Reserve issues are discussed. They participate in the ongoing studies, and previous studies in the last year related to potential roles for the National Guard, any additional missions that they might take up. They perform a liaison function with the Adjutant Generals as well as coordinate for me with items of interest to the Congress, working with the staff of the Members of Congress.

And I think overall they have been one of the significant factors that has brought us all together, just a tremendous job by both of these gentlemen.

Senator STEVENS. Thank you. Mr. Secretary, I again thank you for your trip to Alaska. You really inspired our troops up there. I saw that negative comment in one article, which was not accurate. But I do hope you noticed the tremendous importance that the ChalleNGe program of the National Guard plays in supplementing the roles of the military.

They are doing a wonderful job and bringing a great many people into the armed services through the recruiting process once they finish that program.

Secretary COHEN. Well, thank you, Mr. Chairman. I want to thank you for making the trip with me and then on to Hawaii, where we see the less than hospitable welcome by Senator Inouye in that driving rain during the retirement ceremony of Admiral Prueher.

But it was a great trip, and I think it is very important that I in this position get out and visit with the troops and see the magnificent job that they are doing. You really have an extraordinary

operation going in Alaska. And the opportunity for me to meet with the ChalleNGe program people was very beneficial to me.

And, of course, I am saying it in jest with you, Senator Inouye. That was probably the coldest, wettest day that I have ever experienced in Hawaii. But you gave me a warm reception nonetheless.

Senator STEVENS. Thank you very much. In view of the time, I am going to submit a couple of my questions, particularly one with regard to space launch failures that we would like an answer for the record.

Do you have any more questions?

Senator INOUYE. I do not have any questions. I would like to submit my questions and ask for responses.

DOWNSIZING DOD CIVILIAN EMPLOYEES

But I just want to make a statement on some of my concerns. In 1987, DOD had 1,127,000 civilian employees. Today it is down to about 747,000. You are in the process of cutting back another 106,000, examining 229,000 jobs to privatize.

I hope that together with our concern for military personnel, uniformed personnel, we would have some concern for civil service workers, because most of them have dedicated their lives and they have put in good time. And, you know, these cutbacks have an impact upon their families also. So that is one concern.

The other one is the Pacific. As a result of Kosovo, we have sent important surveillance assets to Kosovo from Korea. One of the carriers that would usually serve within those waters there in Korea is now on its way to replace another sent to Kosovo. We have sent other aircraft to Kosovo.

My concern is that all of us agree that the Korean Peninsula has a potential for some volatility, and yet if that happens we need immediate response, and the immediate response is not there. So I hope we will take those things into consideration.

Secretary COHEN. Senator Inouye, let me just respond briefly, I indicated before that we wanted to compete some 229,000 positions, but what we have found out when there is competition, usually the public sector wins half of those. So I did not want to indicate that is 229,000 we are trying to move out but rather to get the savings that come about through the competing of the positions.

But I agree with you that we have to be careful that we do not find our civil servants reduced to such a level it will have an impact on our military as well.

HANDLING MORE THAN TWO MAJOR THEATER OPERATIONS

On the major theater war (MTW) capability, as you know we have always tried to structure our forces in a way that we could handle two nearly simultaneously. We have never been structured to handle three.

What we have now in Kosovo is roughly a major theater war under way, air war campaign. That means that we are at three MTWs rather than just two. And so we did not plan for this. We would have to make a number of adjustments should we ever have another two erupt nearly simultaneously, which we do not believe will happen but could theoretically. We would have to make a number of changes then.

With respect to having to adjust our forces to deal with Kosovo, we have. We did have to move a carrier into the Adriatic. We did take compensatory steps by having land-based forces here in the United States be on a very short time frame to deal with any contingency in Asia.

And General Tillelli is aware of that, so we have taken measures over here to make sure that in the event something happened in Korea we would have the forces necessary to get there in a very short period of time.

We did have some reallocation, if I can put it in that fashion, of EA–6Bs out of Operation Northern Watch temporarily. We sent those down and had a shortage of those up in Operation Northern Watch. They have now been replenished, so we are carrying out Operation Northern Watch and Operation Southern Watch so that Saddam Hussein is not going to be able to take advantage of it.

But it has been challenging. It has been very difficult on all of our personnel, and that again brings us back to the issue of we have fewer people but more missions and we have got to make adjustments to bring that back into balance.

Senator INOUYE. Thank you.

Senator STEVENS. Thank you very much. Senator Cochran.

SUCCESSFUL MILITARY RECRUITING

Senator COCHRAN. Mr. Chairman. General Shelton, when we had the individual service chiefs before the committee the other day we asked a question about recruiting and retention problems that the services were having, and you mentioned the Navy having a shortfall now in their recruiting.

General Krulak pointed out that the Marine Corps was not having that difficulty, and he said, of course we have a better product to sell. He went on to point out, though, that the reason that they are doing a good job is that they put their best people in the recruiting business, and they reward people for success in recruiting.

Is it not about time that the other services were given an order by you to do what the Marine Corps is doing, emphasize recruiting more, try to bring these numbers up so we are not having the problems that were pointed out with the aircraft carriers going to the theater not manned sufficiently to do their job?

General SHELTON. Senator Cochran, first of all, I think that there is a lot to be said for additional recruiting and putting your best people out. It has not taken an order from me or from the Secretary. They are in fact doing that.

As you probably know, the Navy a couple of years ago cut back on the numbers of recruiters, increased the size of the areas they had to cover, cut back on some of the advertising. That was reinstituted by Admiral Johnson this past year. It is starting to pay dividends. They are starting to make it up.

The Army has done the same thing, along with a number of other initiatives, to include bonuses, increased the bonus, the college fund. You have probably seen some of the Army's advertising in that regard where it now has gone up to $50,000 for a 4-year commitment in critical, hard-to-fill, military occupational specialties.

But it is those types of initiatives that are ongoing that are helping start to reduce some of the shortfall that we had anticipated this year unless we did take some rather drastic steps.

BUDGET ASSUMPTIONS ABOUT BASE CLOSINGS

Senator COCHRAN. Mr. Secretary, I know that you have been advocating another round of base realignment and closure. We talked about that before, and you have heard my disagreement with you on that subject.

My question is, Do you assume any savings in the budget that you have submitted to be derived from another round of base realignment and closure?

Secretary COHEN. No. I have only assumed the costs. I put the costs in, but not the savings.

Senator COCHRAN. How much does it cost?

Secretary COHEN. It costs just under $3 billion.

Senator COCHRAN. We may be able to save that.

Secretary COHEN. Well, you can save that, but you will carry all of that excess capacity for a long time to come, and when you are still here, perhaps as chairman, in the year 2008, and those bills come due, you can say why didn't I take the opportunity when Secretary Cohen came before the committee to urge me to vote for them.

Senator COCHRAN. Thank you for your endorsement. [Laughter.]

Secretary COHEN. Thank you, Mr. Chairman.

Senator STEVENS. I do not want to presume, but I am not sure you would be chairman of this subcommittee in 2008. You would be chairman of the full committee in 2008, that is for sure. And we will endorse you for that now.

CONTENT OF FISCAL YEAR 1999 SUPPLEMENTAL

Let me ask this one last question. There is no money in this request that we received on the supplemental for rotation of people there in Kosovo, there is no money to bring them home.

Secretary COHEN. No, sir.

Senator STEVENS. And there is no money for replacement of things we have lost so far.

Secretary COHEN. That is correct.

Senator STEVENS. And you did not advance any of the 2000 costs back into 1999 to make headroom under the cap for the things we know will occur?

Secretary COHEN. No.

Senator STEVENS. Thank you very much.

ADDITIONAL COMMITTEE QUESTIONS

Any additional questions from members will be submitted for your response in the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO HON. WILLIAM S. COHEN

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

COST TO SUSTAIN AND/OR EXPAND MILITARY OPERATIONS

Question. In the April 19 White House briefing and the April 28 hearing in this subcommittee, both Mr. Hamre of DOD and Mr. Lew of OMB made clear that the funding in the supplemental for military operations and munitions for the Balkans region, $5.1 billion, is intended to pay for all military costs through the end of September. Mr. Lew also stated that the cost of the first month of operations was $985 million ($287 million for operations; $698 million for munitions). In its cost estimate, CBO agreed that the first month of bombing cost about $1 billion.

However, since then General Clark has asked for almost an additional 400 aircraft. Clearly air operations are intensifying—and have become more expensive. There are five more months to go.

How can $5.1 billion pay for six months of air operations at a cost of $1 billion per month?

Answer. The cost of $1 billion for the first month of operations cannot be used to estimate the cost of the air campaign for the remainder of the fiscal year. The $698 million for munitions includes the replacement cost of munitions that were previously expended in Southwest Asia as well as the cost of projected usage in Kosovo. Additionally, the initial estimate includes operating costs for deployment and stationing costs that will not reoccur each month. Therefore, the $5.1 billion is adequate to support the air campaign through the end of fiscal year 1999 to include the additional aircraft requested by General Clark.

Question. How can this same $5.1 billion pay for five months of expanded air operations?

Answer. When we were building the supplemental request, we included costs for all known assets that General Clark had formally requested. Thus, the $3.3 billion requested for the air campaign covers known operating costs of U.S. Forces participating in Allied Force through fiscal year 1999, to include the approximately 300 additional aircraft requested by USCINCEUR.

Question. Were the costs of the Apache helicopter deployment to Albania included in the original cost estimate? What are these costs?

Answer. Yes. The Supplemental request includes $678 million for Task Force Hawk, the Apache helicopter deployment to Albania. This amount covers Operation and Maintenance and Military Personnel costs associated with deployment, OPTEMPO, and sustainment of the task force through fiscal year 1999.

Question. What are your initial estimates of a deployment of significant ground forces, if such a decision were to be made? Do you have reason to disagree with CBO's estimate of $200 million per month per 27,000-man increment, with an additional $100 million if combat occurs?

Answer. Based on first-year Bosnia experience, the CBO estimate of $200 million per month per 27,000-man increment seems too low. Because a cost estimate for a hypothetical ground force does not provide significant useful data, we have not made the attempt. If a decision is made for a ground force in Kosovo, we will develop a cost estimate for any U.S. contribution to the force as quickly as possible.

INCREASED READINESS NEEDS

Question. GAO is competing the first phase of its retention/Quality of Life study for myself and Senator Stevens. GAO briefed our staffs. They found that across all military services, both enlisted personnel and officers, the number one complaint and stated reason to leave military service is lack of needed equipment—meaning spare parts, munitions, and other support equipment. Another major reason was "manning"—meaning undertrained, mis-assigned, or simply missing personnel.

What information has been made available to you about the seriousness of spare parts and equipment shortages and the impact on morale?

Answer. Shortages in spares and equipment play a major role in how our airmen perceive their Air Force and Nation supports them in their efforts to defend this Country. Constrained funding over the past several years, along with aging aircraft issues, technical surprises, engine maturation problems, significantly increased OPSTEMPO, downsizing of personnel, etc., have taken a toll on readiness and personnel morale. As a result, many of our readiness metrics cause concern: since our peak of fiscal year 1991, mission capable rates have declined by 10 percent; supply not mission capable rates and maintenance not mission capable rates have grown by 5.4 percent and 4.6 percent, respectively.

For several years, in order to balance resources, the common support equipment for aircraft has been funded at 68 percent and base maintenance and support equipment at 50 percent. No improvement in support equipment funding is projected across the FYDP. From 24 March–14 June 1999, Operations Allied Force and Shining Hope required 355 additional pieces of support equipment. In order to support this requirement, it was necessary to divert the delivery of new equipment from state-side units, further exacerbating their equipment shortages.

The air war in Yugoslavia has increased maintenance requirements on a lot of aging systems and engines. It also added strain on an already strapped series of critical supply lines that provide fighters and bombers with spare parts. This situation leaves our maintainers to resort to extraordinary measures—cannibalizations—to support their weapon systems. A CANN means they find an aircraft in for extended maintenance and take parts from it to fix another aircraft. Cannibalization rates have doubled since 1995. It takes more maintenance hours to remove and reinstall parts twice, which puts the morale of the maintainers at risk.

While there are no current official surveys that attest to the impact these shortages are having on morale, there is anecdotal evidence of discouragement: airmen voicing their concerns with this situation. Also, retention rates have suffered within the maintenance force which we believe is partially caused by lack of equipment and parts.

We are optimistic about the future, though. Improved spares funding in the fiscal year 1999 and fiscal year 2000 budgets should lessen the impact of spares shortages, and we are seeing some improvement in retention rates resulting from offering more reenlistment bonuses.

Question. Especially for the type of combat aircraft being used in the Persian Gulf and the Balkans, what is the status of War Reserve stocks for maintenance and munitions?

Answer. [Deleted.]

Question. How do cannibalization rates for fighters and fighter-bombers compare to one year ago?

Answer. Over the past few years, the requirement for spares and depot repairs has outpaced funding. A lack of spare parts drives cannibalization actions. As a result, the rate at which we must use our aircraft as spare part sources (cannibalization rate) to keep the rest of the force ready has increased.

Another action driving this increase was lowering the fighters' Direct Support Objective (DSO) floor. The DSO represents the desired number of mission capable aircraft and is one of many wartime factors used in the Aircraft Sustainability Model which computes readiness spares package (RSP) authorizations. The current fighter DSO floor was established to enable the Air Force to meet its wartime taskings while holding costs to a minimum. By lowering the DSO floor, fewer parts were stocked, or available in the readiness spares packages, and a greater reliance was placed on cannibalizations.

Due to lessons learned in Kosovo, we have reassessed this decision and determined the DSO floor, and RSP levels, must be restored to pre-Desert Storm levels. Our analysis indicates that $109,000,000 is required to refill RSP kits used in Kosovo, and another $195,000,000 is needed to restore the DSO floor to mitigate today's level of cannibalization. Cannibalization rates (CANNs per 100 sorties) for both Fighters and Bombers are higher in fiscal year 1999 than they were in fiscal year 1998. Below is a table depicting both the Fighters and Bombers annual CANN rates since fiscal year 1998:

	Fiscal year 1998	Fiscal year 1999 [1]
Fighters	11.45	12.09
Bombers	64.18	66.37

[1] Only covers October 1998–April 1999.

For the Fighters, the F–15A/D and F–15E are currently being cannibalized at the highest rate—20.3 and 26.4 CANNs per 100 sorties for fiscal year 1999, respectively. Both aircraft are also among our most tasked/deployed in fiscal year 1999 and consistently have high not mission capable for supply rates (13.5 percent and 13.1 percent, respectively). Below is a table depicting the F–15A/D's and F–15E's annual CANN rate since fiscal year 1998:

	Fiscal year 1998	Fiscal year 1999 [1]
F–15A/D	17.7	20.3
F–15E	22.5	26.4

[1] Only covers October 1998–April 1999.

For the Bombers, the B–1 and B–52 are currently being cannibalized at the highest rate—83.5 and 35.5 CANNs per 100 sorties for fiscal year 1999, respectively. Also, both aircraft have the highest Bomber not mission capable for supply rates in fiscal year 1999 (26.5 percent and 15.6 percent, respectively). Below is a table depicting the B–1's and B–52's annual CANN rate since fiscal year 1998:

	Fiscal year 1998	Fiscal year 1999 [1]
B–1	84.6	83.5
B–52	29.1	35.5

[1] Only covers October 1998–April 1999.

Question. For personnel not yet deployed overseas, how does pilot experience compare to that for forces in the U.S. one year ago? How does it compare for deployed pilots? Has pilot training in the U.S. increased or decreased from one year ago?

Answer. Each AF Major Command (MAJCOM) establishes minimum levels of flying time which a crew member must possess in order to be an aircraft commander or flight lead. These minimums are normally defined in terms of total time and primarily assigned aircraft (PAA) time. The experience level of an individual major weapon system (MWS) is based on a ratio of experienced vs. non-experienced crew members. The objective of any unit is to ensure they have at least the minimum number of positions occupied by experienced crew members in order to meet readiness constraints (assumes 100 percent manning and is expressed as a percentage). At an April 1999 Rated Summit, Air Force 4-star military and civilian leaders validated that established experience objectives (shown below) will protect our combat capability in each MWS.

The Air Force does not track experience levels by deployed vs. non-deployed status. HQ AF Operations and Personnel are responsible for ensuring that the MWSs maintain the proper level of readiness. Following is a breakdown of experience levels by MWS one year ago vs. today:

[In percent]

MWS	May 1998	May 1999	Experience Objective
Fighter	66.9	59.4	55
Bomber	84.2	66.1	43
Tanker	77.3	68.9	57
Strat Air	75.2	70.1	57
Theater Air	65.7	63.7	60
Helicopter	63.3	64.1	60

Although these numbers show that there has been a slow decline overall, all MWS's remain healthy. It is reasonable to expect that experience levels of both deployed and non-deployed pilots reflect these numbers. Also, these are averages; individual units will vary above and below these figures.

One reason for the decline in experience levels is due to maximum pilot training production, coupled with decreased pilot retention. This situation increases the number of young, inexperienced pilots in a unit, driving down overall experience levels. We increased production to 869 in fiscal year 1998, and plan to increase production to 1,025 in fiscal year 1999.

Question. For aircraft maintenance personnel not yet deployed overseas, how does aircraft maintenance experience compare to that for forces in the U.S. one year ago?

Answer. With 50+ aircraft maintenance specialties (AF jobs) composed of over 55,000 active duty personnel, ascertaining how aircraft maintenance "experience" compares from year to year is difficult without conducting extensive, time-consuming research. However, a simple, aggregate view of skill level manning percent-

ages (authorized versus assigned number of personnel) provides enough data to make a credible comparison. The table below illustrates a skill level manning comparison from the end of fiscal year 1997 to the end of May 1999.

[In percent]

Month/Year	3-Level [1]	5-Level [2]	7-Level [3]	Overall Manning Percent
Fiscal year 1997	107	92	116	101
May 1998	112	87	115	99
Fiscal year 1998	117	86	112	98
May 1999	124	83	111	98

[1] 3-Level personnel are apprentices (semi-skilled).
[2] 5-Level personnel are journeymen (skilled).
[3] 7-Level personnel are craftsmen (advanced skills).

As you can see, the overall percentages are fairly comparable, but we've experienced an increase in the number of apprentices and a decrease in the number of journeymen. This is the result of not only the GAO findings, but also an increase in the number of journeymen separating from the service after their first or second term. Eroding military benefits and the lure of well-paying jobs on the economy are prime factors in this exodus. To help (we also use reenlistment incentive programs) compensate for the loss of journeymen, the USAF increases the number of accessions, eventually resulting in more apprentices.

Question. How does it (experience) compare for deployed aircraft maintenance personnel?

Answer. There is no appreciable difference in experience between deployed personnel and all others.

Question. Has aircraft maintenance training in the U.S. increased or decreased from one year ago?

Answer. The aircraft maintenance formal training course lengths have remained fairly constant over the past year. The quality of training often suffers from one of the GAO findings—lack of equipment. There is a shortage of maintenance training devices (training aircraft, equipment, mock-ups, etc.) or, in some cases, the devices are antiquated.

Question. For munitions personnel not yet deployed overseas, how does munitions experience compare to that for forces in the U.S. one year ago?

Answer. Determining experience levels of forces in the U.S. from one year to the next is impossible to do without conducting a detailed survey. However, data is available for the 2W0X1 (munitions maintenance) and 2W1X1 (armament) AFSCs worldwide. In addition to providing 1998 and 1999 (as of 1 June) data, we also added 1990 (Pre-Desert Storm) for a better comparison. The table below illustrate the increase in 3-level (semi-skilled) and decrease in 5-level (skilled) personnel. The data indicates a decline of experience in munitions AFSCs.

Year	Authorized	Assigned	Percentage	3 Level semi-skilled (percent)	5 Levels skilled (percent)	7 Level advanced (percent)
2W0X1:						
1990	8,236	7,841	95	20	59	20
1998	6,522	5,915	91	24	54	20
1999	6,473	5,875	91	24	50	25
2W1X1:						
1990	11,250	10,576	94	16	59	23
1998	7,617	7,317	96	30	47	22
1999	7,517	6,911	92	24	48	27

Question. How does it compare for deployed munitions personnel?

Answer. Deployed personnel experience is essentially the same as U.S. based personnel.

Question. Has munitions training in the U.S. increased or decreased from one year ago?

Answer. Formal training has increased. Technical School teaches new personnel to a higher proficiency level than before (3-skill level). Additionally, an in-residence craftsman course was mandated prior to award of 7-skill level.

Practical training at the unit level has decreased due to the lack of munitions available for aircrew training.

Because of the lack of munitions to meet aircrew training requirements, 2W0X1 and 2W1X1 personnel do not receive as much practical experience building and loading munitions.

Most of the training is reduced to demonstration of proficiency during periodic evaluations.

Question. How do stocks of laser guided bombs (LGB) compare to 1990 (the year before Desert Storm)?

Answer. [Deleted.]

Question. Where are our biggest problems for the human and material readiness of ground forces? Please specify types of military specialties and types of hardware.

—Accelerated equipment usage;

—Increased consumption of spare parts;

—Rescheduling all canceled training;

—Retention losses due to "operational tempo (opstempo)";

—Replacing all munitions consumed in combat operations since 1992.

Answer. The Army Research Institute (ARI) has been conducting annual surveys since 1992 which track the most important reasons given by soldiers for leaving the Army. The spring 1999 survey shows that "Amount of time separated from my family" was the reason that 10.5 percent of enlisted soldiers and 16.1 percent of officers cited as their reason for separating from the Army. This was the third highest reason for enlisted soldiers (behind pay and quality of life) and has remained essentially stable since fiscal year 1993. It is the leading reason for officers and has risen by 6 percent since fiscal year 1993. Although the Army achieved overall enlisted retention objectives during fiscal year 1999, concerns over the long-term impact of frequent deployments continue to play a role in the development of retention programs and benefit packages.

X–34 TESTING PROGRAM

Question. As you are aware, NASA and the Air Force have determined to move the X–34 testing program away from White Sands Missile Range and Holloman to Edwards Air Force Base in California. Have you been able to evaluate the substantive reasons for this decision?

Answer. In his 26 May 1999 letter to the NM delegation, Acting Secretary of the Air Force, F. Whitten Peters, consented to proceeding with the necessary safety board reviews to determine if the X–34 program can be conducted at Holloman AFB NM. The Air Force is prepared to work with NASA to convene a safety review board. Additionally, before testing can be conducted, NASA will have to prepare an environmental analysis for the X–34 program. We understand that NASA will initiate a full environmental impact statement effort for the X–34 program, which will include Holloman as a potential test site. If the outcome of the safety review and the environmental impact statement is positive, then Holloman could possibly be used for X–34 operations.

Holloman AFB is primarily a war-fighting and training base, with the F–117 aircraft and the German Air Force F–4s and Tornadoes. Holloman has experienced a significant increase in flight proficiency training operations over the last few years, with the introduction of the German Air Force training operations. Prototype air vehicle testing is not a primary mission for Holloman. The X–34 is an experimental air vehicle with unproven flight control and flight termination systems. The Air Force's greatest concern is the possible risk exposure to AF assets at Holloman from potential X–34 flight anomalies. Scheduling X–34 test operations on weekends and other periods, when normal flying operations are not conducted, may mitigate some of the impacts to Holloman. Holloman is also constrained by shortages in the air traffic controller career field, resulting in reductions to weekend airfield operations.

Question. Do you understand why we have and continue to test other space vehicles (X–40A) and land other unmanned aerial vehicles at Holloman, but a similar program is deemed too dangerous to proceed?

Answer. After discussions with NASA, Orbital Sciences Corp, and White Sands Missile Range personnel at Holloman AFB NM on 17 May 1999, the Air Force agreed to perform the necessary safety board reviews to insure that the X–34 test program is conducted in a way that minimizes risk to AF assets and personnel. The X–40A and the QF–4 unmanned drone operations at Holloman had to pass the same type of safety review board that X–34 will. Since each test program and drone operation program is unique, each one must be evaluated based upon its own hazards and risks. The X–34 vehicle utilizes untested flight control and flight termination systems that increase the risk exposure to AF assets from potential X–34 flight

anomalies. Scheduling X–34 test operations on weekends and other periods, when normal flying operations are not conducted, may mitigate the impacts to Holloman.

QUESTIONS SUBMITTED BY SENATOR CHRISTOPHER S. BOND

WEAPONS EFFECTIVENESS

Question. Mr. Secretary, I understand that NATO is still controlling the flow of information concerning weapon damage assessments of the various targets assigned to USAF assets. Do you anticipate that when this operation draws to a close, you might be able to report to this committee an assessment of our effectiveness?

Answer. Yes. Assessments will be completed by the Services after every strike operation. The Air Force and Navy will assess how well the "weapons on target" performed during the Kosovo conflict. These assessments can take anywhere from months to years to complete.

TACTICAL STRIKE AVIATION

Question. Mr. Secretary, tactical strike aviation has proven to be a major player in this operation as it has in the past. I anticipate that it will into the future. We are currently facing the imminent closure of the line for the nation's premiere strike fighter platform, the F–15E Eagle. With budget crunches anticipated for the future, and the escalating costs and schedule stretching of follow-on aircraft, would you please perform a review of the strategic risks associated with a line closure, and provide the answer to me for the record?

Answer. There are two strategic risks associated with an F–15E line closure: the effects on USAF deep interdiction capabilities in future conflicts, and the effects on the U.S. industrial base.

The F–15E is projected to be the USAF's deep interdiction platform until at least 2015 and perhaps beyond. On-going and future avionics and systems upgrades will ensure the aircraft's continued effectiveness until a replacement platform is fielded.

The risk to the U.S. industrial base is low. The contractor, The Boeing Company, is beginning production of the Navy's newest fighter, the F/A–18E/F, which will use some F–15E production facilities and subcontractors. Production of this aircraft will last for at least 10 years. Additionally, should Boeing win the Joint Strike Fighter competition, it could be assured of approximately 25 years fighter aircraft production. The cost to maintain F–15E production capabilities is considerable. It would cost $10 to $20 million per year to maintain an idle plant, based on Boeing rough order of magnitude pricing. "Trickle" production based on a rate of 6 F–15E aircraft per year would cost $75 to $90 million per aircraft. Current budgetary levels and USAF requirements do not support these costs.

Question. Mr. Secretary, based on your current planning you seem to believe that this operation could continue into October. Maybe longer. Do you have any idea what our plans are for the relief of the refugees when winter comes to the region, of what our commitments will be once peace is established, and what the potential costs will be?

Answer. As you know, the withdrawal of Yugoslav forces from Kosovo in June, and the subsequent deployment of KFOR, resulted in the rapid repatriation of the overwhelming majority of refugees then housed in Albania and the Former Yugoslav Republic of Macedonia. This fundamentally altered the nature of international humanitarian operations. While we are greatly relieved that Kosovars will not have to spend the winter in refugee camps, there was significant destruction and damage to housing in Kosovo, which will require international assistance to prepare for winter conditions. The U.N. and other international organizations have the lead for relief in Kosovo, supported by the United States and our European allies. U.S. forces in Kosovo will provide appropriate support as needed to the Department of State and the Agency for International Development in conducting humanitarian operations. Costs of such operations would be funded through supplemental appropriations already provided to the Department for refugee assistance.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

TWO THEATER WAR ASSUMPTION

Question. Mr. Secretary, I would like to ask you a few questions concerning military readiness and this nation's ability to protect its vital national interests. Two weeks ago I and others on this Committee asked Dr. Hamre about the ability of the armed forces to fight and win two major regional conflicts at the same time. He was

somewhat equivocal in his response. His answer was, and I'm paraphrasing here, that this nation has never advertised that it can fight and win two major regional conflicts simultaneously. We can do it almost simultaneously, in that we can depend on a little time lag between conflicts.

Mr. Secretary, it seems that the success of the policy is dependent upon the benevolence of our adversaries to attack only when we are not otherwise engaged. Is this a wise policy?

Answer. The most stressing requirement for the U.S. military is fighting and winning major theater wars. In particular, it is imperative that the United Sates, together with its regional allies, be able to deter and defeat large-scale, cross-border aggression in two distant theaters in overlapping time frames.

The Department assumes, as we have for many years, that these wars would not occur simultaneously. Rather, we assumed that a second foe would need time to decide and then organize itself to take advantage of heavy U.S. military engagement in the other theater. In such a case, the United States would seek to halt the second aggressor's advance while it concludes operations in the first theater. It would then shift its focus to the second theater, including, where necessary, a counteroffensive operation.

This requirement by no means counts on the benevolence of our adversaries. Rather, it assumes that our adversaries will seek to exploit opportunities created by U.S. engagement in other theaters. I believe that the requirement for defeating aggression that occurs in overlapping timeframes appropriately balances the relative likelihood of a quick-acting, opportunistic second aggressor with the risks associated with such opportunism.

NORTH KOREAN ATTACK DURING OPERATION ALLIED FORCE: EFFECTIVENESS OF U.S. RESPONSE

Question. This conflict is occupying a significant portion of our military. I am concerned that as we escalate our commitment to the Balkans, that this nation is able to protect what are its true strategic interests around the globe.

Secretary Cohen, if during the current crisis, the Communists in North Korea launched an attack across the 38th parallel, could we respond effectively in defense of our South Korean ally?

Answer. Yes, in accordance with our strategy, U.S. forces are prepared to transition to fighting and winning major theater wars from substantial levels of peacetime engagement overseas as well as multiple concurrent smaller-scale contingency operations. Clearly, our experience with Operation Noble Anvil—the U.S. contribution to Allied Force—was substantial in many respects. Nevertheless, I consulted routinely with the Chairman of the Joint Chiefs of Staff and the CINC and had high confidence in our capability to halt invading forces and win a major theater war in the event of a North Korean attack. Yet I would caution that in doing so we would have faced an added element of risk.

Without question, Operation Noble Anvil involved a significant—[deleted]—commitment of land-based airpower. In fact, during the course of the operation, we committed nearly a full theater war's allotment of certain aviation assets and munitions—[deleted]. Given this level of commitment of land-based airpower, the conduct of a major theater war in Korea would have presented several significant challenges that could have increased the risk of casualties (especially during the early phases of the conflict).

In light of these challenges, the Department took significant and prudent measures to lessen these risks. These measures included the advanced deployment of certain aircraft to Korea as well as the identification of other units that would be required to respond on very short notice. These measures helped to better position us to respond to aggression on the Korean peninsula should we have faced that challenge.

CARRIER BATTLE GROUP STEAMING TIME TO THE WESTERN PACIFIC

Question. How long would it take to get a carrier battle group to the Western Pacific?

Answer. While the exact period of time it would take to deploy certain aircraft carrier battle groups to the Western Pacific is classified, the steaming time from San Diego to the waters of the Western Pacific is approximately two weeks.

[Deleted.]

SUFFICIENCY OF LIFT ASSET SUPPORT TO KOREAN MTW

Question. Will our military airlift and sealift assets support such a contingency?

Answer. Though many U.S. air assets were stretched thin by operations in Kosovo, U.S. sealift and airlift assets would ultimately have been sufficient to support such a contingency. If it were necessary, we would have—per the outlines of U.S. defense strategy—disengaged some needed lift assets to assist with the defense of the Korean peninsula, should the Korean contingency have commenced at the same time that our lift assets were in greatest demand in the Balkans.

Question. Taking the scenario one step further. If during the current crisis, the North Koreans attacked, and at the same time, Iraq moved 100 or so tanks and associated equipment up to the Kuwaiti border, how would this nation respond?

Answer. A critical component of our strategy is the capability to transition to fighting major theater wars from a posture of global engagement—both peacetime engagement activities and smaller-scale contingency operations. The ability to transition between peacetime operations and warfighting effectively and in a timely manner is a fundamental requirement for virtually every military unit. In the event of the posited North Korean attack, we would likely choose to begin disengaging from engagement activities and operations not deemed vital to U.S. interests in order to better posture our forces to deter the possible outbreak of a second war. In the case of Kosovo, we would seek to mitigate the impact of such disengagement by working with allies to increase their commitment accordingly.

However, it is important to note that we do not consider it highly likely that the United States would be challenged with major theater war in two theaters at once. Indeed, maintaining a two-theater war capability deters just such opportunism and adventurism. In October 1994, for example, we were able to surge forces to the Persian Gulf to deter Saddam Hussein despite our buildup around North Korea at approximately the same time. In addition, we were also participating in smaller-scale operations in Haiti and Zaire, as well as routine engagement activities around the world.

PROTECTING VITAL INTERESTS IN ASIA AND THE PERSIAN GULF

Question. Could we protect our vital national interests in both Asia and the Persian Gulf, while conducting an air war of almost Desert Storm size in the Balkans?

Answer. While it is difficult to provide a definitive answer without a more detailed scenario, our forces remain postured to respond decisively in defense of vital national interests in two separate theaters in overlapping timeframes. In the event of a single major theater war, we would likely choose to begin disengaging from engagement activities or smaller-scale contingency operations that represent important, but lesser, interests. In the event of two major theater wars, we would shift from our efforts to shape the international security environment to a posture of deterring and defeating aggression. In this scenario, U.S. forces would be withdrawn from peacetime engagement activities as smaller-scale contingencies (including operations such as Allied Force) as quickly as possible. U.S. forces could not prosecute three nearly simultaneous major theater wars; in such a scenario, we would have to carefully prioritize the allocation of our forces and assets based on the most significant threats to our vital national interests.

READINESS

Question. Secretary Cohen, one message comes home to us that our men and women in uniform are working harder than ever? Have you examined whether the missions that we have for our military simply outstrip the capabilities of a force sized at 1.4 million people?

Answer. The Armed Forces of the United States remain capable of executing the U.S. Defense Strategy. Overall unit readiness is satisfactory, although some deficient readiness indicators, especially personnel and aviation equipment, are a concern. The Services have already taken active measures to address many readiness issues, but concerns about personnel shortages and aging equipment require more attention and resources. Despite additional funds in fiscal year 1999, the impact of these increases has yet to be realized, and in some key areas, readiness continues to decline. Keeping current readiness posture sharp while preparing for tomorrow's challenges will require continued attention and resources. Finally, some specific enhancements that have significantly improved the U.S. military forces include: (1) strike capabilities of Naval and Air Force tactical aviation, (2) lethality of Army firepower, (3) capabilities of long-range bombers, (4) strategic mobility, (5) capabilities and lethality of munitions and munition systems, (6) battlefield surveillance, (7) nuclear, chemical and biological defenses, and (8) capabilities of Reserve Component forces.

RAPID ASSESSMENT AND INITIAL DETECTION TEAMS

Question. Mr. Secretary, I understand your budget request proposes to increase the number of National Guard RAID teams, the units designed to respond to terrorist acts with weapons of mass destruction by five, from 10 to 15. In testimony before this Committee earlier this year, the Chief of the National Guard Bureau indicated his view that both the Alaska and Hawaii Guard could present strong justification for receiving RAID teams. Would you concur in this assessment?

Answer. No decision has been made yet regarding the location of RAID teams. The Office of Consequence Management and the Department of the Army are working this issue and I expect a recommendation soon.

KOREA

Question. Mr. Secretary, with all the attention on the Balkans and Southwest Asia, are we paying enough attention to Korea; could you update us on the situation on the Korean peninsula?

Answer. [Deleted.]

Despite persistent economic and humanitarian problems, North Korea remains reasonably stable and under the tight control of the Kim Chong-il regime. Pyongyang's conventional military readiness has eroded since the early 1990's, but it remains capable of inflicting considerable damage on South Korea with little warning, mainly from long-range artillery and rocket systems. Development of ballistic missiles is a high regime priority. These missiles pose a potential threat throughout the region, especially to South Korea and Japan and to the American forces stationed there. Food aid and the resiliency of the North Korean population have averted mass starvation, but numerous people have died in recent years and an unknown portion of the population still suffers from malnutrition. A solution to these problems requires a commitment to fundamental economic and social change, something Kim Chong-il remains unwilling or unable to accomplish. The long-term humanitarian and economic prospects for North Korea are bleak. North Korea is committed to engagement with the U.S. and has adhered to the Agreed Framework. Nevertheless, the regime will use confrontational tactics and military provocations to enhance its regional stature and to obtain aid.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

PERSONNEL SHORTFALLS

Question. Secretary Cohen, has your office studied whether we need to reexamine the process by which we determine personnel requirements for ships and other military units?

Answer. The Military Departments use a variety of methods to determine their personnel requirements for ships and other military units. For the most part, the Services man their force structure based on numbers and types of equipment, and model wartime requirements predicated on the requirement to fight and win two major regional conflicts.

My staff examines the processes that each of the Military Departments uses to man ships, planes, tanks, and other equipment on a continuing basis. To develop doctrinal and operational concepts for wars of the future, the Chairman and I established a new Joint Experimentation Directorate, reporting to the Commander in Chief of U.S. Atlantic Command. An integral part of the joint experimentation process will be determining human resource requirements driven by emerging equipment and doctrine. We will continue to work hard to ensure our operational forces are manned with the proper numbers and skills to execute the national strategy.

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Answer. The Armed Forces of the United States remain capable of executing the U.S. Defense Strategy. Overall unit readiness is satisfactory, although some deficient readiness indicators, especially personnel and aviation equipment, are a concern. The Services have already taken active measures to address many readiness issues, but concerns about personnel shortages and aging equipment require more attention and resources. Despite additional funds in fiscal year 1999, the impact of these increases has yet to be realized, and in some key areas, readiness continues

to decline. Keeping current readiness posture sharp while preparing for tomorrow's challenges will require continued attention and resources. Finally, some specific enhancements that have significantly improved the U.S. military forces include: (1) strike capabilities of Naval and Air Force tactical aviation, (2) lethality of Army firepower, (3) capabilities of long-range bombers, (4) strategic mobility, (5) capabilities and lethality of munitions and munition systems, (6) battlefield surveillance, (7) nuclear, chemical and biological defenses, and (8) capabilities of Reserve Component forces.

DEFENSE REFORM

Question. Can you achieve your goal to cut civilian manpower another 107,000 positions without additional Base Closures?

Answer. Yes. The civilian manpower estimates that have been programmed through fiscal year 2005 reflect significant reductions associated with conducting government versus private sector cost competitions for work that can be performed by the commercial sector. As you know, competition was identified as a primary strategy for reducing DOD infrastructure costs under my Defense Reform Initiative. The civilian manpower estimates reflect savings assumptions that are based upon the Department's historical experience in competing work and will be revised, as necessary, to reflect the actual results of competitions. The Department continues to request Base Realignment and Closure (BRAC) authority because we believe it is one of the primary methods to reduce our infrastructure costs.

Question. What will be the impact on your Defense Reform Initiatives goals and future budget requirements if Congress does not approve additional Base Closure rounds?

Answer. We consider all the Defense Reform Initiatives, which includes securing authority for additional base closures rounds, to be vitally important for eliminating unneeded base infrastructure. Absent this authority, the other initiatives, such as demolition, outsourcing and consolidations will take on even greater importance. None of these initiative is a substitute for BRAC's ability to reduce infrastructure and produce an estimated $3 billion in annual recurring savings. Without future BRAC rounds, I would need to identify other potential sources of funding, further cuts in force structure, reductions in training and readiness, or negative impacts on quality of life programs.

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Answer. No decision has been made yet regarding the location of RAID teams. The Office of Consequence Management and the Department of the Army are working this issue and I expect a recommendation soon.This conflict is occupying a significant portion of our military. I am concerned that as we escalate our commitment to the Balkans, that this nation is able to protect what are its true strategic interests around the globe.

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committed to engagement with the U.S. and has adhered to the Agreed Framework. Nevertheless, the regime will use confrontational tactics and military provocations to enhance its regional stature and to obtain aid.

QUESTIONS SUBMITTED BY SENATOR TOM HARKIN

READINESS FUNDING

Question. In my view, any readiness problems are due to management issues, not lack of money. I note that in fiscal year 1990—during the Bush Administration—we funded operations and maintenance of the Armed Forces at more than $90 billion annually. That worked out to about $27,000 per person in the Armed Forces. However, in fiscal year 2000, the Administration plans on spending more than $100 billion on operations and maintenance, more than $46,000 per person. Do these numbers show that the Department is receiving a high level of funding for readiness?

Answer. It has been the consistent policy of the Department to protect readiness and the readiness of our first-to-fight forces remains high. While the per capita growth in operation and maintenance reflects in part the Department's commitment to maintain readiness, it is also indicative of other trends that can increase per capita spending.

Inflation, civilian pay raises and foreign currency adjustments over the last ten years account for the largest change in per capita spending. When adjusted for the effects of these pricing changes, the fiscal year 2000 figure is $36,000 per person.

Program changes may drive an increase in per capita spending with little effect on readiness. For example, as the Department has reduced the size of the military force, some functions once performed by military personnel are now done by civilian and contract personnel. Per capita cost as measured against military forces will go up as military force levels decline and functions shift to the civilian or contract personnel.

Some equipment is aging and we have experienced higher maintenance costs to care for older equipment and to maintain capability rates. On the other hand, more modern equipment recently fielded is less manpower intensive and may require fewer military personnel to operate. Both of these trends—higher maintenance costs and less manpower intensive weapons systems—will create an increase in the per capita cost.

Over the last ten years, we have seen increases in programs that do not have a direct effect on readiness. Environmental programs are an important responsibility of the Department, but their influence on the increase in per capita spending does not enhance readiness.

Finally, the Department has requested authority for several years to conduct another round of base closures. The increase in per capita spending also reflects underutilized installations and capacity within the Department. As the military and civilian populations have decreased over the last ten years, the infrastructure of the Department has not declined at the same pace. The Department is carrying more infrastructure than required, thus driving up per capita spending.

Readiness is a complex issue and cannot be measured using a single indicator. As can be seen from the examples above, it is not accurate to conclude from per capita figures that the Department has mismanaged readiness funds nor should you conclude from these figures alone that the Department has a high level of funding for readiness. For this reason, the Department continually monitors readiness and adjusts funding to prevent any negative trends.

PILOT SHORTAGE

Question. Some have pointed to "pilot shortages" as evidence that our Armed Forces are not ready. I understand that the Air Force announced a shortfall of 954 pilots. However, I further understand that this does not mean that planes are left with empty cockpits. The Air Force employs more than 13,000 pilots. The Air Forces assigns about 60 percent of its pilots to operational force cockpits. This includes not just pilots flying operations, but also instructors and others. The rest—about 40 percent of Air Force pilots—are assigned to staff positions or other special duty, in other words desk jobs. This seems to mean that any shortage may mean that some desks may lack pilots, but there are plenty of pilots for aircraft.

Has the "pilot shortage" resulted in any operational problems? Is the Pentagon looking at creative solutions to the pilot issue, such as retaining more pilots who desire to keep flying in operational billets?

Answer. Although the Air Force has a serious pilot shortage, to date we have been able to protect our operational capability by manning our operational units and absorbing shortages on the staff. A pilot prioritization plan protects our capability and allows us to meet our operational commitments.

The Air Force continues to examine and introduce creative solutions that will retain those pilots who desire to remain in flying positions. Air Force leadership is currently considering continuation of Phoenix Aviator 20 (PA20). PA20, developed in conjunction with commercial aviation, recognizes that experienced AF pilots are a "National Asset," needed in both military and civilian aviation. The program is designed to improve AF pilot retention by increasing the marketability of AF pilot retirees, thereby increasing the likelihood of improving the career intent of our younger pilots.

The current pilot shortage dictates that we keep the bulk of our pilot force in cockpits in order to maintain our combat capability. This makes it much easier for a pilot to serve an entire career in operational flying billets.

QUALITY OF LIFE FOR AIR FORCE PERSONNEL

Question. Quality of life for the troops is a key element of readiness. However, I think it is clear that there are some substantial shortfalls in our troops quality of life, especially the thousands of troops forced to turn to food stamps and other forms of federal assistance due to inadequate pay. Last year, I joined with Senator Domenici in passing a simple provision that requires the Pentagon to address this problem and propose some solutions. Also, during the debate over S. 4, the troop pay bill, earlier this year, I was able to work with other Senators to get agreement on a provision to provide a special income supplement to those families who are eligible for food stamps.

I haven't seen the Pentagon's proposal to fix the problem of military families receiving food stamps. Does the provision I describe make sense to you? Does it coincide with some of the solutions now being explored by the Department?

Answer. This was part of the reason we submitted a comprehensive package of compensation improvements. The January 1, 2000, pay increase and pay table reform will be the largest increase in the past twenty years. We believe this will be a significant help to our members.

We do see difficulties with the proposed supplemental subsistence allowance. For example, our analysis indicates it will not significantly reduce the number of members receiving food stamps. Also, since the proposed special income supplement is based strictly on eligibility for food stamp benefits, members with income just above the eligibility limit would receive no benefit while those with a slightly smaller income would receive the $180 a month special supplement.

Similarly, a significant percentage of food stamp recipients are the families of more junior enlisted members who live in on-base housing. The in-kind value of that housing and the utilities that are furnished are not included in the calculation of their income. On the other hand, the housing allowances of their colleagues, who occupy often more expensive off-base housing, are included in computing family income for food stamp benefits. Thus, the $180 a month special supplement would more likely go to members living on base than in the community. We believe that allowances not associated with military duties can create inequities; members feel that they should receive equal compensation for similar duties.

NUCLEAR WEAPONS AND NATO

Question. Do U.S. allies in NATO influence U.S. national nuclear policy through the Alliance's Nuclear Planning Group? If so, how? Is there contact between U.S. Strategic Command and NATO allies, and if so, what kind? If not, is there any relationship between NATO nuclear policy and U.S. nuclear policy?

Answer. The Alliance's Nuclear Planning Group (NPG) is composed of NATO Defense Ministers. U.S. national nuclear policy is established by the President of the United States and is in no way influenced by allies through the NPG. In reality, the contrary has been the case as the U.S. has greatly influenced the development and evolution of NATO nuclear policy as a result of its leadership role in providing nuclear forces to the Alliance. Hence, NATO nuclear policy has historically been consistent with that of U.S. nuclear policy. [Deleted.] Two UK personnel are continuously assigned on a rotational basis to STRATCOM. [Deleted.]

Question. Does U.S. theater nuclear doctrine apply to U.S. nuclear forces in Europe? What is the relationship between U.S. nuclear doctrine and U.S. nuclear forces in Europe?

Answer. U.S. strategic and theater nuclear doctrine is established by the President and set forth in a series of increasingly detailed documents. [Deleted.] U.S. Nu-

clear doctrine applies equally to U.S. forces stationed or deployed anywhere in the world, to include those in Europe.

Question. Can U.S. nuclear weapons currently deployed in Europe be used for any task by the United States without consulting with NATO or Alliance members on whose territory those weapons are deployed?

Answer. Consultation is an inherent characteristic of the Atlantic Alliance. The Political Principles for Nuclear Planning and Consultation contains the basic principles for consultation within the Alliance on nuclear employment. [Deleted.]

Question. Can the United States withdraw some or all of its nuclear forces deployed in Europe, specifically without consulting NATO allies?

Answer. NATO's nuclear force posture has been reviewed and approved by Nuclear Planning Group Ministers. The High Level Group, chaired by the United States, is an expert-level body tasked with reviewing matters involving nuclear policy, force structure and posture, and to provide advice to Ministers as appropriate. [Deleted.]

Question. What is the status of training and readiness of nuclear-capable air forces of NATO allies, Belgium, Germany, Greece, Italy, Netherlands, and Turkey?

Answer. NATO Defense Ministers approved a three-tiered readiness system for allies' nuclear-capable air forces: [deleted]. As the current security environment does not warrant maintaining a large number of dual-capable aircraft (DCA) at a high nuclear readiness level, a credible minimum deterrent against potential risks can be achieved by a smaller number of DCA at high readiness. [Deleted.]

Question. The new NATO members are joining the Nuclear Planning Group. What information concerning U.S. nuclear forces and planning is being supplied to them and what is the legal basis for this?

Answer. In July 1998, the NATO High Level Group prepared a course of action, [deleted] to ensure that the Three Invited Countries acquire the necessary expertise on nuclear aspects of NATO's strategy so that they could fulfill their responsibilities as members of the NPG and the Alliance's integrated military structure. Fundamental to this aim was the timely preparation of key Defense personnel of the Invitees so that they could fulfill their role in the development of NATO nuclear policy and in nuclear consultations, and therefore participate effectively in Alliance nuclear matters as soon as their countries became full members. [Deleted.]

As part of this process, and to accompany presentations, Ministers approved the release of certain documents to provide the Invitees, prior to their accession, with the necessary insight into the Alliance's nuclear policy and procedures. The physical release of the documents was accompanied by all necessary safeguards appropriate to the holding of such classified material in accordance with the provisions of NATO regulations governing control and accounting of classified documents. No "atomal" information (U.S. restricted data) has been disclosed. [Deleted.]

Question. Are U.S. Trident submarines specifically assigned to NATO? If so, are submarines in both the Atlantic and Pacific fleets assigned to NATO? How does this arrangement work? Are any and, if so, how many SSBNs in which fleets assigned to SACEUR for targeting?

Answer. U.S. Trident submarines are not specifically assigned to NATO, [deleted].

Question. Secretary of State Madeline Albright announced last year that NATO nuclear forces were no longer on alert. How is this policy extended to U.S. Trident submarines assigned to NATO?

Answer. Secretary of State Albright's announcement last year was likely meant to refer to Alliance non-strategic nuclear forces, specifically dual-capable aircraft, which no longer maintain any alert commitment and their readiness criteria have been greatly reduced as noted earlier. [Deleted.]

U.S. TOMAHAWK AND THE UNITED KINGDOM

Question. The U.S. has supplied Tomahawk cruise missiles to the UK. The U.S. cooperates on nuclear weapons issues with the UK through the Joint Working Groups. What information has been supplied to the United Kingdom about the U.S. TLAM/N variant since the introduction by the U.S. of this system in the 1980s? Has the UK ever expressed interest in a nuclear option for its TLAM? What information and technology specific to the TLAM/N has been shared or supplied to the UK?

Answer. The United Kingdom has the conventional version of the U.S. TEAM. [Deleted] no data on TLAM/N has been provided to the UK [deleted].

QUESTIONS SUBMITTED TO GEN. HENRY H. SHELTON

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

COMMAND STRUCTURE

Question. General Shelton, we are fighting the current war as a member of a coalition. We also fought the Persian Gulf War as a member of a coalition. During that air campaign, the military called the shots. When I visited the Balkans this spring, one of the most disturbing revelations was that in the NATO coalition, the military has not been calling the shots. It seems that we are fighting a war by committee, with bombing targets being screened by politicians in Brussels.

General Shelton, what are the differences between the command structure in the Gulf War compared with NATO's current command structure?

Answer. *Desert Storm*.—Due to the myriad of political, military, and cultural considerations among countries participating in the Coalition (over 800,000 personnel from 36 nations), separate parallel lines of command/authority were established. In general, the Islamic forces were organized into a joint forces/theater of operations command structure under Saudi Lieutenant General Khalid bin Sultan bin Abdul-Aziz. The Commander-in-Chief, U.S. Central Command (USCINCCENT, GEN Schwarzkopf) commanded U.S. and non-Islamic members of the Coalition. However, no single overall commander was designated.

Allied Force.—Once again, a multi-national force; however, they are all under the command of the NATO Supreme Allied Commander, Europe (SACEUR, GEN Clark).

Key points.—All U.S. troops in Desert Storm were under U.S. control (USCINCCENT). NATO's command structure would allow SACEUR to transfer NATO operational control (OPCON) of selected U.S. forces to competent NATO commanders. This permits the commander to direct forces to accomplish specific missions or tasks. It does not allow transfer of NATO operational command (OPCOM) which would permit a commander to reassign U.S. forces to other missions.

Question. Do you believe that from day one of Operation Allied Force, that NATO command structure has enhanced the effectiveness of the air campaign?

Answer. From the beginning, Operation Allied Force has had the full consensus and support of all 19 NATO nations. Many of the nations provide both strike and support air assets while many assist in other ways. Even non-NATO neighboring nations assist by granting over-flight rights and use of their airspace. NATO aircraft are seamlessly integrated on the daily air tasking order and fly combined combat and support missions integrated into multinational force packages from NATO bases throughout Europe. NATO strategy, operational objectives, and tactical execution are synchronized and remain highly effective under the command structure of the NATO Alliance.

GROUND FORCES

Question. One final question. General Shelton, if we are forced to invade Kosovo and occupy it, how many U.S. troops will NATO require? How many casualties should be expected?

Answer. [Deleted.]

As we stated from the beginning of Operation Allied Force, casualties should be expected in any operation. Due to the high standards of training, robust rules of engagement, the best equipment in the world, and most importantly, the utmost professionalism with which our soldiers, sailors, airmen, and marines execute daily operations, the U.S. did not suffer a single casualty due to enemy fire in Operation Allied Force. If a ground invasion into Kosovo was conducted in a hostile environment, casualties should be expected. Again, due to the reasons mentioned above, I believe U.S. casualties could be kept to an absolute minimum.

Question. If NATO is forced to invade and occupy the whole of Serbia, how many U.S. troops will be required? Again, how many casualties should we expect?

Answer. [Deleted.]

As we stated from the beginning of Operation Allied Force, casualties could be expected in any operation. Due to the high standards of training, robust rules of engagement, the best equipment in the world, and most important, the utmost professionalism our soldiers, sailors, airmen, and marines execute daily operations with, the United States did not suffer a single casualty due to enemy fire in Operation Allied Force. If a ground invasion was conducted in a hostile environment into Serbia, casualties should be expected. Again, due to the reasons mentioned above, I believe U.S. casualties could be kept to a minimum.

PERSONNEL SHORTFALLS

Question. General Shelton, how many of your front line forces deployed with five percent or more shortages of personnel?

Answer. As a general rule, front line forces are deployed as near to full strength as possible, but often at the expense of non-deployed force readiness levels. Currently, the Army and Air Force strive to deploy units at greater than 95 percent strength while the Naval forces deploy in accordance with Defense Planning Guidance (DPG) which requires achieving C–1/C–2 readiness in all categories no later than their arrival in theater. While these percentages are approximations, the certain fact is the increasing number of deployments is making unit readiness a more challenging concern for the Services.

Question. What is your goal for deploying units 90 percent, 95 percent or 100 percent of requirement?

Answer. The standing requirement for all forces, Active and Reserve Component, which are scheduled to deploy within 30 days in support of operations plans, is to maintain strengths at between 80 and 100 percent of requirements. At times of actual deployment, each Service takes steps to bring affected units up to the fullest mission capable status possible.

READINESS

Question. General Shelton, our theater commanders ensure us their front line forces are equipped and ready, but those forces at home seem to be stretched to the breaking point? How would you assess the overall readiness of the entire force?

Answer. [Deleted.]

RAPID ASSESSMENT AND INITIAL DETECTION TEAMS

Question. General Shelton, are you in favor of expanding the number of National Guard RAID teams, as requested from 10 to 15?

Answer. I support the President's Budget and the increase indicated for the National Guard RAID teams.

KOREA

Question. General Shelton, are we ready to respond to a serious crisis in Korea?

Answer. Yes, we are.

Question. Do we have any assessment of what the difference would be if a crisis developed today versus before we were conducting Operation Allied Force?

Answer. We will be able to respond to a crisis in the Korean area of operation (AOR) with the same or an equal magnitude as we would have prior, during, and after the conduct of Operation Allied Force.

There have been some concerns expressed over our military capability in the region due to the absence of the *Kitty Hawk* battle group from the Pacific Command AOR. However, we have taken steps to mitigate the operational impact of this situation should a crisis occur in the Korean AOR.

[Deleted.]

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

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[Deleted.]

QUESTIONS SUBMITTED BY SENATOR TOM HARKIN

READINESS FUNDING

Question. In my view, any readiness problems are due to management issues, not lack of money. I note that in fiscal year 1990—during the Bush Administration—we funded operations and maintenance of the armed forces at more that $90 billion annually. That worked out to about $27,000 per person in the armed forces. However, in fiscal year 2000, the Administration plans on spending more that $100 billion on operations and maintenance, more than $46,000 per person.

Do these numbers show that the Department is receiving a high level of funding for readiness?

Answer. Including Active, Guard, and Reserve personnel, the O&M ratio to personnel has increased by roughly 66 percent from fiscal year 1990 to fiscal year 2000 as you indicated. There are several factors that account for the increase. To begin with, approximately one-third of the increase is directly caused by inflation. Second, as we continue our efforts to increase efficiency, we have looked hard at many of our support functions. Where beneficial, we have either converted military endstrengths to civilian or contracted out support functions using O&M funding instead of military pay. While providing significant overall DOD savings, these conversion actions have a compounding effect on the O&M ratio as we reduce military endstrength and increase O&M costs. Third, Congress has recently increased the investment/expense criteria and approved depot level repair parts to be part of the O&M appropriation. These two accounting changes have shifted significant funding into O&M versus procurement. Last, we cannot overlook the fact that the advanced technology that has enhanced our military capability is more expensive to operate and maintain.

With a decrease in endstrength, numerous military to civilian or contract conversions, increased operational commitments, accounting changes, and technological innovation, it is not at all surprising that O&M expenditures per person have significantly increased. Using more accurate indicators of our readiness capability, such as our recently decreasing mission capable rates, we can see that our operations and maintenance (O&M) accounts have in fact been under-funded in the past few years. The increases programmed in the fiscal year 2000 President's Budget are critical to preserve our future warfighting capability.

CARRIER GAP

Question. It has been suggested by some that the decision to re-deploy the U.S.S. *Kitty Hawk* from its home base in Japan to the Persian Gulf so that the U.S.S. *Theodore Roosevelt* could deploy to the Adriatic to support operations over Kosovo

has left the U.S. and its allies in a strategically risky posture in the Far East. It is my impression that the re-deployment of the *Kitty Hawk* was well within the Navy's normal planning for response to contingencies. As such it does not represent an emergency surge in carrier-based air power.

Please comment on the quantity of additional carrier-based air power that the U.S. possesses that could surge to any emergency in the Far East and on the quantity and quality of land-based air power available in the Far East region from U.S. forces based in the region and from our allies?

Answer. Navy planning policy directs the resourcing for contingency operations from forward deployed assets. Consistent with this policy, the *Theodore Roosevelt* was re-deployed to support Operation Noble Anvil while the *Kitty Hawk* battlegroup was re-deployed to the Arabian Gulf. The latter re-deployment created a carrier battlegroup (CVBG) "presence gap" in the Western Pacific. The *Constellation* (CV–64) battlegroup deploys from San Diego on 18 June and will fill the "gap" when they arrive in the Western Pacific.

To bridge the "presence gap" and to mitigate any risk incurred by the absence of a CVBG, Navy maintained 10 surface combatants and 4 attack submarines in the Western Pacific with over 300 Tomahawk Land Attack Missiles on hand. Navy further maintains two CVBGs ready to deploy on 96 hours from the United States (one on the East Coast and one on the West Coast). The *Constellation* has been on 96 hour alert prior to the *Kitty Hawk* group movement. When the *Constellation* group deploys, another CVBG will assume the 96-hour ready for sea posture. A third carrier battle group will be ready to deploy within 30 days.

Each carrier battlegroup deploys with a notional number of six surface combatants, two submarines, a replenishment ship, the carrier, and the embarked airwing. The forces are deployed "ready for combat" and maintain their qualifications throughout the deployments. Recent operations have continued to validate the force's readiness by conducting combat operations within hours of arriving on scene. As described above, carrier-based airpower available for surge to any emergency in the Far East will arrive combat ready.

[Deleted.]

Our allies in the region possess capable combat aircraft that are variants of our F–15s and F–16s. Japan has 204 F–15Js, 32 F–2s (similar to our F–16) and 110 P–3 maritime patrol aircraft. South Korea has numerous aircraft, including 120 F–16C/Ds.

SUBCOMMITTEE RECESS

Senator STEVENS. We will recess. We are going to have the last meeting on this bill for this year on Friday, the 14th, to hear testimony from the public on all matters before the subcommittee.

Thank you very much.

[Whereupon, at 12:05 p.m., Tuesday, May 11, the subcommittee was recessed, to reconvene at 10 a.m., Friday, May 14.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2000

FRIDAY, MAY 14, 1999

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:15 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senator Stevens.

NONDEPARTMENTAL WITNESSES

STATEMENT OF DR. JANICE H. LAURENCE, AMERICAN PSYCHOLOGICAL ASSOCIATION

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. My apologies. We did not know these votes would go on. They should have started at 9:30, but they are just starting now, and there will be another vote in a few minutes. We might as well take 20 minutes and I will go right before the end of the second vote, but I do welcome you all as witnesses.

Twenty-six separate witnesses indicated they wanted to testify or submit statements for the record. That is a fairly large number for this morning. I do have to request that you limit your statements, I hope to not more than 5 minutes each. All of the statements you present to us today will be printed in the record, and I assure you the staff does look them over and calls them to our attention, Senator Inouye and me, the ones that they think should have an impact on our deliberations here for the defense bill for this year.

I do thank you all for your interest, and I appreciate your willingness to participate in the work of the committee. I assume you all have the schedule of how you are going to appear, and we will, I hope, work through this. It has been an interesting week for us. We did complete our supplemental last night, after several nights of session, as you probably know, and so our first witness is Janice Laurence of the American Psychological Association. I do appreciate your appearance. Thank you, ma'am.

Dr. LAURENCE. Good morning, Senator. My name is Dr. Janice Laurence, and I am speaking on behalf of the American Psychological Association (APA). APA has more than 159,000 professional members and associates, many of whom conduct behavioral research relevant to the military. In the written testimony I have submitted I have described the pressing need to maintain the De-

partment of Defense's (DOD) funding for human-oriented research in fiscal year 2000.

Psychological research today can and does address the most critical issue facing our Armed Services, maintaining readiness in an ever-changing national security climate by providing policy relevant data on personnel selection and assignment, skills training, human machine interface design, and efficient and safe operation of complex systems.

In the months prior to our immediate involvement in Kosovo, senior Pentagon officials had identified serious concerns about the recruitment and retention of qualified personnel, particularly in the Air Force. High tech weapons are useless without human resources—the people who operate and maintain the equipment and risk their lives engaging in a myriad of missions—war-fighting, peacekeeping and humanitarian assistance at home and abroad.

The linchpin of those sorties over and around Kosovo is not the impressive F–15's but rather the proficient pilots, navigators, mechanics, crews, and other support personnel. The fact that our forces are unparalleled should not lead us to forego conducting research with the aim of further improving the preparedness and well-being of our soldiers, sailors, airmen and marines. Contributions from research on manpower personnel, training, human factors, cognitive science, and other areas have been critical to sustaining our combat superiority.

Results of this research reflect a huge return on an extremely modest monetary investment. At a time when Federal support for nondefense research is growing, APA has real concerns about declining federal support for defense research, especially human-oriented behavioral research.

Relative to its spending on hardware and personnel, DOD spends an appallingly small amount of research that helps the services more effectively select and assign new recruits and train personnel to use the expensive new equipment Pentagon officials are requesting.

Behavioral research is at a particular disadvantage in the current decisionmaking atmosphere, which favors easily identifiable research products such as new hardware. The fact that behavioral research can determine whether personnel will be able to use that hardware is not obvious until something goes wrong.

With the help of this subcommittee, the recent decline in spending on basic research has been temporarily slowed. We now need your help again. I would like to highlight two main issues of relevance to the subcommittee, the need to immediately reprogram fiscal year 1999, mandated funds for the Army Research Institute, and the Air Force Research Lab, and a particularly urgent situation regarding the Air Force's fiscal year 2000 applied research budget.

Although the Air Force's own scientific advisory board recently identified people as one of six capability areas vital to future performance, its priority status is not reflected in the Air Force's funding for people-oriented research.

We are extremely concerned about the significant cuts anticipated for development work, especially the planned elimination of the Armstrong Lab at Brooks Air Force Base in fiscal year 2000.

The cut is extremely shortsighted. The work being done there will provide the knowledge base needed to address tomorrow's formidable Air Force manpower and personnel and training problems, particularly at this time when the Air Force transitions to a highly mobile air expeditionary force.

Elimination of this program will have a profound negative impact on force capability and readiness. The planned elimination of the Armstrong Lab is even more striking, given a congressional mandate to restore funding to the lab after an initial cut was proposed by the administration in fiscal year 1999.

To date, the millions of dollars restored by Congress for use by both the Air Force Research Lab and the Army Research Institute with the help of this subcommittee have not been reprogrammed by DOD. We urge the subcommittee to direct DOD to immediately reprogram these fiscal year 1999 funds. We also urge you to support the administration's request for basic 6.1 research in fiscal year 2000 Air Force budget to increase the 6.2 research budget by restoring it to its fiscal year 1998 level of $43.052 million, and to increase funding for 6.3 research by restoring it to its fiscal year 1999 level of $6.595 million.

PREPARED STATEMENT

APA asks the subcommittee to use these additional funds to continue the work of scientists at the Armstrong Laboratory at another location, if necessary.

Senator STEVENS. Thank you very much. We will look into that. I do appreciate your testimony.

[The statement follows:]

PREPARED STATEMENT OF JANICE H. LAURENCE, PH.D.

My name is Janice Laurence, Ph.D., and I am speaking here on behalf of the American Psychological Association (APA). APA is a professional and scientific organization of 159,000 members and associates, many of whom conduct behavioral research relevant to the military. This statement addresses two main issues of relevance to the Subcommittee: the continuing need to invest in psychological research in the Department of Defense; and the particular need to sustain support for the human systems programs in the Air Force, both by reprogramming fiscal year 1999 mandated funds and by restoring cuts to the applied research budgets requested by the Administration for fiscal year 2000.

Our military faces a host of current challenges around the world, including renewed hostilities, the emergence of non-traditional conflict situations, new peacekeeping missions, increased operational tempo and longer deployments for military members, at the same time that forces are downsizing and facing critical recruitment and retention problems. In addition, the sophistication of weapons and information technology has dramatically changed the skills required of military personnel. What hasn't changed is that success in military operations still depends on people—at every level, in every unit. We simply cannot afford to let hardware and software get too far ahead of the "humanware."

Behavioral research can and does address many of these issues, although its relevance and contributions often have been less widely publicized than advances in military hardware. DOD's support of psychological research dates from WWII, when the efficient testing and classification of new recruits was critical to the rapid buildup of U.S. forces after Pearl Harbor. Today, psychological research can address the most critical mission issue facing our armed services—maintaining readiness in an ever-changing national security climate—by providing policy-relevant data on the selection and assignment of personnel, skills-training, design of the human-machine interface, and efficient and safe operation of complex systems.

THE RDT&E BUDGET

In the months immediately prior to our involvement in Kosovo, senior Pentagon officials speaking before this Subcommittee and those of the Armed Services Committees had already identified serious concerns about military hardware needs and the recruitment and retention of qualified personnel, particularly in the Air Force. High-tech weapons and systems are useless without human resources—the people who operate and maintain the equipment and risk their lives engaging in a myriad of missions—warfighting, peacekeeping and humanitarian assistance, at home and abroad. The lynchpin of those sorties over and around Kosovo is not the impressive F–15s, but rather the proficient pilots, navigators, mechanics, crews and other support personnel. The fact that our forces are unparalleled should not lead us to forego conducting research with the aim of further improving the preparedness and well-being of our soldiers, sailors, airmen and Marines.

At a time when federal support for non-defense research and development is growing, APA has real concerns about declining federal support for defense research, especially human-oriented, behavioral research. Relative to its spending on hardware and personnel, DOD spends an appallingly small amount on the research that, for example, helps the services more effectively select and assign new recruits, and train personnel to use the expensive new equipment Pentagon officials are requesting. Behavioral research is at a particular disadvantage in the current decision-making atmosphere, which favors easily identifiable research "products," such as new hardware; the fact that behavioral research can determine whether personnel will be able to use that hardware is not obvious until something goes wrong.

Maintenance of DOD's technology base must include 6.1 (basic), 6.2 (exploratory development) and 6.3A (advanced development) research on manpower, personnel selection, training, human factors, cognitive science, and other areas of behavioral research. These contributions have been critical to sustaining our combat superiority. They have been possible only because the services have maintained closely coupled 6.1, 6.2, and 6.3A research programs on key human resources, training, and human factors issues. With systems growing more sophisticated and demands on the human operator more complex, we can ill afford to cut back on the research that is necessary to preserve our "combat edge."

With the help of this Subcommittee, the recent decline in spending on basic, 6.1 research has been temporarily slowed. Right now we see the fruits of research conducted in the late 1970s through the 1980s, when support for DOD research was expanding. Even in the absence of a high growth rate, it is important to retain DOD's capacity to respond to future needs. More than ever, careful and prudent planning for future defense needs must be done. With the support of this Subcommittee, U.S. leadership in crucial areas of behavioral research—in the service laboratories and in the nation's universities—will be assured.

THE MILITARY BEHAVIORAL SCIENCE PROGRAMS

The Army, Navy, and Air Force each support basic psychological research to meet their particular mission needs. The services have been directed by Project Reliance to cooperate in order to eliminate unnecessary duplication of research efforts and actively share research results.

Air Force Office of Scientific Research (AFOSR)

APA urges the Subcommittee to support the Administration's request for $13.212 million for basic (6.1) research in the fiscal year 2000 DOD budget for the Air Force.

APA urges the Subcommittee to direct the Air Force to immediately reprogram fiscal year 1999 funds previously mandated to restore cuts made to the Armstrong Laboratory at Brooks Air Force Base. For fiscal year 2000, APA urges the Subcommittee to increase the amount requested by the Administration for the Air Force's 6.2 research by restoring it to its fiscal year 1998 level of $43.052 million, and to increase funding for 6.3 research to restore it to its fiscal year 1999 level of $6.595 million. APA also urges the Subcommittee to direct the Air Force to use these additional funds to continue the work of scientists at the Armstrong Laboratory, at another location (such as Wright-Patterson Air Force Base) if necessary.

AFOSR funds basic research both in the Air Force laboratories and through grants to academic institutions and other contractors. The Air Force laboratories compete for these funds through the submission of research proposals that are evaluated in competition with proposals from the civilian sector. This ensures that the best and most relevant research is funded. The Air Force Scientific Advisory Board's New World Vistas report recently identified six "capability areas" which are seen as vital to the Air Force's future performance. One of these six areas is "People;" unfortunately, its priority status is not reflected in the Air Force's funding plans.

We are extremely concerned about the significant cuts anticipated for development work, especially the planned elimination of the Armstrong Laboratory at Brooks Air Force Base in fiscal year 2000. This laboratory is responsible for developing the products that flow from manpower, personnel, and training research in the Air Force, products which are relevant to an enormous number of Air Force mission needs, ranging from weapons design, to improvements in simulator technology, to improving crew survivability in combat, to faster, more powerful, and less expensive training regimens.

This fatal cut is short-sighted in the extreme. The work being done at the Armstrong Lab is the only research being done anywhere today that will provide the knowledge base needed to address tomorrow's formidable Air Force manpower, personnel and training problems, particularly at this time when the Air Force transitions to a highly mobile Air Expeditionary Force. We know there will be new skill requirements, that force diversity will increase, that downsizing will continue, that the demand for distributed training will increase, that there will be new system design requirements, and that the very nature of warfare will continue to change. You have heard recently from senior Pentagon officials of their intentions to make substantial use of written tests and assessment procedures in addressing recruitment and retention problems; the Armstrong Laboratory is largely responsible for designing, modifying and analyzing results of these assessment procedures for all branches of the military. Elimination of this program will assure that the people of the Air Force will not be prepared for the multiple challenges ahead, and failure to sustain this investment will have a profound impact on force capability and readiness.

The planned elimination of the Armstrong Laboratory is even more striking given a Congressional mandate to restore funding to the Laboratory after an initial cut was proposed by the Administration in fiscal year 1999. Last year, the Administration requested only $3 million in funding for the Air Force Manpower, Personnel, and Training Research Program and the Air Force Research Laboratory, but Congress mandated that the program maintain its 1998 funding level of $11 million. Unfortunately, the mandate for restoring those funds (and others for the Army behavioral research program) apparently was sufficiently unclear to allow the Department of Defense to divert the money to other defense programs. To date, those funds have not been reprogrammed, and as a result, commitments to provide research products (including those to other branches of the military under Project Reliance) are not being honored.

Army Research Institute for the Behavioral and Social Sciences (ARI)

APA is grateful for this Subcommittee's leadership in restoring funds to the Army Research Institute in fiscal year 1999, although they have not yet been reprogrammed for ARI. Last year's anticipated cuts would have crippled ARI's research capabilities. We urge the Subcommittee to fund ARI at the requested level of $21.882 million in fiscal year 2000.

About half of the Army's budget, some $45 billion, is spent on personnel. But less than $18 million is now spent on research to help those personnel work more effectively. It appears shortsighted to invest such a disproportionately small amount in the Army's human resources. ARI works to build the ultimate smart weapon: the American soldier. And its efforts deserve your support.

ARI was established to conduct personnel and behavioral research on such topics as minority and general recruitment; personnel testing and evaluation; training and retraining; and leadership. Reliable data about these issues is critical, as you know from today's headlines. While the Army seeks to solve the problem of sexual harassment within its ranks and establish workplace ethics and procedures that bring out the best from a diverse workforce, good data collected for the Army from scientists who understand how the Army works, will help the Army plan and execute reasonable policies.

ARI is the focal point and principal source of expertise for all the military services in leadership research, an area critical to the success of the military. Research that helps our armed forces identify, nurture, and train leaders is critical to their success. ARI also is interested in investigating how particular aspects of Army culture and/or larger societal issues influence recruitment, retention, morale and performance.

Office of Naval Research (ONR)

APA urges the Subcommittee to support the Administration's fiscal year 2000 request for ONR. The request would fund 6.1, 6.2 and 6.3 behavioral research at a level of $50 million.

The Cognitive and Neural Sciences Division (CNS) of ONR supports research to increase the understanding of complex cognitive skills in humans; aid in the devel-

opment and improvement of machine vision; improve human factors engineering in new technologies; and advance the design of robotics systems. An example of CNS-supported research is the division's long-term investment in artificial intelligence research. This research has led to many useful products, including software that enables the use of "embedded training."

Many of the Navy's operational tasks, such as recognizing and responding to threats, require complex interactions with sophisticated, computer-based systems. Embedded training allows shipboard personnel to develop and refine critical skills by practicing simulated exercises on their own workstations. Once developed, embedded training software can be loaded onto specified computer systems and delivered wherever and however it is needed. Embedded training is particularly valuable for the Navy because Naval personnel are often required to maintain high proficiency and readiness levels during lengthy, uneventful deployments at sea—far from land-based training facilities.

SUMMARY AND RECOMMENDATIONS

We support the Administration's fiscal year 2000 requests for the Army and Navy behavioral research programs, but we urge you to increase the Air Force's funding for applied, human-oriented research in order to continue the vital work of the Armstrong Laboratory, wherever this work can be efficiently conducted. APA also recommends that Congress direct and fund the Pentagon to reexamine how the services make decisions about human-related research in order to more effectively coordinate their behavioral research programs.

More immediately, APA asks this Subcommittee to intervene quickly to direct the Pentagon to reprogram fiscal year 1999 funds previously mandated for use by AFOSR and ARI.

It is sometimes easy to overlook the important contributions of behavioral research to the missions of the Army, Navy and Air Force because the results usually do not translate directly into new weapons systems or hardware. Yet behavioral research has provided and will continue to provide the foundation for tremendous savings through increased personnel efficiency and productivity. This work is vital to the military for identifying critically needed improvements in human resources development, training and human error reduction.

Increasing demands for qualified recruits place huge demands on the military to more efficiently target and train personnel; increasingly sophisticated weapons systems place more, not fewer, demands on human operators. We must ensure that military personnel are as well prepared as their machines to meet the challenge. Our servicemen and women deserve no less from us. This is not possible without a sustained investment in human-oriented research.

STATEMENT OF DR. DAVID JOHNSON, EXECUTIVE DIRECTOR, FEDERATION OF BEHAVIORAL, PSYCHOLOGICAL AND COGNITIVE SCIENCES

Senator STEVENS. Dr. David Johnson.

Dr. JOHNSON. Mr. Chairman, Congress has long been instrumental in preserving human-centered research in the Army, Navy, and Air Force. Two years ago, the Army planned to abolish the Army Research Institute and you prevented it. Last year, the Air Force planned to close down applied training and personnel research at the Air Force Research Laboratory, but you restored funding.

Unfortunately, as my predecessor just pointed out, that money has not been reprogrammed, despite its having been appropriated, and the Air Force is proceeding with its plan to end the research this fiscal year, so I have to plead with you to prevail on the Pentagon to do the reprogramming and get the funds where they need to be. That would require returning the money to the fiscal 1997 level of $11.36 million, with $9.952 million going to 6.2 and the remainder to 6.3 research.

The endangered research is important not only to the Air Force, but also to science. For example, for nearly four decades the laboratories maintained a cognitive science data base containing skill and

aptitude data on all who have entered the Air Force during those decades. That data base is a priceless tool for understanding human cognitive processes. No other data set in the world is as complete, or extends over as long an unbroken period of time. It can never be replaced, and losing it would be a tragedy for science.

Human-centered research has struggled for existence within the Armed Services largely because its benefits are taken for granted. If personnel perform their jobs well, then decisionmakers in the various commands have no need to consider how their people learn to do those jobs, so when they make their budget recommendations human-centered research takes a distinct back seat to hardware needs. The result is that DOD is requesting $75.4 billion to pay personnel cost in 2000, but only $127 million for research to see that the personnel can do their jobs. That is a little more than a tenth of a cent for human-centered research for every dollar spent on personnel, a meager investment by any standard.

For those who serve in the Armed Forces and for our own well-being we suggest that human-centered military research has to be placed on a more solid footing. Critical as your interventions have been in keeping these basic and applied research programs going, constant crisis should not be their normal state. To begin moving towards stabilization, we ask you to allocate $500,000 to the Pentagon's Defense Committee on Research, to assess the current situation, and to develop a plan for strengthening human-centered basic and applied research.

I should note that since my written statement was prepared and delivered to you I have been in contact with program officers at the National Academy of Sciences and have been told that $500,000 would fund an adequate review. That is greater than the amount that was mentioned in the original written statement and I have sent a correction in.

Let me close by outlining the funding levels we recommend for human-centered military research in fiscal year 2000. The administration asks $55.132 million for the Air Force. We recommend $66.492 million, which would restore funding for the programs now being cut.

For the Neural Science and Technology Division of the Office of Naval Research the administration now asks $50 million. We recommend $50.2 million, which would eliminate a cut to the 6.3 program.

Likewise, the administration asks $21.882 million for the Army Research Institute, and we recommend $22.796 million, again to restore cuts.

PREPARED STATEMENT

These restorations would not amount to new money. They would just limit the losses in the ability to buy research to inflationary changes.

I thank the subcommittee for the opportunity to express these views.

Senator STEVENS. Thank you very much, doctor.

[The statement follows:]

PREPARED STATEMENT OF DAVID JOHNSON, PH.D.

Mr. Chairman, members of the Subcommittee, my name is David Johnson. I am executive director of the Federation of Behavioral, Psychological, and Cognitive Sciences. The Federation is comprised of 18 scientific societies and approximately 100 university graduate departments. Our scientists conduct behavioral research with a broad array of applications, not the least of which is national defense. Today I will speak with you about the administration's fiscal year 2000 request for such research in the Army, Navy, and Air Force.

Increases in Operations and Maintenance Should Not Come at the Expense of Research

This testimony comes at time when each of the armed services is choosing to put major resources into operations and maintenance because there is an immediate need to do so. Unfortunately, it also appears that some of these resources are going to come from significant reductions in military commitment to research and development. While it is clear enough that operations and maintenance have not been sufficiently funded in recent years, to make up that deficit in part by turning away from direct support of research is a precipitous step whose adverse consequences will be felt for decades. It is a step so serious that we believe Congress should act in the best interest of the country's citizens to see that the step is not taken.

Military support of behavioral and social science research is of most concern to the scientists for whom I speak, but the arguments I will make today apply not solely to such research. They have to do with how the longstanding partnership of science and defense has been essential to protection of our citizens and why reducing the closeness of that partnership in favor of buying "off the shelf" science-based products from the civilian sector is going to undermine the capability of the country to produce science-based products for both the military and civilian use.

For many years, the House and Senate National Security and Defense Appropriations Subcommittees have rescued from extinction research aimed at improving the performance of those who serve in the armed forces. Two years ago, you saved the Army Research Institute. In this fiscal year, you restored funding for applied training research at the Air Force Research Laboratory. Despite your effort, it appears at this point that the Air Force will not use the funds as you intended. Instead, our understanding is that these research programs will be abolished during this fiscal year unless you take further action quickly and follow that action with restoration of funds for fiscal year 2000.

Cuts for Air Force Training and Personnel Research Are a Particular Concern

We strongly believe these programs are essential to assuring high quality performance from those in the Air Force because they provide the means to adapt personnel rapidly and effectively as missions, equipment, and skill requirements change. We also know that the research those at the Air Force Research Laboratory have conducted, and the cognitive data they have gathered and preserved over the past four decades, have played indispensable roles in advancing the science of human cognition. Both functions are so important that taking action to save the programs is necessary and warranted.

We, therefore, urge you to do everything you can to save these research programs in this fiscal year and to stabilize their funding at productive levels in fiscal year 2000. We thank you for supporting human-centered military research in the past, and we also thank you for whatever you can do now to again rescue the endangered Air Force personnel and training applied research programs. At the same time, this long pattern of research cuts by one or another armed service and restorations by Congress needs desperately to be replaced by a rational, coordinated, and empowered process for assessing present and future knowledge and product needs related to military human resources and for allocating funds sufficient to meet those needs.

Human Resource Related Research Support Needs Stabilization and Improvement

We ask that you help the services, in cooperation with the Pentagon, to develop such a process by providing funds to, and instructive report language for, the Pentagon's Defense Committee on Research to undertake a formal assessment and evaluation of current decision making practices regarding 6.1 through 6.5 behavioral, cognitive, neural, and social science research and research funding. The assessment should include an evaluation of strengths and weaknesses in the current system and options both for addressing specific weaknesses and for improving the system overall. And we recommend that the results of the assessment be forwarded to the House and Senate appropriating and authorizing committees as well as to the Secretary of Defense, the Joint Chiefs of Staff, and the White House Office of Science

and Technology Policy by the time the President submits his fiscal year 2001 budget to Congress.

We have the whole history of national defense to tell us that change is a constant. The same history tells us that the nations that anticipate, or even drive, change, and make provision to adapt, are the ones most successful at defending themselves. Research is the key to controlling change as well as adapting to it.

A Comparison of Research Budgets to Other Defense Expenditures

The 6.1, 6.2, and 6.3, or basic, applied, and exploratory development research budget request for fiscal year 2000 is $7.4 billion, a $405 million, or 5.2 percent decrease from fiscal year 1999. It accounts for about 2.8 percent of the total DOD request. This means that of the $34.4 billion requested by the administration for all military research, development, testing, and evaluation, only about one fifth would go to research with the remaining $27 billion going to development, testing, and evaluation. This less-than-three-cents on every dollar is the DOD investment in future preparedness.

Within that $7.4 billion, the request for human-centered research is $127.014 million, a little less than two cents of each 6.1 through 6.3 research dollar. That works out to less than five ten thousandths of each DOD dollar being spent on research to improve the performance of its personnel. The fiscal year 2000 request to pay personnel costs is $75.437 billion, meaning that for every dollar DOD spends on personnel, it spends a little more than a tenth of a cent on research to see that those personnel will be able to do their jobs well. We think that 2.8 cents on the dollar for all 6.1, 6.2, and 6.3 research and .00047 of a cent for personnel-related research is not enough to prepare the armed forces for the future. That is why we are alarmed by the administration's requested $405 million cut for research.

A Sample of Achievements Enabled by DOD Support of Human-Centered Research

Let me try to give you a flavor for the human-centered research that is carried out by the Defense Department. Military supported behavioral and social science research has covered a diverse set of topics including adapting training techniques to the changing skill levels of new recruits, organizational research to understand how to downsize without critical losses in effectiveness, sociological research to understand essential differences in the nature of peacekeeping versus war fighting preparedness, development of voice recognition technology, development for robotic applications of computer circuitry that imitates processes in the human brain, development of signal detection techniques that allow identification of submarines through their sound signatures, development of simulators for training tank and aircraft crews and air traffic controllers, development of embedded training devices that allow sailors to sharpen their expertise while at sea using the same equipment they would operate in battle—and this list just scratches the surface.

What Has Been Gained? What Would be Lost?

The net result of almost a century of behavioral and social science research has been a national defense community with the ability to adapt quickly and effectively to changing mission requirements, armed services personnel whose initial skills are assessed precisely, and whose specialized training is tailored to individual strengths and weaknesses to assure a high level of skill acquisition in a short amount of time. The research has also increased the safety of those in uniform by enabling earlier identification of enemy locations, improving methods for communicating critical information, improving the usability of equipment, identifying and correcting life-endangering design flaws in equipment, replacing humans with "smart" machines wherever possible, and by producing the scientific knowledge to improve teamwork and group effectiveness. Behavioral and social science research has also saved a great deal of money. For what has always been a modest research investment, human lives have been saved, planes and helicopters that would have crashed have not crashed, submarines that could have been destroyed by undetected enemies have not been destroyed.

The Role of Behavioral Research in DOD and the Role of DOD in Sustaining Science

These products of behavioral and social science research were not produced instantly. They came at the end of a process. First, military-supported basic research yielded new understanding of fundamental phenomena. That knowledge enabled advanced applied research which, in turn, led to prototypes that were tested and refined until, at last, the products that met military needs were perfected. This has not been a dispensable process. The products could not have been produced without the process. Moreover, the process is iterative. Product improvements and adaptations to changing needs can happen because the military has supported continuing basic research that yields new knowledge that makes the improvements and adapta-

tions possible. For some products, that cycle of knowledge generation and innovation can be traced back over nearly a century of military support of research.

One other point is necessary to make about military support of this research, development, and application process. It is that military support has been as indispensable to the development of behavioral and social science as it has been to meeting military needs. DOD support has been instrumental in creating or sustaining many areas of research. The multidisciplinary field of judgment and decision making research grew out of DOD support. DOD has been a major player in the growth of cognitive science and neuroscience. DOD support enabled the development of signal detection theory which has had wide application in both the military and civilian sectors. Development of the field of psychoacoustics would not have been possible without DOD support. Many of the most important advances in teaching and learning research have occurred because DOD supported the research. And, again, the list goes on.

Science underpins our economy and our national defense. It is, therefore, decidedly within the national interest to support science. All of the Federal agencies that fund scientific research are pieces of an essential tapestry. Together, these agencies pay for much of the basic and applied research that has given the United States its economic and its military strength. DOD has been a responsible part of that tapestry. But the cuts that are beginning to occur, and that are projected to continue, will tear the tapestry of scientific support if they are allowed to continue. Each Federal agency has taken responsibility for support of areas of science that it is in its interest to support. If as important a contributor as DOD cuts back, whole areas of science can easily be destroyed, and funding pressure on the other agencies in the tapestry will rise tremendously, potentially damaging yet other areas of research. The proposed cuts would do grave damage to several areas of behavioral research, including cognitive science, organizational research, education and training research, and human-computer interaction research. It is assumed by some military planners that DOD will be able to buy end products whose research and development costs it did not support. The fallacy in this assumption is that the origin of many of those products can be traced back to basic and applied research the military supported for other purposes. Future products won't be on the shelf to purchase if DOD moves away from support of basic and applied research. We hope you will do everything you can to see that DOD support of research does not diminish.

A Summary of Specific Funding Recommendations

I will end by making some specific recommendations regarding funding levels for human-centered research. We would like to see $50,000 allocated to the Defense Committee on Research to assess processes and recommend improvements for support of behavioral, cognitive, neural and social science research across the services. The failure thus far in Fiscal 1999 of the Air Force to use funds assigned by Congress to preserve personnel and training research at the Air Force Research Laboratory needs to be rectified. Then, to assure that the programs can function in fiscal year 2000, $9.592 million would need to be restored to the 6.2 budget bringing it to $46.685 million, and $1.768 million would need to be restored to the 6.3 budget, bringing it to $6.595 million. Those restorations would allow manpower, personnel and training, crew technology, and advanced training and force management research to continue. For 6.1 Air Force behavioral research, we support the administration's requested level of $13.212 million. Thus, we recommend a 6.1 through 6.3 funding level for behavioral research at the Air Force Research Laboratory of $66.492 million, $11.36 million more than requested by the administration.

For the Army Research Institute behavioral research programs, we recommend $2.708 million for 6.1, $12.071 million for 6.2, $3.913 million for 6.3, and $4.104 million for 6.5, which the ARI uses for research syntheses. The overall administration request for this research is $21.882 million. Our recommendation is $22.796 million.

For the Neural Science and Technology Division of the Office of Naval Research, we recommend $16.8 million for 6.1 research, $15.4 million for 6.2, and $18 million for 6.3. The administration request, overall, for these programs is $50 million. Our recommendation is that they be funded at the slightly higher level of $50.2 million. That figure would maintain 6.3 research at its fiscal year 1999 level. These recommendations are summarized in the table below.

I thank the Subcommittee for this opportunity to speak, and I would be happy to answer any questions you might have.

[In millions]

	Administration Request	Recommended
Defense Committee on Research: Assessment of Human-Centered Research Support		$50,000
Air Force Research Laboratory:		
Program Element:		
PE 0601102F: Project 2313 (University-Based Basic Research)	$13.212	13.212
PE 0602202F:		
Project 1123 (Manpower, Personnel, Training)	9.041	18.633
Project 7184 (Crew Technology)	28.052	28.052
PE 0603227F: Project 2743 (Advanced Training/Force Mgmt.)	4.827	6.595
Office of Naval Research: Neural Science and Technology Division:		
Program Number:		
6.1 (Basic Research)	16.8	16.8
6.2 (Applied Research)	15.4	15.4
6.3 (Exploratory Development)	17.8	18.0
Army Research Institute:		
Program Element:		
61102 (B74F)	2.708	2.708
62785 (A790)	12.071	12.071
63007 (A792)	3.030	3.913
65801 (MM15)	2.013	2.027
65803 (D730)	2.060	2.077

STATEMENT OF COL. JOHN SHERNER (RET.), CERTIFIED REGISTERED NURSE ANESTHETIST, AMERICAN ASSOCIATION OF NURSE ANESTHETISTS

Senator STEVENS. Colonel Sherner.

Colonel SHERNER. Good morning.

Mr. Chairman, thank you for the opportunity to testify before this committee today. My name is Colonel John Sherner. I am a certified registered nurse anesthetist (CRNA). I recently retired from the United States Army with 31 years of service, and am a member of the American Association of Nurse Anesthetists (AANA), and have served on the AANA's Federal Service Committee for 5 years by holding the position of anesthesia nurse consultant to the Army Surgeon General. I am currently employed as a staff anesthetist at a large university hospital level 1 trauma center.

I am testifying today on behalf of the American Association of Nurse Anesthetists, which represents more than 27,000 CRNA's, including over 600 that serve in the military forces.

I would ask my written statement be submitted for the record. My testimony today will touch on the status of CRNA's in the military and how effective utilization of CRNA's can result in considerable cost savings for the Department of Defense without sacrifice of quality of care.

I would like to thank this committee for the continued support of the efforts of the Department of Defense to recruit and retain qualified nurse anesthetists. There has been a crying shortage of CRNA providers in the military of recent years. Recruitment and retention of CRNA's remains of utmost importance in order to as-

sure that our Federal services can meet their medical mission. This committee can assist in this effort.

In striving to provide the best possible health care for our Nation's military, CRNA's are a critical component. CRNA's save the Department of Defense considerable resources without any sacrifice in quality of care. Nurse anesthetists, while providing the same services as a physician anesthesiologist, are far less costly to educate and to retain. Data indicate that as many as 10 qualified CRNA's can be educated for the cost of training one physician anesthetist. Cost effectiveness means nothing if quality is not present. It is important for the members of the committee to know that many studies have shown that there are no significant differences in the outcomes between the two health care providers. Both the providers use similar anesthesia training. The differences being that CRNA's enter anesthesia training with a nursing background and anesthesiologists come from a medical background.

The military services also save resources by spending far less in bonus moneys for CRNA's compared to anesthetists. Nurse anesthetists receive only incentive special pay and are eligible for board certification pay.

The American Nurses Association (ANA) thanks this committee for its support of the special pay program for CRNA and strongly recommends their continuation as an important recruitment and retention mechanisms. Physician anesthetists received far more types and amounts of bonus money. If nurse anesthetists and physicians start training at the same time in 8 years a nurse anesthetist will receive probably $6,000 to $9,000 in special pay, while anesthetists will receive approximately $250,000.

The Department of Defense is providing more cost effective providers with effective utilization of anesthesia providers. Currently the Army, Navy, and the Air Force are operating in most medical troop facilities with approximately two CRNA's to every one anesthetist. For many years over several wars and conflicts nurse anesthetists have provided quality anesthesia care with little or no supervision. Compare that to today, when anesthesia is much safer, with sophisticated technology and monitors and alarms, and nurse anesthetists are educated at the master's degree level.

CRNA's are being supervised at a much closer ratio of one anesthetist to two nurse anesthetists. There is no documentation that supports this specific ratio of one anesthetist to two nurse anesthetists.

PREPARED STATEMENT

In conclusion, the ANA thanks this committee again for its longstanding support of military nurse anesthetists through the enactment of incentive special pay and board certification pay. The ANA believes that more effective utilization of CRNA's in the military is a critical concern, and is an area that can be examined for increased cost savings. I thank the committee members for their consideration of these issues, and will be happy to answer any questions you may have.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF JOHN SHERNER

The American Association of Nurse Anesthetists (AANA) is the professional association that represents over 27,000 certified registered nurse anesthetists (CRNAs) in the United States, including over 600 CRNAs in the military services. The AANA appreciates the opportunity to provide testimony regarding CRNAs in the military. We would also like to thank this committee for the help it has given us in assisting the Department of Defense (DOD) and each of the Services to recruit and retain CRNAs.

CURRENT STATUS OF CRNA FORCES IN THE DOD

Nurse anesthetists have been the principal anesthesia providers in combat areas in every war the U.S. has been engaged since World War I. Military nurse anesthetists have been honored and decorated by the U.S. and foreign governments for outstanding achievements, resulting from their dedication and commitment to duty, and competence in managing seriously wounded casualties. In World War II, there were 17 nurse anesthetists to every one anesthesiologist. In Vietnam, the ratio of CRNAs to physician anesthetists was approximately 3:1. Two nurse anesthetists were killed in Vietnam and their names have been engraved on the Vietnam Memorial Wall. During the Panama strike, only CRNAs were sent with the fighting forces. Nurse anesthetists served with honor during Desert Shield and Desert Storm. Military CRNAs continue to provide critical anesthesia support to humanitarian missions around the globe in such places as Somalia, Haiti and Bosnia.

In all of the Services, maintaining adequate numbers of active duty CRNAs is of utmost concern. For several years, the number of CRNAs serving in active duty has consistently fallen short of the number authorized by DOD as needed providers. Current statistics on the number of active-duty CRNAs for fiscal year 1999 are detailed below:

NUMBER OF ACTIVE DUTY CRNAs—FISCAL YEAR 1999

	AUTHORIZATION	INVENTORY	SHORTAGE
Army	245	216	−29
Navy	134	125	−9
Air Force	225	[1] 244	[1] +19
DOD Total	604	585	−19

[1] Projected to decrease to 212 by the year 2001, resulting in a deficit of 13.

HOW CRNAS SAVE DOD MONEY

The practice of anesthesia is a recognized specialty within both the nursing and medical professions. Both CRNAs and anesthesiologists (MDAs) administer anesthesia for all types of surgical procedures, from the simplest to the most complex, either as single providers or in a "care team setting." Patient outcomes data has consistently shown that the anesthesia provided by solo CRNAs is of the same high quality as that provided by CRNAs who work with anesthesiologists, or that provided by solo anesthesiologists. CRNAs and MDAs are both educated to use the same anesthesia processes in the provision of anesthesia and related services.

While both types of health care professionals can provide the same or similar services, CRNAs cost the military much less to educate and to retain. In the first place, it costs the military significantly less to educate a CRNA as an anesthesia provider compared to the cost of educating an anesthesiologist. Second, a physician draws thousands of dollars in additional bonuses that illustrate they are significantly more expensive to retain.

Training costs are less

The most substantial educational difference between CRNAs and anesthesiologists is that prior to anesthesia education, MDAs receive medical education while CRNAs receive nursing education. However, the anesthesia part of the education is very similar for both providers. CRNAs and anesthesiologists are both educated to use the same anesthesia processes in the provision of anesthesia and related services. However, the cost to educate nurse anesthetists is significantly lower than the educational costs for physician anesthesiologists. Becoming a CRNA takes an average of 30 months additional education beyond the nurse's baccalaureate education, while becoming an anesthesiologist takes a minimum of 8 years beyond the baccalaureate

degree. But if you compare just the cost of the anesthesia portion of their educational programs, CRNA education is far more cost-effective than physician education. Data from the 1992 AANA Council on Accreditation survey of nurse anesthesia programs indicates that the average annual program cost per student nurse anesthetists is $11,741. The total cost for 30 months of CRNA education would therefore be approximately $29,352 ($11,741 per year 2.5 years). According to a letter received by AANA from the Health Care Financing Administration (HCFA) in 1990, the average annual residency program cost per medical resident was $84,837. The total cost for a four-year anesthesiologist residency would therefore be approximately $339,400 ($84,837 per year 4 years). AANA estimates that at least 10 CRNAs can be educated for the cost of educating one anesthesiologist. With the shorter training period, the 10 CRNAs will each be in practice for several years before the one anesthesiologist completes his/her residency.

Non-MD bonuses are less than physician bonuses

In addition to the decreased cost of training a nurse anesthetist, the bonuses received by CRNAs in the military are significantly lower than those received by military physicians.

The Incentive Special Pay for Nurses

In the early 1980s, once military CRNAs reached the grade of major with 12–14 years service, they could expect their salary and fringe benefits to match that of the average employed CRNA in the civilian workforce. By the 1990s, due to significant increases in civilian CRNA salaries, military pay and fringe benefits were no longer comparable to the average employed civilian CRNA. According to a March, 1994 study requested by the Health Policy Directorate of Health Affairs and conducted by DOD, a large pay gap existed between annual civilian and military pay in 1992. This study concluded that "this earnings gap is a major reason why the military has difficulty retaining CRNAs." In order to address this pay gap, in the fiscal year 1995 Defense Authorization bill Congress authorized the implementation of an increase in the annual Incentive Special Pay (ISP) for nurse anesthetists from $6,000 to $15,000 for those CRNAs who are no longer under service obligation to pay back their anesthesia education. Those CRNAs who remain obligated will receive the $6,000 ISP. In addition, DOD has standardized the payback obligation across all the Services, which allowed for fair implementation of this increase.

AANA thanks this Committee for its assistance in securing this increase in the annual ISP. AANA strongly recommends the continuation of the annual ISP for CRNAs, which recognizes the special skills and advanced education that CRNAs bring to the DOD health care system.

Board Certification Pay for Nurses

Included in the fiscal year 1996 Defense Authorization bill was language authorizing the implementation of a board certification pay for certain non-MD health care professionals, including advanced practice nurses. AANA is highly supportive of board certification pay for all advanced practice nurses. It is clear that the concept of board certification pay comes from the physician model, which was implemented as an incentive for physicians to attain the highest level of competency and certification. The establishment of this type of pay for nurses recognizes that there are levels of excellence in the profession of nursing that should be recognized, just as in the medical profession.

While many CRNAs have received board certification pay to date, there are many that remain ineligible. Since certification to practice as a CRNA does not require a specific master's degree, many nurse anesthetists have chosen to diversify their education by pursuing an advanced degree in other related fields. But CRNAs with masters degrees in education, administration, or management are not eligible for board certification pay since their graduate degree is not in a clinical specialty. Many CRNAs who have non-clinical master's degrees either chose or were guided by their respective services to pursue a degree other than in a clinical specialty. Many feel that diversity in education equates to a stronger, more viable profession. CRNAs do utilize education and management principles in their everyday practice and these skills are vital to performance of their duties. To deny a bonus to these individuals is unfair, and will certainly affect their morale as they work side-by-side with their less-experienced colleagues, who will collect a bonus for which they are not eligible. In addition, in the future this bonus will act as a financial disincentive for nurse anesthetists to diversify and broaden their horizons.

AANA encourages DOD and the respective services to reexamine the issue of awarding board certification pay only to CRNAs who have clinical master's degrees.

Comparison to Physician Bonuses

Even with the implementation of an increased ISP and the addition of a board certification pay, CRNAs remain cost effective anesthesia providers for DOD. Nurse anesthesia students receive no bonus money at all while attending anesthesia school. Then, CRNAs receive only $6,000 per year in ISP, and an average of $2,500 in board certification pay while under payback service obligation for four years. After their payback is completed, nurse anesthetists are eligible for a $15,000 annual ISP bonus, with a continuation of the board certification pay. The alternatives to CRNAs, physician anesthesiologists, are eligible for four different bonuses. Physicians are eligible for a $5,000 annual variable special pay upon entering residency. After their four years of residency, they immediately are eligible for an additional $15,000 special pay, and a $33,000 physician ISP annually. Upon passing board certification (usually about 18 months after residency is completed), an additional $2,500 in board certification pay is added to the bonus total (See Appendix for breakdown of total). All of this bonus money is paid to physicians annually while they are still under a payback service obligation.

In the first eight years of service alone, the result is a wide disparity in the amount of bonus dollars paid to physician anesthesiologists ($253,500) compared to the amount paid to CRNAs ($69,000).

HOW MORE EFFECTIVE UTILIZATION CAN SAVE MONEY WITHOUT SACRIFICING QUALITY OF CARE

In light of the fact that it costs less to educate CRNAs, that nurse anesthetists draw minimal bonuses compared to physician anesthesiologists, and that numerous studies show there is no significant differences in outcomes between anesthesia providers, it is clear that CRNAs are a cost-effective anesthesia provider for the military. From a budgetary standpoint, it is vitally important to utilize these high quality, cost-effective anesthesia providers in appropriate ratios with their physician anesthesiologist counterparts. "Over-supervision" is not only unproductive, it is financially wasteful and unnecessary.

During World War II, there were 17 CRNAs for every one anesthesiologist (17:1). In Vietnam, the ratio was approximately three to one (3:1). Currently the military is operating with much narrower ratios of CRNAs to anesthesiologists. As recently as 1997, the Army was functioning with two CRNAs to every anesthesiologist (2:1); in the Air Force, the ratio was even narrower at approximately 1.6:1; and the Navy was at the level of nearly one CRNA for every one anesthesiologist (1:1).

Such practice models are generally unheard of in the private sector, even in locations where CRNAs practice with little or no autonomy. In most civilian hospitals, the practice ratios run approximately 3 or 4 CRNAs to every one anesthesiologist (3–4:1). The practice ratios could be increased in military treatment facilities from their current levels to a more cost-effective level of 3–4:1, with no sacrifice to quality of care.

The U.S. military services do not require anesthesiologist supervision of CRNAs. There are many military medical treatment facilities throughout the world which have military CRNAs as their sole anesthesia providers, and this practice arrangement has not had a negative impact on the quality of anesthesia care. Increasing numbers of anesthesiologists in the military has resulted in practice models with wasteful practice ratios. There continues to be proposals in all Services for increased supervision of CRNAs, with attempts by physician anesthesiologists to place unnecessary supervision language into local military treatment facility policies which would require strict adherence to a practice model of one CRNA to every one anesthesiologist.

A practice model requiring a 1:1 ratio for the provision of anesthesia would not only be financially wasteful, but even more importantly, the Services would lose mobilization effectiveness by requiring two anesthesia providers where autonomous CRNAs have previously provided anesthesia safely and effectively for over 100 years. This military standard is based on the need of the Services to provide a wide range of health care with as few providers as necessary during mobilization to remote or isolated locations. Historically, CRNAs have always worked independently at such locations; therefore, there is no basis for requiring supervision of CRNAs when they then return to more urban facilities. A predetermined ratio of supervision should not become part of the practice environment. The supervision of CRNAs should be based on the experience of the anesthesia care providers (both CRNA and anesthesiologist), the mission of the medical treatment facility, and the complexity and type of surgical procedure.

The ability to function autonomously in remote locations is required of all military CRNAs. It is the promise of this independence that draws many to military anes-

thesia service. Therefore, any attempt to adopt an anesthesia practice standard that would require that an anesthesia care team consisting of a CRNA and a supervising anesthesiologist to deliver all anesthesia would not only undermine mobilization effectiveness, but it would also prove detrimental to the morale of military CRNAs and would undermine attempts by the Services to recruit highly motivated individuals.

AANA recommends that this Committee direct DOD to maintain the mobilization effectiveness of CRNAs by enforcement of the current practice standard of autonomous anesthesia care by CRNAs in all locations, with practice ratios of 3–4:1. This ratio is more cost-effective, with no sacrifice of quality of care.

CONCLUSION

In conclusion, the AANA believes that retention and the appropriate utilization of CRNAs in the Services is of critical concern. There is a deficit of 19 CRNAs in fiscal year 1999, with greater deficits projected by the year 2001. Many active-duty CRNAs are suffering from ineffective practice models. The efforts detailed above will assist the Services in maintaining the military's ability to meet its peacetime and mobilization medical mission in a cost-effective manner without sacrificing quality of care. We thank the Committee for its support of CRNAs. For further information, please contact Greta Todd, AANA Associate Director of Federal Government Affairs, at 202/484–8400.

Senator STEVENS. Where are the CRNA's trained?

Colonel SHERNER. The Army, Navy, and Air Force all have their own separate training programs, but we also recruit in the civilian community and also the Uniformed Services University of Health Sciences has a training program for nurse anesthetists.

Senator STEVENS. Is it your testimony they are training more of—what are they called, more than the anesthesiologists?

Colonel SHERNER. No, we are not training more, but there is a cost difference between the training of a nurse anesthetist and anesthesiologist. We feel the quality of service is the same.

Senator STEVENS. I understand that better, and the university is turning out these CRNA's?

Colonel SHERNER. I do not understand your question.

Senator STEVENS. Can you get that training through a university course?

Colonel SHERNER. Most of them have a university master's degree. The Army, Air Force, and Navy all have master's degree programs of nurse anesthesia affiliated with the universities and civilian communities also have university trained nurse anesthetists.

Senator STEVENS. We will look into that. That is very interesting testimony. Thank you very much.

Our next witness is Mike Duggan, and did Reverend Collins submit his statement?

STATEMENT OF MIKE DUGGAN, DEPUTY DIRECTOR FOR NATIONAL SECURITY, FOREIGN RELATIONS DIVISION, THE AMERICAN LEGION

Mr. DUGGAN. Sir, I also for the record am a retired Army colonel and deputy director for the American Legion's national security foreign relations division here in Washington, DC, and as the Nation's largest veterans association the Legion would like to express its gratitude to you, Senator Stevens, for allowing us the opportunity to present testimony before the Appropriations Committee during this stressful period involving the fiscal year 1999 emergency supplemental spending bill. We commend you and the people you have worked with for your roles in that great endeavor.

As you have indicated, and as you have proven, one of our greatest concerns as well at this juncture has been military quality of life issues, to include recruiting, retention, and also modernization needs of the Armed Forces.

We believe that military compensation, as we know, has fallen behind the private sector, and both the military retirement systems and the Montgomery GI bill we believe are losing their attractiveness to not only recruit and retain a quality force. Undoubtedly operational tempos and deployments are also wearing down the men and materiel.

The Joint Chiefs of Staff have indicated that quality of life to include military retirement pay is their top priority, and they would like to see it fixed, and we support many of the features that were included in the S. 4 package which expeditiously went through the United States Senate.

The redux retirement system we feel should be repealed and replaced with a more equitable 50 percent retirement formula at 20 years. We would also like to see the restoration of full cost of living adjustments (COLA), 12 COLA caps in 17 years are obviously too many, and continuing the practice has probably been a prescription for eventual retention problems.

We also strongly advocate improving the Montgomery GI bill. These enhancements include increasing the monthly GI bill allowances for service members who serve more or less than 3 years, and eliminating the $1,200 annual contribution to $100 monthly, as well as accelerated payments for personnel in the Reserve components.

As we have previously indicated, we believe that the high rate of U.S. troop deployments, particularly over the past 6 years, has worn down and continues to wear down men and materiel. Our military is spread thin. We now have open-ended commitments in such places as Bosnia, Haiti, the Sinai, Persian Gulf and, of course, our defense agreements in the Far East, as well as in Europe.

In our view, another open-ended commitment in Kosovo could well be the proverbial straw that breaks the camel's back, and could further erode military readiness and exacerbate recruiting and readiness.

We are fully aware that funding alone, and doing so in 1 year, will not fix systematic readiness problems, but we believe a good start was made, sir, in this supplemental defense bill, and the message that that hopefully will send.

Procurement spending has also been cut over the years. The Army and the Marines are flying Vietnam War vintage helicopters, and the Air Force is flying, of course, Korean War vintage B–52 bombers. We are essentially asking our sons and daughters to operate equipment that is older than they are.

Through our mandates, we strongly believe that the Armed Forces are in fact undermanned in light of the numerous missions which they are being assigned. Rather than 10 Army divisions, sir, we have advocated a minimal force structure similar to the base force strategy which was advocated by former Chairman of the Joint Chiefs Colin Powell, namely 12 fully manned Army divisions, adequately manned Navy ships, and 12 active carrier groups and at least 15 Air Force Fighter Wings.

PREPARED STATEMENT

Mr. Chairman, I see I have run out of time, and I would like to conclude my statement at this point. Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF MIKE DUGGAN

Mr. Chairman, The American Legion is pleased to appear before this Subcommittee to express its concerns about fiscal year 2000 defense appropriations. The American Legion knows only too well what can happen when diplomacy and deterrence fail. As history has demonstrated, it is important for the President and Congress to continue to uphold their constitutional responsibilities to provide for the "common defense" of the American people in a highly uncertain world.

With the end of the Cold War, the clear and identifiable threat posed by communism and the Soviet Union no longer existed. Instead, the United States has been faced with a myriad of threats and challenges which appear more perplexing, complex and difficult. Serious regional threats continue to include those in the Balkans, North Korea and the ever-growing threat of the People's Republic of China. A vehemently defiant Iraq and Iran pose continuing threats to vital oil reserves in the Persian Gulf. Additionally, the United States faces the non-traditional threats of increasing nuclear proliferation, development of chemical and biological warfare weapons by rogue nations or groups and the challenges posed by international terrorism.

The American Legion has always adhered to the principle that our nation's armed forces must be well manned and equipped, not to pursue war, but to preserve and protect the hard-earned peace. The American Legion also strongly believes the ongoing military downsizing has been based more on budget targets and budget deficit reduction than on current and foreseeable threats to the national security well being of the American people and America's vital interests. Mr. Chairman, we would agree with Senator Chuck Hagel's statement that "We are coming perilously close to the edge of not being able to continue to defend our national interests." Once Army divisions, Navy aircraft carrier battle groups, and Air Force fighter wings are cut from the force structure, they cannot be rapidly reconstituted without the costly expenditures of time, money, and human lives. Military recruiting and retention of sevicemembers has become problematic in the face of declining quality of life features, continued deployments and a robust economy.

This budget continues the shift of funding from defense to domestic, social programs. The President's budget for fiscal year 2000 totals over $1.77 trillion and allocates 15 percent for defense and well over 50 percent for social programs and entitlement spending. The American Legion believes the Defense budget continues to bear the brunt of deficit reduction. The fiscal year 2000 Defense budget continues the steady reduction in defense spending and is 40 percent below the 1985 Reagan budget which led to the end of the Cold War. In 1990, the United States was spending 5.1 percent of the gross domestic product on defense. The proposed fiscal year 2000 of $267 billion only represents 2.5 percent of the GDP, less than before the 1941 Japanese attack on Pearl Harbor.

Budgets, force structures and military endstrengths have been reduced by about 40 percent from the Cold War 1990 base to 1999: During this period, defense budgets declined from being 25 percent of the total Federal budget to 15 percent, or from about 5.1 percent of Gross Domestic Product (GDP) in 1990 to 3.2 percent in 1997 and to 2.5 percent in fiscal year 2000. Military manpower has been continually reduced from 2.17 million in 1987 to 1.4 million in 1998 and is projected to decline even further.

It was becoming clear that much of the hard-earned Cold War "peace dividend," to include the Reagan-era defense budgets and projected defense budgeting, would no longer be spent on National Defense but, instead, was being shifted to domestic priorities. This peace dividend has been estimated to be on the order of $878 billion between fiscal year 1989 and fiscal year 2000.

In 1998, the Army and the Navy both missed recruiting goals, and retention of experienced servicemembers, particularly in the Navy, was becoming problematical. For the first time ever, the Air Force would miss a quarterly recruiting goal. During Congressional hearings in the fall of 1998, the Joint Chiefs of Staff stated that the Armed forces needed over $150 billion over six years to adequately address personnel, readiness and modernization issues. The fiscal year 2000 Department of Defense budget proposed $12 billion in additional spending in fiscal year 2000 and

$112 billion in additional resources over six years primarily to increase military pay and improve the military retirement system.

The proposed budget supposedly would constitute the first long-term increase in defense spending since the end of the Cold War. The added $112 billion was to consist of an $84 billion increase over the previous year's planned topline and $28 billion in "savings from lower inflation, lower fuel prices, recessions, and other adjustments." The Chairman of the House Armed Services Committee (HASC) has asserted that this budget only contains $4 billion in new money and represented only an $84 billion increase over the six-year period. If all of the administration's assumed savings from within the budget materialize, the six-year plan would still fall more than $70 billion short of meeting the Joint Chiefs' requirements. According to the Chairman of the HASC, this budget and the next two proposed defense budgets represented real declines with no sustained growth until beyond fiscal year 2003.

The American Legion receives letters from veterans citing the string of broken promises, and the growing list of benefits under attack. Medicare-eligible military retirees and their dependents are prohibited from enrolling in the TRICARE program. The TRICARE system will require considerable improvement. A Senate bill is again proposing the closure of the cost-effective military medical school, the Uniformed Services University of Health Sciences; and, again, this budget is proposing that a fifth round of base closures be conducted to pay for modernization of the Services.

The American Legion's greatest concerns include quality of life issues and recruiting and retention; the steady decline in funding and support for the military health care system; and the fact that there has been no comprehensive plan to provide care to all 8.3 million military beneficiaries. The marked decline in quality of life features for the active force and military retirees, coupled with heightened operational tempos, could only adversely impact on both recruiting and retention. The fact that the military is experiencing recruiting and retentions problem comes as no surprise, and funding alone will not solve it. The operational tempo and continued deployments must be reduced, and military pay must be on par with the civilian sector. If these benefits like health care, commissaries, adequate pay and quarters all of which were taken for granted in the past, are funded at significantly reduced rates, or are privatized or eliminated completely, they will only serve to further undermine the United States Government's effort to honor its obligations to its active and retired warriors.

In early February 1999, The American Legion held a meeting of its Policy Coordination and Action Group (PCAG). This PCAG meeting was prompted by Department of Defense and media reports that the armed forces were showing signs of difficulty in attracting qualified individuals to volunteer for military service and for seasoned servicemembers to reenlist. Allied to these issues are the perceptions of declining military quality of life features and readiness as well as the impact of increased operating tempos and under-resource defense budgets on recruiting, retention and readiness.

What needs to be done? The American Legion recommends, as a minimum, that the following steps be implemented:

—Immediate passage of the provisions of Senate bill S. 4 and House equivalent bills, which call for increased military pay raises, reformed military pay tables, a revised military retirement system, improved benefits under the Montgomery G.I. Bill and other quality of life features;

—Defense spending as a percentage of Gross Domestic Product needs to be maintained between 3 and 4 percent annually. At least $160 billion should be authorized and appropriated over six years to address those concerns voiced by the Joint Chiefs of Staff;

—The Quadrennial Defense Review (QDR) needs to be reevaluated as it provides neither the forces nor the defense budgets to fight two nearly simultaneous major regional conflicts while also conducting peacekeeping operations. The strategy-resources mismatch needs to be eliminated;

—Force modernization for the Services needs to be realistically funded and not further delayed or the United States is likely to unnecessarily risk American lives in the years ahead;

—The National Guard and Reserves must be realistically manned, structured, equipped and trained, fully deployable and maintained at high readiness levels in order to accomplish their indispensable roles and missions in our national defense.

QUADRENNIAL DEFENSE REVIEW

Since the collapse of the Soviet Union in 1991, the United States has conducted three substantial assessments of the strategy and force structures of the Armed Forces necessary to meet the national defense requirements of our Country. The assessment by the Bush Administration ("Base Force" assessment) and the assessment by the Clinton Administration ("Bottom-Up Review") were intended to reassess the force structure of the armed forces in light of the changing realities of the post-Cold War world. Both assessments served an important purpose in focusing attention on the need to reevaluate the military posture of the United States; but the pace of global change necessitated a new, comprehensive assessment of the current defense strategy for the twenty-first century.

The American Legion, in its adopted mandates, continues to support the force structure proposed by the Base Force strategy, namely, the need for the United States to maintain 12 active Army combat divisions, 12 Navy aircraft carrier battle groups, 15 active Air Force fighter wings and three Marine Corps divisions. The American Legion supports the theory behind the two-war strategy which reflects the concern that if America were drawn into a war with one regional aggressor, another could be tempted to attack its neighbor—especially if it were convinced that the United States and its allies were distracted, lacked the will to fight conflicts on two fronts or did not possess the military power to deal with more than one major conflict at a time. Sizing U.S. forces for more than one major conflict would provide a hedge against the possibility that a future adversary might mount a larger than expected threat. It would also allow for a credible overseas presence, which is essential in dealing with potential regional dangers and pursuing new opportunities to advance stability and peace. The American Legion believes such a strategy, however, should be threat-based rather than budget-driven and should employ more robust force structures and increased budgeting for quality of life, readiness and modernization than that recommended in the Bottom-Up Review or its follow-on Quadrennial Defense Review.

ACTIVE FORCE PERSONNEL ISSUES

The American Legion is concerned that a number of influences, to include the military drawdown, pose significant—and often underestimated—retention and readiness risks for the remainder of the decade.

The speed and depth of the defense drawdown has significantly undermined one of the major historical selling features of a military career—employment security. In the history of the All-Volunteer Force, qualified young enlisted members and officers were actively recruited for extended terms of service or full military careers, but the situation has radically changed within the past six years. Now, the only experience of military members coming to career decision points has been the repetitive message that the government which recruited them wants them to leave in large numbers.

In addition, the Department of Defense, aided by the Congressional Budget Office and other government agencies, has appeared determined to further reduce the quality of life of its servicemembers by reducing medical personnel to treat active duty personnel and retirees, less-than-inflation pay raises, overhauling housing and subsistence allowances, reducing commissary stores and consolidating exchanges and the possibility of more base closings.

Mr. Chairman, The American Legion and the Armed Forces owe you and your subcommittee a debt of gratitude for your strong support of military quality of life issues. Nevertheless your assistance is needed now more than ever. Positive congressional action is needed in this budget to overcome old and new threats to retaining the finest military in the world. Servicemembers and their families have endured physical risks to their well being and livelihood, substandard living conditions, and forfeiture of personal freedoms that most American civilians would find unacceptable. Worldwide deployments have increased significantly, and a smaller force has had to pickup the tempo with longer work hours and increased family separations.

Throughout the drawdown years, military members have been called upon to set the example for the nation by accepting personal financial sacrifices. Their pay raises have been capped for years, and their health care system has been overhauled to cut costs, leaving military families with lessened access to proper health care. We congratulate the Congress for their quality of life enhancements contained in the Fiscal Year 1997 National Defense Authorization Act. But more must be done now.

Now is the time to look beyond the drawdown to the force retention needs of the future. Positive congressional action is needed now to begin overcoming past years

of negative career messages and begin countering the renewed attacks on military benefits.

Full Military Pay Raises.—Since 1982, military raises have lagged a cumulative 13.5 percent behind private sector wage growth. The Bureau of Labor Statistics measures private sector wage growth with a tool called the Employment Cost Index (ECI). Before 1994, federal civilian and military raises were supposed to match the ECI. But in 1994, new legislation took effect, capping federal civilian raises at one-half percentage point below the ECI. The difference was used to fund a "new locality pay" additive for federal civilians that varied by geographical location. When the pay raise standard for federal civilians changed to "ECI minus one-half percent," service members got stuck with the half-point reduction in their pay raises, even though they are not eligible for the civilian locality pay.

The only way to fix the problem is to change the pay raise process to link military basic pay raises to the ECI, the full ECI. The military drawdown is about over and the economy is a robust one. A smaller force with a high operations tempo will be extremely retention-sensitive. Service members have earned and deserve a raise at least equal to the average American's for every year not just for one or two years. It is time to put that standard into law.

The Chairman of the Joint Chiefs of Staff stated that the area of greatest need for additional defense spending is "taking care of our most important resource, the uniformed members of the armed forces." To meet this need, he enjoined the (congressional) committee members to "close the substantial gap between what we pay our men and women in uniform and what their civilian counterparts with similar skills, training and education are earning" and to "fix the so-called Redux retirement system and return the bulk of our force to a retirement system that provides 50 percent of the average base pay upon completion of 20 years of service." Mr. Chairman, 11 pay caps in 15 years are already too many, and continuing this practice has been a sure prescription for eventual retention disaster. The American Legion also strongly believes this subcommittee should exert every effort to adequately compensate those hundreds of military families from having to rely on monthly food stamps and women's' and infants compensation (WIC).

More and frequent operational deployments, family separations, degradation in quality of life—particularly health care, compensation and the less attractive Redux retirement system—are acting in synergy to make longer careers less attractive.

What needs to be done? The Chairman of the Joint Chiefs of Staff and each of the service chiefs have pointed out the importance of returning to the system of 50 percent of basic pay for 20 years' service. Several congressional leaders have voiced their support, and the momentum for legislative relief is building for action by Congress in 1999. The bottom line would require Congress to legislate a return to the 50/20 retirement system by authorizing and appropriating additional defense dollars and not simply shifting funds from other already stretched defense programs.

Montgomery G.I. Bill Enhancements (MGIB).—While The American Legion is supportive of most of the quality of life improvements contained in Senate bill, S. 4 and its amendments, it is particularly supportive of improvements pertaining to the MGIB. These enhancements include increasing the monthly G.I Bill allowance for servicemembers who serve for more than or less than three years; eliminating the $1,200 contribution ($100 monthly) that each service member must make to participate in the G.I. Bill program, as well as accelerated payments for personnel who served in the reserve components; allowing Select Reservists up to five years from their date of separation to use their G.I. Bill entitlements; and allowing veterans to apply their G.I. Bill benefits for required testing for admission to institutions of higher learning.

Mr. Chairman, we believe these particular improvements to the MGIB offer the incentives and the potential to favorably turn the recruiting trend around.

DOD HEALTHCARE FOR MILITARY RETIREES

Today, there are approximately 8.5 million beneficiaries in the military health care program. Military retirees and their dependents make up nearly one half of that number, and over 500,000 retirees have lost or will lose their access to military health care as a result of the closure of approximately 45 percent of military treatment facilities. Access to affordable health care, regardless of age, status or location, represents the number one concern among military retirees. The Sense of the Congress resolution in the Fiscal Year 1993 National Defense Authorization Act reaffirmed the basis of health care promised in law and tradition dating back more than 100 years. Until recently, military retirees were always led to believe that they were entitled to free lifetime health care as a major promise made in exchange for

meager pay received and after having served 20 or more years in the most demanding and dangerous of professions.

Military retirees are the only group of Federal "employees" who lose their health care benefits when they become 65 and are no longer eligible for CHAMPUS or TRICARE but become Medicare-eligible. Medicare covers much less than TRICARE, and must be supplemented by expensive health care supplement insurance which many military retirees cannot afford. We often tend to forget that the average military retiree is an E–6 Staff Sergeant or Petty Officer and not a Lieutenant Colonel. Despite its concerns, The American Legion supports full-funding and improvement of the TRICARE program, and it strongly believes that all military retirees, to include Medicare-eligible military retirees and their dependents should continue to have access to military treatment facilities. Furthermore, all military retirees and their dependents regardless of age, status or location should continue to receive free prescriptions from military treatment facilities.

The American Legion has a number of concerns, however, with the DOD TRICARE Health Care System as it affects military retirees, namely, that military retirees and their dependents are required to pay annual "registration fees" and copayments which are likely to increase over time. In addition, questions remain concerning out-of-pocket expenses and the viability of Medicare reimbursement for treatment in DOD facilities; and TRICARE Prime health care requires both portability and reciprocity. Many military retirees do not reside near TRICARE providers. The American Legion believes that, as a minimum, the following improvements should be incorporated or retained as part of the TRICARE package or any reform of military health care for active duty families, military retirees and their dependents and military survivors:

—No further military medical facilities should be closed or downsized, and military medical personnel, to include graduates of the Uniformed Services University of Health Sciences, should be retained on active duty to provide health care for active duty personnel and their dependents and retired military personnel and their dependents. Military medical personnel should not be misutilized in other duties.

—Authorize all military retirees and their dependents the opportunity to voluntarily enroll in the Federal Employee Health Benefits Program, regardless of age, status or location. For this program to be cost effective for the government and military retirees, we believe it would have to be offered as an option to TRICARE for service members entering retirement.

—Providing for long-term healthcare.

—Increase TRICARE reimbursement levels and expedite reimbursement processing to attract and retain quality providers.

—Pharmacy networks and mail order pharmacy programs should be extended beyond the 40-mile radius of closing military bases and they should operate on a flat-rate basis rather that one based on percentage of costs.

—Improve quality control oversight of managed care support contracts, preferably by independent parties.

—Remove the requirement for TRICARE Standard beneficiaries to obtain non-availability statements or preauthorization before seeing private providers.

—Reduce the TRICARE Standard (CHAMPUS) Catastrophic Cap for retirees from $7,500 preferably to $3,000.

—Implementation of the G.I. Bill of Health: The use of Department of Veterans Affairs medical centers by non-service-connected military retirees and their dependents who are TRICARE or Medicare eligible should be authorized. As TRICARE and Medicare providers, VA medical centers should be authorized to bill the Departments of Defense and Health and Human Services for medical care provided to these veterans. Unlike military treatment facilities, there are VA medical care facilities in all the states to include Alaska and Hawaii.

—Transferring TRICARE coverage for active duty families and families of military retirees should be facilitated when they transfer or move between TRICARE regions (reciprocity and portability).

—Make the TRICARE Prime fee structure more comparable to fees in civilian HMOs.

Mr. Chairman, the nation has an obligation to do better. We believe there is a moral obligation for the government to find a way to provide at least the same level of health coverage to military retirees that it already provides to every other federal retiree.

OTHER MILITARY RETIREE ISSUES

Military Retired Pay COLAs.—Service members, current and future, need the leadership of this subcommittee to ensure the Congress remains sensitive to long-standing contracts made with generations of career military personnel. A major difficulty is the tendency of some to portray all so-called "entitlement" programs, including military retirement, as a gratuitous gift from the taxpayer. In truth, military retired pay is earned, deferred compensation for accepting the unique demands and sacrifices of decades of military service. Because most Americans are unwilling to endure those arduous conditions, the retirement system is the services' single most important career incentive.

The American Legion urgently recommends that the subcommittee oppose any changes to the military retirement system, whether prospective or retroactive, that would undermine readiness or violate contracts made with military retirees.

VA Compensation Offset to Military Retired Pay.—A continuing issue of high concern to The American Legion is the VA compensation offset to military retiree pay. The purposes of these two compensation elements are fundamentally different. Longevity retirement pay is designed primarily as a force management tool that will attract large numbers of high-quality members to serve for at least 20 years despite extraordinary and arduous conditions of service, including a forced mid-life career change. Veterans disability compensation is paid to veterans who are disabled by injury or disease incurred or aggravated during active military service in the line of duty. Monetary benefits are related to the residual effects of the injury or disease or for the physical or mental pain and suffering and subsequently reduced employment and earnings potential. Opinions may differ over the extent to which concurrent receipt should be implemented to the offset formula used. But action should be taken to provide more equitable compensation for those who served more than 20 years in uniform and incurred substantial service-connected disabilities that severely inhibit their post-serving earning opportunities.

The American Legion believes strongly that the 100 percent offset requirement is an inordinate penalty especially for those disabled retirees who are most severely disabled and whose disabilities have precluded them from pursuing productive post-service employment opportunities.

Twenty-five years ago Americans opted for an all-volunteer force to provide for our national security. Inherent in that commitment was a willingness to invest the needed resources to bring into existence a competent, professional, and well-equipped military. Now is not the time to dismantle, through the consequences of underresourcing national defense, what has been achieved in creating the all-volunteer force.

Mr. Chairman, this concludes The American Legion statement.

Senator STEVENS. Thank you for that, and I did look over your statement. You are absolutely correct. We are pursuing the policies that you have outlined, and we thank you for your support. Thank you very much.

Chief Master Sergeant Krebs, please.

STATEMENT OF CHIEF MASTER SERGEANT JOSHUA W. KREBS (RET.), MANAGER FOR LEGISLATIVE AFFAIRS, AIR FORCE SERGEANTS ASSOCIATION

Sergeant KREBS. Mr. Chairman, on behalf of the members of the Air Force Sergeants Association (AFSA), thank you for this opportunity to offer our views on the fiscal year 2000 Department of Defense appropriations.

AFSA represents enlisted active and retired members of all components of the United States Air Force and their family members and survivors. I would be remiss if I did not thank this committee for its help in providing the $1.8 billion for military compensation in the emergency supplemental appropriations bill. This is a substantial down payment on starting to pay for the military compensation shortfalls that have accumulated over many years.

The men and women serving in the military and their families remain the most valuable resource of our Armed Forces. Increased

military and humanitarian missions abroad combined with increasing shortfalls in recruiting and retention continue to provide extraordinary burdens on the truly dedicated men and women serving today.

Service members have endured years of pay raise caps, longer duty days, increasing family separations, and growing health care difficulties. Mr. Chairman, it is time to take care of those who serve and have served. Although the fiscal year 2000 pay raise will start to restore pay equity, more needs to be done. Since 1982, when military pay was last considered as having achieved general compatibility with the private sector, military raises have lagged a cumulative 13.5 percent behind those achieved by the average Americans.

In 12 of the last 17 years, military pay raises have been capped below private sector pay growth for enlisted members. An equally disturbing pay gap is that between enlisted, noncommissioned, and commissioned members. Keep in mind that military compensation is provided by two separate pay charts, the commissioned one, which is higher than the enlisted one.

Quite often, our members ask when, if Congress is going to rework the pay charts to incorporate a more realistic reflection of the increased mission responsibilities and education levels of enlisted members.

A promise of free lifetime health care is one of the major reasons many military members and their families endured the hardships of military life. A significant abrogation of that promise has many retired members and their families asking why they lived up to their end of the bargain but the United States Government has not.

Especially important to older retirees is universal pharmacy benefit. We are continually asked by Medicare-eligible retirees why the coverage for prescription services is lost at the time when they need it most. They want access to a DOD pharmacy benefit no matter where they live, or how old they become.

As younger retirees see what is happening to military health care for Medicare-eligible military retirees, they question their Government's commitment to their military health care benefits. We can also tell you that this questioning is not limited to retirees. Active duty military members of all ages and grades are also questioning what will be there for them.

While military pay, retirement, and the operations tempo have received much of the attention during the current recruitment and retention difficulties, we would suggest that if you go into the trenches and talk to the troops, health care needs to be added to that list.

PREPARED STATEMENT

Mr. Chairman, again thank you for this opportunity to present the views of the Air Force enlisted men, members and their families. This concludes my remarks.

[The statement follows:]

PREPARED STATEMENT OF JOSHUA W. KREBS

Mr. Chairman and distinguished committee members, on behalf of the 150,000 members of the Air Force Sergeants Association, thank you for this opportunity to offer our views on the fiscal year 2000 Department of Defense appropriations. AFSA represents enlisted active and retired members of all components of the United States Air Force, and their family members and survivors. It is particularly gratifying that you offer this opportunity to express the enlisted point of view.

The men and women serving in the military and their families remain the most valuable resource of our Armed Forces. Increased military and humanitarian missions abroad, combined with increasing shortfalls in recruiting and retention, continue to place extraordinary burdens on the truly dedicated men and women serving today. Servicemembers have endured years of pay raise caps, longer duty days, increasing family separations, growing health care difficulties, deteriorating military housing, less opportunity to use educational benefits and more out-of-pocket expenses with every military relocation. As Secretary of Defense William Cohen asked, "What is a fair salary for someone who is on call 24 hours a day, who's prepared to lead troops into deadly combat? What do you pay someone who is rigorously trained in highly lethal, cutting-edge technology, who is constantly relocated and restricted in lifestyle? What's that worth?" Mr. Chairman, it is time to adequately compensate those who serve.

AFSA appreciates the lead the Senate has taken in improving quality-of-life benefits for military members as embodied in the Soldiers', Sailors' Airmen's and Marines' Bill of Rights Act of 1999, Senate 4. However, as you well know, S. 4 is only a hollow promise if the money is not appropriated to fund those promises. We urge this committee to fund the improvements passed earlier by the Senate.

MILITARY PAY

Administration plans for fiscal year 2000 call for a 4.4 percent military pay raise for January 1, 2000, and targeted additional raises effective July 1, 2000, "focusing on rewarding performance, compensating people for their skills and experience, and encouraging them to continue in service." These targeted raises will range up to 5.5 percent and will be in addition to the January 1, 2000, military pay raise. In response to the administration's defense budget plans, the Senate passed S. 4, the Soldiers', Sailors', Airmen's, and Marines' Bill of Rights Act of 1999. S. 4 would provide a 4.8 percent pay raise January 1, 2000, and essentially the same July 1, 2000, additive raises as called for by the Administration.

Since 1982 when military pay was last considered as having achieved "general comparability" with the private sector, military raises have lagged a cumulative 13.5 percent behind those achieved by the average American. In 12 of the last 17 years, military pay raises have been capped below private sector pay growth. For enlisted members, an equally disturbing "pay gap" is that between enlisted (noncommissioned) and commissioned members. Keep in mind that military compensation is provided by two, separate pay charts—the commissioned one much higher than the enlisted one. Even allowances (e.g., housing allowances) are provided in two separate, financially disparate charts. The net effect of across-the-board pay raises over the years has been to pull the charts further and further apart—more dollars each time for the group already making the most, although both must cope with the same economic life challenges. Quite often our members ask when/if Congress is going to rework the pay charts to incorporate a more realistic reflection of the increased mission responsibilities and education levels of enlisted members. Certainly, jobs that were once handled exclusively by officers are now being handled by enlisted members. Mid-career, fully-qualified and experienced NCOs question the fairness of their pay being so far behind relatively inexperienced, early career officers. This is not an officer-vs.-enlisted issue; nor is it a criticism of the necessary separation inherent in a chain-of-command. Rather, it is a matter of equity, appreciation, and fairness to the majority of military members: the enlisted servicemembers. Such an equitable restructuring of compensation will take congressional action, as the Department of Defense's track record indicates that it does not have the willingness or inclination to do so.

The targeted July 1, 2000, raises supported by both the Administration and S. 4. certainly raise some questions about the methodology used to arrive at the chart figures. We ask you to continue with the concept of targeted raises, but to closely examine the administration's July 1 targeting chart to ensure the enlisted ranks are being treated fairly.

REDUX RETIREMENT

In testimony before Congress in September 1998 and January 1999 the Joint Chiefs of Staff made it clear that, in their opinion based on the date available to them, the incentive for career personnel to remain on active duty longer than 20 years envisioned by the Military Retirement Reform Act of 1986 (H.R. 4420) was not as attractive as originally thought in 1986. The Joint Chiefs testified that mid-career military personnel were deciding to leave the service well before 20 years of service. In exit surveys, these departing personnel reported that dissatisfaction with reduced retirement benefits was an important factor in their decision to leave the service.

AFSA agrees with the Joint Chiefs. The net effect of the changes to military retirement since 1980 have caused consternation in the ranks and have affected recruiting and retention. These changes have resulted in a combined 25 percent reduction in lifetime retired pay value compared to retirees who entered service before 1980.

Prior to September 8, 1980, those who completed 20 or more years of active service were authorized retired pay amounting to 2.5 percent of their final basic pay per year of service (up to a maximum of 75 percent of basic pay for 30 or more years). This system provided a full CPI-equivalent Cost-of-Living Adjustment (COLA) for military retirees. In an effort to save money, in September 1980 Congress changed the retirement formula basis from final basic pay to a monthly average of the highest 36 months average. This change had the net effect of reducing affected members' lifetime retired pay value by an average of roughly 8 percent—although this percentage varied based on promotions or longevity increases received during the last three years of service, the size of the annual pay raises during that period, and even which month of the year the member retired. The July 1986 (Redux) change dropped the 20-year level from 50 percent of the final average base pay to 40 percent. For each year of service over 20, the percentage increased from 2.5 percent per year to 3.5 percent per year. Administration and some congressional members claimed that the 1986 plan's one percent increase (from 2.5 percent to 3.5 percent) for every year of service over 20 would make people want to stay in longer. Such claims were disingenuous at best since:

(1) the vast majority of military members do not have the option to stay in past the 20-year point; time in service and grade restrictions often determine a member's separation;

(2) the 3.5 percent per year over 20 is not an enticing "carrot" when the member receives only 40 percent of the average basic pay at the 20-year mark versus the 50 percent which existed for the previous group of retirees; and

(3) the Redux formula's inclusion of a full one-percent reduction to this group's retiree COLA each year further lessens this group's purchasing power.

Indeed, those who entered service August 1, 1986 (and later) see a reduction of at least tens of thousands of dollars in retirement income when compared to those who came in before August 1986. Even greater, the net effect of the combined 1980 and 1986 changes represent a cumulative 25 percent reduction in lifetime retired pay value compared to retirees who entered service before 1980.

Such disparities make those who are serving today—with much greater responsibility, significantly heavier taskings, and more regular and longer family separations—question the appreciation of national leaders for those who sign on to the unlimited liability clause; prepared every day to sacrifice their lives, if necessary, to protect our "vital national interests." AFSA members have unequivocally communicated to us that military retirement is, by the current rules, not much of an incentive to make the military a career. They indicate to us that the increased degradation of several aspects of the military "career package" make it easier to walk away from the military "company" in favor of more generous, grateful employers elsewhere.

We urge that you provide funding to take the 1986 Redux formula off the books. Reinstate the 50 percent formula at 20 years of service with 2.5 percent for each year thereafter. Ensure that all military retirees get a full Cost-of-Living Adjustment each year of their retirement.

SUPPLEMENTAL FOOD ALLOWANCE

The 1995 National Defense Authorization Act directed, "The Secretary of Agriculture shall make available to the Secretary of Defense from funds appropriated for such purpose, the same payments and commodities as are made for the special supplemental food program in the United States under section 17 of the Child Nutrition Act of 1996 (42 U.S.C. 1786)." It further directed that the program would be administered by the Secretary of Defense. In effect, this law mandated a Women,

Infants, and Children (WIC) program for overseas military families. Mr. Chairman, despite the law, this program has not been implemented because of Department of Agriculture reluctance to use money set aside for stateside children to fund a program designed to help children of military members assigned overseas.

AFSA representatives recently visited several bases at overseas locations and saw a definite need for this law to be implemented. We encountered many clear cases of need, especially with lower-ranking military members (even considering other allowances they receive), and overseas commanders asked for this program. The need for this program was evident throughout our travels.

According to government estimates, approximately 11,000 military family members would be eligible for WIC overseas. The annual cost to extend WIC overseas would be approximately $4.5 million. Administrative costs would be negligible; the program could be administered at local bases/posts by already-existing offices like Family Support Centers. Low-cost, on-base administrative precedents have already been set; e.g., the federal supplements provided to lower the costs of the school lunch program are handled by the bases/posts.

Mr. Chairman, I ask that you coordinate with your counterpart on the Labor, Health and Human Services, Education, and Related Agencies Subcommittee and ensure this program is funded and executed during fiscal year 2000.

HEALTH CARE

The promise of "free" lifetime health care is one of the major reasons many military members and their families endured the hardships of military life. The significant abrogation of that promise has many of these retired military members and their families asking why they lived up to their end of the bargain, but the United States Government has not. Especially important to older retirees is a universal pharmacy benefit. We are continually asked by Medicare-eligible retirees why they lose coverage for prescription services at the time in life when they need it the most.

The best way to describe the pharmacy benefit available to Department of Defense Medicare-eligible health services beneficiaries is uneven. It largely depends on where one lives. If you reside near a military installation with a major medical facility, you can "normally" get the prescription support you need; if you reside near a military installation with a clinic you may or may not get the prescriptions you need; and if you reside away from any military installation, you are left on your own.

The Fiscal Year 1999 Strom Thurmond Department of Defense Authorization Act requires that the Department of Defense submit a plan to Congress not later than March 1, 1999, for a system-wide redesign of the military pharmacy system. Recently, at a hearing before the Military Personnel Subcommittee of the House Armed Service Committee, DOD announced that the plan would be late. As of May 7th the report has still not been received. Apparently, after "tearing apart" the current system to find increased efficiencies, "putting it back together" in a cohesive manner is much harder than envisioned by DOD. We wonder if the problem is finding the money necessary to pay for the expanded benefit that Congress mandated. AFSA is concerned that DOD's solution will require either co-payments for medical prescriptions at a military treatment facility or a monthly fee for Medicare-eligibles to use the pharmacy program. Either of these solutions is unacceptable and will be viewed as a violation of one more health care promise. DOD health services beneficiaries don't care whether the money comes from increased efficiencies from within the pharmacy program or from additional funds from Congress—they want access to a DOD pharmacy benefit no matter where they live or how old they become.

A major concern for both civilian TRICARE providers and beneficiaries is the cumbersome and unresponsive TRICARE claims process. Many providers experience long delays in receiving payments and have difficulties many times in contacting TRICARE claims processors to resolve processing difficulties. Although many think that the low payment levels authorized by TRICARE would drive away doctors, the number one reason cited by doctors is the difficulty in claims processing.

From the perspective of individual beneficiaries, claims processing difficulties can result in repeated notices from providers or, even worse, having their accounts turned over to a collection agency (which jeopardizes their credit ratings if they fail to pay the claims out of their own pockets).

The TRICARE Standard catastrophic cap for out-of-pocket expenses is still $7,500 for retirees. This cap is much higher than most civilian fee-for-service health care plans which traditionally set annual limits between $2,000 and $3,000. AFSA asks this committee to provide funding to allow DOD to reduce the catastrophic cap to $3,000.

Many older military retirees turned down Medicare Part B when they first became eligible because they believed they could get their medical care at a nearby military hospital. Now because of base closure actions, these retirees are faced with the difficult proposition of going without hospital insurance (Medicare Part B) or must pay a late enrollment fee. There are approximately 12,000 people affected by this situation. AFSA asks this committee to support funding to allow a waiver of the Part B late enrollment fee for those members affected by base closures or medical facility downsizing.

TRICARE, and specifically TRICARE Prime, the current health care system for the Department of Defense, was designed to be a "managed care" program. Over the course of the past several years, it seems to have become a "managed cost" system. As younger retirees see what is happening to health care for Medicare-eligible military retirees, they question their government's commitment to their military health care benefits. We can also tell you that this questioning is not limited to retirees. Active duty military members of all ages and grades are also questioning what will be there for them. While military pay, retirement and the operations tempo have received much of the attention during the current recruiting and retention difficulties, we would suggest if you "go into the trenches" and talk to the troops, health care needs to be added to that list.

IMPACT AID

Impact Aid appropriations provide assistance to school districts for several reasons. Impact Aid is provided to local communities in light of the presence of civil servants, Native American children, low rent housing, and, in 40 percent of the total appropriation, to school districts impacted by the presence of military children. From AFSA's perspective, Impact Aid is the federal government's obligation to the children of military personnel. It is ironic that the administration that purports to focus so much on education has chosen to once again slash Impact Aid dollars—by $128 million in its fiscal year 2000 Department of Education budget. The implicit statement in these such decisions is that military children are a lower priority than others in our nation.

From the time of the Truman Administration, our government has recognized the unique sacrifices, transient nature, and special requirements of military families. Impact Aid has helped compensate for a funding inadequacy in local districts which educate military children. This shortfall is created by an inadequate contribution on the part of the military installation and military members to local taxes which fund public education.

For military children, funding is provided at two different levels; one level (3a) if the parents of a student live and work on federal property and another level (3b) when a parent works on federal property but lives in the community as a renter or homeowner. Local education agencies receive $2,000 for each 3a student and $200 for each 3b student. Impact Aid is an excellent example of federal funds going directly to the program with little bureaucratic red tape. The funds go directly to schools to serve the education of military children, and local boards of education decide how it is to be spent.

Today, there are increasing pressures on military families with the very vigorous military operations tempo and administration decisions to involve the U.S. military in peacekeeping/police actions around the world. Military parents are now constantly "on the bubble," subject to short-notice deployments. As the national leadership has significantly reduced the size of the military, it has also significantly increased the mission requirements. On top of that, further anxiety exists with the uncertainty of downsizing, privatization and outsourcing. With all of the other challenges of military life, it is important that, at the least, we are committed to provide a quality education for military children. It is a high priority for military families—it is a readiness and a quality of life issue. As our military personnel are deployed, they should not have to worry about whether their children are taken care of.

We would like to remind this committee that there have been attempts in the past to charge "enrollment fees" to the parents of military children. For enlisted families, in particular, such an eventuality could be devastating since they are paid the least. Military parents expect that the federal government will act in the best interests of their families. If there is any group of the nation's families that should earn an extra measure of governmental support, it is those who serve our nation and are transferred at the pleasure of the government. However, we fear that continued diminishment of the program will result in other attempts by communities to charge fees to make up for education funding shortfalls. It would be wrong to penalize military families simply because the government stations the family at a particular location.

During the past 18 years, while the number of students served through Impact Aid has remained the same and the Consumer Price Index has increased by 70 percent, Impact Aid funding has not been treated as a priority. Without question, full funding for Impact Aid would greatly assist in insuring the children of our military personnel a quality education without endangering or compromising the budgets of local school districts. As in years past, we ask this committee to provide supplemental funds in the Department of Defense budget to help make-up some of the projected funding shortfall, especially for more seriously impacted, high need districts.

MORALE, WELFARE AND RECREATION

AFSA representatives often travel to stateside and overseas locations where our military members serve. One aspect of military life that those who have not served may have trouble relating to is that military bases and posts are self-contained towns. This is true particularly at overseas locations where the base or post is the central focus of the member's physiological, financial and psychological support network. The base serves as the congregation point for much more than mission; it is the heart of entertainment, recreation, and family and personal development. MWR facilities are a central part of this sense of shared community.

One great mission of MWR programs, though not often stated, is their incredibly positive impact on the ability of our troops and families to respond to the contingencies and missions of military life. Likewise, the stresses and frustrations of military service (witnessed by the current dialogue on recruiting and retention problems) absolutely require that fitness activities be available and of the highest quality. There is no question that physical fitness is an inseparable part of readiness. Full funding must be ensured to maintain and upgrade fitness facilities at all military locations.

Another aspect of the new demographics of our military services is the need for Child Development Centers. These facilities are not luxuries; they are an inescapable requirement that is a byproduct of the all-volunteer force, the significantly increased number of military-military couples, and the absolute need for the spouses of enlisted military members to work in order to simply meet the day-to-day needs of family life. At a time when the military has thousands of enlisted members who are eligible for food stamps and for the Women, Infants and Children Program, working outside the home is not an option; it is a necessity. We ask your full support for these vital facilities.

BASE EXCHANGE AND COMMISSARY

Mr. Chairman, I ask this committee to focus, for a moment, on the importance of military stores: our exchanges and commissaries. There is no question that military members consider these stores an extremely important non-pay benefit. Airmen know, for example, when they enter an airbase—whether stateside or overseas—they are, in a sense, home. They see the welcome sight of the familiar base exchange. They know that, despite the volatile local (foreign) economy that may exist outside of the base, there is a commissary where they and/or their families can continue to purchase reasonably priced food stuffs to which they, as Americans, are accustomed. Military members we visit tell us how important it is to have these services available, particularly with the incredible tempo of deployments and family separations that the current national military philosophy has engendered.

Just why are they so important? I ask that you consider these facts: (1) Military stores are a fundamental part of the military lifestyle, both for active duty and retired military members; (2) For enlisted members, who receive considerably lower compensation and benefits (and retired pay), these stores provide a modest, though vital, supplemental financial benefit; (3) Military stores are part of the military retirement package—part of the promise; (4) Overseas, military stores often serve as a lifeline; (5) These stores have a military mission in that they more-closely adapt to the needs of their clientele (military members and their families) than commercial enterprises do. For the commercial industry, the bottom line is service only when/if it translates into increased profits; (6) In a very real sense, maintaining the exchange system allows the military to "take care of its own" due to its significant monetary contribution to MWR programs. The exchange system's contribution to MWR accounts for one out of every two dollars spent on MWR on Air Force and Army bases; and (7) Commissaries and exchanges are, very simply, part of the price of maintaining the enlisted portion of an all-volunteer military force. We ask you to provide full support and funding for the base exchange and commissary systems and the facilities they provide for military members.

CONCLUSION

Mr. Chairman, thank you for this opportunity to present the views of Air Force enlisted members and their families. AFSA believes that the work this committee does in protecting and rewarding those who serve is among the most important done on the Hill, and we ask that you fulfill the promises made by the Senate in the Soldiers', Sailors', Airmen's and Marines' Bill of Rights Act. AFSA is proud to work with you, appreciates your efforts, and as always, is ready to support you in matters of mutual concern.

Senator STEVENS. Thank you, Mr. Duggan. We think we are on the track you have outlined. At least we hope we are.

Terry Rogers, American Federation of Government Employees. Good morning, Terry.

STATEMENT OF TERRY ROGERS, NATIONAL VICE PRESIDENT, 8TH DISTRICT, AMERICAN FEDERATION OF GOVERNMENT EMPLOYEES, AFL–CIO

Mr. ROGERS. Chairman Stevens, members of the committee, I am Terry Rogers, national vice president of the American Federation of Government Employees (AFGE) 8th District, which is the Upper Midwest States of Minnesota, North Dakota, Iowa, and Nebraska. AFGE national president Bobby Harnage regrets that he cannot be here today and extends his best wishes to this committee and staff.

I am here to talk about the issues of most concern to DOD workers, contracting out. In several recent reports, the General Accounting Office (GAO) has said DOD consistently overestimates savings from contracting out. It has no proof savings are actually realized, and does a terrible job of contracting out costs and savings. Nevertheless, DOD intends to put up for grabs the jobs of at least 230,000 workers over the next 5 years.

History shows that at least 115,000 of those workers will lose their jobs to contractors. Just what is the point of all this contracting out, other than replacing civil service workers with contractors, if DOD cannot show it saves money? I urge the committee to require DOD to report on the cost and savings of its contracting out efforts.

We are also concerned about the increasing amount of work being contracted out without any public-private competition. For example, of the Army's contractor workforce of 224,000, only 16,000 of those jobs were acquired by winning OMB circular A–76 competitions. That is why AFGE is asking this committee to prevent any contracting out that is done without public-private competition.

Surely it is not too much to ask that Federal employees be allowed to defend their jobs before contracting out their work. In too many cases, Federal employees are prevented from competing for work because of the use of personnel ceilings. These ceilings force agencies to lay off Federal employees or prevent them from hiring new Federal employees even when there is work to be done and the money is there. Instead, work is contracted out, often at higher cost.

We appreciate the subcommittee's annual inclusion in the bill of a provision prohibiting the use of personnel ceilings. Since the practice continues relatively unabated, we urge the subcommittee to make the prohibition even stronger. A–76 is intended to be used both ways, on contractors' work and Federal employees' work. Nevertheless, DOD uses A–76 exclusively on our work.

Clearly, Pentagon officials regard A–76 as a mechanism for replacing Federal employees with contractor employees, not as a tool for making DOD more efficient. DOD plans to compete the jobs of 230,000 workers over the next 5 years. How many contractor jobs? Zero. Mr. Chairman, we hope the committee will require DOD to consider bringing work back in-house as well.

Finally, to the extent contracting out saves money, such savings usually come from undercutting Federal employees on their wages and benefits. It is one thing to contract out to take advantage of a better way of delivering service. It is another entirely to contract out just to replace middle class Americans who make up the Federal workforce with a poorly paid contingent workforce. That is why we have submitted a proposal to your staff that would require DOD to study the effect of contracting out on ages and benefits.

For these reasons and others, AFGE is asking that Congress to one, impose a moratorium on further contracting out until DOD can prove that their unprecedented reliance on contractors is actually saving money and maintaining readiness, two, stop contracting out work without giving Federal employees opportunities to defend their jobs, three, stop using personnel ceilings that prevent Federal employees from competing for work, four, start using A–76 equitably on work performed by contractors, and five, stop contracting out to undercut Federal employees on wages and benefits.

PREPARED STATEMENT

Thank you for inviting AFGE to testify, Mr. Chairman, and we would be happy to answer any questions.

[The statement follows:]

PREPARED STATEMENT OF TERRY ROGERS

INTRODUCTION

Mr. Chairman and Subcommittee members, my name is Terry Rogers. I am the National Vice President of the American Federation of Government Employees. AFGE represents more than 600,000 federal employees serving across the nation and around the world, including 300,000 employed by the Department of Defense (DOD). I thank the Subcommittee for this opportunity to offer the views of federal employees.

While there are many important issues affecting DOD employees which this Subcommittee will consider, I will limit my statement today to the issue which is of the most concern to the DOD workforce as a whole: the need to require DOD to undertake a contractor inventory.

CONTRACTOR INVENTORY

The Pentagon's relentless crusade to contract out and privatize work performed by experienced and reliable federal employees in safe and secure government installations has itself come under increasing attack. Although DOD officials still boast of savings from outsourcing of 20 to 45 percent, those claims have no support outside the self-interested contractor community. In fact, DOD officials admit that they have no evidence that the savings promised by contractors are actually realized.

The GAO has repeatedly "urged caution regarding the magnitude of savings likely to be achieved. In March 1997, we reported that prior savings estimates were based on initial savings estimates from competitive sourcing competitions, but that expected savings can change over time with changes in scope of work or mandated work changes. Further, we noted that continuing budget and personnel reductions could make it difficult to sustain the levels of previously projected savings."

Is there any chance that DOD officials will come up with more reliable data with which to determine the success of their controversial contracting out and privatization crusade? Not if left to their own devices. DOD's mechanism for developing con-

tracting out savings guesstimates—the Commercial Activities Management Information System (CAMIS)—has also come under fire. CAMIS' savings guesstimates, according to GAO, "are not modified and are being used continuously without updating the data to reflect changes in or even termination of contracts. DOD officials have noted that they could not determine from the CAMIS data if savings were actually being realized from the A–76 competitions. Our work continues to show important limitations in CAMIS data * * * During our review, (GAO) found that CAMIS did not always record completed competitions and sometimes incorrectly indicated that competitions were completed where they had not yet begun or were still underway. We also identified where savings data recorded for completed competitions were incorrect based on other data provided by the applicable service."

Pentagon officials have declared that DOD will compete the jobs of 230,000 federal employees over the next five years. However, as GAO has pointed out, DOD officials admit that they lack the staff and the resources necessary to carefully conduct all of those competitions: "While none of the services has yet fully determined the staff resources necessary to implement its competition program, some service officials have expressed concern about their ability to provide sufficient existing in-house staff as the number of ongoing studies increases and the potential effect on other mission requirements of devoting available resources to meet competition needs. Some officials have already begun to express concern about the adequacy of their resources to initiate and complete ongoing competitions and to deal with other ongoing mission responsibilities. Officials at one Army command stated that they have finite resources to accomplish their overall missions and tasks. If one mission, such as performing competitions, is given command priority, resources are shifted to meet that priority, and other tasks or activities may be delayed or not performed. The large increase in the number of competitions expected to be ongoing in fiscal years 1999 and 2000 is likely to greatly increase resource requirements."

Given that DOD consistently overestimates savings from contracting out, has no proof that savings are ultimately realized, does a terrible job of tracking contracting out costs and savings, and doesn't have enough staff to conduct competitions worth 230,000 jobs let alone make sure losses and gains from contracting out are accurately calculated and reported, it is imperative that the Senate Defense Appropriations Subcommittee require DOD to establish a contractor inventory. And thanks to the report language inserted in last year's defense appropriations bill by Representative Joe Skeen (R-NM) and the subcommittee's excellent professional staff, a foundation for a contractor inventory has already been established.

Contractor Inventory Element #1: Contractor Workforce

"The government knows virtually nothing about its shadow"—the ever-expanding number of politically well-connected contractors who are taking more and more work from federal employees—writes Paul Light, a political scientist at the Brookings Institute, in The True Size of Government, his forthcoming expose. "Neither the Office of Personnel Management nor the Office of Management and Budget has ever counted the full-time equivalent non-federal workforce, let alone analyzed its appropriateness."

A former senior OMB official once said when asked about the size of the contractor workforce, "You can use any number you want * * * But whatever it is * * * it is a lot of people." Indeed, it is. Light's research indicates that the contractor workforce may be almost 4 million employees. In contrast, there are just over 1.8 million federal employees. That is, the contractor workforce is now likely at least twice the size of the federal government's in-house staff.

Although the Administration has directed agencies to rely more on contractors than ever before, the shadow workforce has been built up over many, many years. As Light has observed, the shadow workforce reflects in large part "decades of personnel ceilings, hiring limits and unrelenting pressure to do more with less. Under pressure to create a government that looks smaller and delivers at least as much of everything the public wants, federal departments and agencies did what comes naturally. They pushed jobs outward and downward into a vast shadow that is mostly outside the public's consciousness."

Administration officials have long dismissed the need to document the size of the contractor workforce, both at the micro (i.e., number of workers employed under specific contracts) and macro (i.e., number of contractor workers employed agency-wide and government-wide) levels. "Numbers are not important," they would blithely insist. "What really matters is how well the job is done." In an ideal world, those Administration officials would be right. But we don't live in an ideal world—especially when it comes to federal service contracting.

In documents ranging from the federal budget to the OMB Circular A–76 inventory, detailed information is kept on the number of federal employees, at both the

micro and macro levels. Clearly, Clinton Administration officials, like those who came before them, believe it is very important to maintain meticulous records about the size of the federal government's in-house workforce.

However, they have historically professed no interest whatsoever in keeping the same statistics about the contractor workforce. While one can speculate about the reason for this false distinction, there's no denying that the government's ability to easily quantify its in-house workforce has put federal employees at a severe disadvantage vis-a-vis their contractor counterparts. Put bluntly, if the Administration and the Congress know who you are and where you are, they can hurt you.

In the Federal Workforce Restructuring Act, for example, the President and the Congress arbitrarily slashed the number of civil servants by almost 275,000—without also cutting by the same proportion all of the services performed by federal employees.

The use of numbers to "manage" the federal workforce didn't stop there; in fact, the practice has grown even more pernicious. Today, the extensive (and sometimes illegal) use of arbitrary personnel ceilings forces agencies to contract out work, often at higher costs, because they are either forced to fire or forbidden from hiring the staff needed to perform the work in-house.

Moreover, DOD has arbitrarily decided to compete the jobs of almost 230,000 federal employees under OMB Circular A–76. If DOD officials were actually interested in competing certain types of work, they'd just list the services to be placed under scrutiny. However, because DOD's quota refers to the number of employees to be competed, rather than the services to be put up for bid, it would be difficult, indeed, to conclude that the Pentagon's drastically expanded use of OMB Circular A–76 is not just another attempt to replace federal employees with contractor employees.

Contrary to the assertions of Administration officials, numbers do count—at least for federal employees. In order to ensure equity, the contractor workforce must be documented in a similar manner.

Of course, the importance of documenting the size of the contractor workforce is not just that it puts contractor employees at the same disadvantage in the budget process as federal employees. Light concludes that, "It is impossible to have an honest debate about the role of government in society if the measurements only include part of the government. The government also is increasingly reliant on non-federal workers to produce goods and services that used to be delivered in-house. Not only does the shadow workforce create an illusion about the true size of government, it may create an illusion of merit as jobs inside government are held to strict merit standards while jobs under contracts are not. It may also create illusions of capacity and accountability as agencies pretend they know enough to oversee their shadow workforce when, in fact, they no longer have the ability to distinguish good product or service from bad. * * *

"Expanding the headcount (to include, among others, contractor employees) would force Congress and the President to confront a series of difficult questions. Instead of engaging in an endless effort to keep the civil service looking small, they would have to ask just how many (employees working directly and indirectly for the government) should be kept in-house and at what cost. One can easily argue that the answers would lead to a larger, not smaller, civil service, or at least a civil service very differently configured."

More information about the size of the contractor workforce would also influence agencies' contracting out decisions. Administration officials have long insisted that reliable statistics about the contractor workforce simply aren't kept.

However, that's not true. For example, one of the military services has determined after a comprehensive review of its records for fiscal year 1996 that it employed 224,000 contractor employees. Prior to conducting the research that went into the report, that military service had assumed it employed only 47,000 contractor employees. Analysts pointed out that the failure of the military service in question to "take full credit for (its) level of contracting * * * could result in driving increased civilian manpower cuts that may compromise governmental control and erode critical technical and readiness capability in" important functions.

Contractor Inventory Element #2: Renewal Dates

Agencies should be required to keep track of when their contracts come up for renewal, so that managers can give due consideration to the option of contracting in certain services if in-house performance is likely to be more effective, more efficient, and more reliable than private sector performance.

The Administration deserves credit for working with AFGE to ensure that the last revision to OMB Circular A–76 allows agencies to bring work in-house. As is the case when work is contracted out, federal employees are required to submit a bid

at least 10 percent cheaper than the contractor's in order to bring the work in-house.

As might be expected, contractors view the prospect of having to compete for their work against federal employees with dread. Sure, they are keen to compete against federal employees for work currently performed in-house. But contractors quickly reconsider their pro-competition position when it's their work which is put up for grabs. In fact, most versions of the contractors' notorious Freedom From Government Competition Act included implicit and explicit prohibitions against federal employees competing with contractors for work already performed in the private sector. Inclusion of such provisions inspired more than one lawmaker to refer to the Freedom From Government Competition Act as the "Elimination of Government Competition Act".

The possibility of contracting in would keep contractors from forcing taxpayers to swallow costly post-award mark-ups. Usually, there is very little competition among contractors for work, especially when the initial contract comes up for renewal. Columbia University Professor Elliot Sclar, an expert witness frequently called upon by the Congress to comment on contracting out legislation, has described service contracting as a "* * * dynamic political process that typically moves from a competitive market structure towards a monopolistic one. Even if the first round of bidding is genuinely competitive, the very act of bestowing a contract transforms the relative market power between the one buyer and the few sellers into a bilateral negotiation between the government and the winning bidder.

"The simple textbook models of competition so prized by privatization advocates provide no guidance to what actually occurs when public services are contracted. Over time, the winning contractor moves to secure permanent control of the 'turf' by addressing threats of potential returns to (contracting in) or from other outside competitors. To counteract the former threat, they move to neutralize competition, most typically through mergers and market consolidation among contractors. This trend helps to explain why two-thirds of all public service contracts at any time are sole-source affairs * * *."

Contractors have been almost completely successful in preventing the use of contracting in. Administration officials are unwilling to reveal how much work has been contracted in, but observers insist that the amount is small. That this is so when report after report documents shoddy, overpriced work by federal contractors suggests that taxpayers are not being well-served by the Administration's insufficient emphasis on contracting in.

In response to a letter from AFGE National President Bobby L. Harnage which asked the Administration to work with this union to remove all legislative and regulatory obstacles to contracting in, a senior OMB official wrote, "I agree with you that we should ask federal managers to * * * consider the potential benefits of converting work from contract to in-house performance * * * OMB will encourage agencies to identify opportunities for the conversion of work from contract to in-house performance * * *."

Unfortunately, the encouragement necessary to inspire agency managers to take work away from poorly performing but politically well-connected contractors and reassign it to experienced and reliable federal employees has not been forthcoming.

In the Administration's fiscal year 2000 budget, for example, a section is devoted to public-private competition. But, as is the case all too often, what the Administration means by public-private competition is contractors competing for work performed by federal employees, not federal employees competing for work that is currently being done by contractors.

That the Administration still regards public-private competition as a one-way street is made abundantly clear by the endorsement in the budget for DOD's radical plan to compete the jobs of almost 230,000 federal employees under OMB Circular A–76. If its approach to public-private competition were truly equitable, the Administration would require DOD to also consider contracting in the jobs of almost 230,000 contractor employees.

Only when they are required to systematically keep track of when their contracts come up for renewal will agencies finally begin to give serious consideration to the option of contracting in work. That's why such a requirement should be included in any contractor inventory.

AFGE understands that contractors fear the prospect of DOD managers being able to contract in work when it would benefit the taxpayers. They are all for public-private competition until it's their work which might be lost. But if public-private competition is more than just a rationale for replacing federal employees with contractor employees, then it must work both ways. If the contractor workforce is 4 million strong, as Paul Light has documented; if public-private competition is a good deal for the taxpayers and the warfighters, as the Administration insists; if federal

employees win 50 percent of A–76 competitions and if those victories translate into roughly 50 percent of the jobs put up for bid, as reported by OMB; then there are 2 million jobs currently performed by contractors which could be performed more efficiently by experienced and reliable federal employees in safe and secure government installations. The Administration and the Congress can no longer have it both ways: competing our jobs but failing to compete contractor jobs. If work performed by contractors is not going to be subjected to the same degree of competition as work performed by federal employees, then the Pentagon's A–76 crusade must be terminated immediately since it is nothing more than an anti-federal employee scheme.

Contractor Inventory Element #3: Contracting Out Costs

According to the Administration, contractors and federal employees each win about one-half of their OMB Circular A–76 competitions. Whether work stays in-house or is contracted out, the Administration says, the public-private competitions generate savings for the taxpayers. Whether OMB Circular A–76 really does save money has long been a source of controversy. The Administration's fiscal year 2000 budget claims that contracting out "has shown savings of 30 to 40 percent".

The GAO takes a much different view. While consistently noting that public-private competition can save money, Congressional auditors don't share the Administration's high opinion of contracting out: "During the long history of our work in this area, GAO has consistently found that evaluating the overall effectiveness of contracting out decisions and verifying the estimated savings reported by agencies is extremely difficult after the fact. As a result, we cannot convincingly prove nor disprove that the results of federal agencies' contracting out decisions have been beneficial and cost-effective."

That is, even after years and years and billions and billions of dollars in contracting out, the GAO cannot say that the taxpayers have been well served. On what basis, then, does the Administration insist that contracting out shows savings of at least 30 percent? That estimate is based on the difference between the costs of performing the work in-house when the contracts are awarded and the bids which are submitted by winning contractors. Only after persistent questioning will Administration officials admit that they have no proof that the savings promised by contractors are actually realized. Instead, they simply take it on faith that the contractors will deliver services at the costs specified in their contracts despite considerable evidence to the contrary.

Virtually every AFGE Activist has seen contractors win contracts by low-balling—offering bids unrealistically lower than those submitted by federal employees—and then later dramatically increase their costs or insist on renegotiating their contracts when it's simply no longer possible for agency managers to return the work to in-house performance. Adding insult to injury, more than a few AFGE Activists have been required by desperate agency managers to help out (i.e., clean up after) contractors who couldn't come close to delivering the savings they had promised.

Some Administration officials will insist that the problem of low-balling contractors can be taken care of simply by recompeting the work. Wrong. As discussed above, there is usually insufficient competition for most contracts to keep winning contractors honest. Indeed, it's been estimated that most public service contracts are sole-sourced.

Moreover, the Pentagon's contention that its civilian workforce is inferior to contractors has been refuted by earlier head-to-head contests. In 1991, GAO reported that "support service contracts cost substantially more than would using additional federal employees for the same work. Eleven of the 12 support service activities for which we conducted cost comparisons were, on average, 25 percent more costly." Three years later, GAO determined that savings would have been possible in all nine contracting out studies it reviewed if the work had only been kept in-house. The uproar from the contractor community after the release of these reports has discouraged GAO from again comparing the performances of contractors and federal employees.

However, in an internal report which a particular military service has not released, reportedly because its conclusions call into question the Administration's entire contracting out policy, federal employees have come out on top once again. In what is likely to be the most comprehensive survey of its kind ever conducted, this military service surveyed ten percent of its contracts and determined that it "spent $21 billion in contract fees in fiscal year 1996 (which is estimated to have paid for 224,000 workyears), in comparison to $12.5 billion" (which is estimated to have paid for 238,000 civilian workyears). At the macro level, for pay and benefits, this military service paid $70,100 for the average contractor employee but only $48,100 for the average federal employee.

Comparisons were also made for four types of work performed by rank-and-file federal employees. In each case, we either tied or beat the contractors. For professional work, contractors and federal employees tied at $62,000, on average; For testing and technical support, the average contractor employee cost $61,000 while the average federal employee cost only $53,000; For social work, the average contractor employee cost $32,000 while the average federal employee cost just $30,000; and For photography and printing, the average contractor employee cost $40,000 while the average federal employee cost only $31,000.

Because so little information is available, AFGE believes the most important element in the contractor inventory is requiring agencies to keep track of basic costs for each contract: how much it cost for federal employees to do the work at the time their work was contracted out, how much the contractor said it would cost, and then how much the contract is really costing the taxpayers. One would think that such information would already be kept, especially when Administration officials ostensibly "only care about how well the job gets done". But contractor cost data isn't kept—which explains why taxpayers lose billions of dollars to contractor waste, fraud, and abuse, according to GAO.

Administration officials and Congressional lawmakers often talk about the importance of safeguarding taxpayer dollars, but will they practice what they preach if that means taking on politically well-connected contractors and compiling information that will surely undermine the case for contracting out?

Contractor Inventory Element #4: Acquisition Strategy

Although generating much attention, OMB Circular A–76 is really a sideshow. Most government work that is performed by contractors is never subject to public-private competition. Either the work has never been performed by federal employees and was simply given to contractors from the very start ("new starts") or it was begun in-house and then transferred to the private sector without giving federal employees any opportunity to compete in defense of their jobs. That is, despite the Administration's ostensible support for the principle of public-private competition, most contractors get their contracts without ever competing against federal employees.

For the last several years, taxpayers have paid contractors at least $45 billion annually for services provided to agencies other than DOD. Yet, during that time, there have been virtually no OMB Circular A–76 competitions outside of DOD, which means that federal employees have not been allowed to compete for billions of dollars in work. At HUD, for example, start-up services are automatically given to contractors without any public-private competitions because OMB Circular A–76 doesn't apply to "new" services—even though they are often similar to services already ably provided by the agency's in-house workforce.

DOD often sends work performed by federal employees to the private sector without any public-private competition on the pretext that the government "is getting out of the business" (i.e., privatizing the work). However, that misses the point. DOD may have decided that it will no longer perform the work in-house, but that doesn't mean it no longer needs the work. In fact, the work will continue to be done for DOD—but by contractors, not federal employees. And since the taxpayers will still be paying for that work to be done for DOD, why shouldn't they at least have the comfort of knowing contractors had to prove that they could perform the work more efficiently, more effectively, and more reliably than federal employees?

According to an internal study, only 16,000 contractor jobs out of a particular service's entire fiscal year 1996 contractor workforce of 224,000 were competed through OMB Circular A–76. That is, contractors actually had to compete with federal employees for only a tiny fraction of their work. In order to correct such abuses, AFGE worked with Congressional lawmakers last year to strengthen the law that requires cost comparisons be conducted prior to any DOD work being given to the private sector—only to encounter fierce resistance from the Pentagon.

The fourth and final element in a contractor inventory should be a requirement that agencies report how work was sent to the private sector (i.e., the "acquisition strategy"). That is, was the work competed through A–76, or was it simply taken away from federal employees without giving them a chance to defend their jobs? Agency managers would be much less likely to transfer work to the private sector if a contractor inventory compelled them to publicly declare, in each instance, how contractors came by their lucrative contracts.

CONCLUSION

It is obvious that contracting out is not about saving taxpayer dollars. In fact, GAO studies and experience show that the same amount of work, or less, is costing more. It is not about doing a better job in maintaining weapons systems and providing services to warfighters. There is absolutely no evidence to show that the con-

tractors are doing a better job than DOD's civilian workforce. It is not about better management control. In fact, both military and civilian managers lose flexibility and control of their workforce when they use contractors. It is not about using competition to get a "better bang for the buck" or to improve efficiency because so many DOD contracts are bid under limited competition—or with no competition whatsoever. Contracting out is about politics, not improving efficiency. It is driven by the lobbying of the well-financed and well-connected military-industrial complex that President Eisenhower warned us about more than forty years ago. I urge the Subcommittee to consider how contracting out is undermining readiness and hurting taxpayers.

Finally, Mr. Chairman, let me discuss a group of DOD civilian employees who are of particularly important to AFGE: civilian technicians. Historically, DOD has singled out civilian technicians for disproportionate downsizing. AFGE appreciates how the Subcommittee has imposed floors in order to ensure that DOD continues to employ sufficient numbers of civilian technicians. We urge the Subcommittee to impose a strong floor again this year and to provide adequate funding to pay for those civilian technician positions.

AFGE's members are also concerned about the wasteful and unfair application to Air Reserves civilian technicians of the High Year Tenure (HYT) program. Currently, Air Reserves civilian technicians are prematurely terminated under HYT when they turn 55 if they have rendered 33 years of service to their country, even if they are not yet eligible for military retired pay. AFGE urges the members of this Subcommittee to correct this injustice by permitting civilian technicians to continue to serve their country until they meet the requirements for both civilian and military retirement. Failing that, any civilian technician separated due to the application of HYT or other similar programs should be considered eligible for military retirement even if the age and service requirements have not been fully met.

Mr. Chairman, this concludes my testimony. I appreciate the opportunity to appear before the Subcommittee today. I would gladly answer any questions. AFGE looks forward to working with the Subcommittee as the defense appropriations bill is marked up.

Senator STEVENS. You know, the other day, when we had a hearing, we asked the Department and they said over half of the work that is competed is, in fact, won by the Government agency on a competition. We will follow up on the GAO again, and ask the Department to comment on that GAO report. I think that is wise.

I am not sure we can put a moratorium on. I do not think it would be feasible right now. But we can get more data that can lead to it. We will follow up on that.

Mr. ROGERS. Thank you very much, Mr. Chairman.

Senator STEVENS. Thank you.

Dr. Roodman, please.

STATEMENT OF DR. DAVID ROODMAN, PROFESSOR OF MEDICINE AND ASSOCIATED CHAIR FOR RESEARCH AT UNIVERSITY OF TEXAS, HEALTH SCIENCE CENTER IN SAN ANTONIO, TEXAS, NATIONAL COALITION FOR OSTEOPOROSIS AND RELATED BONE DISEASES

Dr. ROODMAN. Thank you, Mr. Chairman. Mr. Chairman, on behalf of the National Coalition for Osteoporosis and Related Bone Disease I want to thank you for giving me the opportunity to discuss bone disease research funding in fiscal year 2000.

My name is Dr. David Roodman. I am professor of medicine at the University of Texas Health Science Center in San Antonio, Texas, where I also serve as associate chair for research in the Department of Medicine. I am appearing here this morning with the hope of realizing one common goal, of improving bone health by reducing the incidence of stress and other fractures.

Osteoporosis, Paget's disease of bone, osteogenesis, imperfecta, myeloma, and other bone diseases. I ask your support for increased funding for the Department of Defense to continue its research ef-

forts on osteoporosis and related bone disease in the fiscal year 2000 national security appropriations legislation.

The Clinton administration requested $2.5 million in the fiscal year 2000 Federal budget in order to continue the Department of Defense's bone disease research program. This is very significant, since it is the first time the administration has recognized the importance of this research by including a request for continuing the program in its annual budget.

The goal of DOD's research program is to enhance military readiness by reducing the incidence of stress fractures which incurs costs and lost time during physically intensive training. We need research to help determine a process which will make these fractures less common. This is a problem for both sexes, but it is particularly important for women. According to a recent report released by the Institute of Medicine entitled, Reducing Stress Fractures in Physically Active Military Women, the prevalence of stress fractures in the military has a marked impact on the health of service personnel.

This study concluded that the prevalence of stress fractures poses a significant financial burden on the military by delaying completion of training of new recruits. Typically, the healing from stress fractures takes from 8 to 12 weeks.

The study also discusses the significant costs associated with stress fractures. One study of stress fractures among 2,000 female marine recruits estimated the cost to be $1,850,000 annually, with 4,120 lost training days. This delay in the training of new recruits impacts military readiness. The military needs research to determine approaches for making these fractures less common and maximizing bone health among its personnel.

Also, with the increasing number of women in the military, diseases that disproportionately affect women such as osteoporosis become more important to the military. Furthermore, our scientific knowledge of the impact of bone diseases on ethnic and minority groups and in men is severely limited.

The military health services system serves 8.4 million active and retired military personnel and their dependents. In fiscal year 1995, program costs rose to $15.3 billion. The economic burden of health care costs from this range of chronic diseases is staggering. For example, the combined annual cost to society for osteoporosis alone is estimated at $13 billion.

Despite this overwhelming figure, osteoporosis is preventable if measures are taken before an individual reaches the mid-thirties, which encompasses the time period that many men and women spend in the military. Skeletal development in average healthy individuals is maximal at age 25 in women and at age 30 to 35 in men.

Further, major advances in bone research have occurred that directly impact on this problem. Bone growth factors are being identified and their mechanisms of action are being intensively studied. New treatments for osteoporosis are being investigated and are very promising, as is the use of bisphosphonates in treating and preventing osteoporosis.

The recent identification of the major factors that regulate bone destruction by the oseoclast, the primary bone resorbing cell,

should lead to the development of new treatments to prevent bone loss. Thus, the DOD-supported bone research should help to improve bone health in our military and military readiness.

PREPARED STATEMENT

On behalf of the entire bone community, we want to thank you, Mr. Chairman, for your past support of DOD's bone disease program. We hope you will consider our request to enhance the President's request to $10 million, thus matching the amount that was allocated in fiscal year 1997 to address the problems raised in the Institute of Medicine study. We believe this research will directly benefit the many military men and women who serve our country.

Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF DR. DAVID ROODMAN

Mr. Chairman and members of the subcommittee, on behalf of the National Coalition for Osteoporosis and Related Bone Diseases, I want to thank you for giving me the opportunity to discuss bone disease research funding in fiscal year 2000. My name is Dr. David Roodman. I am a Professor of Medicine at the University of Texas Health Science Center in San Antonio, Texas where I also serve as Associate Chair for Research in the Department of Medicine. I am proud to say that the University of Texas Health Science Center in San Antonio has one of the largest groups of high quality bone researchers in the world. I also serve as the Chief of the Hematology Section at the Audie Murphy Veterans Hospital in San Antonio and Associate Scientist for the Biomedical Research Foundation of South Texas also in San Antonio.

I am appearing here this morning with the hope of realizing one common goal of improving bone health by reducing the incidence of stress and other fractures, osteoporosis, Paget's disease of bone, osteogenesis imperfecta, myeloma, and other bone diseases. I ask for your support for increased funding for the Department of Defense to continue its research fiscal year efforts on osteoporosis and related bone diseases in the fiscal year 2000 national security appropriations legislation. As you may know, the Clinton administration requested $2.5 million in the fiscal year 2000 federal budget in order to continue the Department of Defense's bone disease research program.

This is very significant since it is the first time the administration has recognized the importance of this research by including a request for continuing the program in its annual budget.

The goal of DOD's research program is to enhance military readiness by reducing the incidence of fracture, which incurs cost and lost time, during physically intensive training. We need research to help determine approaches which will make these fractures less common. This is a problem for both sexes, but is particularly important for women.

According to a report recently released by the Institute of Medicine entitled "Reducing Stress Fractures in Physically Active Women" the prevalence of stress fractures in the military has a marked impact on the health of service personnel. This study, conducted by several committees including the Subcommittee on Body Composition, Nutrition, and Health of military also concluded that the prevalence of stress fractures poses a significant financial burden on the military by delaying completion of the training of new recruits. Typically, the healing from stress fractures takes from eight to twelve weeks. This study also discusses the significant costs associated with stress fractures. One study of stress fractures among 2,000 female marine recruits estimates the cost to be $1,850,000 annually with 4,120 lost training days. This delay in the training of new recruits impacts military readiness. The military needs research to determine approaches for making these fractures less common and maximizing bone health among its personnel. Also, with the increasing number of women in the military, diseases that disproportionately effect women, such as osteoporosis, become more important to the military. Furthermore, our scientific knowledge of the impact of bone diseases on ethnic and minority groups and men is severely limited.

The military health services system serves 8.4 million active and retired military personnel and their dependents. In fiscal year 1995, program costs rose to $15.3 bil-

lion. The economic burden of health care costs from this range of chronic diseases is staggering. For example, the combined annual cost to society for osteoporosis alone is estimated at $13 billion. Despite this overwhelming figure, osteoporosis is preventable if measures are taken before an individual reaches the mid-30s—which encompasses the time period that many men and women spend in the military. Skeletal development in average, healthy individuals is maximal at age 25 in women and age 30 to 35 in men.

Furthermore major advances in bone research have occurred that directly impact on this problem. Bone growth factors are being identified and their mechanisms of action are being intensively studied. New treatments for osteoporosis, such as the use of PTH, are being investigated and are very promising, as is the use of the bisphosphonates in treating and preventing osteoporosis. The recent identification of the major factors that regulate bone destruction by the osteoclast, the primary bone resorbing cell, should lead to development of new treatments to prevent bone loss. Thus the DOD's support of bone research should help to improve bone health in our military.

On behalf of the entire bone community, we want to thank you, Mr. Chairman, and your colleagues on the subcommittee for your past support for DOD's bone disease program. We hope you will consider our request to enhance the President's request to $10 million (matching the amount which was allocated in fiscal year 1997) to address the problems raised in the IOM study. We believe this research will directly benefit the many military men and women who serve our country.

Senator STEVENS. If young men and women in the military develop these fractures, does that mean that later in life they will have some complications?

Dr. ROODMAN. They can. Women especially are more prone to get femoral fractures, the long bones in the upper part of their leg, and pelvic fractures, and half of those type of fractures end up having surgery, and some women end up having rods put in to correct the fractures, so some of them will have increased problems from these fractures.

The other problem is that any kind of problem that occurs in the military early on results in these ladies leaving the military early, and so we lose their ability to serve, and so I think it has a major impact on our overall readiness.

Senator STEVENS. Well, I think we probably do need a study that would go over a period of years. Who have you been working with? We work with Walter Reed primarily on the basic research. Have you worked with Walter Reed on basic research in this area?

Dr. ROODMAN. Me personally, no, sir, but the DOD has a number of research grants available, and I have served on their study sections to review the types of research, so they have used universities as well as Walter Reed to look at all of these areas.

Senator STEVENS. I think it would be helpful if we had a study that was ongoing and went through a period of years and we got some trend lines of what happens to people after they develop these fractures.

Dr. ROODMAN. I agree with you.

Senator STEVENS. I have three daughters, and one of them has had a bone fracture at one time or another, but I have never known whether that has an ongoing problem in later life.

I think perhaps we could even get a study that would follow through on some women who stay in the military and see what happens, but we will do that. We will increase that. But my feeling is that it should go either to Walter Reed or to that hospital of the uniformed services which is under Walter Reed, I think.

Well, we will check that, but we will do that. I think we have done several studies that have sort of established some baseline

problems for the military, and with the increasing number of young women in the Army in particular, it is somewhere around 35 percent now, you have got a point, doctor. Thank you for coming.

John Gannon.

STATEMENT OF JOHN GANNON, CHAIR, DEPARTMENT OF COMPUTER SCIENCE, UNIVERSITY OF MARYLAND, COMPUTING RESEARCH ASSOCIATION

Mr. GANNON. Good morning, Mr. Chairman. Thanks very much for the opportunity to comment on the DOD appropriations this year. I am John Gannon from the University of Maryland, representing the Computing Research Association.

Senator STEVENS. I cannot quite hear you with my ears.

Mr. GANNON. I would like to address DOD's special role in the information technology initiative and urge this subcommittee to fully fund the initiative at $100 million. This is a small price to pay for maintaining DOD's capacity to respond to and shape the information technology revolution and to achieve their goals of information superiority.

The information technology initiative is designed to revitalize the Federal investment in information technology research and development to ensure continued U.S. economic leadership, and to enable technologies that meet public needs, including national security. It will lead to new capabilities and innovations and fuel the information technology revolution. This revolution will continue to have a significant impact on the way DOD meets its responsibilities, especially war-fighting.

DOD and the Defense Advanced Research Projects Agency (DARPA) in particular have always been at the forefront of information technology. Indeed, the Internet, for instance, grew out of DARPA communications research in the late 1960s and 1970s. DARPA's role as an innovator and IT research must be further enabled to ensure that the ongoing information technology revolution is an advantage and not a hindrance to the U.S. military.

Let me give you some idea of what the new funding might pay for. The new funding will be concentrated on high risk, high payoff ideas to produce new thrusts in hardware and software. A top priority would be research in software for agile networks, an area with enormous——

Senator STEVENS. What kind of networks?

Mr. GANNON. Agile networks, networks that can change over time, an area with enormous potential for future weapons, C^3, logistics and other defense systems.

The development of software to make devices, and communicate between devices, robust enough and fast enough to accomplish precise, sophisticated tasks in real time is still in its infancy. With your help and provided funding, DARPA will be a key pioneer in this field.

The value that we could derive from these new capabilities includes performance gains, cost efficiency and, most importantly, troop safety. For instance, we would like networks of robotic devices that can adapt to their surroundings and accomplish physical tasks. They could enter dangerous areas and environments, minimizing the risk of casualties or providing tactical advantage.

While remote operations of robots is commonplace today, they would be far more useful if we could get them to interact with one another and their environment to accomplish precise and complex missions. The barrier to making this kind of collaboration work is software for embedded and network systems.

Another area where we have a similar problem is in logistics. Logistic systems could be made much more efficient and scalable if control was decentralized so that efficient decisionmaking took place at the source of incoming information, and that information and intelligence was then conveyed back up the line for human understanding.

So we have some challenging research opportunities ahead of us, and we need to make devices more effective than they are today. We need to be able to reprogram them to meet new and changing tactics. The time is right to make a huge leap forward in this technology, and that is what the information technology initiative is about.

PREPARED STATEMENT

Thank you very much for being able to comment on DOD appropriations, and I would be happy to answer any questions you have.

[The statement follows:]

PREPARED STATEMENT OF JOHN GANNON

Good morning, Mr. Chairman and Members of the Subcommittee. Thank you very much for this opportunity to comment on fiscal year 2000 appropriations for the Department of Defense. I am John Gannon, Chair of the Computer Science Department at the University of Maryland. I am testifying today on behalf of the Computing Research Association, an alliance of about 180 academic, industrial, and other organizations involved in and devoted to computing research.

Today I would like to address DOD's special role in the interagency Information Technology Initiative and urge the subcommittee to fully fund the proposed fiscal year 2000 activities at $100 million. This is a small price to pay for maintaining DOD's capacity to respond to and shape the information revolution and for supporting strategic imperatives concerning information superiority.

The Information Technology Initiative, as you probably know, is a six-agency effort to revitalize the federal investment in information technology R&D to ensure the U.S. economic lead in IT well into the 21st century and to enable technologies that meet public needs and objectives, including, through DOD's participation, national security. The initiative implements the recommendations of an independent, Congressionally-chartered panel, the President's Information Technology Advisory Committee (PITAC), which found that the federal investment in information technology R&D is inadequate, especially long-term, broad-based IT research that generates new capabilities and innovations—the fuel of the information technology industry and of the information technology revolution.

In its report, the advisory committee described how information technologies are rapidly transforming many aspects of society: the way we work, the way we learn, the way we communicate, as well as how we design and build things and conduct research, health care, commerce, and manufacturing, to name a few. These transformations are having and will continue to have significant impact on the way the Department of Defense meets its vast and challenging responsibilities, and especially on warfighting.

In February, the Deputy Secretary of Defense, John J. Hamre, testified before the House Armed Services Committee's subcommittees on Military Procurement and R&D and emphasized the importance of information technology to the DOD mission: "Information technology has provided us with a means to insure a military advantage over our adversaries while actually reducing our force structure. These technologies have made precision strike and focused logistics possible. They allow us to hit a target with one missile, and manage our logistics requirements so efficiently that we can move forces much farther and quicker—and sustain them—than we have ever been able to do before."

DOD's strategies for IT R&D follow from broader defense and warfighting strategies developed at higher levels in DOD and the Joint Chiefs of Staff. In particular, Joint Vision 2010 identifies the imperative of information superiority to U.S. objectives. Again, the Deputy Secretary said it better than I could: "Information superiority is essential to our capability to meet the challenges of the 21st century. It is a key enabler of Joint Vision 2010 and its four fundamental operational concepts of dominant maneuver, precision engagement, full dimensional protection and focused logistics—because each demands obtaining, processing, distributing and protecting accurate information in a timely manner while preventing our adversaries from doing so. Without achieving Information Superiority we will, very simply, not be able to achieve the goals established in Joint Vision 2010."

The DOD—and the Defense Advanced Research Projects Agency (DARPA) in particular—has always been at the forefront of information technology R&D. You are no doubt aware that the Internet, for instance, originated from DARPA's efforts in the 1960's and 1970's to meet communications needs and challenges. DARPA has made significant contributions to many of the computing and communications technologies that have become critical to the defense mission. DARPA's role as an innovator in IT research must be further enabled to ensure that the ongoing information revolution is an advantage for and not a hindrance to the U.S. military and our national security and that DOD can meet its strategic objectives in information superiority.

Let me give some further detail about the new funding and the research it would support. DOD has requested $100 million in fiscal year 2000 funding for its activities under the IT initiative. The budget would include the following components: $70 million for focused research programs at DARPA; $20 million for a new Advanced Research and Development Activity (ARDA); and $10 million for fundamental IT research through the DOD-wide University Research Initiative.

DARPA's participation in the initiative would be consistent with its overall investment strategy of concentrating on high-risk/high-payoff ideas and technologies with vision and focus. The increased support would enable exploration of new thrusts in hardware and software. A top priority would be research in software for agile networks, that is, expansive networked systems of rapidly re-configurable, or even self-configuring, mechanical, sensing, and control devices. This area has enormous potential for the future of weapons, C^3, logistics, and other defense systems. But the development of software to make the devices and communications among them robust enough and fast enough to accomplish precise, sophisticated tasks in real-time is still in its infancy. With your help in providing the funds, DARPA will be a key pioneer in this field.

The value to be derived from new capabilities like these includes performance gains, cost efficiency, and, most importantly, the safety of our troops. For instance, networks of robotic devices that can adapt to their surroundings and accomplish physical tasks, called autonomous systems by researchers, could enter dangerous environments, minimizing the risk of casualties or providing tactical advantages. While the remote operation of robots has become a commonplace, they would be far more useful if we could get them to interact with each other, construct models of their environment, and use them to react and accomplish a precise and complex mission. Rather than remote human operators we would have human supervisors of collaborative robot "teams." The barrier to making these kinds of systems a reality is the great difficulty in designing embedded and networking software to enable collaboration among devices.

Another area where information technologies can revolutionize DOD's operations is in the automation of logistics. Current DOD weapons, C^3, and logistics systems are based on hierarchical control, entailing gatekeeping barriers and incurring delays because of unnecessary human interaction. Logistics systems could be made more efficient and more scalable if control was decentralized so that decision-making took place at the source of incoming information. Devising locally competent and efficient mechanisms that can assess situations and take action, while conveying information and intelligence up to higher levels for review, is really hindered, again, by a lack of appropriate software, software that is costly to develop and difficult to test.

The research challenges are daunting: we have to learn how to make machines communicate with each other far more effectively than computers on the Internet, or any existing network, communicate with each other today. We need to be able to reprogram devices remotely and on the fly to alter their capabilities as conditions or as objectives change. (Computing researchers call this deploying mobile code.) While DARPA supports base research efforts in these areas, the time is ripe to make huge leaps forward, and that's what the Information Technology Initiative is all about.

With regard to the other components of DOD's participation in the initiative, ARDA is a joint effort of the Defense Department and the intelligence community to support long-term research on problems and enabling technologies relevant to intelligence and information security. We would also urge you to provide full funding for the University Research Initiative, which is an important mechanism for keeping university-based scientists and engineers involved in defense efforts.

Some final thoughts on the IT Initiative: We cannot rely on the IT industry, despite its phenomenal success in the U.S. economy, to produce the innovations that have the most relevance to defense IT needs. The pace of the IT marketplace is too intense, requiring firms to devote the bulk of their R&D resources to shorter-term applied research and product development. Only a vigorous R&D effort on the part of DOD will ensure the development of IT capabilities designed specifically to meet military and national security objectives.

The IT initiative complements and does not duplicate the High Performance Computing and Communications program. It is designed to address fundamental questions in many facets of computing research, the answers to which will have impact on a broader range of information technologies, not just high performance or high-end computing. Whereas HPCC was about making faster computers in a specified time frame for solving scientific and mission-oriented problems, the IT research initiative is about making computers and networks that are better—easier to design and use, more stable and reliable, more secure, and amenable to more users and uses. These objectives are no less important to DOD than they are to society in general, as I hope was clear from the examples above.

In conclusion, Mr. Chairman, it is critical that DOD participate fully in the proposed Information Technology Initiative. CRA urges the subcommittee to provide the requested $100 million to enable these important research activities. Thank you very much for your time and attention. I would be pleased to answer any questions you might have.

Senator STEVENS. Are these readers that are coming into use, are they part of the information technology research?

Mr. GANNON. I am sorry, Senator.

Senator STEVENS. The systems that read documents.

Mr. GANNON. The OCR documents, yes, certainly to be able to capture information on printed pages and to be able to translate between languages would be part of this initiative, so we could get intelligence in different languages.

Senator STEVENS. Good. Well, we will do our utmost to get that money. I think DARPA needs some money, and I think we ought to stay ahead of the curve on this. I am particularly concerned, as I go around I see people putting in information that someone else has done and copying it, and I think we ought to find some way to stop that nonsense.

Once it is put in, it ought to be able to be used and translated into another language with ease. Are you pursuing that?

Mr. GANNON. We are pursuing that. There is actually a research project at my university on exactly this project.

Senator STEVENS. Good. Sometime I will talk to you about that. Thank you very much.

I need to go vote, I am told. I will be back in about 10 minutes.

[A brief recess was taken.]

Senator STEVENS. I understand that Ms. Frances Visco has a plane to catch. I am sorry, Mr. Foil has a plane to catch, and with no objection we will ask for him to come forward now.

STATEMENT OF MARTIN B. FOIL, JR., CHAIRMAN, INTERNATIONAL BRAIN INJURY ASSOCIATION, INC.

Mr. FOIL. Thank you, Chairman Stevens. Good morning. Thank you for allowing me to be here today. My name is Martin B. Foil, Jr., and I come before you this morning as the father of a young

man with a severe brain injury, and request your support for $10.5 million for the defense and veterans head injury program.

I am the past chairman of the Brain Injury Association, and now serve as a voluntary chairman of the International Brain Injury. I receive no compensation for these programs that I am testifying about today. Rather, I do contribute considerable sums of my own money. I am here, sir, simply because I care.

The defense and veterans head injury program (DVHIP) is a collaborative effort of the DOD, the Department of Veterans Affairs (VA), the VI and International Brain Injury Association (IBIA), and together we serve active duty military personnel, retirees, veterans, and civilians. Our program is an exemplary case of dual use funding. I am pleased to report that our efforts continue to pay off. We conducted the first randomized controlled trial of brain injury rehab in the Nation. We compared home rehab of moderately to severely injured military personnel with an institutional cognitive rehab program.

Despite a wide cost differential, $370 a year versus $51,000, the study showed equal outcomes for both groups; 90 percent were able to return to work; 67 percent were fit for duty 1 year after injury. These findings show that our programs contributed to military readiness and cost-savings of military dollars.

Some of our other notable activities include creation of a day care treatment program, treatment of neural behavioral problems, implementation of combat training, mild traumatic brain injury (TBI) study in paratroopers at Fort Bragg, and I think that is a necessary one, follow-up of the veterans with brain injuries from the Vietnam War, and sir, we are receiving 65 percent more patients this year than last. We support all military veteran and civilian personnel with brain injuries, and their families.

In conclusion, brain injury continues to be a major national health problem. More needs to be done to research brain injury and improve rehabilitation and patient outcomes. Our efforts continue to help the Nation's military readiness by helping service members get appropriate care and return to duty.

PREPARED STATEMENT

I do, sir, respectfully request your support for this $10.5 million project for this very important program, and I will answer any questions if I can, if you have any, and I just want to say in closing this is a real privilege to be here, so thank you very much, and God bless you.

[The statement follows:]

PREPARED STATEMENT OF MARTIN B. FOIL, JR.

Dear Mr. Chairman and Members of the Senate Appropriations Subcommittee on Defense: My name is Martin B. Foil, Jr., and I am the father of Philip Foil, a young man with a severe brain injury. I am past Chairman of the Brain Injury Association (BIA), and I currently serve as voluntary Chairman of the International Brain Injury Association (IBIA). I am also the Chief Executive Officer and Chairman of Tuscarora Yarns in Mt. Pleasant, North Carolina.

I appreciate the opportunity to provide testimony regarding the Defense and Veterans Head Injury Program (DVHIP). As you know, this program is a collaborative effort among the Departments of Defense and Veterans Affairs, BIA and IBIA, and it addresses the prevention and treatment of brain injury in the military and civilian sectors. DVHIP is a prime example of a dual use project that contributes signifi-

cantly to the readiness of United States military personnel. I respectfully request that you support funding of $10.5 million for this program in fiscal year 2000.[1]

I urge your support for the DVHIP on behalf of BIA and IBIA. BIA is a national, non-profit organization dedicated to promoting brain injury awareness, understanding, and dissemination of "best practices." BIA's mission is to create a better future through prevention, education, research and advocacy. BIA has 43 state associations, 800 support groups, and serves persons with brain injury, their families and caregivers in all 50 states and the territories. IBIA is a non-profit organization dedicated to the support and development of medical and clinical professionals and others who work to improve opportunities and successes for persons with brain injury. IBIA is the only international association representing and convening brain injury professionals and specialists throughout the world. BIA has been a member of IBIA since 1992.

I receive no personal benefit or monetary gain from the programs I will discuss. I am providing this testimony simply because I care about the millions of Americans living with brain injuries and their families.

My testimony will summarize some significant accomplishments that the DVHIP achieved in 1998, and what we, through the BIA and IBIA, expect for the coming year.

Brain Injury in the United States and the U.S. Military

Traumatic brain injury (TBI) is defined as an insult to the brain, not of a degenerative or congenital nature but caused by an external physical force, that may produce a diminished or altered state of consciousness, and which often results in an impairment of cognitive abilities or physical functioning. TBI can also result in the disturbance of behavioral or emotional functioning. TBI does not discriminate, and it can strike any one—military or civilian—at any age, at any time.

In a February 1998 Report to Congress entitled, "Traumatic Brain Injury: Programs Supporting Long Term Services in Selected States," (GAO/HEHS–98–55), the General Accounting Office stated that TBI is the leading cause of death and disability in young people in the United States. TBI affects the whole family and often results in huge medical and rehabilitation expenses over a lifetime. Brain injury can occur in military combat, military training, or as a result of motor vehicle crashes, falls, sports and recreational incidents, child and spousal abuse, Shaken Baby Syndrome and violence. Every 15 seconds, someone in America sustains a brain injury. Brain injury and its physical and emotional consequences impact entire families and whole communities.

An estimated 2 million Americans experience traumatic brain injuries each year. About half of these cases result in at least short-term disability, and 51,000 people die as a result of their injuries. Each year, approximately 260,000 persons require hospitalization for TBI (30 percent of which show disabilities a year post injury), and over 1 million people receive emergency medical care for TBI. Annually, about 90,000 people sustain severe brain injuries leading to long term disability, and there are now 5.1 million Americans living with long term severe disability and 6.5 million with some form of disability as a result of brain injury.

Each year, approximately 7,500 military personnel are admitted to military and VA hospitals because of brain injury. This number does not include personnel who experienced mild brain injury, concussions, or those receiving emergency room treatment and early release. The cost to the military has been estimated at $30 million annually in medical retirement payments alone.

Defense and Veterans Head Injury Program

The Defense and Veterans Head Injury Program (DVHIP) is a close collaborative program among the Department of Defense (DOD), the Department of Veterans Affairs (VA), BIA and IBIA. It is an integrated, multidisciplinary Disease Management System focusing on both peacetime and combat traumatic brain injury (TBI). Its activities span the spectrum of brain injury from prevention, education, community support, and advocacy, to clinical care and community rehabilitation, and basic and clinical applied research focused on persons with TBI.

The collaborative efforts of the DVHIP contribute to our nation's military readiness by preparing personnel for active duty, helping injured service members return to work, and providing critical support to keep families together during the difficult

[1] For the past few years, we have requested and received level funding at $8.5 million (DOD includes $7 million in its budget and another $1.5 million was appropriated by Congress). This is the first time since 1996 that we are requesting an increase. $10.5 million (DOD's $7 million plus a requested $3.5 million), is very much needed to advance our objectives and contribute to military readiness.

times after brain injury. The DVHIP is a prime example of a dual use program that serves a significant national purpose in response to the huge economic and social costs of TBI.

The DVHIP's primary objective is to ensure that military personnel and veterans with brain injury receive specialized evaluation, treatment, and follow-up, while at the same time, help define optimal treatment, and provide state of the art education, information and support for persons with TBI and their families and caregivers nationwide.

The work of the DVHIP has resulted in significant findings that offer cost savings to the U.S. military and civilian sectors. For example, in 1998 analysis was completed of a randomized controlled study at Walter Reed Army Medical Center comparing home rehabilitation of moderately to severely injured service members with an institutional cognitive rehabilitation program. Despite a cost differential of $370 for home care and $51,000 for in-patient care, the study showed equal outcomes for both groups. In spite of the relative severity of their injuries, 90 percent were able to return to work and 67 percent were fit for duty one year after injury. This represents the first major randomized controlled trial of TBI rehabilitation in the nation. These findings highlight the potential of home rehabilitation and have major implications for TBI rehabilitation nationwide. Further research of this kind applied to the civilian sector could potentially save billions of health care dollars annually.

Some of the significant activities of the program are as follows:

Research and Treatment

Expanding peacetime and combat TBI patient registries (as of February 1999, the registry included 7,540 patients).

Continuing support of the 7 primary DVHIP TBI centers[2] and 16 DVA secondary network sites, including several randomized controlled trials of rehabilitation and of pharmacotherapy in persons with both acute and chronic TBI.

Developed and implementing a TRICARE demonstration project allowing rehabilitation of military dependents at DVHIP VA medical centers.

Consolidated the basic national infrastructure of the DVHIP and are now receiving a marked increase in patient referrals.

Developed and implementing a Combat Training Mild TBI study in paratroopers at Ft. Bragg, NC, involving pre-injury baseline testing and extensive post-injury performance evaluation.

Developed a protocol for a Phase III follow-up of Vietnam War Head Injured veterans (who are now some 30 years post injury) providing a unique opportunity to study TBI and the aging process.

IBIA/BIA/DVHIP furthers the development of evidence-based practice guidelines to improve treatment delivery and outcomes for acute TBI, mild TBI, and penetrating head injuries.

IBIA/DVHIP created a day treatment program for persons with TBI and their families in a community setting and continues to evaluate with BIA other equally effective and less costly alternatives to in-patient rehabilitation.

IBIA/DVHIP supports research and treatment to address neurobehavioral problems that affect return to work and fitness for duty rates.

IBIA/DVHIP conducts collaborative outcomes research utilizing functional Magnetic Resonance Imaging (fMRI) to identify brain lesion location and create diagnostic criteria for mild and moderate brain injuries which are significant problems in the military; this research is valuable to maintaining readiness by discerning who is capable of returning to active duty.

IBIA/DVHIP conducts studies on executive dysfunction and decision making in persons with mild TBI (mild TBI is the single most important reason for failure to return to active duty, work or school); this study complements efforts to improve military readiness.

Education, Information and Support Services

BIA/IBIA/DVHIP sponsors a Neurobehavioral Institute, a think-tank meeting of leaders in science, medicine, law, ethics and consumer issues relating to brain injury. The 1999 Institute will build on some of the work begun at the 1998 meeting and will result in practice guidelines on the vegetative and minimally conscious

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[2] Walter Reed Army Medical Center, Washington, DC; James A. Haley Veterans Hospital, Tampa, FL; Naval Medical Center San Diego, San Diego, CA; Minneapolis Veterans Affairs Medical Center, Minneapolis, MN; Veterans Affairs Palo Alto Health Care System, Palo Alto, CA; Hunter McGuire Veterans Affairs Medical Center, Richmond, VA; Wilford Hall Medical Center, Lackland Air Force Base, TX.

states. The 1999 Institute will also begin to develop a framework for evidence based guidelines for children and adolescents.

BIA/DVHIP established the American Academy for the Certification of Brain Injury Specialists (AACBIS) and develops and disseminates materials used to train staff working in brain injury programs at DVHIP sites. Materials include the AACBIS Clinical Examiner Manual, AACBIS Brochure and Training Manual Level I. Preliminary work to develop Level II standards and curriculum are underway in 1999.

BIA/DVHIP is revising its DVHIP Case Manager's Manual, and reprints are planned for the DVHIP Information Brochure; Road to Rehabilitation; "Causes, Consequences and Challenges of Brain Injury" Brochure and an Information and Resource Manual.

The Information and Resources Department of BIA acts as a clearinghouse of community service information and resources for military personnel, veterans and civilians and responded to 14,000 inquiries for assistance in 1998 through its free Family Help Line. Through BIA's state affiliates 50,000 calls for assistance are answered each year, and hundreds of thousands of informational brochures, pamphlets, books, videos, and other material are distributed.

BIA/DVHIP educational brochures feature background information on brain injury, the DVHIP, and the lead and network DVHIP sites. They are available at any one of the military or Department of Veterans Affairs Medical Centers, and are also provided to referral sources in both military and civilian sectors in an effort to increase awareness of the DVHIP and to increase accessions to the research protocol.

BIA publishes a bimonthly newsletter, TBI Challenge! with a circulation of over 30,000, and a full color quarterly magazine for professionals, Brain Injury Source with a circulation of over 20,000. Each issue of the Source features a regular column entitled "Military Zone" which is written by staff members from DVHIP sites.

BIA's Brain Injury Resource Center™ (BIRC), provides easy access to a multimedia computer library through a touch-screen monitor and program that allows users to learn about brain injury at a personalized pace. The BIRC is available in over 60 locations across the country, including 18 DOD and VA hospitals.[3] Additional locations will be added in 1999, and work has begun to develop the BIRC into a CD-Rom for enhanced, affordable access for the millions of potential users.

BIA is launching a diversity initiative to reach out to persons with different cultural viewpoints in the military and civilian communities, including developing spanish editions of selected materials and information on disk.

BIA developed DVHIP's website in 1998 and will continue to work on providing DVHIP resources and information. BIA's website increased its monthly unique visitors to 7,700 by December 1998.

BIA/DVHIP continues its Violence and Brain Injury Project (VBIP), which is based on the premise that brain injury is a significant risk factor for violent behavior. VBIP addresses various aspects of violent behavior, including causes, prevention and education.

The VBIP is responsible for integrating prevention education curricula into DOD and civilian schools and military communities. The HeadSmart® Schools Program is currently being used in 127 schools nationwide including 26 military dependent schools, affecting the education of over 100,000 students. In addition, there are HeadSmart® Military Communities in 7 military facilities.[4]

Conclusion

The work of the DVHIP in collaboration with BIA and IBIA is a significant contribution to the health and readiness of the United States military. Recent DVHIP studies have resulted in findings that can have enormous effects on the treatment and rehabilitation of military personnel, veterans and civilians.

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[3] Central Arkansas Veterans Health Care Network, North Little Rock, AR; Darnall Army Community Hospital, Ft. Hood, TX; Denver Veterans Affairs Medical Center, Denver, CO; Hines Veterans Affairs Medical Center, Hines, IL; James A. Haley VA Medical Center, Tampa, FL; Madigan Army Medical Center, Takoma, WA; Minneapolis VA Medical Center, Minneapolis, MN; National Naval Medical Center, Bethesda, MD; Palo Alto VA Medical Center, Palo Alto, CA; Portsmouth Naval Medical Center, Portsmouth, VA; Richmond VA Medical Center, Richmond, VA; San Diego Naval Medical Center, San Diego, CA; San Juan VA Hospital, San Juan, Puerto Rico; Seattle Veterans Affairs Medical Center, Seattle, WA; Tripler Army Medical Center, Hawaii; Walter Reed Army Medical Center, Washington, DC; Wilford Hall Air Force Medical Center, San Antonio, TX; Womack Army Medical Center, Fort Bragg, NC; VA Medical Center, Albuquerque, NM.

[4] Fort Bragg, NC; Fort Knox, KY; Fort Campbell, TN; Fort Bliss, TX; Fort Sam Houston, TX; West Point, NY; Wright Patterson Air Force Base, OH.

As the United States stands on the brink of the new millennium, great strides are being made in the fields of medicine, pharmaceuticals and scientific research. DVHIP is in a unique position to combine the research with the program's education, information and support services. This synergy allows DOD and VA, in partnership with BIA and IBIA, to help prevent and treat this "silent epidemic" and for the DVHIP program to lead the nation in providing state of the art care to all active duty and retired military personnel and veterans with brain injury as well as improving the lives of civilians with brain injuries, their families and caregivers. We respectfully request funding of $10.5 million for fiscal year 2000 to continue these important programs. Thank you, and God bless you!

Senator STEVENS. That is the budget request?

Mr. FOIL. Yes, it is.

Senator STEVENS. We will maintain it.

Mr. FOIL. Thank you very much, Mr. Chairman.

Senator STEVENS. Thank you, sir.

Our next witness is Dr. Quickel.

STATEMENT OF DR. KENNETH E. QUICKEL, JR., PRESIDENT, JOSLIN DIABETES CENTER

ACCOMPANIED BY RONALD C. VIOLI, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, CHILDREN'S HOSPITAL OF PITTSBURGH, PENNSYLVANIA

Dr. QUICKEL. Mr. Chairman and staff, thank you for providing us this opportunity to appear. I am Dr. Ken Quickel, president of the Joslin Diabetes Center in Boston.

Mr. Ron Violi, on my right, of the Children's Hospital of Pittsburgh and I are here to present a joint diabetes proposal, and I would like to report on progress to date with the ongoing Joslin component of that project that I presented last year.

We greatly appreciate the continued funding we received through the 1998 and 1999 defense appropriations acts for the Joslin-DOD-VA diabetes detection prevention and care project, and we request a budget of $7 million to continue and expand this project in fiscal year 2000.

The program has two critical modules that were developed at Joslin. One is a telemedicine module that allows you to conduct eye exams at very long distance to detect and prevent blindness that diabetes causes. The second module is a self-management training strategy that prepares individuals with diabetes to care for themselves and to prevent the complications.

In Hawaii, we have now deployed both the self-management training module and the eye telemedicine module at Tripler Army Medical Center and also at the Honolulu VA clinic there.

In New England, we now have the eye telemedicine module located at the VA hospitals in West Roxbury and Brockton, and will do also in Togas, Maine, before the summer is over.

Research protocols for both programs have been developed, and are ongoing. We have completed studies validating that the simplified eye telemedicine strategy that we are employing at these sites is as effective as the gold standard currently in use elsewhere, and there will be on-site clinical studies throughout this period of time.

Joslin and the Department of Defense have established a series of critical operational tasks over the next fiscal year. In Hawaii, Tripler will operate a central eye reading center, and there will be three remote eye imaging centers connected by telemedicine strate-

gies. They will also conduct monthly self-management training for selected personnel at high risk of diabetes complications.

Similarly, in New England the VA will operate three remote imaging centers throughout New England and we will read them at a central reading center at Joslin, and the VA hospital in West Roxbury will provide self-management training on a monthly basis to selected veterans and their families. That process has already started.

This is the last year I will testify before you as the president of the Joslin Diabetes Center, since I will be retiring in January. I would like to express my very deep appreciation for the support you have given over the years to these very important initiatives to help our men and women in uniform and their families.

I would like to tell you that I can thank you with more than professional knowledge, because I myself have diabetes, and I know how very important these services are in preventing the complications of this potentially devastating disease.

I am pleased to introduce my colleague, Ron Violi, chairman and chief executive officer (CEO) of Children's Hospital of Pittsburgh.

Mr. VIOLI. Mr. Chairman, the development of juvenile diabetes research at Children's Hospital of the University of Pittsburgh has a long and productive history. In contrast to other large cities, those born in Pittsburgh have a high tendency to stay in the region. The fact that families do not leave the area has allowed us to conduct quality long term research on the cause and treatment of juvenile diabetes.

At Children's, we have made major strides in diabetes research under the leadership of Dr. Massimo Trucco. Dr. Trucco is recognized around the world for his work in the field of diabetes. Last year, he was the first to report a link between childhood diabetes and a virus, and the immune system response that could trigger the onset of juvenile diabetes.

His findings suggest that we are one step closer to understanding the cause of diabetes and to develop a vaccine to protect those at risk. A report released by the Diabetes Research Group recommends increasing research to better understand the cause of juvenile diabetes.

For fiscal year 2000, we are proposing expansion of juvenile diabetes research program that was initially funded through the Department of Defense. Continuing this project will allow us to work with the Department to address the incidence of juvenile diabetes among employees, dependents, and enlisted personnel.

With increased funding, we believe our research will enable us to predict and prevent the onset of diabetes. At Children's, we are working to find a cure for this disease. The funding for such significant research cannot come from only one source, but must be provided through a combination of public and private dollars.

We are in the midst of trying to secure $20 million worth of additional funding through public and private sources, including the National Institute of Health (NIH), the Juvenile Diabetes Foundation, private donors, and through our own Commonwealth. However, a substantial fertile commitment is critical to the success of this effort. Therefore, we are requesting $7 million for the second year of this initiative.

PREPARED STATEMENT

We plan to work with our colleagues from Joslin on a project that will allow us to improve the treatment of people with diabetes and to concentrate our collective efforts on finding a cure for this disease.

Thank you for your time. We will answer any questions you might have.

[The statement follows:]

PREPARED STATEMENT OF DR. KENNETH E. QUICKEL, JR.

INTRODUCTION

Mr. Chairman, and Members of the Committee, thank you for this opportunity to appear before you. I am Dr. Kenneth Quickel of the Joslin Diabetes Center, located in Boston, Massachusetts. Joining me today to present our joint diabetes project proposal is Mr. Ronald Violi of the Children's Hospital of Pittsburgh. We are here to present to you a joint proposal that addresses the growing health concerns and costs related to diabetes, specifically in the Departments of Defense and the Veterans Affairs.

Mr. Violi and I are here today to present a balanced, cooperative diabetes proposal, appropriately named the Joint Diabetes Project. Each of our institutions brings unique strengths and extraordinary scientific and patient care talent to this partnership. Together we offer the most advanced detection, treatment, prevention, and basic and applied research approaches in the world to manage diabetes and its resulting complications. The proposal, which we will detail later, provides the most balanced approach available to the problems associated with both Type 1 and Type 2 diabetes (or juvenile and adult onset, respectively).

JOSLIN DIABETES CENTER PLAN FOR FISCAL YEAR 2000

In fiscal year 2000, Joslin will continue to concentrate on the patient populations of the Department of Defense—which includes a large number of dependents as well as employees—and the Veterans Administration.

Mr. Chairman, Joslin Diabetes Center seeks funding for an extension of the project that the Congress funded through the fiscal year 1998 and 1999 Defense Appropriations Acts for the DOD/VA Diabetes Detection, Prevention and Care Project (Program Element #630002, Project # 941).

For fiscal year 2000, Joslin will refine and develop the demonstration pilot projects funded in fiscal year 1998 and 1999 in the Hawaii and New England regions. In Hawaii we have set up the Joslin Vision Network (JVN) at the Tripler Army Medical Center and the Honolulu VA Clinic. At the New England VA (VISN-I), we have the JVN located at the West Roxbury/Boston and Brockton VA Hospitals with Togus, Maine scheduled for mid-summer deployment. We have also deployed the Joslin Diabetes Outpatient Intensive Treatment and Education (DO IT) Programs to Tripler Army Medical Center and the West Roxbury VA Hospital.

Research protocols for the JVN and DO IT programs have been cooperatively developed and are in the early stages of implementation. From these pilot models, we will develop evidence based practice models that can be implemented effectively in current and future additional sites.

The use of the JVN equipment and the expansion of screening opportunities in the two regions will be the focus for fiscal year 2000 activities. The advancements in DOD and VA capabilities to detect and treat diabetes will result in benefits and cost savings to our patients over a period of time. This also results in cost savings to the health care systems of DOD and VA. The real thrust of the program's importance is not the introduction of the new equipment and techniques—the real importance is the use of the detection equipment and education in treatment protocol that minimize the incidence and severity of the impact of diabetes.

Following the expansion of the JVN and incorporation of the DO IT protocol within the two regions during fiscal year 2000, Joslin will provide technical assistance in file management, patient follow up and monitoring, and the design of long term studies to measure the impact of the introduction of these two new elements, to the DOD and VA medical networks and infrastructure.

Joslin will also work with DOD and VA medical personnel on developing documentation for use in other DOD/VA locations and with their respective geographi-

cally adjacent civilian populations. The promise of the pilot programs lies in the reach to civilian populations and the expanding use within both DOD and VA.

Unforeseen delays in the production of the detection component of the project have resulted in a modified deployment schedule for the current fiscal year. The good news is that the production cost per unit has decreased dramatically over the past year, permitting the appropriated funds more purchasing power. Thus, we experienced a smaller scale reduction than we had anticipated when we faced the fiscal year 1999 conference dollar level, which was lower than the amount carried in the House bill.

For the fiscal year 2000 project phase, the first fully operational year, we have established the following tasks, targets, and activities:

—The three sites in Hawaii will become fully operational, with Tripler Army Medical Center operating the Reading Center.
—Tripler will provide the DO IT program on a monthly basis for military personnel, families, and veterans.
—The New England VA will have its three Image Acquisition Sites fully operational, with Joslin providing the Reader Center component.
—The VA hospital in West Roxbury will also provide one DO IT program on a monthly basis for veterans and family members.
—All research protocols currently established will be completed; while new studies will be developed to continue the product/program evaluation.
—One new site will be developed within the Department of the Army to include a full JVN and DO IT product.
—One new satellite will be developed within the VA (VISN–1) region for image acquisitions.
—Additional research protocols will be established to accommodate these two additional sites.

Fiscal Year 2000 Joslin Diabetes Center Funding Request—$7,000,000

JOSLIN FUNDING SUMMARY:	
DOD/VA Program Participation Costs (current)	$1,200,000
DOD Management and Administration Fees	840,000
Joslin Diabetes Center Expenses	4,960,000
TOTAL, JOSLIN PROJECT COST	7,000,000

Joslin Diabetes Center Funding Justification

Over the past two years, Joslin prepared a budget that covered the costs that Joslin estimated it would reasonably incur. We did not budget for program costs of the DOD and VA that were necessary to carry out this Federal partnership. Neither did we budget for DOD's management and administration fees that were levied against the project's appropriation.

Therefore, the budget that Joslin is submitting this year addresses all known expense items and Federal agency participation costs. The standard management and administration fee has been approximately 14 percent for each of the past two years. These fees are spread across several agencies within DOD, which is apparently a standard practice for extramural contracts.

We have taken those elements into consideration and budgeted accordingly. Of the total of $7 million related to the Joslin Diabetes Center pilot program, $1,200,000 of this amount would be split among DOD and VA for their program costs associated with this project. Of the remaining $5,800,000, we estimate that $840,000 would be levied by DOD against the project. Therefore, the remaining $4,960,000 would be used for the development and purchase of equipment, supplies, travel and Joslin personnel to carry out the program objectives outlined in this statement.

CHILDREN'S HOSPITAL OF PITTSBURGH PLAN FOR FISCAL YEAR 2000

Children's Hospital of Pittsburgh Background

The development of juvenile diabetes research and clinical care at Children's Hospital of Pittsburgh (CHP) and at the University of Pittsburgh Medical Center (UPMC) has had a long and highly productive history for over fifty years. During this time, physicians at CHP and UPMC have offered patients from western Pennsylvania, eastern Ohio and northern West Virginia, a unique and collaborative approach directed toward the comprehensive study of diabetes in children and adolescents.

This research has greatly benefited from the fact that in contrast to other larger cities in the United States, those who are born in Pittsburgh have a high tendency

to remain in the City. This lack of transience in Pittsburgh has bolstered our ability to conduct quality longitudinal research, as several generations of residents have been able to develop long-standing and compliant relationships with our physicians and researchers. These patients have in turn benefited from the unique conglomerate of medical institutions which the University offers which allows diabetes to be studied from a variety of diverse juvenile and adult perspectives, while allowing therapies to be approached from both the preventive and transplantation intervention aspects. This has enabled CHP to establish epidemiologically sound diabetic registries encompassing three generations of patients.

Tremendous strides in diabetes research have been made at CHP under the outstanding leadership of Massimo Trucco, M.D., Hillman Professor and Director of the Division of Pediatric Immunogenetics at Children's and Professor of Pediatrics at the University of Pittsburgh Medical Center. Dr. Trucco also holds secondary appointments at the University in the Departments of Genetics and Epidemiology. We are pleased to have Dr. Trucco leading our diabetes efforts, as he is both nationally and internationally recognized for his expertise in the field of the immunogenetics of diabetes and has an outstanding track record of scientific contribution in prestigious journals. Dr. Trucco's primary focus has been the study of diabetes mellitus in children, from both the genetic and immunologic perspectives. He is a recognized authority in HLA-related research and clinical histocompatability and transplantation.

Dr. Trucco's recent groundbreaking research has established a link between a common childhood virus, Coxsackievirus B or CVB, which may make the body turn against itself in some children, potentially triggering the onset of juvenile diabetes. Researchers have known that juvenile diabetes is associated with viral infections, but they did not know exactly how the virus caused the damage. Dr. Trucco's new evidence suggests that CVB can produce a "superantigen" that can cause the cells of the immune system to act in an unusually aggressive way, whereby cells that normally protect the body turn against it. Dr. Trucco has found that because some children's genetic makeups cause them to be more susceptible, this relatively common virus can potentially become serious.

With this evidence, Dr. Trucco is one step closer to understanding the initial cause of diabetes and to potentially developing a vaccine to prevent diabetes in children who are predisposed to the disease. This exciting research has tremendous implications for the future for the prevention of juvenile diabetes as well as the elimination of the high physical, emotional and financial costs of the long-term management of the disease.

This research, combined with other complementary scientific efforts at CHP and UPMC, have resulted in the creation of the Diabetes Institute of Pittsburgh, which has the goal of understanding, preventing and curing diabetes.

Fiscal Year 2000 Program Overview

As recommended in the recent report released by the Congressionally established Diabetes Research Working Group, efforts to understand the immunological basis of juvenile diabetes and research on islet cell transplantation must be intensified. There are extraordinary opportunities with the rapid advancements in scientific knowledge and in the development of new technologies. Two of these opportunities are in the areas of the genetics of diabetes and autoimmunity and the beta cell, important research areas for CHP.

For fiscal year 2000, Children's Hospital of Pittsburgh will continue to expand upon the initial juvenile diabetes research program that was funded by Congress through the Department of Defense in fiscal year 1999. The Diabetes Institute of Pittsburgh presently maintains expertise in the determination of molecular genetics markers for susceptibility to diabetes and in the determination of molecular and immunologic markers for monitoring diabetic pathology progression. The expansion of the program will allow for the further refinement of the research protocols that have been undertaken by the Institute. To further this important research, the Institute will build upon its pancreatic islet isolation facility which is dedicated to human, mouse and porcine islet transplantation, while also developing a diabetes-committed Molecular Biology Core for the construction and testing of vectors suitable for gene therapy projects.

In addition, further expansions are also planned for the Immunology Core for the definition of diabetes prediction markers and in the Imaging Facility to allow for an Imaging Core for scientists focusing on the study of diabetes. These initiatives will build on an outstanding scientific base and expand opportunities so that investigators can reach for even higher levels of achievements in finding a cure for diabetes.

Other Tasks, Activities or Goals

This research will allow CHP to work with the Department of Defense in addressing the incidence of juvenile diabetes among the dependents of employees and enlisted personnel. These research programs will ultimately enhance the ability to predict and prevent the onset of juvenile diabetes and its resulting medical complications. This research, conducted in a clinical setting, dramatically enhances our ability to more rapidly take scientific discovery from bench to bedside. Following the establishment of these programs, treatment protocols will be established which will allow for an efficient, safer and prolonged acceptance of transplanted pancreatic islets in our diabetic patients, guaranteeing appropriate insulin production.

Fiscal Year 2000 Children's Hospital of Pittsburgh Funding Request—$7,000,000

Funding for such a significant research enterprise cannot come from one source, but must be provided from a combination of public and private dollars. CHP, in partnership with UPMC, has provided start-up funds and some ongoing support for Dr. Trucco and his team. In addition, research laboratories are being expanded for the recruitment of additional scientists who will provide further synergistic opportunities in Pittsburgh. Funding continues to be secured from the National Institutes of Health and from organizations like the Juvenile Diabetes Foundation. However, in our request for a private-public partnership, a substantial infusion of federal dollars is critical to the success of this effort. Public funds provide strong and visible leverage to secure matching private philanthropic contributions from the Pittsburgh region. The project then becomes a true partnership that will make an impact, not only on a regional level, but on a national level as well.

CHP/Diabetes Institute of Pittsburgh Expenses

Expansion of Current Resources and Laboratory Expenses	$2,500,000
Recruitment of Complementary Personnel	1,600,000
Molecular Biology Core	1,000,000
Immunology Core	1,500,000
Imaging Core	400,000
TOTAL, CHP/DIABETES PROJECT COSTS	7,000,000

Summary

The proposed Joint Diabetes Project will provide for the continuing improvement of health and costs related to diabetes in the Departments of Defense and Veteran Affairs through the Joslin/DOD/VA Diabetes Detection, Prevention and Care Project (Program Element #630002, Project #941) and will enable Children's Hospital of Pittsburgh to expand juvenile diabetes research to benefit dependents of employees and enlisted personnel.

This collaborative initiative will allow each institution to contribute its unique patient care and scientific capabilities to further improve the diagnosis and treatment of those with diabetes and to concentrate on efforts to identify a cure for the disease. The shared goal of this approach will help to maximize current efforts to reduce the incidence of diabetes and diabetes-related complications within the jurisdictions of the Departments of Defense and Veterans Affairs as well as society as a whole, while also working toward the ultimate goal of a cure.

Summary—Joint Diabetes Project, Fiscal Year 2000 Funding

Joslin Diabetes Center	$7,000,000
(DOD and VA Costs, DOD Administration and Management Fees)	(1,840,000)
Children's Hospital of Pittsburgh	7,000,000
(DOD Administration and Management Fees)	(980,000)
Total Program	14,000,000

Mr. Chairman, we are pleased to be a part of this project with Department of Defense and appreciate your Committee's support. We would be pleased to answer any questions from you or any other Members of the Committee.

Senator STEVENS. There is $7 million in the 1999 budget for children's diabetes?

Mr. VIOLI. That is 2000. We had a request in for last year that we are still working with.

Senator STEVENS. You did receive $7 million last year?

Mr. VIOLI. No. Last year it was $1.5 million.

Senator STEVENS. $1.5 million. Well, we will do our best. Neither one of these is in the budget. I am informed that there was $4.5 million in this year's budget.

Mr. VIOLI. Correct.

Senator STEVENS. But there is a zero request from the administration. And I will try my best to do it.

We have a new project in Alaska, by the way, on telemedicine. All Federal agencies—after all, we are one-fifth the size of the United States—are involved in a telemedicine joint project. Doctor, despite your retirement, I would appreciate it if you would contact those people and see when it would be possible to put some similar facilities in Alaska to do this telemedicine testings.

Dr. QUICKEL. That is certainly possible. In fact, our intent is that once having developed these systems at Tripler and in the VA, that those then could be extended nationwide in multiple sites. So the long-range intent is to provide access to the entire Nation.

Senator STEVENS. We have a situation, with our State being so large, that often the cost of transportation to get to medical care is much greater than the cost of medical care.

Dr. QUICKEL. Absolutely.

Senator STEVENS. So if we can possibly do it by telemedicine, we should do it. For your information, my father went blind because of diabetes, and I am very sensitive about the study that you are doing on juvenile diabetes. We will do our best to help. I am not sure I can meet the total request of this $14 million here, but we will do our best. And we will increase what we had from last year, we can assure you of that.

Thank you very much.

Our next witness is Sharon Barnes. And you are with the National Military and Veterans Alliance.

STATEMENT OF SHARON BARNES, NATIONAL MILITARY AND VETERANS ALLIANCE

Ms. BARNES. Mr. Chairman, Colonel Charles Partridge, our Legislative Counsel, asked me to convey his regrets, that he was called out of town and could not be here today, and I am delivering his statement.

On behalf of the National Association for Uniformed Services and the National Military Veterans Alliance, we thank you for allowing us to present our views to you today. Our members appreciate your position on the emergency supplemental, to include funds for military pay and retirement. Anyone who thinks that the current state of military pay and retirement is not a threat to medical readiness in an emergency has not kept up with the huge losses of experienced personnel, recruiting problems, and the erosion of the military compensation package over the years.

The Senate proposal, as passed in S. 4, to fix military pay and the Redux retirement system is the correct course. It would begin to address the military pay discrepancy and give military personnel options for retirement. We thank you and urge you to stand fast on this proposal.

Mr. Chairman, the military community, as well as all Americans, are proud of your World War II service, especially as a C–47 pilot

in the China-Burma-India theater. I would like to discuss the current plight of military medicine, relating it to the relationship of a pilot to his crew chief. Although not a pilot, our Legislative Counsel, Colonel Charles Partridge, flew many hours in Vietnam, and observed firsthand the trust and confidence that must exist between the pilot and his crew chief. He never heard a crew chief say that an aircraft might fly or maybe the oil levels are OK; that crew chief put all of his skills and reputation on the line every time that aircraft took off.

Unfortunately, this is now what is happening in military medicine today. Last month, the military Surgeons General stated that their fiscal year 2000 budget was executable but not fully funded. This is the equivalent of the crew chiefs stating the airplane can take off, but there are no guarantees after that. This would not be acceptable to the crew chief nor the pilot, and it is not an acceptable way to deliver health care to patients.

This year, fiscal year 1999, hospital commanders are desperately short of funds. Their oldest, sickest patients are paying the price by not getting the drugs they need or being turned away from military hospital. In a April 17 summit meeting, the DOD Comptroller, Health Affairs, and Surgeons General disagreed not on what the military health system should do or how to accomplish it between fiscal year 2000 and 2005, but how big the shortage is. The Comptroller says it is only $2.2 billion, the Assistant Secretary, only $2.6 billion; Surgeons General, $4.3 billion.

Based on earlier GAO estimates, even the Surgeons General figure will not fully fund the system or problems not considered. For example, shortages in funding have resulted in hospital commanders refusing to issue drugs and sending TRICARE patients to buy them from TRICARE contractors at a much higher price than the MTF pays. The result is a $200 million contract dispute that threatens the future of TRICARE.

PREPARED STATEMENT

Mr. Chairman, we need a plan from DOD, not demonstrations and tests, to provide care for every military beneficiary by the year 2000, expanding FEHBP and the military's National Mail Order Pharmacy now to all who have no access. Solving the health care problems, coupled with the passage of the provisions of S. 4, will turn recruiting and retention around, restore morale, and promote a climate where, once again, military personnel and retirees can honestly recommend military service as a career.

Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF COL. CHARLES C. PARTRIDGE

INTRODUCTION

Mr. Chairman and distinguished members of the Committee, NAUS and the National Military and Veterans Alliance would like to express its appreciation to you for holding these important hearings. The testimony provided here represents the collective views of our members.

The Alliance includes 20 military and veterans' organizations. These organizations represent over 3,500,000 members of the seven uniformed services, officer and enlisted, active duty, reserve, National Guard, retired and other veterans plus their

families and survivors. These organizations whose top priority is a strong national defense are listed below:

Air Force Sergeants Association; American Military Retirees Association; American Military Society; American Retirees Association; Catholic War Veterans; Class Act Group; Gold Star Wives of America; Korean War Veterans Association; Legion of Valor; Military Order of the Purple Heart; Military Order of the World Wars; National Assn. for Uniformed Services; Naval Enlisted Reserve Association; Naval Reserve Association; Non Commissioned Officers Assn.; Society of Medical Consultants; The Retired Enlisted Association; Tragedy Assistance Prog for Survivors; Veterans of Foreign Wars; Women in Search of Equity.

Medical care along with adequate pay and inflation protected retired pay and commissaries are the top concerns of the military community. With base and hospital closures and reductions in medical personnel, the increasing lack of available health care continues to be a major concern to active and retired personnel alike.

We want to thank the committee for its long-standing interest in Military Health Care and for its support for the Federal Employees Health Benefits Program for military retirees.

BACKGROUND

The military health system has several missions, first and foremost is caring for active duty troops and maintaining military medical care readiness, readiness training and contingency operations as well as providing care for active duty family members; continuing to provide promised, lifetime medical care to military retirees, and their family members. To carry out these missions, top quality personnel to staff military medical units, hospitals and clinics are essential. These personnel are attracted to military medicine through the Uniformed Services University of the Health Sciences, the U.S. Health Profession Scholarship Program and quality graduate medical education programs sponsored by the various military medical services. Each is an important element of the system and are all linked together. Additionally, as we are seeing today with the recruiting shortages in all services except for the Marine Corps, keeping faith with the retirees by keeping the medical health care promise is vital to our strong all volunteer force and to our national defense. In a recent Christian Science Monitor article addressing recruitment problems, Major General Evan Gaddis, the commander of the Army's Recruiting Command headquartered in Fort Knox made special note of the fact that "military retirees, upset over a steady erosion of benefits like health care and pensions, aren't talking up military careers to young adults as they might once have."

A military medical system is necessary to support not only the present active forces but also to meet future requirements. To attract, maintain and properly certify highly qualified medical professionals requires assuring them that they will have a complete range of patients with varied health problems to include older retirees. They can't be adequately trained treating only young (average 23) service members and young family members. This means it is imperative to maintain a strong, vibrant, capable direct care system.

The Defense Health System has undergone a significant downsizing in the past 10 years and continues to shrink. The number of normal beds has decreased by 41 percent (12,000), expanded beds have decreased by 46 percent (20,000), the number of hospitals has decreased by 35 percent (58) and the number of medical centers has decreased by 33 percent (6). Additionally, military medical personnel have decreased by 13 percent while civilian medical personnel have decreased by 22 percent. Please contrast these reductions with the 10 percent reduction in the eligible serviced population (867,000) during the past 10 years. According to the Department of Defense "demand continues to exceed supply, especially among retirees" all the while, the "Medicare eligible population (is) growing 4 to 5 percent annually". And at the same time, the Department of the Air Force is directing its Medical Command to eliminate 1,300 more uniformed officer medical personnel.

CURRENT

The direct care system coupled with TRICARE Prime, Extra and Standard along with Medicare Subvention and increased cooperation between DOD and DVA should result in adequate care for all eligible beneficiaries. Unfortunately, military personnel are increasingly being disenfranchised and DOD has not yet developed a plan that will provide an adequate health care option for all DOD beneficiaries. In addition, the TRICARE system is flawed. Some of the problems and recommendations for solving them follow:

A DOD study found that TRICARE administrative costs are far too high. Each Managed Care support contract proposal costs millions of dollars; each winner can

expect protest from the losers costing more millions. More money is being spent on medical administration and less on the patient. We believe this committee should direct a review of alternative means of procuring private sector healthcare to supplement the Military healthcare system. Pending that review, current contracts in the Western regions, which will soon require recompeting, should be extended. The extension would provide badly needed program stability before starting another round of contracting.

While we support expanding TRICARE Prime beyond catchment areas, some areas are too sparsely populated to create networks. If the TRICARE Standard benefit were adequate, beneficiaries in those areas could still be served. However, the CHAMPUS Maximum Allowance Charge (CMAC) is too low. The CMAC should be linked to the service benefit plan of the Federal Employees Benefits Program plan benefit as Congress originally directed, rather than the Medicare rate. This point cannot be overstated especially in areas that are medically undeserved.

DOD has also reduced the value of TRICARE Standard/CHAMPUS when it is used as second payer to other insurance. When CHAMPUS/TRICARE Standard is used as a second payer it is based on "benefits-less-benefits" rather than a "coordination of benefits" basis. As a result beneficiaries usually receive no benefits from CHAMPUS as second payer. The coordination of benefits method should be restored and legislative provisions put in place to keep it.

The TRICARE Point of Service (P.O.S.) option for enrollees in the Prime program is too expensive at $300/$600 deductibles and 50 percent copay. The P.O.S. option should be changed to the TRICARE Standard rate, $150/300 and 25 percent copay. We have seen no evidence of abuse of the P.O.S. option and believe that the standard deductible and copays are enough to prevent frivolous use. Further, there should be no requirement to obtain advance authorization to use the P.O.S. option.

The VA is a TRICARE subcontractor in some regions. Currently, copays are the same whether beneficiaries use the VA or civilian providers. Military personnel believe that VA hospitals/clinics should be given the same status as MTFs for TRICARE purposes and that copays be waived if beneficiaries obtain their care at VA hospitals and clinics.

Every one of these problems cited here has a common thread—save money by eliminating or reducing care provided. The fewer beneficiaries served means the fewer DOD dollars needed to provide health care and increases the dollars available for equipment and weapons systems. Regardless of the promises made and of all the intentions of this Congress, health care for military retirees is not treated as a benefit and it certainly is not treated as an entitlement. Health care for military retirees, their families and their survivors is merely a line item expense in the DOD budget to be squeezed for more pressing needs by comptrollers and budget analysts who do not rely on the Defense Health Program for their health care.

Unfortunately the shortcomings in the Defense Health Program for retirees are spilling over to the active force as well. In early 1999, the Army's 5th Recruiting Brigade held a Family Symposium in St. Louis, Missouri. This symposium was one step in the Army's Family Action Plan and it brought together spouses to discuss issues of concern to recruiters, their families and the U.S. Army. At the close of the meeting the delegates voted on their top 5 issues. Issue #2 was "Timeliness of TRICARE Claims Payment". Issue #1 was "Lack of TRICARE Providers". Last fall, a member of the NAUS staff was attending the Chief of Staff, U.S. Air Force's Retiree Council conducted at Randolph Air Force Base. While visiting the gymnasium, he met a young F–15 pilot who had just resigned his commission and accepted an appointment in the reserves. His reason for leaving the active force? Health care. While deployed in the Middle East, his spouse and their children could find no health care providers near his parents-in-law's home that would accept TRICARE Standard and, of course, there were no health care providers in a TRICARE Prime network. His new job with airlines offered him trouble free health care that he and his spouse could depend on. The young man said his decision to leave wasn't about money, and in fact, he would have paid to fly the F–15 Eagle. He said it was all in how you take care of your people and health care was the most important part of that for him. There are other TRICARE and Defense Health Program "spill-overs" into the active force that you need to be aware of. At the 1999 national TRICARE conference, the Under Secretary of Defense for Health affairs, Dr. Sue Bailey, made a special point of talking about bringing more care into the MTF. There is a great irony here because Dr. Bailey's call for bringing more health care inside the MTF comes at a time when military hospitals are continually being downgraded to clinics status, military doctors are being eliminated (1,300 in the U.S. Air Force alone by the year 2000), and skilled medical support personnel positions are being eliminated (600 licensed practical nurse positions are being reclassified as infantrymen or truck drivers in the Army). To see the results of these conflicting policies you need go no

further than right here in Washington, DC. Personnel shortages and staffing decisions have left Walter Reed Army Medical Center (WRAMC) no longer able to care for all seriously ill dependent children of our active duty service members in the National Capitol Area. In February at least 10 children had to be referred to Children's Hospital because neither WRAMC nor Bethesda (the National Naval Medical Center) had the necessary beds and support personnel. Many of these costly referrals could have been avoided with the addition of just one more nurse on evening shift and one extra nurse on nights.

There is another ramification worth mentioning, especially to this Committee that has already devoted so much time and energy on the subject of pay and compensation issues for our uniformed personnel as well as this Committee's efforts in trying to fix the disincentives for military service. In the next 2 to 3 years, the vast majority of our enlisted personnel will be up for re-enlistment. One can imagine the frustration and anger that the active duty men and women will feel about the inability of the respective medical corps to take care of their children inside of the system. Because, not only does each referral to Children's Hospital add at least $10,000 to the cost of care for the government and the taxpayers, the families of these children are faced with copayments and deductibles that they otherwise would not have been required to pay had their children been admitted to WRAMC or Bethesda. If this is occurring in the Army and Navy's premier facilities, what must be going on in Colorado and Georgia? Additional medical expenses, especially for our more junior members, was not part of the recruiting pitch or re-enlistment talk and these expenses adversely impact on the overall compensation package for these young soldiers, airmen and marines.

One final, general point that is being made at WRAMC—every aspect of business is starting to revolve around the patient's TRICARE status. Non-Medicare eligible retirees are restricted from primary care except for space available. If they get in for one visit, they are told not to expect a follow up appointment. Therefore, even if a patient needs care for a continuing disease such as Diabetes, or other conditions that would support a Graduate Medical Education (GME) program at WRAMC, they are told to go somewhere else or buy into Prime.

MEDICARE REIMBURSEMENT (SUBVENTION)

We welcome the Medicare reimbursement demonstration project, which is authorized at six sites in 10 locations. We hope that the program can be rapidly expanded to serve more beneficiaries at more sites and full implementation expedited. According to the GAO (GAO/T/HEH5–97–84 Feb. 1997) no more than 75,000 of the 1.2 million Medicare eligible beneficiaries can be accommodated by military treatment facilities even after the program is fully expanded throughout the United States. DOD expects to care for additional Medicare eligibles in the TRICARE Networks; however, it is clear that all Medicare eligibles will not be served and that another option is needed. We will address this issue later.

MEDICARE SUBVENTION PPO OPTION

Last year Medicare reform legislation also provided for the first time for a Medicare Preferred Provider Option demonstration project. Unfortunately, the DOD/Medicare Subvention agreement allows only a test of an HMO option, which DOD plans to do through the TRICARE Senior Prime program. We believe the PPO Option should be added to the DOD/Medicare demonstration project. This has the potential for the biggest benefit to DOD and the largest savings to the Medicare Program. It would be a more acceptable option to retirees than the TRICARE Partners or Affinity program that will be part of the Subvention demonstration.

FEE-FOR-SERVICE MEDICARE SUBVENTION

We would like to see another Medicare reimbursement option tested on a fee-for-service basis. This test would allow Medicare eligible military beneficiaries to keep their standard Medicare benefit, and when using the MTFs on a space available basis, present their Medicare Card to the MTF. The MTF would bill Medicare as other providers do, except that it would be on a discounted basis to reflect the lower cost of care provided by the MTFs.

This would save Medicare Trust funds while making more efficient use of MTFs and use capacity that otherwise would not be used. This also supports our contention that Medicare eligible military medical beneficiaries earned the promised lifetime medical care for themselves and their eligible family members in MTFs and they paid for Medicare Part A coverage through mandatory deductions from their military and civilian pay checks. The combined earned and paid for health care access is moral justification for this fee-for-service option.

FEHBP OPTION

We appreciate the support of this Committee and the Senate for a demonstration of the Federal Employees Health Benefits Program (FEHBP). While DOD still has not yet submitted a plan that would provide a health care option for all military beneficiaries, we believe this test, if properly supported and executed, will provide them with the information they need to design an FEHBP plan for those military beneficiaries unable to gain access to an MTF or to a TRICARE Prime network. However the program is not funded at the level initially planned; further, DOD has not solved the problem of ensuring that the cost to the military beneficiary in the demonstration is the same as comparable plans offered to federal civilians.

We believe funds should be earmarked for the purpose of guaranteeing the rates while ensuring that the current FEHBP beneficiaries are protected. We also recommend that sufficient funds be added to the demonstration to establish a reserve fund to guarantee the rate structure and to increase the number of enrollees. Congress said that the test could involve a total of 66,000 participating beneficiaries but the test has been designed with a total of 66,000 eligible beneficiaries. In the absence of adequate funding, in our opinion, the issue of the separate risk pool is not being addressed aggressively and no assistance is being offered to OPM by DOD to resolve the question on insurance reserve funds. OPM appears to be proceeding on track to have the program ready to go on 1 January 2000, but our concerns remain.

There is a bill in the House that would remove the ceiling on eligible participants and permits Medicare-eligible retirees throughout the country to participate should they desire. The bill, H.R. 113, is sponsored by Representative Duke Cunningham who said in his Dear Colleague letter: "Military Health Care: If It Ain't Right, Fix It". Costs could be controlled if necessary by capping the program. Our estimates indicate that some 30 percent of retirees would select the FEHBP option. The death rate of older military retirees, especially those of WWII and Korea is close to 3,200 per month. They need access to health care now, not five to seven years from now when it would be too late. Now is the time to act. We must not continue to allow the decline in availability of medical care to disenfranchise military retirees and their families.

PHARMACY ISSUES

A uniform benefit with integrated pharmacy databases that serve all 8.2 million military health care beneficiaries is a benefit supported by the National Military Veterans Alliance (NMVA). However the NMVA has the strongest opposition to any pharmacy fee inside of the military treatment facility. Any proposal that includes MTF pharmacy fees would be a gross breach of faith and a violation of the military health care promise. The NMVA would urge that any proposed benefit would allow military healthcare beneficiaries access to all FDA approved drugs for all beneficiaries regardless of age or geographical location. Additionally, although we support the maximum use of generic drugs, if a particular brand or new drugs are needed, they should be made available. While management efficiencies and centralized database can provide some savings, the pharmacy redesign cannot be fully funded from within current resources without a reduction elsewhere in the DHP. Since the DHP is already not fully funded, this would create serious problems.

MEDICAL CORPS END STRENGTH

It is not cost effective to include military health care personnel in the downsizing efforts of DOD. Rising cost of health care maintenance organizations (HMOs) substantiate that the overall cost of the military health system (MHS) to the taxpayers will be significantly reduced if military beneficiaries (active duty, retirees and their family members) are treated, to the optimum capacity, in the military treatment facilities. Breaking out the health care billets from the overall force strength will ensure quality, cost effective care by MHS and eliminate the competition for billets as identified for both military and medical readiness.

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

NAUS thanks this committee for its strong support for providing necessary funding for the continued operations of the Uniformed Services University of the Health Sciences. Study after study has shown that when all factors are considered USUHS is more cost effective that the U.S. Health Profession Scholarship Program. We urge you to continue your support for this school, which is a national resource.

RETIREE DENTAL PROGRAM

The unsubsidized Retiree Dental Program, which recently began enrolling retirees, has already signed up over 100,000 military families. The program should be reviewed as we obtain experience this year to determine what adjustments in benefits should be made to meet the needs of beneficiaries and remain cost effective to them.

UNIFORMED SERVICES FAMILY HEALTH PLAN (USFHP)

NAUS wants to take a moment to support the USFHP program offered by the seven TRICARE Designated Providers, also known as USTFs. We see it as a choice for certain populations and a choice that is highly rated by beneficiaries. The USTFs have transitioned to TRICARE Prime and are doing great work educating beneficiaries on all options available to them, including those offered by the Managed Care Support Contractor in the region. Additionally, the nine Uniformed Services Treatment Facilities continue to treat military beneficiaries through their USFHP at a satisfaction rate of well over 90 percent (as contrasted to an overall satisfaction of 75 percent for TRICARE). They use the same fee structure as TRICARE providers. The Facilities offer the only DOD sponsored program that is keeping the military healthcare promise by guaranteeing care to Medicare eligible military beneficiaries fortunate enough to live near them and obtain care there. We thank this committee for its support for the USTFs in the past and urge you to continue to support their operation.

Both the Managed Care Support Contractors and the USTFs provide essentially the same benefit at essentially the same cost to the government. The programs differ in the local networks of doctors and hospitals available to beneficiaries. Some beneficiaries find one network more to their liking; others find it easier to access care in the competing network.

Since the benefit packages and costs are essentially the same, this should be purely an issue of beneficiary choice and ease of access to care. Yet, while retirees and their eligible family members may enroll in the TRICARE Prime networks offered by Managed Care Support Contractor for a twelve month commitment at any time during the year, this opportunity is available only one month each year for the TRICARE Prime program offered by the USTFs. In the interest of beneficiary choice and improving access to care by retirees and family members, we encourage you to allow enrollment into both TRICARE Prime programs year round.

The government's contracting officer for TRICARE has denied several requests to broaden the enrollment period, citing the statutory requirements of the contract. The contracting officer also reinforced and confirmed a point NAUS has been making for several years, specifically that the Department of Defense is not interested in providing health care for the Military's Medicare eligible beneficiaries, considering them to be financial liabilities, except in confined test situations inside of an MTF. The contracting officer wrote: "To now propose continuous open enrollment for retirees and their families would put the Department at a significant financial risk for adverse selection, particularly in the age 65 and older population." As mentioned earlier, it's not about health care for the deserving warriors and their families, the very men and women who saved the world in World War II. It's all about denying care to save money.

CLOSING

Mr. Chairman, the National Military Veterans Alliance thanks you and this subcommittee for holding this hearing and we urge immediate action to enact FEHBP legislation now, so that military beneficiaries can begin enrolling and receiving care in fiscal year 2000.

A sense of the Congress resolution passed eight years ago expressed the Congress' intention to solve the health care problem. Mr. Chairman, the Department of Defense still does not have a plan that by a date certain will provide all military personnel and retirees, access to health care. Even in a period of surplus, we are told there is no money. Our response is if this Administration and Congress cannot solve this problem now, when can it be solved and who can and who will?

Senator STEVENS. Thank you.

My trouble is that the administration told the military there is $4 billion more in this bill. When we examine it, there is more than $4 billion of items we cannot use. For instance, they told us there is $1.65 billion in unspecified rescissions that we must make. They

did not tell us where to put the cuts, but they told us to cut it. They told us they were taking fuel savings and foreign currency exchange savings. And, as a matter of fact, fuel costs are going up, not down.

Ms. BARNES. That is right.

Senator STEVENS. And the exchange rates are going up, not down. And we have got a bill that is probably $4 billion to $5 billion underfunded, rather than having $4 billion more. Now, that is not easy to meet requests like yours that go into the billions. We can adjust a few million here and there and take out other priorities. It is very hard to take care of that kind of money.

We did, last night, put in the $1.8 billion to start the increase in pay and to start the change in the retirement system. Although that has to be authorized. The pay raise is authorized, but the other is not. So that will take place on the first day of January of next year.

But I doubt seriously we can find the money to meet your request. We will start adjusting it, but I do not think we can meet that in one year. It is just not possible. But we will do our best. You are right. And I think you are right, too, in terms of the problems of reenlistment and future enlistments. I doubt very many young men and women are going to join the military if their parents come back and tell them that the Federal Government has not kept the commitments that were made to them.

Ms. BARNES. Yes, sir.

Senator STEVENS. And we are already seeing that in terms of the people from the Vietnam era, who are telling their children that they did not keep their commitments made to them. And I think it gets harder and harder to maintain a volunteer force under those circumstances. If it keeps up, they are going to drive us back to the draft, which none of us want.

Ms. BARNES. Yes, sir.

Senator STEVENS. But right now, this enlistment rate and reenlistment rate is very bad. But we will do our best to help. Thank you for coming.

Ms. BARNES. Thank you very much, sir.

Senator STEVENS. Now we want to talk to Joyce Raezer, please.

STATEMENT OF JOYCE WESSEL RAEZER, SENIOR ISSUES SPECIALIST, NATIONAL MILITARY FAMILY ASSOCIATION

Ms. RAEZER. Thank you, Mr. Chairman.

It is appropriate that the National Military Family Association is presenting testimony today on the quality of life for military families because today is Military Spouse Day. In his Military Spouse Day statement, the Secretary of Defense spoke of the challenges faced by military spouses as they, "Manage the unique demands military life places on them and their families."

This morning, I would like to share with the subcommittee some of the challenges, other than the most obvious one of holding things together to support the mission in times of war, facing military families on Military Spouse Day 1999.

When the military member is away from home two or three times more than he or she was a few years ago, the stress on the family is a challenge. When the military member works 16-hour

days and six-and seven-day work weeks at a home station, the loss of family time is a challenge. When the family budget must absorb increased costs because the member is deployed, the loss of buying power is a challenge. When a change to the formula for the basic allowance for subsistence causes married folks to lose income, filling the grocery cart is a challenge.

When families encounter changing rules, inaccurate information, and fluctuating provider networks in TRICARE, accessing health care for a child is a challenge. When health care costs actually rise because of a faulty and lengthy claims process, the out-of-pocket costs are a challenge. When recently called up Reserve families receive incorrect information on their health care benefit, making the best decision about a family's medical care in the short time available to these families is a challenge.

When a family cannot get plumbing or electricity fixed in their government quarters for weeks on end, that is a challenge. When a family loses benefits, such as the Women, Infants and Children Nutrition Program, WIC, simply because they are ordered overseas, buying baby formula is a challenge. When the per diem and mileage allowances for a permanent change of station are not changed for 13 years, the increased cost to families of making the move is a challenge.

When military children go from one school district to another, and must always attend class in a portable because the government does not meet its stated fiscal obligation to these school districts, that is a challenge. When contracts to outsource family services cause the loss of volunteers, filling the void left in the military community is a challenge. When military construction projects for family housing are put on hold while the services work out the nuts and bolts of the privatization initiative, the wait for quality housing is a challenge.

When military families are told that they only perceive the diminution in their quality of life, maintaining trust in the system is a challenge. Military families are flexible. They are realistic and they are patient. They know that not all these challenges can be successfully addressed in one year or two or even five. A combination of circumstances and policy and operational decisions have broken the trust of the military family. To rebuild that trust, a long-range plan to ease the challenges they face must be developed and followed year by year.

We view some of the initiatives in S. 4 and the recent allocation in the supplemental for the additional pay increase as a start in meeting some of that promise and that commitment. We especially like the pay increase, the pay table reform and the inclusion in S. 4 of the WIC program overseas.

PREPARED STATEMENT

Military families need to know that their country's leaders recognize the challenges they face, and that policymakers have promised to fix those problems. But, above all, they need to see that promises made are promises kept.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF JOYCE WESSEL RAEZER

QUALITY OF LIFE

It Didn't Just Happen Last Year

Members of this Subcommittee may remember that three years ago NMFA reported to you a situation we called "They Only Sleep Here": a situation caused by 12 to 16 hour work days and 6 and 7 day work weeks. We reported that while frequent deployments were placing increasing stress on families, the long work days and weeks when at home station were causing the greatest disruption in family life. We also reported that the change in the formula for the Basic Allowance for Housing, while an improvement in concept, proved to be a "robbing Peter to pay Paul" formula in actual practice. Families going to higher cost of living areas saw a decrease in their out of pocket costs for housing, but families going to lower cost areas saw an unexpected increase in their out of pocket costs. We have reported that the cap on the Basic Allowance for Subsistence was an actual pay cut for married enlisted members and all officers. In practice, young officer families are seeing an increase in the amount they must pay out of the family budget to meet the servicemember's government food bill when the servicemember is deployed.

We reported that pay caps have caused families to dig deeper into their pockets each fall to buy school clothes and supplies for their children; to reduce or eliminate their recreation activities; and to rob the family's food budget to pay necessary bills.

Government Housing, Where is the Landlord?

Military families living in government quarters have seen the maintenance of these houses go from bad to worse. Families are frequently told that if they have two bathrooms, the plumbing problem that precludes the use of one of them is not considered a priority and may be fixed in a few weeks. Peeling paint, water running down walls and sewage back ups when it rains, and frequent electrical outages are all considered a norm in many older military housing areas. Families were excited to hear of the new privatization initiative that was supposed to build housing more quickly. They were equally pleased when former Secretary of Defense Perry announced a five-year plan to upgrade the maintenance on their quarters. Unfortunately, no shovels have been turned on the privatization initiative and the Perry initiative lasted one year.

Privatization—Panacea or Problem

Families now read on the internet that privatization may mean the loss of base security, which is often their number one reason for moving into government quarters. They also hear that private retail concerns may take the place of their familiar commissary, exchange and MWR facilities. They wonder what that will mean to their pocketbooks. Will these facilities cost more to use? Will the profits from these private retail activities fund their MWR programs? If the land under these new homes does not remain federal, what effect will the nine-fold cut in Impact Aid have on the quality of their children's education? Noting the dearth of new family housing construction in the past few years, families wonder if the services are attempting to turn their installations into places of work, instead of communities.

Outsourcing—Does it Save Money or Cut Services?

Some families are finding it harder to access the services of family service centers as regionalization has increased the distance they must travel for these services or reduced the hours these services are available. Families are concerned that outsourcing these activities will lead to reduced services. Traditionally when funds are cut, professional family service center staff double and triple hat and increase the use of volunteers to provide needed services. Will private contractors wear two and three hats? Will the outsourcing contracts call for volunteer training and supervision? Or will volunteer programs be eliminated, further eroding the sense of community?

Family Advocacy—Before or After?

NMFA disputes much of the characterization of family violence in the military as portrayed in a recent "60 Minutes" airing. We are aware that some Commanders do not place the proper command emphasis on the issue. Others are either unaware of the programs the military has in place to assist servicemembers and their families in avoiding inappropriate behavior and actions, or believe the servicemember's presence at his/her job is more important than making sure of their attendance at counseling sessions. However, the military services are far more proactive in many arenas having to do with family violence than is the civilian sector. DOD's transi-

tion program for family violence victims stands at the head of the class when compared to other programs.

NMFA's biggest concern is for the New Parent Support Program. The military is composed of young families having their first babies, thousands of miles from their extended family and under the stressful conditions of today's high OPTEMPO. The New Parent Support Program gives these families the tools, education and skills to be loving, effective parents. The Program both decreases the probability of family violence and increases the healthy maturation of these young adults into responsible parents. However, when funding is cut, programs are cut. When funding is cut only those noted to be "at risk" are served. New parents either have no access to the program or are "labeled" if they do. NMFA believes strongly that this is one of the best and most productive proactive family violence prevention tools in DOD's armory. DOD must be encouraged to fully fund the program for all installations.

Best Business Practices on the Backs of Military Families

Families have read in their military papers that the Defense Commissary Agency (DeCA) plans to add an additional 1 percent to the price of most goods sold within commissaries. NMFA is aware that DeCA no longer has access to the fund that helped absorb the loss due to spoilage and pilferage. We are also aware that some would call this a "best business practice." Military families view it as one more attack on their benefits. They question why "best business practices" always seems to mean more money out of their pockets.

Overseas Tours = Loss of Benefits

Young families arriving for an overseas duty tour are shocked to discover that they no longer have access to the Women's, Infants' and Children's nutrition program (WIC). Professionals at family service centers and volunteers with military spouse clubs struggle valiantly to provide some sort of nutritional relief for these pregnant women and young children. However, reports to NMFA indicate they are slowly losing the battle. Spouse clubs, whose membership has been vastly reduced due to the drawdown, and whose ability to raise funds has been curtailed by service directives, can no longer cover the costs of providing even a modicum of service in some overseas communities. In larger communities the funds seldom go beyond one or two trips to the Commissary for infant formula. The frustration of these professionals and volunteers is severely exacerbated because they know a law has existed for five years, which allows a WIC like program to be implemented overseas. Apparently their voices and the voices of the young families are not being heard when representatives of the Department of Agriculture and DOD argue over who is to pay.

Another Move = More Dollars Out of Pocket = More Frustration

Servicemembers have not seen an increase in their per diem and mileage allowances for permanent change of station moves since 1986. While the current low price of gasoline helps, it does not make up for 13 years of inflation in the costs to make a military move. Families hear of plans to increase the quality of their steadily deteriorating household goods movement process. Then families hear the changes may take years to affect their own moves.

School Reforms Produce Problems for Military Families

The increased emphasis on state testing in schools has caused military children to enter new schools only to miserably fail the first test they are given. When a state test in social studies includes questions principally regarding that state's history and the child has just arrived in the state, it is a setup for failure. Block scheduling has meant military children transferring in the middle of the school year may be unable to compete in certain subjects. School districts, principals, teachers and parents are struggling to meet the unique needs of the mobile military child, but this does not come without cost. Many military families are now opting to home school in order to avoid these pitfalls. However, that reduces the family's income, as the spouse must remain unemployed.

REDUX, The Road to Poverty in Retirement

Military families also know that, for the majority of them, the financial reward at the end of 20 years of sacrifice has been significantly reduced by the REDUX retirement plan. The "cushion" that current retirees and their families have to ease their transition to civilian life will not be there for the servicemembers retiring under REDUX. Forty percent of base pay combined with Cost of Living Adjustment caps may well not cover even the mortgage or rent payment.

TRICARE

Whose Rules?

As Tricare has completed its march across the country, families are finding it even more difficult to keep track of the "rules of the road." Each contractor appears to have different rules for accessing care.

Health care services covered in one Tricare Region are not covered in another. When is skilled nursing care a benefit and when is it not?

Providers drop out of the network while a family is en route to a new duty station or while they are at the new station and therefore some promised specialty care for Exceptional Family Members is no longer available. These family members are often advised to disenroll from Prime and go Tricare Standard in order to access that specialty care. Besides having higher Standard co-payments, these Exceptional Family Members cannot usually access routine primary care at their local military facility because they are not now enrolled in Prime!!

How in the world is the family assigned to recruiting duty hundreds of miles from a military installation supposed to know that they now need pre-authorization for all inpatient care and a host of outpatient services? Unlike those in private sector and federal civilian plans, Tricare Standard beneficiaries are not routinely provided a benefits coverage booklet. Families are told by DOD and military Tricare officials that the pre-authorization process is a requirement for the provider. Families are also told that any deduction in payment (or non-payment) for not having a pre-authorization will be born by the provider. We have yet to hear from a family who has received a refund from the provider when they have paid for the care up front!! In addition, most military families are especially attuned to paying their bills. If a bill comes in they pay it! At least one Tricare Support Contractor has written a Member of Congress that the BENEFICIARY was aware that she needed to obtain pre-authorization for care. Did the Tricare Contractor not understand the role of the provider in pre-authorization?

Whose rules are families to follow?

Pre-authorization

Tricare Standard families and their providers spend days trying to get authorization for care. Can you imagine what it is like to wait for days to schedule an MRI to discover if you have a tumor because pre-authorization is so difficult to obtain?

Tricare Prime beneficiaries away from home on vacation can spend days waiting to receive authorization for care for an urgent condition. Can you imagine what it is like to have a baby with an ear infection and be unable to get permission to get care for that baby for several days?

Only "Start Up" Problems?

Families have repeatedly been told that the "problems" of Tricare are simply "start up" problems. Yet each Region, as it has gone on line, has had the SAME problems. What will happen when the contracts are re-competed? If a new contractor comes in, will families experience the same old "start up" problems? In fact many problems persist across most of the Regions. Region 11, which up to now has been one of the best running Regions, has just lost its prime subcontractor. Large provider groups have pulled out of Prime networks in a majority of the Regions.

Low Tricare maximum allowables and contractors' attempts to obtain discounts off these prices do reduce provider participation in many areas. However, the claims hassle is the problem most often cited by providers as their reason for leaving the network. Numerous military families have reported to NMFA that they felt like welfare patients as providers or providers' business offices freely shared their disgust with Tricare.

Calls to Tricare Support Contractors' toll free numbers (the only toll free numbers usually provided to military families) produce a variety of misinformation. Military family members who think they are aware of the rules have no place to turn when they get questionable information from the Tricare Support Contractor's telephone line. Even families stationed where there is a military medical facility receive incorrect information by their Health Benefits Advisors who listen to contractor personnel rather than checking with their military chain of command. An on-call military doctor, acting as the primary care manager for a northern Virginia area over a holiday, recently suggested that the parent might want to take a child enrolled in Prime to a civilian neighborhood 24 hour clinic rather than the military hospital's emergency room to ascertain if the child had a broken bone. Such action would have undoubtedly resulted in an extremely costly point of service charge for the child's care. How can we expect families to know the rules when the contractor's personnel

do not, when military health care professionals do not, and when the rules change from one Region to the other?

Reserve Families and Tricare

As the services begin the largest call-up of the Reserves since the Gulf War, families unfamiliar with Tricare will need accurate information fast to make important decisions about their health coverage. Many Reservists and their families do not know what Tricare is—all they remember is CHAMPUS. When called up, they will receive the toll free number of their region's Tricare Support Contractor. The Support Contractors' operators must be able to explain Tricare and its options to people in a stressful situation who are unfamiliar with the program. Early indications are that the quality of the information from Support Contractors varies greatly. One reservist's family had recently made the decision to stay with the servicemembers's civilian employer's health care insurance, even though they would have to pay the total premium, because of incorrect information provided through the Region's toll free number.

To minimize the financial toll on Reserve families, NMFA would support an extension of the demonstration authority granted in support of the Bosnia deployments for Reservists called up in support of the Kosovo operations. This authority waived the Tricare Standard deductible so that Reservists, who had probably already paid the deductible for their civilian plan, would not have to pay another. The authority would also allow Reservists' families to join Tricare Prime if a network existed in their community without waiting the 149 days.

Military Families Are Paying the Bills

NMFA's greatest concern is that many military families are simply paying the bill rather than go through the hassle of dealing with the Tricare claims process. Military families know that a letter of indebtedness going to a servicemember's commanding officer is a "kiss of death." Since most military spouses are working, neither the member nor the spouse has the six to eight hours it often takes to go through the maze of attempting to fix a claim.

Medicare Eligibles

The over-65 beneficiaries have, thanks to Congress, been given a wee light at the end of the tunnel. The Medicare Subvention demonstrations, called Tricare Senior Prime, are now up and running in all six sites. The Federal Employees Health Benefits Program (FEHBP) demonstration is to start in eight sites by January 1, 2000.

NMFA has noticed that in all but one of the Tricare Senior areas enrollment has not reached capacity. Dialogue with many of the eligible military retirees in these areas reveals a profound distrust of the "demonstration." To quote a retired Sergeant, "They kicked us out once, what's to keep them from doing it again when the demonstration is over?"

The FEHBP demonstration program may also be running into a major snag. The Office of Personnel Management has apparently decided that the language requiring a separate risk pool also requires the insurance companies to set up a separate reserve account. Since DOD has selected sites with only 65,000 eligibles rather than sites that would produce 65,000 enrollees, as was the Congressional direction, some small regional HMO companies may have to set exorbitantly high premiums for the demonstration in order to fund the reserve account. Since the demonstration program is to test how many eligible military retirees would join an FEHBP plan, excessively high premiums will not produce accurate test results. In addition, military retirees who had reasonably expected their premiums to be in line with their fellow federal civilian retirees will undoubtedly blame both DOD and Congress and view the situation as just one more way to deny them care.

NMFA is also concerned that even the combination of the two test programs still leaves a vast number of the over-65 military retiree population with no employer-sponsored health care. We continue to believe that not providing a DOD health care benefit to this entire population immediately is a broken promise. For DOD to design a program that intentionally left out this most vulnerable population is a breach of faith of enormous proportions. Many of these retirees are the parents, grandparents, or aunts and uncles of those who are now serving in uniform or who are potential recruits. Other retirees are undoubtedly the family friends and neighbors of those currently serving or who could serve. These men and women, normally the best recruiters the services have, trusted their country to stand by its promise. For many, the demonstration programs and their follow-ons will be too little too late.

NMFA's Health Care Plan

Appendix 1 is a plan for a military health care plan that NMFA first proposed to Congress and DOD in 1992. With Tricare now fully implemented across the country, we believe it is time to review that plan. NMFA believes that either the plan itself, or some combination of the plan and Tricare, may more fully meet the government's obligation of providing a health care benefit to its military employees and retirees and their families. The NMFA plan combines the FEHBP with a military health care delivery system that should provide a more uniform program, with choice, and still support the readiness mission of the military health care system.

PERCEPTION?

Can one wonder why military families have lost faith when they hear policymakers talk of this diminution in their quality of life and their increased out of pocket expenses as a PERCEPTION? Can one wonder why servicemembers and their families are questioning the value their country places on their service?

The increased stress caused by frequent and unexpected deployments and long home station work days and weeks is not a perception to families whose lives are consumed by it. The pay gap is not a perception for those who balance the family budget. The out of pocket cost for permanent change of station moves and housing is not a perception to families who can no longer afford a family vacation. Finding their dishes in pieces at the end of a military move is not a perception. The loss of access to the WIC program simply because they are stationed overseas is not a perception to families with young children and small incomes. The mildew on their carpets from rainwater dripping down the inside of the walls of their government quarters is not a perception to those who spend countless hours pleading for repairs. The increased complexity of trying to get care under Tricare is not a perception to a mother with a sick child. The challenges of new education programs and tests is not a perception to a fifth grader who moves to a new state and, on his first day at his new school, is presented with a test composed primarily of questions relating to that state's history. A retirement plan that cuts the value of retired pay by almost 20 percent is not a perception.

PROMISES

Families are hearing the promises of higher pay, a fix to the REDUX retirement system, a mandatory extension of a WIC-like program to overseas areas, and an improvement in the Tricare program. They question, however, if these promises will actually come to fruition and if the trend toward improving their quality of life will be on-going.

THE SILVER BULLET

Military families are flexible, resilient and relatively patient. But it is past time for them to see a glimmer of light at the end of the tunnel. They also need to trust that the light will grow brighter each year and not disappear after a single flicker. Mister Chairman and members of the Subcommittee, it is this trust that is the Silver Bullet:

Trust that leaders and policymakers see the diminution in their quality of life as a reality and not a perception

Trust that their concerns will be addressed in a steady and constant manner

Trust that the sacrifices of their servicemembers and themselves is appreciated by their country and its leaders

Trust that the funding will be there for the promises to be kept this year and next year and in the ensuing years

Trust that quality of life is not just a nice phrase in a speech, but an abiding concern of those responsible for their wellbeing and the wellbeing and safety of the country they serve.

APPENDIX 1.—HEALTH BENEFITS PROGRAM FOR MILITARY BENEFICIARIES

The National Military Family Association's (NMFA) Proposal for a Health Benefits Program for Military Beneficiaries has three components. They are as follows:

—A Military Health Plan based at Military Treatment Facilities (MTFs) would be created.

—All eligible military beneficiaries (with the exception of active duty servicemembers), regardless of age or health status would have the option of enrolling in any non-restricted Plan in the Federal Employee Health Benefits Program (FEHBP).

—A Health Care Allowance would be established for Active Duty Personnel for their family members.

NMFA believes the health care of active duty personnel is a readiness issue. The decision to apply the program to Active Duty Members must be made by DOD and the Services, therefore they are not included in this Proposal.

Military Health Plan.—The Military Health Plan would be based at Military Treatment Facilities and when necessary, supplemented with civilian health care providers or networks under contract to the Department of Defense. All eligible military beneficiaries (including those eligible for Medicare) would have the option of enrolling in this plan during an annual "Open Season". Enrollment would guarantee access to health care for all beneficiaries who choose to enroll.

FEHBP.—All eligible beneficiaries (other than Active Duty Personnel) would have the option of choosing any non-restricted FEHBP Plan under the same terms as Federal civilian employees and retirees. All eligible military beneficiaries would have the option of enrolling in a Plan during annual "Open Season". The FEHBP offers a wide range of choices and does not allow exclusion for pre-existing conditions. It offers full or supplemental coverage for Medicare eligible beneficiaries and covers prescription drugs. Many plans offer vision and dental coverage. The FEHBP is also offered to beneficiaries living overseas.

Health Care Allowance.—The Services would establish a Health Care Allowance for Active Duty Personnel for their family members. The Health Care Allowance would cover the premium cost of a moderate HMO within the FEHBP. The allowance would be forfeited (or paid to the local military hospital) if beneficiaries enrolled in the Military Health Plan. This would allow active duty families to choose the Military Health Plan or a health plan under the FEHBP.

Retirees would pay their share of premiums, just as retired Federal Civilians do, with DOD paying the employer's share.

Military beneficiaries will be able to choose a health plan that would suit their needs. If they wish to obtain their health care in the military system, they may do so by choosing the Military Health Plan. If they wish to opt for a civilian plan they may do so. Whichever plan they choose their entitlement to employer provided health care coverage would no longer end at age 65 when they become Medicare eligible.

WHY FEHBP OPTION?

Why is the FEHBP option part of NMFA's Health Care Proposal? NMFA has included an option for all military beneficiaries to participate in the Federal Employees Health Benefits Program (FEHBP) for several reasons. In the last decade the number of people eligible for health care in military facilities has increased. The all-volunteer force has more married service members with families. Americans are living longer. The military direct health care system can no longer accommodate all eligible beneficiaries. The end of the Cold War has brought reduced wartime medical requirements; reductions in personnel; and base closures and realignments. Further cuts in medical personnel can be expected.

The direct care system of the Department of Defense (DOD) can no longer provide all military beneficiaries with health care. DOD has attempted to provide care for those beneficiaries it cannot treat through Support Contracts. The new DOD health care delivery program is called Tricare and is supposed to offer beneficiaries a choice of an HMO (Tricare Prime); a PPO (Tricare Extra) and a fee for service plan (Tricare Standard). However, Tricare was specifically designed to leave out a significant portion of the DOD beneficiary population, those over age 64 and eligible for Medicare. In addition, many beneficiaries, including active duty family members, do not live in an area where Tricare Prime or Extra are offered. Hence these beneficiaries do not have a choice of options, but are forced to use the higher cost Tricare Standard plan.

Tricare was first started in the states of Washington and Oregon in March of 1995. As of June 1, 1998, all regions of the United States were covered by a Tricare Support Contract and Tricare was supposed to be fully operational as a "uniform benefit". However, many beneficiaries continue to complain about access to care; unpaid bills; claims hassles; expenses to them above their stated copayments; and different rules in different parts of the country. Providers express dismay about reimbursement levels; delayed claims payments and constant claims hassles. Provider groups have dropped out in Florida, Texas, Washington, and Colorado. Provider lists are chronically incorrect, with listed providers who claim they have never been part of the network or who state they dropped out months before. The administrative costs for the Tricare Support Contracts appear to be in the 18 percent to 20 percent

range. Prescription drugs are available at military hospitals one month, disappear the next month, only to reappear at a later date and for an unknown period of time.

TRICARE is not health care coverage, but a health care delivery system. This system leaves beneficiaries with differing benefits depending on where they reside, and on the current military health care budget.

NMFA believes it is time for DOD to act as the employer in the same manner it does for its civilian employees and retirees. NMFA believes DOD has an obligation to provide health care coverage to active duty members for their families, to survivors and to retirees and their families.

The Federal Employee Health Benefits Program (FEHBP) is a market based, consumer driven cooperative administered by the Office of Personnel Management. It offers several national health plans and approximately 300 local health plans. It includes fee-for-service plans, preferred provider plans and HMOs. All federal civilian employees, retirees, and survivors, including the U.S. Postal Service are eligible to participate. Military beneficiaries are the only federal employees or retirees who are not allowed to participate in the FEHBP. NMFA believes military beneficiaries should have the opportunity to participate in the FEHBP.

Highlights of the FEHBP are as follows:

—Beneficiaries may change plans once a year during an Open Season even with preexisting conditions.

—Active duty sponsors may deploy secure in the knowledge their families have health care coverage and guaranteed access to health care through a seasoned and well-respected program.

—Beneficiaries who select an FEHBP fee-for-service plan will not be subject to Non-Availability Statement (NAS) requirements, which can cause them to lose their health care provider when inpatient care is needed, as is the case under TRICARE.

—Beneficiaries retain coverage when they become Medicare eligible, generally at age 65. TRICARE coverage ends at age 65. Beneficiaries in this age group can combine Medicare with an FEHBP plan and obtain nearly 100 percent coverage, including prescription drugs, for as little as $105 a month (including Medicare Part B payment).

—FEHBP national plans are available to beneficiaries no matter where they choose to live. Retirees will not have to retire near a military base in order to receive their health care benefits. Military retirees who choose to live overseas are currently cut off from health care coverage when they reach the age of 65, because their TRICARE coverage ends and Medicare is not available overseas.

—Active duty families assigned to remote locations will have the same choice of plans as those stationed near military treatment facilities (NMFA's proposed Health Care Allowance would cover the cost of the premium of a moderate FEHBP HMO).

—Beneficiaries affected by Base Realignment and Closure (BRAC) can choose an FEHBP Plan and not lose their health care coverage when a base hospital or clinic closes. Those who are Medicare eligible may select a plan from FEHBP which, combined with Medicare, provides prescription drug coverage.

—FEHBP can co-exist with a Military Health Plan. TRICARE Prime (including Senior Prime) as well as the U.S. Family Health Plan can function as Military Health Plans. Beneficiaries will have an annual choice of a Military Health Plan or a Plan selected from the FEHBP.

FEHBP allows beneficiaries the choice of how they want to spend their money. Payments for health care coverage are made through a monthly premium with little extra cost at the point of service (doctor's visits, prescription drugs, inpatient care, etc.). TRICARE, on the other hand, collects most payments at the point of service.

Senator STEVENS. Well, that was a very nice statement. But the unfortunate problem is that you cannot keep promises other people make unless they also back it up with money.

Ms. RAEZER. That is right.

Senator STEVENS. And I have a serious problem here right now with the continued deployment in Bosnia and Saudi Arabia, Kuwait, Somalia, increased activity in South Korea, Haiti. All of those things are taking place—not all of them, but almost all of them—without budget requests, so we have to take it out of other things. And that is what is decreasing the money that really was there to keep those promises.

I do not know what the answer is, but clearly, with the war going on now—and last night we passed a bill to about $11.8 billion of more money in it—but there is not much in there really, except for the pay raise, that is going to deal with quality of life. It is going to deal with moving more people in this country from Kosovo. It is going to deal with the whole problem of replacing equipment that is being aged or destroyed in that operation over there. And I think it is going to be longer than you think before we catch up with this.

Ms. RAEZER. We understand.

Senator STEVENS. We are committed to keep up with it, but I wish people would stop taking actions that no one has authorized. Then we might be able to catch up with it.

Ms. RAEZER. And there are a lot of people out there that feel the same way, Mr. Chairman. I was in Fort Irwin, California, a couple of weeks ago. And a young captain said almost the exact same thing. He said: Somebody has got to say no.

Senator STEVENS. Well, we tried, but we did not succeed.

Thank you very much.

Ms. RAEZER. Thank you.

Senator STEVENS. Next I think is Kristen Pugh, please.

Good morning.

STATEMENT OF KRISTEN L. PUGH, DEPUTY LEGISLATIVE DIRECTOR, THE RETIRED ENLISTED ASSOCIATION

Ms. PUGH. Good morning. The Retired Enlisted Association (TREA) would like to thank you, Chairman Stevens, and this subcommittee for the opportunity to come before you today to discuss fiscal year 2000 funding issues, as well as extending our appreciation for your support last year.

TREA has over 100,000 members and auxiliary, representing all branches of the armed services, retired, active duty, Guard and Reserve, who continue to be concerned over the issues of medical care, concurrent receipt, survivor benefit plan, adequate plan, inflation-protected retired pay, commissaries, and base realignment and closure (BRAC).

Pharmacy redesign: Access to pharmaceuticals is one of the greatest concerns to Medicare-eligible military retirees due to cost and increased usage. Additional funding must be allocated to expand the National Mail Order Pharmacy benefit to Medicare-eligible military retirees and expand the under-65 drug benefit to the over-65. Further, complete funding is necessary to implement an integrated data system, as well as a complete national formulary that addresses the drug utilization of our aging military retirees.

TRICARE funding: TREA recommends full funding for the Defense Health Program, including the TRICARE program. TRICARE funding should reflect the number of beneficiaries eligible for military health benefits, not just the ever-declining number of people able to use the military system for the previous year.

Nationwide implementation of TRICARE Senior Prime: S. 915 expands TRICARE Senior Prime to 10 additional locations, with full service military hospitals by January 1, 2000, and then across the remaining TRICARE Prime catchment areas no later than Oc-

tober 1, 2002. Our members are very pleased with the program as it is running in the test year.

Military retired pay and VA disability compensation concurrent receipt: Enactment of S. 789 provides specific relief to the most severely disabled military retirees—those rated 70 percent and higher shortly after retirement and served over 20 years. This is an issue of equity, as these service members left with severely limited post-service career opportunities. It is vital that this subcommittee appropriate funding to guarantee retirees receive their earned retired benefits.

Survivor benefits plan, the SBP: There are two issues regarding SBP which many retirees have concerns about. First, to move the 30-year paid up SBP program to begin in 2003 instead of 2008. We appreciate all your work last year on this very issue.

Second, an even greater impact on military retirees especially is the offset which survivors face once they become eligible to receive social security. Under the existing rules of SBP, survivors of retirees are eligible to receive 55 percent of their spouse's retirement until they are social security eligible. Then this amount is reduced to 35 percent even if those survivors earn social security benefit through their own career. S. 763 would reduce this offset to have survivors receive 40 percent, and then 45 percent at the end of the five years, of their spouse's retired pay. This legislation will be of great assistance to survivors of military retirees.

The retirement system: Currently, as you know, three retirement systems are in effect for the uniformed services. The differences between the three have no doubt caused one service member to question why his or her career did not hold the same value as another service member of the same rank. TREA would like to see a complete repeal of the Redux system introduced in 1986, particularly the cost of living adjustment reduction, the long-term effects of which may be greater than the reduced percentage at 20 years of service.

However, S. 4 deals with the discrepancy in the retirement system in a way that TREA does support, and we appreciate your work.

In order to guarantee the strength of our military, we must ensure that those mid-career personnel make the decision to remain in the service. It is imperative that the necessary funding is appropriate to carry out these changes to the military retirement system.

PREPARED STATEMENT

Thank you for your attention. I would be pleased to answer any questions you may have at this time, Mr. Chairman.

[The statement follows:]

PREPARED STATEMENT OF KRISTEN L. PUGH

INTRODUCTION

The Retired Enlisted Association (TREA) would like to thank the chairman and distinguished members of the Senate Defense Appropriations subcommittee for the opportunity to come before you to discuss funding issues as relates to our members needs. We extend our appreciation for the funding levels last year as it pertains to health care, retirement benefits, and pay. In addition, we are requesting increased levels to meet the needs of military retirees, guard and reserve as well as active duty and their dependents.

TREA has 100,000 members and auxiliary representing all branches of the armed services, retired, active duty, guard and reserve whose continued concern over the downsizing of the DOD Budget impacts their daily lives from the healthcare they receive at a military facility to the retirement check they receive in the mail. Medical care, adequate pay, inflation protected retired pay, and commissaries are concerns of the entire military community.

HEALTH CARE

With bases closing, military treatment facilities (MTFs) downsizing and demographics changing, the need to provide access to health care to our ever growing number of aging retirees creates anxiety with those that "were promised lifetime health care." The fact remains that DOD has a responsibility to those men and women who have served in the uniformed services to provide a medical benefit to nearly 50 percent of the current retired military beneficiaries that were promised health care. The demographics have changed from the 1950's when retirees were only 7 percent of the military health care beneficiary population, therefore Congress needs to provide adequate funding to create a plan to administer a health care benefit to retirees. The funding from this committee for the Federal Employees Health Benefit Plan (FEHBP) for Medicare Eligible Military Retirees Test program is appreciated and the step in the right direction to testing the viable health care options for retirees access to medical care in the future. As this committee is aware, this is only one part of the matrix for accessing health care, pharmacy redesign and the expansion of the current test of Medicare subvention will help offer a complete medical benefit for Medicare eligible military retirees.

Pharmacy redesign

The Fiscal Year 1999 Defense Authorization Act directed DOD to establish a mail order pharmacy program and discount retail benefit for military retirees in two designated non-catchment areas by October 1, 1999. TREA was an active participant in the preliminary planning discussions on pharmacy redesign with DOD, until recently when the March 1, 1999 report deadline was due to Congress and was not met until May 1.

On March 10 of this year, the Chairman of the House Armed Services Subcommittee for military personal, Congressman Steve Buyer (R-IN), held a hearing to identify current problems in the Military Pharmacy program. Dave McIntyre (TriWest Healthcare Alliance, CEO), Virginia Torsche (Representative for the Military Coalition, TMC), and Stephen P. Backhus (GAO's director for military health care) brought forth some proposals to redesign the current pharmacy benefit. These three representatives agreed that an integrated pharmacy benefit to combine the MTF outpatient pharmacy, national mail order pharmacy (NMOP), and the TRICARE network pharmacy was essential to creating a cost effective and efficient nationwide military pharmacy program. Of course, this requires funding to bring these three entities under one computer data system. Dr. Sue Bailey agreed to these comments on pharmacy redesign by stating, "DOD to look first at our information systems which I believe is the key to really providing for an updated and efficient, cost efficient and medically efficient, pharmaceutical delivery system."

GAO's June 1998 report, Defense Health Care: Fully Integrated Pharmacy System Would Improve Service and Cost-Effectiveness, made the recommendation that one computerized pharmacy system would not only save DOD dollars, but would prevent health conditions from occurring due to drug interactions. Mr. Backhus referenced the conclusion of the report by stating, "in delivering its $1.3 billion pharmacy benefit, stem largely from the way it manages the three programs. DOD needs to take a system-wide view of MTF and contractor operations, because they share patient populations. Because non-integrated databases, conflicting formularies, and varying eligibility rules, changes made to one program inevitably affect the others and have unintended consequences for DOD and contractor costs, as well as for beneficiaries access to the pharmacy benefit."

Again, I cannot stress the concern over the access of pharmaceuticals to our Medicare eligible military retirees due to cost and increasing use of drugs for our senior citizens. We are requesting additional funding to be allocated to expand the pharmacy benefits to Medicare-eligible military retirees for the NMOP and the extension of the under 65 drug benefit for the over 65. In addition, we are asking for complete funding for a pharmacy redesign to include providing an integrated data system, as well as a complete national formulary that addresses the drug utilization of our aging war heroes and heroines.

TRICARE senior prime demonstration program

TREA would like to thank you for your support for the Tricare Senior Prime Test program, Medicare Subvention. With the favorable response to this program by military retirees in those six designated test sites, TREA is asking for nationwide implementation of TRICARE Senior Prime. Senator Phil Gramm (R-TX) introduced S. 915 to make the TRICARE Senior Prime program permanent on a phased-in basis. The bill would expand Senior Prime to ten additional locations with full-service military hospitals by January 1, 2000 and then across the remaining TRICARE Prime catchment areas no later than October 1, 2002.

Many of our Medicare-eligible retirees have received letters from hospitals stating that "space availability" no longer exists or is extremely limited due to downsizing of staff at MTFs. Allowing as many Medicare-eligible military retirees to use Medicare at MTFs will provide them with yet another option for health care. Though it should be understood that this is not the complete solution to the current problem, as it would provide health service to 33 percent of the 1.2 million retirees over 65 now, but is an important piece to solving the whole health care dilemma for these beneficiaries.

The connotation of "TEST" has deterred some of our members from enrolling in TRICARE Senior Prime, though they want to participate, they have a lack of trust for the MTF that turned them away years ago only to welcome them back again with no guarantees of health care past the three year test. TREA has discussed this issue with DOD Health Affairs, TRICARE Management Activities (TMA), TRICARE contractors, and our members that all conclude that they support the initiative to expand this program. I would like to add that Senator Gramm's bill, S. 915, would give DOD the option to provide a fee-for-service Medicare option at certain MTFs if this would be more cost effective for those facilities.

TREA urges the support for funding from this committee to expand TRICARE Senior Prime to a permanent program. This committee's support would ensure expanding TRICARE Senior Prime to 10 additional sites by January 1, 2000 and national expansion on October 1, 2002 to provide a true health care benefit to military retirees that still reside near MTFs.

TRICARE: Full funding for all military beneficiaries

In order to ensure the viability of TRICARE for all eligible beneficiaries to the program, it is necessary that TRICARE funding reflect the number of beneficiaries eligible for military health benefits, not just the ever-declining number of people able to use the military system the previous year. The overall Defense Health Programs continue to have funding shortfalls, TREA urges this committee to provide adequate funding for military readiness as well as the current peacetime component. Our active duty members need assurances that funding will enable access to quality health care for their families, as well as assuring incentives for these uniformed service members to be recruited and retained in the military. As well, the promise of this health care benefit must be kept for our military retirees that are over and under the age of 65.

Additional funding will be required to keep providers in TRICARE Prime networks as our members are experiencing physicians leaving the system. Most TRICARE managed care support contractors have negotiated TRICARE Prime reimbursement rates with network providers that are even lower than Medicare. Though the issue is a combination of low rates and physicians not being paid in a timely manner due to claims processing. TRICARE is giving physicians two disincentives for not signing up in the networks, low payment and slow payment.

TRICARE Standard (CHAMPUS) reimbursement levels are still much to low to attract quality health care providers. There are also unreasonable delays in reimbursement for TRICARE Standard (CHAMPUS) claims. Members have reported that in the more rural areas, and even some urban areas, where providers do not depend on a military patient base, health care providers have become increasingly unwilling to accept TRICARE Standard (CHAMPUS) patients at all. TREA feels that de-linking the CMAC (CHAMPUS maximum allowable charge) from the Medicare Schedule and authorizing higher payments to providers as necessary will improve access to quality care for our beneficiaries.

The current claims processing system for TRICARE needs to be revamped in order to reduce the hassles of claims payment for physicians and beneficiaries. The beneficiaries end up getting caught in the middle when they receive collection notices from their creditors, even after they were told the claim would be paid by the TRICARE subcontractor. General Reimer restated this point at the recent TRICARE Conference on February 1, 1999 as it is a reflection of recruiting and retention, "When a recruiter facing challenges with having to go out there and sell the military, and is also facing a letter of indebtedness because he hasn't paid or she hasn't

paid their medical care bills, which are not theirs—they belong to somebody else, the HMO supporting that area, that is a tough situation." Also, Senator Kay Bailey Hutchison (R-TX) included the Military Health Care Improvement amendment to S. 4, Soldiers', Sailors', Airmen's and Marines' Bill of Rights, which directed DOD to bring the TRICARE claims processing to the best commercial industry standard. The amendment included the requirement for electronic processing for claims and streamlining the information flow, this being two pieces of the claims puzzle to be fixed. We request this committee to support a redesign of the claims processing procedures to put mechanisms in place via the TRICARE contractor, claims subcontractor, and DOD to bring the claims system to "the best industry standard."

As we review the TRICARE program, the issues of low reimbursement rates and claims processing continue to be a disincentive for providers to sign up with a Prime network or to be a provider to accept TRICARE Standard. We will continue to work with the Senate Armed Services Committee to address the bureaucracy of the overall TRICARE program, but one fact remains, money needs to be fully funded to provide a comprehensive health care benefit to the men and women who serve and their families, as well as those that have sacrificed for this country in their career in the uniformed services.

FEHBP-65+ Test Program

Currently, DOD and the Office of Personal Management (OPM) are in the process of implementing the FEHBP-65 + test program for the open enrollment season to begin November 1, 1999. TREA is concerned that the rate structure set by the insurance carriers will deter our members from enrolling in the program, due to high cost premiums that may be set without access to reserve funds by the carriers. As I speak today, actuaries in the eight test areas are determining the cost of this new category of enrollees in a separate risk pool. OPM may allow the various plans to use administrative or contingency reserves to compensate for possible financial risk of enrolling service retirees (even though this is the usual practice under FEHBP for federal civilian beneficiaries). This access to a reserve fund would control costs for the carriers, especially since this is a limited test with a limited amount of enrollees in each site. Carriers will set high premiums over and beyond the cost of current FEHBP programs in order to protect their groups, until they gather some claims experience for this new group of beneficiaries.

In order to have a fair and accurate test, we need to provide the opportunity for Medicare eligible military retirees to enroll in FEHBP in the November open enrollment season with reasonable premiums. As we testified last year before this committee, we know that not all military retirees will enroll in this program, but we need to give them the option to make that choice in order to determine the future of providing care for those that have served in the military. TREA is urging this subcommittee to support access to the OPM reserve accounts for the purpose of determining rates for the FEHBP+65 test. It is absolutely necessary that we give these retirees an equitable benefit that is as good or as equal to federal retirees.

Medicare part B waiver for military retiree 65+

Senator Christopher "Kit" Bond (R-MO) will be reintroducing his legislation to authorize the waiver of the penalty for not enrolling in Medicare Part "B" for Medicare-eligible military retirees. Retirees were counseled by MTF advisors not to enroll in Part "B" because they resided near MTFs and would be able to access their free health care. These retirees should not be punished with late enrollment fees due to the fact that the local MTF has closed. The issue must be addressed now as the Secretary of Defense is planning two additional rounds of BRAC for 2001 and 20005.

TREA believes that this small investment will enable retirees to enroll in health care programs which require Medicare Part B for eligibility such as TRICARE Senior Prime and the Fee-for-Service Option plans in FEHBP. Currently, we have military retirees that either are paying a high penalty for Medicare Part B, or just cannot enroll because it is to costly.

Medicare part B waiver for Medicare eligible retirees under age 65

On March 19, 1998 the Defense Enrollment Eligibility Reporting System (DEERS) and the Health Care Financing Administration (HCFA) finished a data match for those military retirees that were under 65 and eligible for Medicare Part B. These 12,093 individuals were then sent letters by DEERS on March 20, 1998 to inform them that they must enroll in Medicare Part B, by March 31, 1998 in order to continue to receive their CHAMPUS/TRICARE benefit. This data match was delayed for 6 years, after the requirement for Medicare Part B to receive CHAMPUS/TRICARE benefits had been implemented in the Defense Authorization Act for fiscal year 1992 for Medicare Eligible Disabled Retirees under 65.

By the time the 12,093 affected individuals received a letter from DEERS there was little or no time to act in attaining the Part B coverage by March 31, 1998. This was due to incorrect addresses in DEERS or not being home when the letter was sent. For those that did enroll, they incurred a 10 percent penalty for the years of not enrolling, while the others had to wait for the Medicare Part B open enrollment season from January 1, 1999 to March 31, 1999 to be penalized.

TREA is requesting funding to waive the Medicare Part B 10 percent penalty. Out of the 12,093 that took part B with a penalty, the legislation will grant equitable relief through the Social Security Administration (SSA) to eliminate their penalty. We ask for support in funding this part B waiver for Medicare eligible disabled retirees.

Retiree dental plan

The Retiree Dental plan does not provide coverage of crucial benefits, such as bridges and crowns which are needs characteristic of our members. Currently, the contract is not subsidized by DOD, which would mean that increasing the benefit level now would make the program to costly to are aging retirees. Therefore, TREA is requesting funding for a subsidy for the DOD Retiree Dental plan's premium to expand the benefit schedule to military retirees.

RETIREMENT AND SURVIVOR ISSUES

Concurrent receipt

The issue of concurrent receipt of military retired pay and VA disability payment is a great concern to military retirees. Presently, military retired veterans are the only class of veteran who has their retirement pay reduced, dollar for dollar, if they receive disability compensation from the Department of Veterans Affairs. Senator John McCain (R-AZ) has introduced legislation, S. 789, legislation which would address this reduction. The members of TREA and all military retirees would greatly appreciate the support of this committee to provide a funding mechanism for Senator McCain's legislation. Particularly, S. 789 would provide specific relief to the most severely disabled military retirees, those rated 70 percent and higher, who have served over twenty years and who's disability has developed within four years after separation from the military. This is equitable legislation, the passage of which would be a tremendous step in restoring the confidence of military retirees to reflect the nation's appreciation for their years of service and sacrifice. It is vital that this committee appropriates the necessary funding to guarantee retirees receive their earned retirement benefits.

Survivor benefits plan (SBP)

There are two issues regarding the Survivor Benefit Plan (SBP) which military retirees have concerns about. The first concern deals with legislation enacted by Congress last year which called for a 30 year paid-up SBP program to begin in 2008. We are appreciative of Congress for the passage of this important legislation. However, with the current budget situation, we see no reason why the paid-up program cannot be moved up to 2003, as was originally called for.

Another issue concerning SBP which has an even greater impact on military retirees, and their survivors especially, is the off-set which survivors face once they become eligible to receive Social Security. Under the existing rules of the Survivor Benefit Plan, survivors of military retirees are eligible to receive 55 percent of the survivors retirement until they are Social Security eligible, then this amount is reduced to 35 percent. This off-set is particularly upsetting to those survivors who have earned Social Security benefits through their own career and have had to live the life of a military spouse. Why, they ask, should they have their earnings reduced because they were married to a military retiree, as opposed to a retiree from a major corporation? S. 763, introduced by Senator Strom Thurmond (R-SC) would reduce this off-set. By reducing the off-set to allow survivors to receive 40 percent, and then 45 percent at the end of five years, of their spouses retired pay, this legislation will be a great assistance to survivors of military retirees. Distinguished committee members, we ask for your support to reduce this penalty which military retiree survivors have to pay. Appropriate the necessary funding so survivors of our military retirees can receive the financial benefit they have earned when they need it most.

ACTIVE DUTY ISSUES

Retirement system

TREA urges the members of this Committee to join with their colleagues in the Armed Services Committee and support the changes to the military retirement system which will properly reward individuals for a career of military service. As you

are no doubt aware there are currently three retirement systems in effect in the uniformed services. The differences between the three have, no doubt, caused one servicemember to question why his career did not hold the same value as another servicemember of the same rank. TREA would like to see a complete repeal of the "Redux" system introduced in 1986, particularly the COLA reduction, the long term effects of which may be greater than the reduced percentage at twenty years of service. However, the legislation which the Senate passed in S. 4 deals with the discrepancy in the retirement systems in a way which TREA feels is worthy of congressional support. These changes will be costly, but national defense is not inexpensive. Chairman Stevens (R-AK) summed it up in a statement made in August of 1998, "It is my intention to work with the leaders here in Congress and the Secretary of Defense to put us on a track to fix the retirement system. There is no higher defense funding priority, for it has led to a rise of decisions by men and women in the services not to continue (in the military) because of their feeling about the unfairness of retirement policies." In order to guarantee the strength of our military we must ensure that those mid-career personnel make the decision to remain in the service. It is imperative that the necessary funding is appropriated to carry out these changes to the military retirement system.

BASE CLOSURE AND REALIGNMENT

During the deliberations of Base Realignment and Closures (BRAC) the impact on military retirees does not seem to be a very important issue, if it is even addressed at all. Legislation has been introduced in the Senate which calls for two additional rounds of BRAC. Secretary of Defense Cohen has also been "lobbying" for more Base Closures to re-invest in modernization. However, before we close bases there are several questions which must be addressed. These questions include: What about the military retiree who rely on base facilities for health care? Why does DOD wait for bases to close and then try to solve the health care problem? We believe a plan must be in place to resolve retiree health care before a base closes. It is important to remember that military and retired pay is based on a concept called "Regular Military Compensation" (RMC). Health Care, Exchange and Commissary benefits are included in RMC. When a base or post is closed, the military retiree is not compensated for this loss of RMC. It is imperative that benefits such as the Mail-order pharmacy and BX Mart be provided to retirees in BRAC areas. We ask that all of these issues be addressed, authorized and appropriated before additional rounds of BRAC begin.

CONCLUSION

Mr. Chairman, members of the committee, why do military retirees have to come before Congress and fight to have lost benefits restored? Health care, commissary/exchange privileges, survivors' benefits, the list goes on and on. In return for a lifetime of service to the nation, military retirees have been told health care effectively ends at age 65, the base you based your retirement life on may close and your survivor will not get the amount of money you had planned on. People ask why the military cannot recruit young people today. Has anyone asked if military retirees have stopped recruiting young people? For years, the military retiree was one of the best recruiters the uniformed services had. Today, retirees are a disappointed and disenfranchised group of people. You, today, have the opportunity to help retirees and ensure the residual effects, such as pride, patriotism and a whole new class of recruiters.

Thank you for your attention. I would be pleased to answer any questions you may have at this time.

Senator STEVENS. I was interested in your comments about the Federal employees health benefit plan (FEHBP). Do you want it to go ahead before the tests are over?

Ms. PUGH. Full expansion of FEHBP? Chairman, right now we are having problems implementing the program between DOD and the Office of Personnel Management (OPM). We would like to see expansion, but we need to get it up and running. And any assistance that you can give us at this time is necessary. Right now we are very concerned over the reserve account issue, which OPM is not letting us access the reserve account. Which would mean that the retirees would have a higher rate structure than Federal em-

ployees currently. And I think yet again it would be another inequity.

Senator STEVENS. Higher than what?

Ms. PUGH. Than the current FEHBP rates. We were hoping that they would be more in line with the current rates.

Senator STEVENS. More in line with the retired civil service people or the currently employed civil service people?

Ms. PUGH. For the retired employees right now, they would be higher. Those actuaries for those carriers are going to set the rates higher because this is a new group, a new population of members.

Senator STEVENS. Military retirees are younger than the civil service retirees. I will check into that.

Ms. PUGH. OK. This is for the test program.

Senator STEVENS. I used to ride herd on FEHBP for many years on the Governmental Affairs Committee. I am interested in the test. I do not know how it will work, because of the way many retirees are dispersed as compared to civil service retirees.

Ms. PUGH. Well, any help that you can give us at this time—the TREA resolution, I mean we would like to see this as a program for all military retirees. Thank you very much.

Senator STEVENS. Thank you.

And now we turn to Timothy Dixon, please.

Dr. Dixon, thank you.

STATEMENT OF TIMOTHY H. DIXON, Ph.D., PROFESSOR, ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE AND DIRECTOR, GEODESY LABORATORY, ON BEHALF OF THE UNIVERSITY OF MIAMI

Dr. DIXON. My name is Tim Dixon. I am a Professor at the University of Miami, and Director of the University's Geodesy Lab. I am here on behalf of a consortium of universities to address three research initiatives. I very much appreciate the opportunity to appear before you this morning, especially given the schedule you have had this week and the review of very compelling needs we have just heard this morning. I have to admit that I am humbled.

The three initiatives I am talking about involve satellite data receiving, an oceanographic research vessel, and an initiative for cancer research and treatment.

Let me first address the satellite data receiving station. The defense component of this station involves synthetic aperture radar (SAR). SAR is synthetic aperture radar. And it is an incredibly powerful remote sensing system, capable of taking high resolution images, day or night, in cloudy weather or clear. It has tactical uses, such as making high-accuracy maps and monitoring ship and troop movements at night or in bad weather.

It has civil defense applications, such as tracking hurricanes and doing rapid damage assessment after storms and floods. And it has numerous scientific applications, which are my expertise and I will not bore you with those this morning. They have to do with mapping ocean waves and currents, studying earthquakes and monitoring volcanoes and predicting eruptions.

Unfortunately, our current national infrastructure precludes many of these applications. Although the satellites pass overhead, the Southeastern United States lacks a ground receiving station such as you have in Alaska. And without the ground receiving sta-

tion, we cannot retrieve the signals. Right now, our data must come from stations in Canada or in Oklahoma. And it can take as long as 2 months to acquire the data.

In a recent report, the Office of Naval Intelligence (ONI) concluded that civilian SAR satellites now in orbit could play a critical role in the Nation's drug interdiction effort because of its ability to detect small, fast-moving boats at night and through clouds. These craft travel at night and are a major source of drug delivery to our shores.

ONI further concluded that this capability could only be realized if a SAR ground station was constructed somewhere in the Caribbean region, and recommended Miami as a possible site. The University of Miami, in conjunction with a consortium of Florida and other U.S. universities, proposes to build such a station, in collaboration with Southern Command, which, as you know, is now headquartered in Miami.

This station will enable us to see virtually all parts of the Caribbean region, North and South America, Central America, Mexico, and the equatorial Atlantic, and will allow us to address a host of military remote sensing applications, civil defense applications, and scientific research.

Next I would like to give our support to an initiative brought to you earlier by the University of Southern Mississippi, the lead institution in a consortium of Southeastern universities called SECOR. This consortium includes universities in Texas and Florida. SECOR seeks your support to construct and operate a research vessel, a research ship, that would allow us to address critical environmental and ocean research needs in the Gulf of Mexico, the competitive, and the equatorial Atlantic.

PREPARED STATEMENT

Finally, we request your support for a cancer research initiative that involves research, treatment and control. This initiative will focus on minority ethnic groups, taking advantage of Miami's unique multi-ethnic and multicultural society, to investigate and treat a broad range of cancers. Some of which affect certain ethnic and cultural groups at rates far above the national average. Given the Armed Forces increasing ethnic diversity in the next millennium, we feel this initiative is appropriate for your committee to consider.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF TIMOTHY H. DIXON

Mr. Chairman and Members of the Subcommittee: I appreciate the opportunity to present testimony on behalf of the University of Miami.

The University is seeking your support for three initiatives within your purview: the National Center for Advanced Tropical Remote Sensing; the University's Minority Cancer Prevention, Control, and Treatment initiatives; an oceanographic research vessel to be used by a consortium of universities in the southeastern United States (SECOR) for Gulf Coast and Caribbean Basin research.

First, let me address the Defense component of the National Center for Advanced Tropical Remote Sensing. The center will include a state-of-the-art, real time SAR facility with full satellite downlink capability. SAR (Synthetic Aperture Radar) is a powerful remote sensing system operating at microwave frequencies, able to image in all weather, day or night. Satellite SAR systems are able to monitor the move-

ment of targets on land and ocean, map topography with unprecedented accuracy, rapidly assess storm and flood damage to urban and rural infrastructure even through thick cloud cover, and have many other scientific and civil defense applications. Real-time SAR imagery can make a major contribution to state and federal agencies, especially in the areas of drug interdiction and human smuggling, storm damage assessment and natural hazard mitigation, including floods, severe storm, landslide, tsunami and volcanic eruption, all critical issues throughout the Caribbean Basin.

Unfortunately, our current national infrastructure precludes most of these applications. The southeastern U.S. lacks its own ground receiving station, so even though a number of satellites frequently pass over targets of interest, the data must be downlinked to stations in either Canada or Oklahoma. This downlink request must be made months in advance, as large numbers of users are requesting time on a limited facility. It often takes so long to obtain and process raw SAR data into a usable image that the "window of opportunity" for time-critical applications is lost. In a recent test involving NIMA (National Image and Map Agency), the University of Miami and Southern Command (Southcom), now headquartered in Miami, high priority data were received fully two months after initial order.

As more people and societal infrastructure concentrate along coastal areas, the United States becomes more vulnerable to hurricanes, the costliest natural disaster we face. Early and accurate warnings can help focus the evacuation region, saving millions in dollars per year and reducing the detrimental impact of these storms. SAR can improve our ability to accurately forecast the time and location of landfall for severe storms and hurricanes, but only if the data are available to operational agencies in a timely manner. At the present time the southeastern U.S. and Caribbean Basin lacks this capability.

Drug interdiction is another good example of a real-time application. Small, fast moving boats are one of the major vectors for drug delivery to the USA. These boats travel at night without running lights, and are very difficult to detect. Given the large expanse of ocean, frequent cloud cover, and the relatively small number of surveillance flights, detection rate by conventional means is low. A recent test by the Office of Naval Intelligence (ONI) proved that civilian satellite SAR can detect such craft (security considerations preclude the use of military satellites for such routine policing tasks). However as noted in ONI's Final Report (10 April 98) "Lack of a ground station within satellite mask for the Caribbean region precluded tactical use of the systems. Establishment of a ground processing station in the Caribbean region is essential". The University of Miami proposes to do just that, in partnership with Southcom.

A SAR Facility in South Florida would significantly expand the present satellite coverage available to U.S. agencies and scientists, extending as far south as the equator, as far east as the central equatorial Atlantic, and as far west as the eastern Pacific Ocean. An operational center with this coverage and quick turn-around time would significantly enhance military and law-enforcement missions in the Caribbean Basin.

The University of Miami uses SAR data for a variety of terrestrial and oceanographic research applications. We have experience in the operation of satellite downlink facilities, in the analysis and use of SAR data, and in the development of state of the art algorithms for a variety of remote sensing applications.

We seek $5 million to establish a SAR ground station in fiscal year 2000. Scientists from a consortium of Florida and out-of-state universities will provide the scientific expertise for development, and will work with Southcom to build a fully operational remote sensing facility to meet a wide variety of military and civilian needs. We are convinced that a long-term partnership between academia and the military is the best way to meet the challenging joint requirements of continued access to state of the art science and technology, combined with reliable, operational coverage. Military, government agency, and civilian science applications all require the same basic SAR data, making a shared facility a good use of scarce resources. The unique collaboration of civilian earth scientists and military personnel we propose will provide military and law-enforcement as well as civilian government agencies with state of the art satellite data. It will help us to interdict drugs, mitigate natural disasters, monitor and understand environmental change, and also provide critical scientific data to meet the challenges of the next millennium.

Next, Mr. Chairman, we ask that you support the request put forward by the University of Southern Mississippi on behalf of the Southeast Consortium for Ocean Research (SECOR) for the construction of a new Class II oceanographic-fisheries vessel for the Southeast/Gulf of Mexico region. Other SECOR members are the University of Texas at Austin and Texas A&M University. UNOLS is apprised of and supports the existing SECOR arrangement, which provides dockside facilities in Galveston,

Texas and Miami, Florida, and coordinates instrumentation and marine technician support among SECOR members. This initiative will provide an intermediate-size vessel for critical environmental research in the Gulf of Mexico and adjacent seas. It will be small enough to serve as a versatile coastal vessel, and will be outfitted with state-of-the-art equipment and instruments. SECOR, our Florida-Mississippi-Texas partnership, seeks $35 million for this important project.

Finally, Mr. Chairman, I join my colleagues at the University of Miami School of Medicine in seeking support for a cancer prevention, control, and treatment initiative. Our School of Medicine and Sylvester Comprehensive Cancer Center provide the nation with a unique resource for basic, applied, and clinical cancer research and treatment. We are convinced that our cancer work in Miami with high-risk populations and cancer survivors, two-thirds of whom are African-American, Hispanic, representatives of other diverse ethnic groups—can benefit DOD and the nation as a whole. It is these populations that are becoming more and more the "face" of our current and future military forces. We are requesting $10.5 million for this initiative.

Our $10.5 million request consists of three parts. First, $5 million to more fully develop the cancer prevention and control initiatives, focusing on ethnically diverse minority populations because of the increased incidence of cancer, including prostate and breast cancer, among minorities. Next, $2 million for an expanded basic and clinical research effort that focuses on the potential application of cutting-edge blood transplantation treatment technologies and to more fully explore application to older children and young adults, and $2 million for the development of critically needed laboratory and blood storage facilities. Finally, $1.5 million annually for five years to support the breast cancer early detection program, increasing the number of women screened from an average of 15 to 50 per day, which would result in screening 12,500 women per year.

Mr. Chairman, we understand how difficult this year will be for you and the Subcommittee. However, we respectfully request that you give serious consideration to these initiatives, all of which we believe will provide great benefit to the nation.

Thank you for permitting to appear personally today.

Senator STEVENS. The first two may be within our reach, but the last one is an NIH function. And I urge you to talk to them. We are not going to increase defense spending for medical uses this year. We are at the point now where we almost have half-a-billion dollars of defense money going directly into medical research. And that is also infringing on the overall quality-of-life issues. We are just not going to go any higher in that this year.

Dr. DIXON. Thank you. We will address those to NIH. Thank you.

Senator STEVENS. Thank you very much.

Next is Dr. Joseph Mauderly and Dr. Matalon. Thank you very much.

STATEMENT OF JOE L. MAUDERLY, M.D., SENIOR SCIENTIST AND DIRECTOR OF EXTERNAL AFFAIRS, LOVELACE RESPIRATORY INSTITUTE

ACCOMPANIED BY SADIS MATALON, Ph.D., PROFESSOR OF ANESTHESIOLOGY, UNIVERSITY OF ALABAMA

Dr. MAUDERLY. Thank you, Mr. Chairman.

We are testifying on behalf of a joint project on acute military lung injury proposed by the Lovelace Respiratory Research Institute and the University of Alabama at Birmingham, UAB. Dr. Matalon, of UAB, will describe the problem.

Dr. MATALON. Acute, or rapidly developing lung injury, is a very serious unresolved problem for the military. Trauma, burns, infection, or blood loss can result in a rapid accumulation of fluid in the lungs by means not well understood presently. During the Vietnam conflict, this condition affected over 90 percent of injured personnel who were evacuated alive from the battlefield but later died. Per-

manent lung disability is common. There is no specific treatment for this condition presently.

In injured civilians, the condition is called adult respiratory distress syndrome (ARDS). There are about 150,000 cases per year. The survival rate is only about 50 percent. Current research on ARDS does not focus on the special concerns of the military. Injury from inhaled chemical and biological agents, extensive bullet wounds, burns, blood loss, or blast injury often lead to ARDS. Field treatment, especially during the first hour after injury, is very important to minimize lung damage.

Dr. MAUDERLY. Lovelace and UAB combined their resources to plan research to address this problem. Lovelace excels in studying injury from inhaled materials, and has a facility for handling highly toxic agents safely. Our Institute can create appropriate exposure atmospheres and use animals to evaluate injury and new treatments. UAB has complementary research and clinical skills. During the past 6 years, UAB scientists and clinicians have been studying the causes and prognosis of ARDS.

Working with the Office of Naval Research, Dr. Matalon's group has begun to identify potential new treatments. The University treats many cases of ARDS in its hospital, and can readily evaluate new therapy. Together, we have designed a focused program, having high potential for solving key problems of military significance. This program brings together a better knowledge of lung injury of defense significance and the development of new treatments.

PREPARED STATEMENTS

Mr. Chairman, we respectfully request that the need for this important work be recognized in the Defense appropriation. Thank you.

[The statements follow:]

PREPARED STATEMENT OF JOE L. MAUDERLY

It is proposed that the Department of Defense support the Center for Acute Lung Injury, a joint effort of the Lovelace Respiratory Research Institute and the University of Alabama aimed at improving the early management of life-threatening lung injury and enhancing lung repair. Support is also sought for the Research Alliance for Health and National Security, an alliance among the Lovelace Respiratory Research Institute, the University of New Mexico, and the Sandia and Los Alamos National Laboratories aimed at developing new technologies to identify and reduce military and domestic chemical, biological and radiological threats.

CENTER FOR ACUTE LUNG INJURY

The Problem

Acute, life-threatening lung injury is a major problem for the military, and is also a major unresolved cause of death in the general population. Military operations involve risk for chest injuries and other bodily injuries in which rapid-onset lung failure is the major threat to survival, even if the primary injury site is not the lung. Training and battlefield operations involve potential exposure of troops to smokes and obscurants that deposit in the lung, detonations produce shock waves that injure the lung, confined personnel spaces in equipment promote exposures to noxious substances under adverse conditions, and exposures to inhaled chemical, biological, and radiological agents injure the lung. Systemic infection and severe trauma promote onset of the adult respiratory distress syndrome (ARDS), a rapidly-progressing intractable condition involving respiratory insufficiency, oxygen starvation, and multi-organ failure. The present prognosis for repair, or functional restoration, of lung tissue seriously damaged by ARDS and other injuries is historically very poor.

Two Institutions Join to Respond to the Need

To address this problem, two of the nation's premier lung research institutions, the Lovelace Respiratory Research Institute (LRRI) and the University of Alabama (UAB), have joined their unique resources to establish a program aimed specifically toward the prevention and treatment of acute lung injury of defense significance. The Acute Lung Injury Center is proposed as a coordinated effort initially involving seven specific research goals complemented by the necessary research support cores. In addition to conducting independent research, the Center would also serve as a focal point for the research efforts of the military in this area and would be an effective extension of the multiple Defense offices charged with protecting the health of military personnel and their families.

Roles of the Collaborating Institutions

The Lovelace Respiratory Research Institute.—LRRI is recognized world-wide for its inhalation toxicology research, for its use of laboratory research to determine human health risks from inhaled materials, and for the federally-owned privatized inhalation laboratory it operates as a national resource. This unique laboratory is fully equipped to handle highly toxic agents, such as strategic chemical, biological and radiological agents, and has a long history of doing so safely. LRRI aerosol scientists are also known for their ability to monitor and characterize atmospheres under field conditions, and to reproduce those atmospheres under controlled laboratory conditions. LRRI excels in conducting laboratory studies of human lung health risks and therapies for lung disease. The Institute is currently working on new therapies that show promise for inducing the restoration of damaged lung tissue, a goal that the clinical and research communities have long thought unreachable.

The University of Alabama.—UAB has, under the outstanding leadership of Dr. Sadis Matalon, established a world-renown laboratory studying the cellular and molecular mechanism of acute lung injury, and in particular, the mechanism of the development of ARDS. During the past 6 years, scientists and clinicians at UAB have conducted several key biochemical, molecular biology and physiological studies advancing our understanding of the basic mechanisms by which reactive oxygen species damage the lungs and identifying the pathological and physiological consequences and prognosis of this injury.

Both LRRI and UAB have a solid track record of performing high quality research for DOD. In addition, both institutions have clinical research centers for clinical trials and extensive contacts and collaborations with biotechnology and pharmaceutical companies aimed at designing and testing new therapeutic agents. The combination of these two outstanding groups form a state-of-the-art team for addressing the problems of the DOD related to acute lung injury. It is the specific intention of the two collaborating organizations that the Center for Acute Lung Injury would be a much-needed first-line source of information and assistance for DOD when a problem regarding inhalation toxicology and acute lung injury arises.

The Center's Research Strategy

The two partner institutions have identified and prioritized a set of interrelated key issues that target current knowledge barriers, are amenable to research by their coordinated efforts in a constrained time frame, and have high potential for pay-off. Through the Center, this team will conduct integrated research specifically targeting lung injury, repair, and treatment issues pertaining to DOD problems. The research will include basic studies on induction and repair of acute lung injury, applied inhalation toxicity studies to address specific DOD problems, and atmosphere monitoring and characterization to meet DOD needs. Basic research will be conducted to determine the key defense mechanisms of the lung with emphasis on enhancing the defenses that kill pathogens, and studies to assess the ability of drugs (retinoids and growth factors) to promote wound healing and tissue repair.

This carefully-targeted body of research will begin with the following seven projects supported by core activities at both institutions. A key feature of the work is that both LRRI and UAB will be represented among the chief investigators of each project.

—Mechanisms of Pathogen Killing by Normal and Injured Lungs
—Mechanisms and Prevention of Acute Lung Injury Following Systemic Trauma
—Role of Oxidant Stress and FGF–1 During Acute Lung Injury
—Role of Saudi Arabian Sand and Pyridostigmine in Gulf War Syndrome
—Influence of Nicotine on Lung Inflammation from Acute Sulfur Mustard Vapor and Pneumococci
—Toxicity of Inhaled DI-t-Butyl-Nitrophenol
—Ability of Retinoids to Promote Tissue Repair after Acute Lung Injury

Benefits to the Department of Defense

More effective anticipation, prevention, diagnosis, and treatment of life-threatening acute lung injury will enhance the effectiveness of DOD programs at all levels from battlefield protection of troops from chemical and biological warfare agents or blast damage to routine protection of service personnel from toxic chemicals during peacetime duties. With emerging threats from weapons of mass destruction, state of the art information from the Center for Acute Lung Injury will be of interest to many DOD organizations and could have critical significance for U.S. tactical and strategic postures.

There are many major DOD stakeholders in the issues addressed by this program. These include the Office of Naval Research (ONR) with broad responsibilities for improving technology to protect personnel, the U.S. Army Medical Research Institute of Infectious Disease (USAMRIID) with lead responsibilities for research to advance the medical prevention and treatment of biological diseases and biological warfare casualties, the U.S. Army Medical Research Institute for Chemical Defense (USAMRICD) which is the nation's lead laboratory for research to advance the medical prevention and treatment of chemical warfare casualties, the Defense Threat Reduction Agency (DTRA) which is dedicated to reducing the threat to the United States and its allies form nuclear, chemical, biological, conventional, and special weapons, the Air Force Nuclear Weapons and Counterproliferation Agency (NWCA) with responsibility for ensuring an effective deterrence posture for weapons of mass destruction, and the Defense Advanced Research Program Agency (DARPA) which is DOD's central research and development organization for pursuing high risk/high payoff research and technology. In addition, improved knowledge of the opportunities and limitations for preventing and treating acute lung injury will of interest to many special purpose organizations such as the Marine Corps Chemical and Biological Incident Response Force (CBIRF) which is a self-contained, task-oriented unit with the ability to detect hazardous materials, perform decontamination, and offer medical treatment and security.

Funding is Sought to Conduct This Important Research

A total of $6 million ($3 million each to LRRI and UAB) is sought to provide salaries, purchase equipment, provide core support services, facilitate travel for collaborating scientists between the two institutions as necessary to conduct the studies described above.

RESEARCH ALLIANCE FOR HEALTH AND NATIONAL SECURITY (RAHNS)

The Problem

There is a need to develop new technologies to deal with biological, chemical, and radiological threats. The military has faced chemical, biological and radiological threats for some time. There is increasing concern for domestic threats from these agents. Effective detection, mitigation, and countermeasures require a continual development of new technologies to outpace the development of threat agents and dispersion techniques. Examples of new technologies include sensors having greater sensitivity and range, better models for predicting dispersion, miniaturized analytical chemistry and microbiological techniques, better respiratory protection, improved inhalation drugs and delivery for protection or treatment, and more rapid and effective diagnosis, staging, decontamination, treatment, and follow-up of exposed individuals.

These advances will require timely, coordinated, multidisciplinary research and development. No one institution has expertise in all these areas. Significant advances will require the integrated collaborative efforts of multiple institutions. The ideal consortium would be comprised of institutions having the requisite core capabilities, located in the same area, and having a track record of working together effectively. The RAHNS Alliance is proposed as a exactly such a consortium.

RAHNS—Responding to the Need

The mission of RAHNS is to develop new technologies to protect the health of our military and the public, and to protect national security from biological, chemical, and radiological threats.

In recognition of the importance of the threat and the pressing need for defensive technological advances, Lovelace Respiratory Research Institute (LRRI), Sandia National Laboratories (SNL), Los Alamos National Laboratory (LANL), and the University of New Mexico (UNM) have formed an alliance (RAHNS) to merge their research resources, technical experience, and intellectual capabilities in an enhanced collaborative manner. The alliance brings together two National Laboratories having superior strengths in security-related engineering, computational, and genomic re-

search, a private nonprofit basic biological research organization having world-renown strengths in aerosol science, inhalation toxicology, and respiratory biology, and a university having exceptional strengths in infectious and respiratory disease. Moreover, the resources of these members will be extended to other potential federal, industry, and university, research and development partners.

The Alliance member organizations have collaborated together in pairs for many years, including research and development activities sponsored by the Department of Defense and aimed at chemical-biological defense barriers. As RAHNS, the members will now approach the problems as an integrated team to identify and solve problems, develop technologies, and transfer technologies to other federal and non-federal entities as appropriate. Coordination will involve facilities, as well as research activities. Space will be set aside specifically for this work. Private entities with Small Business Innovative Research (SBIR) funding will be offered space and services as appropriate. Space will also be provided to industrial partners for commercializing the new technologies that result from this research.

Roles of Alliance Members

The Lovelace Respiratory Research Institute.—LRRI has extensive experience studying the health effects of inhaled toxins, radionuclides, and biological agents and predicting human risks from laboratory simulations. It manages a federally-owned, privatized facility which has unique capabilities for simulating atmospheres of airborne agents in the laboratory and assessing health responses to inhaled materials. It has generated atmospheres of airborne biological agents for SNL sensor development efforts and is currently conducting a DOD study of the long-term effects of exposure to traces of airborne neurotoxin. The Institute has a 30-year record of working safely with airborne sensitive materials without personnel exposure or environmental releases.

Sandia National Laboratories.—SNL is distinguished in the area of remote sensing, agent detection and identification, transport modeling and simulations, intelligent agents, and remote handling (robotics). Photonics, micro-electro-mechanical systems, system miniaturization, and computational analysis adapted to these areas will be emphasized.

Los Alamos National Laboratory.—LANL is heavily involved in the national effort to sequence the genomes of the most dangerous potential pathogens in the biological warfare setting. LANL has the expertise to create new, rapid field-ready diagnostic technology using their genome expertise. Such technology, when added to the aerosol science from LRRI and software and hardware capabilities from Sandia, could lead to significant new battlefield-ready counter measures and early diagnostic capabilities.

University of New Mexico.—The UNM Health Sciences Center School of Medicine has an excellent respiratory disease group with strengths in pathology, medicine, and infectious disease. This group is well-known for its experience in successfully identifying and treating cases of hantavirus infection. It played a key role in the development of a rapid diagnostic test based upon recombinant DNA technology within 4 months of the onset of the 1996 hantavirus epidemic in the southwest. This group has current DOD funding for anti-biological threat research.

RAHNS Focus Areas

Hantavirus.—Use of this existing New Mexico model of aerosolized infectious disease (including vertical integration of all aspects of exposure, detection, diagnosis, treatment, and mitigation) to provide realistic protocol guidance for other chem/bio/radiological threats.

Aerosol Delivery.—Use of traditional alliance expertise to predict, identify, and understand technical advances in dispersion threats.

Respiratory Protection.—Use of traditional alliance expertise to develop more effective, less expensive, filtration technologies with built-in, agent-specific protection and detection.

Detection of Agents in Human Fluids.—Development of sensitive, affordable, preferably field-deployable, methods for rapid detection of agents in human sputum or blood.

Biodetection.—Development of improved technologies for other methods of screening for biological contamination, including differentiating from background effects.

Agri-Economic Vulnerabilities.—Assessment of vulnerabilities and countermeasures for threats to livestock and agricultural products.

Emergency Search Capabilities.—Building on the Nuclear Emergency Search Team (NEST) experience base to develop improved technologies and strategies for locating, identifying, and neutralizing chemical and biological threats.

Decontamination and Recovery.—Development and evaluation of technologies for restoration of contaminated sites, including assessments and models of long-term, low-level health risks, measurement technologies, and adequate cleanup criteria.

Medical Intervention.—Development of antidotes, active-site blockers, and other methods to prevent or reduce the effects of exposure.

"Natural" Public Health Threats.—Assessment and reduction of risks from natural threats (eg, hantavirus, TB, influenza) to public health and security, including ethical questions of triage, treatment priorities, behavioral aspects of response, issues of quarantine, and potential collapse of health care systems during crises.

Funding is Sought to Implement the Alliance

Support in the amount of $2 million is sought to establish the infrastructure necessary to fully implement the RAHNS Alliance.

PREPARED STATEMENT OF SADIS MATALON, PH.D.

The University of Alabama at Birmingham (UAB) and the Lovelace Respiratory Research Institute (LRRI) have joined forces in developing a Center for Acute Lung Injury. The Center will draw upon a complementary set of research and clinical capabilities at each institution that are relevant to the prevention, diagnosis and treatment of acute lung injury, including Acute Respiratory Distress Syndrome (ARDS). UAB and LRRI propose that the Department of Defense fund the Center to undertake an integrated set of seven specific lung injury research projects. The Center will have collaborative teams work on these projects. They will draw upon the LRRI's strengths in inhalation toxicology and in handling a variety of pathological agents and substances and upon UAB's well-known capabilities in studying the cellular and molecular mechanisms of acute lung injury and its active clinical programs treating patients with ARDS and other acute lung injuries.

What is Acute Respiratory Distress Syndrome (ARDS)

A number of pathological conditions including extensive skin burns, blood loss, trauma, sepsis, smoke inhalation, aspiration of abdominal contents, or reperfusion of ischemic tissues (such as transplanted livers) often result in a clinical condition referred to as Acute Respiratory Distress Syndrome (ARDS), characterized by accumulation of protein-rich fluid in the alveolar space resulting in respiratory insufficiency, tissue hypoxemia and multi-organ failure. The incidence of ARDS in the civilian population of the United States is estimated at 150,000 cases per year in adults alone.

Currently there is no treatment for ARDS. The main objective of clinical management is the maintenance of adequate arterial and tissue oxygenation, by ventilating patients with positive pressure ventilation and high oxygen concentrations, and treatment of the precipitating disorder. This type of supportive treatment is not always effective and may be associated with a variety of side effects including permanent injury to the lung. Regardless of its etiology, ARDS has an associated mortality of 30–60 percent in different centers. To put this in perspective, conservative estimates of annual mortality of ARDS are estimated to be around 60,000, which exceeds deaths from breast cancer (about 45,000) or AIDS (about 50,000). For this reason, the Lung Division of the National Institutes of Health has dedicated significant resources to basic and clinical research in this area. It was gratifying and exciting to hear the report of the NIH network, presented recently during the annual meeting of the American Lung Association, that a new way of ventilating patients with ARDS reduced mortality in some centers from 40 to 30 percent.

Why is ARDS important to the military?

Dr. Thomas Petty of the University of Colorado first described ARDS in 1967. At that time it was observed that those soldiers suffering severe systemic wounds developed severe pulmonary edema and respiratory failure some time later. This condition was referred to as Shock Lung or Da Nang Lung and was identical to ARDS. More than 90 percent of combat casualties who died after evacuation from the field, had histological evidence of ARDS; those surviving for more than five days had a high incidence of pneumonia and alveolar hyaline membranes, well known sequelae of ARDS.

Training exercises or actual battlefield situations can involve potential exposure of troops to smokes and obscurants, respirable aerosols that will deposit in the lung. Detonations of military weapons produce shock waves that injure the lungs. Confined spaces, such as on nuclear submarines, holds of aircraft carriers, and tank interiors provide the potential for exposures to noxious substances where increased ventilation may be difficult to achieve. In actual battlefield operations, exposure to

chemical and biological warfare agents all pose a threat to the pulmonary system if inhaled. All of these agents may damage the linings of the lungs and allow fluid to enter the air spaces resulting in ARDS.

More effective anticipation, prevention, diagnosis, and treatment of acute lung injury will enhance the effectiveness of Department of Defense programs at all levels, from battlefield protection of troops from chemical and biological warfare agents or blast damage, to routine protection of service personnel from toxic chemicals during peacetime duties. With emerging threats from weapons of mass destruction, state of the art information from the Center for Acute Lung Injury will be of interest to many DOD organizations and could have critical significance for U.S. tactical and strategic postures.

Some of the major DOD stakeholders with concerns for acute lung injury include the Office of Naval Research (ONR) with broad responsibilities for improving technology to protect personnel, the U.S. Army Medical Research Institute of Infectious Disease (USAMRIID) with lead responsibilities for research to advance the medical prevention and treatment of biological diseases and biological warfare casualties, the U.S. Army Medical Research Institute for Chemical Defense (USAMRICD) which is the nation's lead laboratory for research to advance the medical prevention and treatment of chemical warfare casualties, the Defense Threat Reduction Agency (DTRA) which is dedicated to reducing the threat to the United States and its allies from nuclear, chemical, biological, conventional, and special weapons, the Air Force Nuclear Weapons and Counterproliferation Agency (NWCA) with responsibility for ensuring an effective deterrence posture for weapons of mass destruction, and the Defense Advanced Research Program Agency (DARPA) which is DOD's central research and development organization for pursuing high risk/high payoff research and technology. In addition, improved knowledge of the opportunities and limitations for preventing and treating acute lung injury will be of interest to many special purpose organizations such as the Marine Corps Chemical and Biological Incident Response Force (CBIRF), a self-contained, task-oriented unit with the ability to detect hazardous materials, perform decontamination, and offer medical treatment and security.

Roles of the Collaborating Institutions

Both LRRI and UAB have a solid track record of performing high quality research for DOD. In addition, both institutions have clinical research centers for clinical trials and extensive contacts and collaborations with biotechnology and pharmaceutical companies aimed at designing and testing new therapeutic agents. The combination of these two outstanding groups form a state-of-the-art team for addressing the problems of the DOD related to acute lung injury. It is the specific intention of the two collaborating organizations that the Center for Acute Lung Injury would be a much-needed first-line source of information and assistance for DOD when a problem regarding inhalation toxicology and acute lung injury arises.

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The University of Alabama at Birmingham.—UAB has, under the outstanding leadership of Dr. Sadis Matalon, established a world-renown laboratory studying the cellular and molecular mechanism of acute lung injury, and in particular, the mechanism of the development of ARDS. During the past 6 years, scientists and clinicians at UAB have conducted several key biochemical, molecular biology and physiological studies advancing our understanding of the basic mechanisms by which reactive oxygen species damage the lungs and identifying the pathological and physiological consequences and prognosis of this injury.

Among the special strengths that UAB brings to this alliance are:

Major Medical Center with a University Hospital. In the last two years more than 250 ARDS patients per year were treated in the Medical and Surgical Intensive Care Units. There is close collaboration at every level between clinicians and scientists with ample opportunity for clinical research.

Significant expertise in lung research.

Outstanding faculty funded both by NIH and the Department of Defense to perform basic research in Acute Lung Injury. For example, during the last six years, Dr. Sadis Matalon and his collaborators have been funded by the Office of Naval Research to identify new strategies for the effective enhancement of antioxidant defenses in both the lungs and systemic organs, thus limiting the catastrophic consequences of various chemical warfare agents, systemic sepsis, severe trauma, secondary to battlefield wounds, and various inflammatory agents in both combatants and civilian personnel. This research effort has been very successful resulting in over fifty publications in peer-reviewed journals. In addition, Dr. Matalon organized an international meeting on ARDS, sponsored by NATO and has been collaborating with Dr. J. Anthony Thompson, Associate Professor of Surgery and Director of Surgical Research at UAB, to develop novel mechanisms for antioxidant protein and gene delivery to the lung and systemic organs which will bolster antioxidant defenses and reduce the morbidity and mortality of ARDS. In addition UAB has a number of faculty members funded by DOD whose research can be integrated into this project.

The Center's Research Strategy

During fiscal years 1999 and 2000 NIH, allocated about $20,000,000 per year for research related to ARDS. However, additional research investment is needed in projects that are responsive to specific thematic needs of the Department of Defense (i.e identify how pathogens may damage the lungs and develop appropriate countermeasures; extending the "golden hour" following extensive trauma and injury).

The two partner institutions have identified and prioritized a set of interrelated key issues that target current knowledge barriers, are amenable to research by their coordinated efforts in a constrained time frame, and have high potential for pay-off. Through the Center, this team will conduct integrated research specifically targeting lung injury, repair, and treatment issues pertaining to DOD problems. The research will include basic studies on induction and repair of acute lung injury, applied inhalation toxicity studies to address specific DOD problems, and atmosphere monitoring and characterization to meet DOD needs. Basic research will be conducted to determine the key defense mechanisms of the lung with emphasis on enhancing the defenses that kill pathogens, and studies to assess the ability of drugs (retinoids and growth factors) to promote wound healing and tissue repair.

This carefully-targeted body of research will begin with the following seven projects supported by core activities at both institutions. A key feature of the work is that both LRRI and UAB will be represented among the chief investigators of each project.

—Mechanisms of Pathogen Killing by Normal and Injured Lungs
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—Toxicity of Inhaled DI-t-Butyl-Nitrophenol
—Ability of Retinoids to Promote Tissue Repair after Acute Lung Injury

Funding is Sought to Conduct This Important Research

A total of $6 million ($3 million each to LRRI and UAB) is sought to provide salaries, purchase equipment, provide core support services, facilitate travel for collaborating scientists between the two institutions as necessary to conduct the studies described above.

Senator STEVENS. Is it not included in the budget?

Dr. MAUDERLY. There is a small amount of work included in the budget that is going in this direction. This particular program is not included in the budget this time.

Senator STEVENS. Did you ask DOD to put it in?

Dr. MAUDERLY. Yes, we did.

Senator STEVENS. All right. We will look into it. I am not familiar with this, but I will look into it.

Thank you very much.

Dr. MAUDERLY. Thank you.

Senator STEVENS. Dr. Peter Lennie.

Good afternoon.

STATEMENT OF PETER LENNIE, Ph.D., DEAN FOR SCIENCE, PROFESSOR OF NEURAL SCIENCE, NEW YORK UNIVERSITY

Dr. LENNIE. Thank you, Mr. Chairman, for the opportunity to appear before you today.

I am speaking on behalf of New York University (NYU), as its Dean for Science. I appreciate being able to discuss a project that will enhance national security by advancing the scientific understanding of the brain, its development and activity. I would like to thank the committee for its vision in recognizing that university research is a cornerstone of national security efforts and for its willingness to support basic research that brings about discoveries with important military and civilian applications.

In particular, we subscribe to the goals described in the conference report accompanying the appropriations for Defense for fiscal year 1999. That report directed that the Department add to its list of research priorities the area of computational neuroscience and vision studies for learning and human/machine interaction. This is an area of exceptional significance and indeed one in which NYU has great strength. And I thank the committee for endorsing the importance of this work.

I would like to say a little about investments in research that will substantially increase what we know about the neural mechanisms that underlie several aspects of human behavior that are of great importance in both military and civilian contexts. At NYU, we are promoting such research by establishing a Center for Cognition, Learning, Emotion, and Memory Studies. Researchers will examine neural mechanisms of learning and memory. They will probe fear and its impact on learning and performance. And they will study perception and information processing in the brain.

By understanding better how the human brain does these things, we will be better able to design machines that can do similar things. The initiative directly addresses defense research priorities, including the computational modeling and measurement of brain function.

I would like to offer you some examples. First, researchers will investigate intelligence and information processing in neural systems, and also in machines. These studies have far-reaching implications for understanding the human capacity to perceive visual objects and for developing computer technologies to process, monitor and display large bodies of data.

Second, researchers will explore the cognitive processes that affect attention and memory and the strategies that can optimize these components of learning. For example, computer-aided or intelligent tutoring, and learning technologies that can improve motivation and increase retention.

Third, the studies have implications for improving performance under the high-stress conditions that characterize military operations. Researchers in the neural biology of fear are examining the brain systems that malfunction in panic attacks and stress disorders. These studies will help us understand the source of fear and other emotions, how they are triggered, how they can undermine performance, and, ultimately, whether the unconscious neural circuity of emotions can be altered or inhibited.

Many of these studies have a common focus on the changes in the nervous system that occur when we remember new things or learn new skills. Understanding neural plasticity is essential to understanding and improving the flexibility of human behavior. If we understand this flexibility and harness it, we can work better and learn better, even as we age.

PREPARED STATEMENT

Mr. Chairman, this concludes my testimony. I thank you for your support of the research and for the opportunity to appear before you today.

[The statement follows:]

PREPARED STATEMENT OF DR. PETER LENNIE, PH.D.

Thank you, Mr. Chairman. My name is Peter Lennie, and I am speaking on behalf of New York University as its Dean for Science. I appreciate this opportunity to appear before the Subcommittee today to discuss a project of scientific research which is not only an important priority for New York University, but which we believe will advance national security interests through enhanced scientific understanding of brain function and brain development.

Our project addresses the programmatic interests of this subcommittee in enlisting fundamental, university-based scientific research to catalyze technological innovation with applications for defense purposes as well as industrial, medical, and educational sectors. This initiative is congruent with Department of Defense research priorities and application areas, including its interest in sophisticated techniques that involve measurement of brain function and computational modeling. Our project will contribute to the training and performance of military personnel and the development of new technologies by substantially expanding what we know about: the neural mechanisms of learning and memory; the perception, acquisition and storage of information in the nervous system; the neurobiology of fear and its impact on learning and performance; and the implications of neural vision systems for their machine analog, computer vision.

We strongly support the goals presented in the Conference Report accompanying the Appropriations for the Department of Defense for fiscal year 1999. That report directed the department to add a multi-disciplinary University Research Initiative topic area on "computational neuroscience and vision studies for learning and human/machine interaction." We thank the Subcommittee for taking the time to consider and give its support to the important research being conducted in this area—an area of great strength at New York University. We at NYU firmly believe that in the coming decades, a federal investment in mind and brain studies will repay itself many times over.

In line with the Subcommittee's interests, New York University is undertaking to establish a Center for Cognition, Learning, Emotion, and Memory Studies. This Center will draw on the University's strengths in the fields of neural science, computer science, biology, chemistry, psychology, and linguistics to push the frontiers of our understanding of how the brain develops, functions, and malfunctions. In addition, as a major training institute, the Center will help prepare the next generation of interdisciplinary brain scientists.

A major thrust of the work to be carried out in the Center is research on the learning process, including the underlying cognitive processes and architecture that affect attention, memory, information processing, skills acquisition, and retention, as well as their implications for strategies that can rationalize and optimize training and learning—for example, computer-aided or "intelligent" tutoring—and ultimately, human task performance. Of special interest to those studying learning and memory systems is neural plasticity, which is the nature of the underlying change in the nervous system. At NYU, ongoing investigations into the neurobiology of fear are especially revealing in this regard, and are helping to explain the basis and ultimately the impact of the neural emotional memory system for functional and dysfunctional performance caused by emotional disorders like phobias, panic attacks, and anxiety. Central to the neural science enterprise at NYU are fundamental studies in neural systems, particularly vision—including studies of visual processing pathways, perception, and information processing; and audition—including studies of auditory regions of the nervous system.

These various studies of mind and brain employ a full range of techniques; they coordinate anatomical, neurophysiological, biochemical, and behavioral experiments; and they are conducted in various model systems up through humans, and computer modeling and simulations. Additional studies examine biological systems, e.g., the neural bases of vision perception and information processing, to engineer their computer analogs in data imaging, processing, and retrieval.

New York University is seeking $10.5 million over five years to support and expand the research programs of existing faculty, attract additional faculty and trainees, and provide the technical resources and personnel support that result in a world class scientific enterprise. Individual researchers in the science programs at NYU compete very effectively for investigational support through traditional routes. However, these traditional funding sources do not address the specific need for establishment of an integrated area of scientific study that transcends numerous disciplines and application areas. Nor do they provide the extensive funding necessary for faculty and student support, and personnel and technical resources. Support from this Subcommittee would enable us to meet these needs, and to fully develop the potential New York University has to develop a new understanding of the brain, and new ways of using that knowledge for improving the national welfare.

Research Applications for National Security

The fundamental biomedical and behavioral research conducted in the Center for Cognition, Learning, Emotion, and Memory Studies will have important applications for the development of military technology, the training and preparation of personnel, military performance.

Technology Development.—The fundamental research being conducted at NYU in learning, intelligence, and information processing in biological systems can contribute significant new understanding of computer and communication technologies for the future. Research at the interface between computer science, vision science, and learning research builds on the recognition first, that vision impacts all areas of cognition, and second, that computer vision studies the processing of images and thus, in its own way, addresses cognitive issues. Vision psychologists and computer vision researchers are working together to investigate the neural bases of object and pattern recognition, depth perception, and motion perception, and their computer analogs in data imaging, processing, and retrieval. These kinds of fundamental studies have far reaching implications, on the one hand, for developing sophisticated computer technologies to process, monitor and present the enormous bodies of data related to military operations, personnel deployment, etc. and on the other hand, for understanding and improving the human capacity to perceive and respond to visual cues.

Training and Preparation of Personnel.—Understanding how the brain functions and how we learn is crucial to training a diverse range of individuals for a diverse range of skills, one of the primary tasks of the Armed Services. The more we know about how people acquire, process, and retain information, the better training programs can be designed and targeted for specific skills, selected groups of trainees, and various settings, whether in the classroom, simulated environments, or in the field. Rationalizing the training process is especially important in military training, where the acceptable margin of error is slight and where personnel need to be prepared to make informed decisions with far-reaching outcomes. CLEM research can clarify how adult learners use different learning styles, how training personnel can accommodate those styles, and how educational technology and simulated learning environments can be harnessed to improve motivation and increase retention and memory. At NYU, one locus for the development of practical applications of neurobiological and behavioral research is the Center for Digital Multimedia (a New York State Center for Advanced Technology), which brings together teaching experts, laboratory scientists, and software designers to explore how interactive multimedia technologies enhance training, and to develop prototype teaching models and facilitate computer-human communication through graphics, speech and vision. Speaking more generally, CLEM research will help address the persisting challenge which the nation faces in training new recruits to the work force and retraining workers in new technologies. Basic scientific research into neural and psychological mechanisms will help rationalize job training programs and increase their effectiveness.

Performance of Personnel.—Research into the interaction of cognition, emotion, and memory can be critical in strengthening preparation for performance under the high-stress conditions that characterize military operations. At NYU, pioneering research into the neurobiology of fear is generating important information about the brain systems that malfunction in, for example, anxiety, phobias, panic attacks, and post-traumatic stress disorders. The brain's fear system is related to many human

emotional disorders, and these malfunctions in emotional systems commonly characterize serious psychiatric disorders. Research into the neural mechanisms of fear will help us understand the source of emotions, how they are triggered by circumstance, why these emotional conditions are so hard to control, and, of greatest practical importance, how they can incapacitate, undermine attentiveness, and weaken the memory of learned skills and routines. Ultimately, our research will generate clues for prevention and treatment of emotional disorders, focusing perhaps on the ways in which unconscious neural circuitry can, in effect, be altered or inhibited.

While research at NYU will have these direct applications for national security, there will be important spin-offs in other social areas, including biomedical therapeutics and diagnostics, early childhood learning and intervention, and job training.

Feasibility: Institutional Strengths

New York University is well positioned to create and operate a major multidisciplinary research and training center. There is commitment to the CLEM project at the highest level of the University administration, established frameworks for interdisciplinary and interschool collaboration, strengths in neurobiological, psychological and computational sciences, and international standing in the scientific community. The nation's largest private university, with 13 schools and over 49,000 students, NYU is a leading center of scholarship, teaching and research. It is one of 29 private institutions constituting the distinguished Association of American Universities, and is consistently among the top U.S. universities in funds received from foundations and federal sources.

As the core of a decade-long multi-million dollar science development plan, NYU created a premier neuroscience and cognitive psychology program that encompasses a pre-eminent faculty and generates substantial external funding from federal and state agencies as well as the private sector. These investigations have attracted millions of federal dollars from the NIH, the NSF and the EPA. In addition, NYU has received major funding from the most prestigious private foundations supporting the sciences. This includes the Howard Hughes Medical Institute (HHMI)—the foundation most active in support of the life sciences. (NYU is now home to no fewer than six HHMI Investigators, with corresponding funding from the Institute.) The HHMI also has awarded NYU two major grants, each exceeding $1 million, from its Undergraduate Biological Science Initiative Program, as well as a major facility improvement grant. The W.M. Keck Foundation also awarded two grants, each exceeding $1 million, for facility and program development in the neural and cognitive sciences; one grant funded the renovation of a major new laboratory in emotional memory studies. The Alfred M. Sloan Foundation similarly awarded two major grants totaling $2 million to found the Sloan Center for Theoretical Visual Neuroscience—one of five institutions chosen to implement the Foundation's national initiative in theoretical neurobiology. Neural science faculty have, as individuals, won prestigious awards, including HHMI Investigator, NSF Presidential Faculty Fellow, NIH Merit Awardee, McKnight Foundation Scholar in Neuroscience, and MacArthur "Genius" Fellow.

Neural science at NYU is particularly well known for research in the neural basis of visual processing and perception, theoretical/computational neurobiology, the linkage of sensation and perception with action, emotional memory, plasticity in the visual and auditory system, molecular and developmental neurobiology, and cognitive neuroscience. With these strengths, NYU is particularly well placed to create a distinctive center that will capitalize on expertise in physiology, neuroanatomy, and behavioral studies and build on active studies that range from the molecular foundations of development and learning to the mental coding and representations of memory.

While other academic institutions are also conducting brain studies, NYU has special strengths in important emerging research directions that are central to the Defense mission. To elaborate, vision studies at NYU follow an integrated systems approach that has been shown to be highly successful approach in unraveling this complex system, and that has established NYU as an internationally known center. The interest in vision, a key input to learning, is associated with focused studies on the learning process, particularly, the interaction with memory and behavior.

NYU vision scientists are studying form, color and depth perception; visual identification; the varieties of visual memory; and the relationship of vision and perception to decision and action. Studies ask: How does vision develop? How does the brain encode and analyze visual scenes? What are the neural mechanisms that lead to the visual perception of objects and patterns? How do we perceive spaces, depth, and color? How does the brain move from vision and perception to planning and action?

NYU is also at the frontier of studies in the neuroanatomy and physiology of emotion, a new area of exploration that complements studies of how perceptions, thoughts, and memories emerge from brain processes. Work recently conducted at NYU and elsewhere has established the biological basis of emotions and the patterns by which they are expressed within the neural circuits of the brain. The new studies have found that there are multiple systems in the brain, each having evolved for different functional purposes, and each producing different emotions. Work being conducted at NYU also suggests that the neural circuits supporting the expression of emotions were highly conserved through evolution. They persist, unconsciously, in our daily behavior, and shape our reactions to events well before we rationally and consciously process the event. Scientists at NYU are using behavioral testing, physiological recording of neural activity, and neuroanatomical tract tracing to ask, what are the neuroanatomical pathways for the formation of emotions and emotional memories? How do we learn and remember emotions? These studies have crucial applications for personnel training, job performance and mental health, and address such questions as: How can emotions, such as fear, facilitate or undermine the training process? Do emotionally stressful situations affect our ability to remember facts, retrieve information, perceive events and objects? How can we better diagnose and treat emotional disorders which undermine performance? How can we enhance attentiveness and memory in stressful situations?

NYU's special strengths also lie in the established infrastructures that exist within NYU to promote multidisciplinary brain research that incorporates experimental, theoretical, and computational components. As an example, the Sloan Center for Theoretical Visual Neuroscience fosters joint research that harnesses the tremendous recent advances in computational speed, size and memory to effectively revolutionize the power of quantitative analysis to address fundamental problems in neurobiological systems. The Center houses faculty with joint appointments in neural science (Arts and Science) and mathematics (Courant Institute of Mathematical Sciences), supports neural science trainees with backgrounds in the physical and mathematical sciences, and fosters a range of multidisciplinary projects which include analysis of neural and network dynamics of the visual cortex; the nonlinear dynamics of the thalamus and other neural structures; analysis of the visual perception of occluding objects; brain imaging and adult brain plasticity.

CLEM will bring the University's many strengths in these areas more fully to bear on the challenges and opportunities that multidisciplinary studies present. The Center will provide an organizational identity, core resources, and common focus for the university's efforts. For students, it will provide an educational forum to apply knowledge gained in one discipline to problems in other disciplines. For researchers, the Center's synergistic linkages between basic science departments, mathematical and computational units, and biomedical departments will encourage intellectual cross fertilization and will permit the consolidation of individual efforts in multidisciplinary but conceptually coordinated efforts. For colleagues in the fields of technology, education, and medicine, the Center will facilitate connections with life scientists and enhance the translation of research knowledge into commercial and educational applications and health care.

CLEM will be an interdisciplinary unit linking faculty, students, programs and resources from several schools of New York University. These are the Faculty of Arts and Science, the Courant Institute, School of Education, and School of Medicine, including its Skirball Institute of Biomolecular Medicine and the associated Nathan Kline Institute Center for Advanced Brain Imaging. To be housed at the University's Washington Square campus within the Faculty of Arts and Science, CLEM will coordinate laboratory research and training in fundamental neurobiological, psychological, and computational studies of the nervous system. The enhanced research and training that will be possible will attract public and private funding above and beyond the substantial funds, honors and recognition already awarded to the University's researchers, and will support the center's continued growth and development.

Mr. Chairman, this concludes my testimony. I thank you for the opportunity to testify before you today.

Senator STEVENS. Are you participating in the dedicated brain activities?

Dr. LENNIE. Absolutely, sir.

Senator STEVENS. I see you have received some substantial grants from the Environmental Protection Agency (EPA).

Dr. LENNIE. That is right.

Senator STEVENS. Have you applied to NIH?

Dr. LENNIE. Some of the work, and different components of this work, unrelated to the projects that I am discussing now, are supported by NIH, yes.

Senator STEVENS. Why should this be funded from the Defense Department?

Dr. LENNIE. Because many of the initiatives here are of direct relevance, I think, to the military's imperatives, sir.

Senator STEVENS. That same relevance applies to every other human being, does it not? What is the unique thing for the Department of Defense?

Dr. LENNIE. For example, automatic target recognition or coping with post-traumatic stress disorder. Many of these problems are particularly, if not peculiarly, distinctively problems for the military.

Senator STEVENS. Well, I would like to have you give us a little bit more information about that. I was in a civilian aircraft crash. I had a brain injury. Why should anything like that be just solely Defense's responsibility?

Dr. LENNIE. I did not mean to imply it was solely, but that many of the high incidence of some of these conditions is distinctively a military problem.

Senator STEVENS. Would you mind following that up a little bit? I am interested in the brain. Along with David Mahoney, I have participated in trying to keep up the funding. But I think we have put a lot of money at NIH, and there is a lot of money at EPA. I am not sure it has to come from DOD. But if you can give me some further information as to why it should, I would appreciate it.

Dr. LENNIE. Well, the work that comes to mind immediately would be the work on the management of emotional disorders following trauma and the implications that particularly stressful episodes have on people's future performance.

Senator STEVENS. But, again, I think that happens to non-military just as much as military.

Dr. LENNIE. Certainly, to an extent.

Senator STEVENS. Give me the paper, will you. If you will, I will follow up on it. But just tell me why this should be a Defense function. OK?

Dr. LENNIE. I will endeavor to do that, sir.

Senator STEVENS. Thank you very much.

Dr. LENNIE. Thank you.

Senator STEVENS. Dr. Feldman.

STATEMENT OF LAWRENCE A. FELDMAN, ACTING EXECUTIVE VICE PRESIDENT, OFFICE OF THE PRESIDENT, UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY

Dr. FELDMAN. Mr. Chairman, in view of your very busy and extended schedule, I will thank you for the opportunity to appear before you.

My name is Dr. Lawrence Feldman, and I am the acting Vice President of the University of Medicine and Dentistry (UMD) of New Jersey, the largest public health sciences university in the Nation. We are a statewide system, located on five campuses, with three medical schools and schools of dentistry, nursing, allied health, public health, and graduate biomedical sciences.

You have our written testimony before you, so I will be brief in my comments. I thank you for the opportunity to bring to your attention a priority project of UMDNJ, which is consistent with the mission of this committee. And that is to counter the threat of chemical and biological terrorism in military and civilian populations. In today's modern society, the possibility of employment of terrorist weapons of mass destruction has already become a reality, such as the sarin nerve gas attack in the subways of Tokyo.

New Jersey is the Nation's most densely populated State. Therefore, we have particular concern about being the target of biological and chemical terrorism. As a central transportation hub in the Northeast, we could be a prime target for such attacks. State and local governments and health organizations need information upon which to develop and coordinate response plans to bioterrorism. We also need programs to educate planners and response teams on the public health aspects of these threats.

Such a plan requires a broad base of scientific and educational expertise in order to devise approaches for the early detection, treatment and control of biological and chemical weapons of terror. There are three disciplines required for a comprehensive approach to meeting the challenges posed by bioterrorism: expertise in infectious diseases, expertise in the chemical and physical agents of concern, and the ability to translate this expertise into effective programs for emergency responders.

UMD has the expertise to respond to the threat of biological and chemical terrorism. Our Environmental and Occupational Health Sciences Institute is one of the foremost university-based centers of research and education in environmental and occupational health. Our faculty are recognized internationally for a broad base of activities, including clean up of weapon sites, gulf war veterans studies, and Hazmat training. We also train health care workers in emergency response, diagnosis, and treatment of exposure to chemicals.

Many of our faculty are advisers to the United States Government, and have served on committees such as the program and technical review of U.S. Chemical and Biological Defense Command, and the Committee on Toxicology, which responds to the Department of Defense concerning toxic substances. The interim Dean of our School of Public Health is also the President of the American Public Health Association. Among her programs is the Center for Education and Training, which provides training concerning chemical agents to more than 160,000 police, firefighters and municipal and State employees, physicians, nurses, and industrial hygienists.

UMDNJ is also home to the International Center for Public Health, a strategic initiative that is establishing a world-class infectious disease research and treatment complex at University Heights Science Park, in Newark. We would make four recommendations for your consideration:

One, provide funding for a major program aimed at improving recognition of the effects of chemical and biological terrorism weapons; two, unify the approaches to educating emergency responders; three, provide multi-agency funding to force the research to identify, understand and learn how to neutralize biological and chemical weapons; and, four, provide funding for research and design

specifically, and understanding the health effects of these agents on large populations so that early diagnosis and treatment can become more likely.

We respectfully request that you identify with a high priority, funds within the Defense health science accounts to support a national basic and applied research program designed to counter the threat of bioterrorist attacks. As a representative of UMDNJ and as a professor of microbiology and molecular genetics, I believe that the threat of such attacks will increase in the future.

PREPARED STATEMENT

Senator, as I am certain you are aware of, this represents a major national concern. I again thank you for the opportunity to appear before you, and thank you for your support of research in general.

[The statement follows:]

PREPARED STATEMENT OF DR. LAWRENCE A. FELDMAN

The following is the testimony of the University of Medicine and Dentistry of New Jersey (UMDNJ), the largest public health sciences university in the nation. The UMDNJ statewide system is located on five academic campuses and consists of 3 medical schools, and schools of dentistry, nursing, health related professions, public health and graduate biomedical sciences. UMDNJ also comprises a University-owned acute care hospital, three core teaching hospitals, an integrated behavioral health care delivery system, a statewide system for managed care and affiliations with more than 100 health care and educational institutions statewide. No other institution in the nation possesses the resources which match our scope in higher education, health care delivery, research and community service initiatives with state, federal and local entities.

UMDNJ is home to the International Center for Public Health, a strategic initiative that will create a world-class infectious disease research and treatment complex at University Heights Science Park in Newark, New Jersey, the New Jersey Medical School National Tuberculosis Center at UMDNJ, one of only three model Tuberculosis Prevention and Control Centers in the United States funded by the Center for Disease Control and Prevention, and the Environmental and Occupational Health Sciences Institute (EOHSI), the largest environmental institute in the world designated a National Institute of Environmental Health Sciences ((NIEHS)-funded Center of Excellence. UMDNJ's core and affiliated hospitals also operate the New Jersey's system of Level I and Level II Trauma Centers.

No other institution in the nation possesses resources which match our scope in higher education, health care delivery, research and community service initiatives with state, federal and local entities.

We appreciate this opportunity to bring to your attention a priority project of UMDNJ that is consistent with the mission of this committee, that is to counter the threat of chemical and biological terrorism.

In our complex world of instant communication and ease of global transportation, disaffected individuals or political groups have access to highly destructive weapons of terror. With our open society, the United States is particularly at risk to an individual with a grudge, a band of ideologically motivated fanatics, or to nations seeking revenge. The possibility of the employment of weapons of mass destruction on an innocent population has already become a reality with the Sarin nerve gas attack in the subways of Tokyo.

As citizens of the nation's most densely populated state, we in New Jersey have a particular concern about being targets of biological and chemical terrorist activities. Our communities abut each other and our traffic patterns are statewide making us especially vulnerable to infectious disease. There are no obvious geographical boundaries to readily institute a quarantine. Our central location as a transportation hub for the populous Northeast also makes us a prime target.

State and local governments and health organizations need reliable information upon which to develop and coordinate response plans for contingencies due to weapons of mass destruction. They need programs to educate planners and response teams on the public health aspects of these threats and how to recognize and respond to them. In addition, they need to understand both the short and long term

implications for human and ecologic health. Such a plan requires a broad base of scientific and educational expertise which has an international scope in order to devise approaches for the early detection and treatment of biological and chemical weapons of terror.

Terrorists have three types of weapons available to them. For the first, explosive devices, although increasingly deadly, we have developed responses and have become all too familiar with this form of terror and chaos. The other two types of terrorist weapons are relatively new and present particular challenges to our normal response processes. These are chemical weapons of terror, such as nerve gas, and biological weapons of terror, such as anthrax bacillis. Chemical and biological weapons differ dramatically from explosions in that for these newer threats early recognition and diagnosis is crucial for both those initially affected and for others who might yet be affected through spread of infection or contact with the chemical.

Education of emergency responders to correctly identify these threats, whether they occur here or abroad, is crucial to minimize the impact of biological and chemical weapons, as well as to protecting the emergency responders themselves. Compounding our problems is the need for a better understanding of the effects of likely chemical and biological agents of terrorism, development of the means to prevent their spread, and to rapidly treat their victims.

There are three distinct disciplines required for a comprehensive university-based approach to meeting the challenges posed by terrorism. These are expertise in infectious disease agents likely to be used; expertise in the chemical and physical agents of concern; and the ability to translate this expertise into effective training programs for emergency responders. UMDNJ has this expertise to be broadly responsive to the threat of biological and chemical terrorism.

Our Environmental and Occupational Health Sciences Institute, a joint program of UMDNJ and Rutgers University, has established one of the foremost university-based centers of research and education in environmental and occupational health. The faculty are recognized internationally for a broad base of activities from human and ecologic health to clean up of weapons' sites, Gulf War veterans' studies, and HAZMAT training courses. We also train health care workers in emergency response, diagnosis and treatment of exposure to chemicals.

Many of our faculty are advisors to the U.S. Government and have served on committees such as the Program and Technical Review of the U.S. Chemical and Biological Defense Command and the Committee on Toxicology, which responds to the Department of Defense concerning toxic substances.

The nation's foremost program in education and training concerning chemical and physical threats is headed by a UMDNJ faculty member, Dr. Audrey Gotsch, who is currently President of the American Public Health Association. Among her programs is the Center for Education and Training which provides training concerning chemical and physical agents to more than 160,000 police, firefighters, municipal and state employees, as well as to physicians, nurses and industrial hygienists.

Also, our researchers at the Child Health Institute at the UMDNJ-Robert Wood Johnson Medical School in New Brunswick, New Jersey are looking into the effects of radiation on children in utero and on their growth and long-term development. Children who survive bio-terrorist attacks live and carry forward the results of that attack in a different manner than exposed adults. The basic mechanisms of biology that operate to cause serious neurological injury can be counteracted or reversed if properly understood at the molecular and chemical level.

We respectfully make four recommendations for this committee's consideration:

—Provide funding for a major program aimed at improving the recognition of the effects of chemical and biological terrorism weapons by community emergency response elements.

—Unify the approaches to educating emergency responders about chemical and biological terrorism.

—Provide multi-agency funding to foster international research efforts to identify, understand the pathogenecity and learn how to neutralize agents being developed by terrorists intent on using biological and chemical agents and,

—Provide funding for research designed specifically at understanding the health effects of chemical and biological agents on large populations so that early diagnosis and treatment becomes more likely.

Because of its scientific expertise, UMDNJ is uniquely qualified to develop a program to educate state and municipal governments, emergency responders and health and hospital professionals on planning for the response to terrorism and training personnel to deal with threats of terrorism and how they affect public health. We are also ready to assist by providing scientific expertise appropriate to improve early detection of terrorist attacks and early treatment of its effects.

UMDNJ also has international collaborative studies in infectious disease and health education and is uniquely positioned to study these problems and to provide solutions.

We respectfully seek $1.5 million through the Department of Defense to expand our research, education and training programs in response to threats of chemical and biological terrorism.

Thank you for the opportunity to appear before you today. This Subcommittee has demonstrated leadership in supporting nationally and internationally critically-needed research and development initiatives. Your support of the universities and research institutions in this country is especially recognized.

Senator STEVENS. We have a new task force on terrorism and its consequences. And I will turn your testimony over to them and ask them to contact you. I congratulate you on your concept. But they will give us advice not only in this subcommittee, but the full committee, of where to put money to help start the process of counteracting terrorists in our country. So I will put them in touch with you. We will get someone to contact you from that task force.

Dr. FELDMAN. We will be happy to participate.

Senator STEVENS. Thank you very much.

Our next witness is Mildred Brooke. Good afternoon.

STATEMENT OF MILDRED BROOKE, VICE PRESIDENT OF OPERATIONS, J&E ASSOCIATES, INC.

Ms. BROOKE. Mr. Chairman, thank you for the opportunity to appear before you today. I am Mildred Brooke, Vice President of J&E Associates.

You and members of your subcommittee have for years been aware of a troubling situation that "60 Minutes" made millions of Americans aware of earlier this year. Sadly, that fact is that our Nation's military families experience domestic violence at a rate far higher than their civilian counterparts. However, "60 Minutes" left its viewers with the distinct impression that combatting family violence is a low priority for DOD and that its programs for preventing and responding to family violence are ineffective.

The purpose of my testimony today is twofold. First, I would like to provide a more balanced and accurate picture of DOD's efforts to reduce family violence by updating you on one program, the New Parent Support Program. Second, I am here to ask your assistance in keeping this vibrant, proven program alive and strong so that we can hasten the day when having a parent in the military does not increase a child's risk of being abused or neglected.

My company, in partnership with DOD, operates a number of programs aimed at improving the quality of military family life. Thanks to this committee's longstanding support, the New Parent Support Program has proven to be a model program for preventing child abuse and neglect. The program is based on a practical model for preventing violence against children. The program targets expectant parents and families with children under the age of 6 years, and provides home visits, referrals to community resources, and a wide variety of life skill and parent education classes.

J&E currently operates the New Parent Support Program for the Army service-wide, and provides staff to operate the program at five Navy installations. Regrettably, I must note that our Navy program reflects a 55 percent reduction in the number of installations served since I appeared before you last year.

Within our program for the Army, we are conducting extensive research to learn more about the families we serve and the effectiveness of the New Parent Support Program. Upon voluntary entry into the program, we ask parents to complete a battery of questionnaires which measures factors such as marital satisfaction, child behavior, depression, family conflict, and parental stress. We reassess these families every 6 months.

What have we learned from this? First, we have found that parents entering the program have high levels of distress that far exceed the normal concerns and worries new parents typically have about child bearing. Among other findings we reported to the Army in our semiannual reports in October of 1998 and then last month, are that 58 percent of the mothers and 39 percent of the fathers are clinically depressed.

Nearly 15 percent of the families have children with severe emotional and/or behavioral problems. Mothers entering the program have significantly fewer social supports available to them than their civilian counterparts. Nearly 70 percent of the mothers and 75 percent of the fathers report clinically significant levels of marital dissatisfaction. Thirty-eight percent of the mothers and 25 percent of the fathers have personality traits, belief systems and attitudes toward parenting that are similar to those identified in studies of abusive parents.

In summary, significant proportions of the parents are at high or moderate risk of abusing their children or committing acts of domestic violence. These findings show that the New Parent Support Program is exactly on target.

Does the program help these parents? The research evidence strongly indicates that it does. Additionally, we consistently receive extremely positive evaluations of the program from installation commanders, senior enlisted leaders, as well as the parents.

More importantly, the research results show that, following program interventions, there are major improvements in many areas of family functioning. Parenting questionnaires administered 6 months into the program show parents scoring significantly better on scales that measure factors including family problems, strengths and abuse risk factors.

The implications of this research are there is a definite need among military families for new parent support services, and the program services we provide are working. In fiscal year 1998, our staff provided home visitation services to over 4,000 Army families. In the first 4 months of this fiscal year, we have delivered services to nearly 1,000 additional families, averaging 250 new families each month. This is the maximum level of services that can be delivered to Army families with the current staffing levels.

For the funding levels that DOD has released to the Army and Navy this fiscal year, the programs are at maximum capacity. In some instances, staff have had to limit their outreach efforts so as not to create long waiting lists for services.

Mr. Chairman, without DOD's release of the $8 million added by Congress for fiscal year 1999, I fear that both the Army and Navy will be forced to drastically reduce, if not terminate, the operations of this valuable and viable program. I am certain that the program

will not extend to the additional installations as originally designed. Many installations and families will not be served.

Mr. Chairman, this subcommittee has been a champion of the New Parent Support Program since its introduction in 1992. I request that you continue your commitment, give your fullest support to ensuring that the fiscal year 1999 funds that your subcommittee provided are immediately released by DOD, and that funding continue for the program in fiscal year 2000 at a level of $20 million.

PREPARED STATEMENT

I thank you for your support and look forward to working with you and the subcommittee. Thank you. And I would be happy to answer any questions.

[The statement follows:]

PREPARED STATEMENT OF MILDRED BROOKE

On January 17, 1999, the news program "Sixty Minutes" made millions of Americans aware of the fact that our nation's military families experience domestic violence at a rate far higher than their civilian counterparts. In addition to pointing out the pervasiveness of this problem, "Sixty Minutes" left its viewers with the distinct impression that combating family violence is a low priority for the Department of Defense and that its programs for preventing and responding to family violence are ineffective.

The purpose of my testimony today is twofold. First, I would like to provide a more balanced, accurate picture of the DOD's efforts to reduce family violence by telling you about one program that has helped thousands of military families to effectively cope with situations that heighten a family's risk for child abuse and neglect. Second, I am here to ask your assistance in keeping this vibrant, successful program alive and strong so that we can hasten the day when having a parent in the U.S. military does not increase a child's risk of being abused or neglected.

As an introduction, I am Mildred Brooke, Vice President of Operations of J&E Associates, Inc. My company operates a number of programs aimed at improving the quality of military family life in partnership with the Department of Defense. One of these programs is the New Parent Support Program, or NPSP, a model program for preventing child abuse and neglect.

The New Parent Support Program: A Success Story in the DOD's Effort to Combat Child Abuse and Neglect

The New Parent Support Program, which exists in some form in all four Services, is based on a practical, successful model for preventing violence against children. As designed, the program targets expectant parents and families with children under the age of 6 years and provides home visits by nurses or social workers, referrals to community resources, and a wide variety of life skill and parent education classes.

J&E currently operates the NPSP for the Army service-wide and provides staff to operate the program at five Navy installations. Under our contract with the Army, we are also conducting extensive research to learn more about the families we serve and the efficacy of the NPSP. Upon voluntary entry into the Army NPSP, parents who agree to participate in research complete a battery of questionnaires frequently used by family violence researchers to assess family functioning and risk factors for child abuse. The questionnaires contain nationally normed scales that measure factors such as marital satisfaction, child behavior, depression, family conflict, and parental stress. We reassess these families every six months using the same questionnaires. So far, 684 families have consented to participate in the study and completed the initial set of questionnaires.

What have we learned from this research?

First, we have found that parents entering the program have high levels of distress that far exceed the normal concerns and worries new parents typically have about childrearing. Here are some of the characteristics of these families:

—58 percent of the mothers and 39 percent of the fathers are clinically depressed;
—about 15 percent of the families have children who have severe emotional and/or behavioral problems;

—compared to a norm group of expectant mothers who are not at risk for child abuse, mothers entering the program have significantly fewer social supports available to them;
—nearly 70 percent of the mothers and 75 percent of the fathers report clinically significant levels of marital dissatisfaction;
—according to their scores on a parental stress index, approximately one-third of the parents are experiencing such high levels of stress that they need to receive immediate professional assistance;
—38 percent of the mothers and 25 percent of the fathers have personality traits, belief systems, and attitudes toward parenting that are similar to those identified in studies of abusive parents—a finding which indicates that these parents are at definite risk of abusing their children; and
—using a more liberal definition for risk of child abuse—that is, a somewhat lower cutoff score on a child abuse potential inventory that correctly differentiates abusers from non-abusers 89 percent of the time—nearly half of the mothers and one-third of the fathers were classified as at risk of abuse.

In summary, the parents entering this program—including active-duty fathers—are depressed, stressed out, dissatisfied in their family lives, and often lacking in natural social supports. A significant proportion of the parents are at high or moderate risk of abusing their children or committing acts of domestic violence.

These findings show that the NPSP is exactly on target. The high level of marital distress among participants indicates a strong need for marital interventions delivered directly by NPSP home visitors or through referrals to outside services. The low levels of social support among mothers indicates the importance of support services for these women.

Does the NPSP help these parents?

The research evidence strongly indicates that it does. We consistently receive highly positive evaluations of the program from base commanders, senior enlisted leaders, and the parents themselves. According to regularly administered client satisfaction surveys, parents rate the home visitation services, parenting information, and parenting classes offered through the NPSP as "excellent."

More importantly, the research results show that following NPSP interventions there are major improvements in many areas of family functioning. Parenting questionnaires administered six-months into the program show parents scoring significantly better on scales that measure the following: family conflict, rigidity, and problems; family strengths; child aggressive symptoms; parent depression; high risk factors for child abuse; low and moderate risk factors for child abuse; and high risk factors for spouse abuse.

The implications of this research are: (1) there is a definite need among military families for new parent support services and (2) the NPSP services we provide really work.

The research results cited above are from our semi-annual research reports submitted to the Army in October 1998 and April 1999.

The Need for Increased Funding

In fiscal year 1998, J&E staff provided home visitation services—the cornerstone services of the NPSP—to 4,026 Army families, producing the positive results just described. In the first four months of fiscal year 1999, we delivered these services to nearly one thousand additional families, an average of about 250 new families each month. This is the maximum level of services that can be delivered with our current staffing of approximately 100 people on the Army NPSP. However, unless the funds that were allocated by the Subcommittee in the fiscal year 1999 Conference Report are released by the DOD for the NPSP, J&E believes that the Army and Navy will be forced to drastically reduce the scope of our operations on this valuable and viable program.

Programs on all installations served by J&E are currently operating at capacity, and in some instances staff has had to limit their outreach efforts so as not to create long waiting lists for NPSP services.

Mr. Chairman, I request that you and members of the Defense Subcommittee take whatever steps are necessary to ensure that the fiscal year 1999 funds you allocated for the NPSP are immediately released by DOD. I also request that you ensure that funding continue for the NPSP in fiscal year 2000 at a level of $20 million.

I appreciate the opportunity to submit this testimony. I thank you for your support and look forward to working with you and the Subcommittee to ensure that our young military families, at risk, receive the support services that they have come to rely on and expect.

Thank you.

Senator STEVENS. Senator Kennedy and I are working on a new program to deal with parenting education, but doing it in high schools. Our indications are that so many of the young people move away from their families and are becoming young parents without anyone around to assist them, or even knowing what it means to be a parent or, in particular, how to deal with children in the period from 1 to 3 years, which is a critical period of evolvement, as we all know now.

Does your program cover that?

Ms. BROOKE. Yes, it works with the expectant and then the new parents, and helps teach the parents their parenting skills, how to play with their children, what is normal child development.

Senator STEVENS. But does it deal with them before they even think about having kids?

Ms. BROOKE. No. It is usually when they are expecting or just having their first child. We do not have the staff available to reach out to other families or couples planning to be parents.

Senator STEVENS. A lot of these young people go into the military before they even—some of them—before they finish high school.

Ms. BROOKE. Correct.

Senator STEVENS. I think we ought to explore what to do about that. It does seem that that is the difficulty right now. So many young parents have no guidance about what to do with their offspring and how to take care of them, literally. I would be interested in talking to you about that later. We might be able to include some portion of our bill to cover the program you have got, too.

Ms. BROOKE. I agree with you, Senator. I think if you could provide young people with realistic expectations about parenthood it would be very helpful.

Senator STEVENS. We teach them how to run their checkbooks and other things, but we do not teach them what to do with their children if they ever have them. Thank you very much.

Ms. BROOKE. Thank you.

Senator STEVENS. Our next witness is Fran Visco, President, the National Breast Cancer Coalition.

STATEMENT OF FRAN VISCO, PRESIDENT, NATIONAL BREAST CANCER COALITION

Ms. VISCO. Good afternoon, Senator.

As a breast cancer survivor and President of the National Breast Cancer Coalition, and a lawyer, I would like to thank you on behalf of the 2.6 million women living with breast cancer for this committee's ongoing support of the Department of Defense peer-reviewed breast cancer research program. And I am here today, of course, to ask—joined by 62 of your colleagues in the letter that was delivered to the committee this past week—for a continuation in maintenance of the program.

I know that you are well aware of the program and its success.

Senator STEVENS. Let me cut you short. I know the program, as you know. And I am a prostate cancer survivor myself. We will agree to put in $175 million again if you will agree you will not ask for anymore.

Ms. VISCO. How about if I ask for a little less?

Senator STEVENS. Every time we come out of this committee with a figure, it is increased on the floor. Now, this year, the pressure on this bill is so great that if that happens, it is going to be, I think, a very bad result. Because we have kept our commitment in the past, but I hope you will give us a commitment that we are not going to have pressure to increase that amount once we get to the floor or conference. Because every year, when we come out of here with a figure, it has gone up and up.

Now, this year, as I have said, and you have heard what I have said, we are underfunded and have an over-demand on this committee. We will keep up that line at the same level, but I hope you will honor us by not requesting an increase anymore this year.

Ms. VISCO. Senator Stevens, I make a commitment to you that we will not ask for an increase in the program this year.

Senator STEVENS. Thank you very much.

I have your statement and you have my support.

Ms. VISCO. Thank you very much.

Senator STEVENS. By the way, it is essential that we do that, because I think we have 35 to 40 percent of the Army now who are women. We are getting more and more problems dealing with young women in the military. I think it is a legitimate interest for the military research money to continue that research on breast cancer. As a matter of fact, they have less money, but they have a substantial problem in prostate cancer, as you know.

Ms. VISCO. Yes, I do, Senator.

PREPARED STATEMENT

Senator STEVENS. Thank you very much.

Ms. VISCO. Thank you. And thank you for giving better testimony than I could have in support of the program.

Senator STEVENS. Thank you.

[The statement follows:]

PREPARED STATEMENT OF FRAN VISCO

Thank you, Mr. Chairman and members of the Appropriations Subcommittee on Defense for your exceptional leadership in the effort to increase and improve breast cancer research. As my testimony will describe in detail, the investment in cancer research made by you and this Committee is one of the contributions which has brought us closer than ever to the verge of significant discoveries about cancer. I am Fran Visco, President of the National Breast Cancer Coalition. I am also a wife, mother, lawyer, and breast cancer survivor.

On behalf of the National Breast Cancer Coalition and the 2.6 million women who are now living with breast cancer, I thank you for your strong past support of the Department of Defense's (DOD) Peer-Reviewed Breast Cancer Research Program and I urge your continued support of this important program with an appropriation of $175 million for the program for fiscal year 2000. The National Breast Cancer Coalition believes this program is vital to the eradication of breast cancer. And we are not alone. I have with me a letter signed by over 60 of your colleagues in the Senate which requests that the DOD Peer-Reviewed Breast Cancer Research Program be funded at $175 million for fiscal year 2000.

As you know, the National Breast Cancer Coalition is a grassroots advocacy organization made up of over 500 organizations and more than 60,000 individuals and has been working since 1991 toward the eradication of this disease through advocacy and action. The National Breast Cancer Coalition's goals are (1) to increase the federal funds available for breast cancer research and to focus research on prevention, on finding the cause of and a cure for this insidious disease; (2) to make certain that all women have access to the quality care and treatment they need, regardless of their economic circumstances and (3) to increase the influence of women with breast cancer in the decision making that affects their lives.

The DOD Peer-Reviewed Breast Cancer Research Program has been an incredible model that others have replicated. Broadly defined, the innovative research performed through the program has the potential to benefit not just breast cancer, but all cancers, as well as other diseases. Its success is literally changing the face of biomedical research in many arenas.

This program is not only innovative, but is also incredibly streamlined. As you know, it is overseen by a group of distinguished scientists and activists, as recommended by the Institute of Medicine. Because there is no bureaucracy, the program is able to quickly respond to what is currently happening in the scientific community. It is able to fill gaps, with little fuss. It is responsive, not just to the scientific community, but also to the public.

As the Chairperson (and former member) of the Integration Panel that implements the DOD Breast Cancer Research Program, I have witnessed the evolution of this program. In just six short years, the program has matured from an isolated research program to a broad-reaching influential voice forging new and innovative directions for breast cancer research and science. The flexibility of the program has allowed the Army to administer this groundbreaking research effort with unparalleled efficiency and skill. In addition, an inherent part of this program has been the inclusion of consumer advocates at every level, which has created an unprecedented working relationship between advocates and scientists, and ultimately led to unchartered research in breast cancer.

It is important to note that the DOD Integration Panel that designs this program has a plan of how best to spend the funds appropriated. This plan is based on the state of the science—both what scientists know now and the gaps in our knowledge—as well as the needs of the public. This plan coincides with our philosophy that we do not want to restrict scientific freedom, creativity and innovation. While we carefully allocate these resources we do not want to predetermine the specific research areas to be addressed. This permits us to complement and not duplicate other federal funding programs.

The National Breast Cancer Coalition has been the driving force behind this program for many years. The success of the DOD Peer-Reviewed Breast Cancer Research Program has been illustrated by two unique assessments of the program. The Institute of Medicine (IOM) which originally recommended the structure for the program, independently re-examined the program in a report published in 1997. Their findings overwhelmingly encourage the continuation of the program and offer guidance for program implementation improvements.

The 1997 IOM review of the DOD Peer-Review Breast Cancer Research Program commended the program and stated that "the program fills a unique niche among public and private funding sources for cancer research. It is not duplicative of other programs and is a promising vehicle for forging new ideas and scientific breakthroughs in the nation's fight against breast cancer." The IOM report recommends continuing the program and establishes a solid direction for the next phase of the program. It is imperative that Congress complement the independent evaluations of the DOD Breast Cancer Research Program, as well as reiterate their own high level of commitment to the Program by appropriating the funding needed to ensure its success. The IOM report has laid the groundwork for effective and efficient implementation of the next phase of this vital research program, now all that it needs is the appropriate funding.

In addition to the IOM report, the DOD Peer-Reviewed Breast Cancer Research Program reported the progress of the program to the American people during a public meeting called the "Era of Hope." It was the first time a federally funded program reported back to the public in detail not only on the funds used, but on the research undertaken, the knowledge gained from that research and future directions to be pursued. This meeting allowed scientists, consumers and the American public to see the exceptional progress made in breast cancer research through the DOD Peer-Reviewed Breast Cancer Research Program.

Many scientists at the "Era of Hope" meeting expressed their enthusiasm for the program and the opportunity to work substantively with consumers at every step of the research process. In fact, the scientists who have seen first hand the benefits of the DOD Peer-Reviewed Breast Cancer Research Program have issued a strong statement, that in their scientific judgement the program should continue: "* * * we urge that this program receive ongoing funding. This program has been broadly defined such that the research performed will be of benefit not just for breast cancer, but for all cancers and other diseases."

The DOD Peer-Reviewed Breast Cancer Research Program has attracted bright, fresh scientific minds with new ideas and continued to open the doors to how they think about breast cancer research and research in general.

Developments in the past few years have begun to offer breast cancer researchers fascinating insights into the biology of breast cancer and have brought into sharp focus the areas of research that hold promise and will build on the knowledge and investment we have made. The Innovative Developmental and Exploratory Awards (IDEA) grants of the DOD program have been critical in the effort to respond to new discoveries and to encourage and support innovative, risk-taking research. The IDEA grants have been instrumental in the development of promising breast cancer research. These grants have allowed scientists to explore beyond the realm of traditional research and have unleashed incredible new ideas and concepts. IDEA grants are uniquely designed to dramatically advance our knowledge in areas that offer the greatest potential.

Therefore, we have devoted a majority of the DOD funds to these types of grants, yet there were many promising proposals that could not be supported because of a lack of funds. It is disheartening to think that lack of funding could be the only factor stalling scientific research that could save so many lives. IDEA grants are precisely the type of grants that cannot receive funding through more traditional programs such as the National Institutes of Health, and academic research programs. It is vital that these grants are able to continue to support the growing interest in breast cancer research—$175 million for peer-reviewed research will help sustain the IDEA grant momentum.

The DOD Peer-Reviewed Program has also sought innovative ways to translate what is discovered under the microscope to the bedside. Most recently, it defined a new funding mechanism that will carve out a niche in clinical translational research by bringing cancer clinical trials into community settings.

In addition to the fact that the DOD program provides desperately needed, excellent quality breast cancer research, it also makes extremely efficient use of its resources. In fact, over 90 percent of the funds went directly to research grants. The federal government can truly be proud of its investment in DOD breast cancer research. The overall structure of the system has streamlined the entire funding process, while retaining traditional quality assurance mechanisms.

The National Breast Cancer Coalition is highly committed to the DOD program in every effort, as we truly believe it is one of our best chances at finding a cure or prevention for breast cancer. The Coalition and its members are dedicated to working with you to ensure the continuation of funding for this program at a level that allows this research to forge ahead.

In May of 1997, our members presented a petition with over 2.6 million signatures to the Congressional leaders on the steps of the Capitol. The petition calls on the President and the U.S. Congress to spend $2.6 billion on breast cancer research between 1997 and the year 2000. Funding for the DOD Peer-Reviewed Breast Cancer Research Program is an essential component of reaching the $2.6 billion goal that so many women and families worked to gain.

Once again, we are prepared to bring our message to Congress. In less than two weeks, many of the women and family members who supported the campaign to gain the 2.6 million signatures will be at our Annual Advocacy Training Conference here in Washington, D.C. We expect more than 500 breast cancer activists from across the country to join us in continuing to mobilize behind the efforts to eradicate breast cancer. The overwhelming interest and dedication to eradicate this disease continues to be evident as people are not only signing petitions, but are willing to come all the way to Washington, D.C. to deliver their message about the importance of our commitment.

Since the very beginning of this program, in 1993, Congress has stood in support of this important investment in the fight against breast cancer. In the years since then, Mr. Chairman, you and this entire Committee have been leaders in the effort to continue this innovative investment in breast cancer research.

We ask you, the Defense Appropriations Subcommittee, to recognize the importance of what you have initiated. What you have done is set in motion an innovative and highly efficient approach to fighting the breast cancer epidemic. What you must do now is continue to support this effort by funding research that will help us win this very real and devastating war against a cruel enemy.

Thank you again for inviting me to testify and giving hope to the 2.6 million women living with breast cancer.

Senator STEVENS. Martin Foil.

[No response.]

Senator STEVENS. Robert Morris, please.

STATEMENT OF ROBERT V. MORRIS, EXECUTIVE DIRECTOR, FORT DES MOINES BLACK OFFICERS MEMORIAL, INC.

Mr. MORRIS. Good afternoon, Senator. My name is Robert Morris. I am the Executive Director of the Fort Des Moines project.

We have an opportunity to preserve a critical part of military history for America's youth to see and learn from at Fort Des Moines, Iowa. No military installation has played a greater part in the racial and gender integration of America's armed forces than Fort Des Moines, which we are attempting to preserve through a development of a memorial park project in this $2 million rehabilitation request, sponsored by Iowa Senators Tom Harkin and Charles Grassley.

During the First World War, the United States established its first officer candidate school open to black Americans at Fort Des Moines, in 1917. Although three black officers had previously graduated at West Point, the Fort Des Moines OCS became the first class open to black candidates, authorized by Secretary of War Newton Baker. President Woodrow Wilson skeptically labelled this his great experiment, to determine the intelligence and courage of blacks to lead troops in combat.

Of the 1,250 black officer candidates that became the 17th Provisional Training Regiment at Fort Des Moines, 1,000 were college graduates and faculty from historically black colleges, such as Howard, Morehouse and Tuskegee, and major institutions, including Harvard and Yale. The 250 noncommissioned officers called represented the famous 9th and 10th Calvary "Buffalo Soldiers" and the 24th and 25th Infantry who were in service on the Plains.

Called the largest gathering of black college men in history, 639 graduated as captains and lieutenants on 15 October 1917 and were dispatched for basic training at camps around the Nation. Many of the graduate officers went on to lead the 92nd Division against Imperial Germany on the battlefields of France in 1918. Those who survived combat returned victorious to America, to lead a fledgling human rights movement during the infamous Red Summer of 1919.

A symbol of their noble spirit is my grandfather, 2nd Lieutenant J.B. Morris, who survived a near-fatal wound at the Battle of Metz, 9 months and a dozen operations in French hospitals, and a trampled spirit, to return to Iowa and publish the oldest black-oriented newspaper west of the Mississippi River for half a century, and cofound the National Bar Association in 1925. Some 25 years before military desegregation—actually 31 years before military desegregation—these graduate officers of Fort Des Moines racially integrated the command structure of America's armed forces and set the standard for all who followed.

Some 25 years later, the very thought of female soldiers offended many Americans, in 1942, but the Army was determined to try yet another experiment, and once again conducted it at Fort Des Moines, Iowa. The Women's Army Auxiliary Corps (WAAC) was launched at Fort Des Moines in 1942, where 65,000 women would receive noncombat training during the war. As part of the WAAC, Fort Des Moines hosted the first officer candidate school for women, graduating 427 third officers, which is equivalent to a 2nd lieutenant, including 26 black females, on 29 August 1942.

The WAAC units served with distinction in England and France during World War II, and created a standard of excellence followed by female troops serving in America's armed forces today. It is astonishing to imagine that these two critical events were held at the same location 25 years apart, and that Fort Des Moines launched the racial and gender command integration of the United States military. The importance of our project is reflected in our board membership, including General Colin Powell, Brigadier General Elizabeth Hoisington, the military's first female general officer, and others, as you see on the list there.

As part of our $6 million memorial park project at Fort Des Moines, an active Army Reserve post, which is named on the endangered National Historic Landmark list, the renovation of Clayton Hall, Building 46, should be a top priority. The dilapidated 20,000-square-foot building is deteriorating and must be saved immediately.

A museum is planned for Clayton Hall, honoring the first black officers, the WAAC, and veterans everywhere, and mostly the military's historic role in leading our greater society toward equality. To this end, we request the $2 million funding support to save this critical part of our Nation's history.

One note that I want to make on the end of this is that we are only asking the DOD to save this Army building with operations and maintenance funds. This is not for new construction. But as you know, out in Iowa, the winters are very brutal, and this building is literally falling apart. And if we do not save this critical part of our Nation's history, it is going to be lost on us forever.

Senator STEVENS. Is it a total $6 million plan for the memorial park?

Mr. MORRIS. Actually, it is $7 million altogether.

Senator STEVENS. You are asking for Federal support for $2 million of that?

Mr. MORRIS. Right. And that is just sheer rehabilitation and nothing else. Just to save that building.

As you can see from the brochure I handed out, the building is pictured there on the left-hand side. And it faces three other buildings.

Senator STEVENS. I looked at that.

Mr. MORRIS. OK.

Senator STEVENS. Well, your chairman I consider to be one of my best friends. So we will do our best to support that request. I assume he joins you in this request.

Mr. MORRIS. Senator Harkin?

Senator STEVENS. Colin Powell.

Mr. MORRIS. Oh, Colin Powell. Yes, he is on our board.

Senator STEVENS. Your two Senators have written us about this.

Mr. MORRIS. Yes.

PREPARED STATEMENT

Senator STEVENS. And we will do our utmost to fulfill that request.

Mr. MORRIS. Thank you very much.

Senator STEVENS. Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF ROBERT V. MORRIS

I am Robert Morris, Executive Director of the Fort Des Moines Black Officers Memorial, Inc. of Des Moines, Iowa. I am honored to speak to his distinguished body and today, we have the opportunity to preserve a critical part of military history for America's youth to see and learn from at Fort Des Moines, Iowa.

No military installation has played a greater part in the racial and gender integration of America's Armed Forces than Fort Des Moines which we are attempting to preserve through the development of our Memorial Park Project and this $2 million rehabilitation request by Iowa Senators Tom Harkin and Charles Grassley.

During the First World War, the United States Army established its first officer candidate school open to black Americans at Fort Des Moines in 1917. Although three black officers had previously graduated West Point, the Fort Des Moines OCS became the first class open to black candidates authorized by Secretary of War Newton Baker. President Woodrow Wilson skeptically labeled it his "great experiment" to determine the intelligence and courage of blacks to lead troops in combat.

Of the 1,250 black officer candidates that became the 17th Provisional Training Regiment at Fort Des Moines, 1,000 were college graduates and faculty from historically black colleges such as Howard, Morehouse and Tuskegee and major institutions including Harvard and Yale. The 250 non-commissioned officers called represented the famous 9th and 10th Cavalry "Buffalo Soldiers" and the 24th and 25th Infantry who were in service on the plains.

Called "the largest gathering of black college men in history," 639 graduated as Captains and Lieutenants on 15 October 1917 and were dispatched for basic training at camps around the nation.

Many of the graduate officers went on to lead the 92nd Division against Imperial Germany on the battlefields of France in 1918. Those who survived combat returned victorious to America to lead the fledgling human rights movement during the infamous "Red Summer" of 1919 and beyond.

A symbol of their noble spirit is my grandfather, 2nd Lieutenant J.B. Morris, who survived a near-fatal wound at the Battle of Metz, nine months and a dozen operations in French hospitals, and a trampled spirit, to return to Iowa and publish the oldest black-oriented newspaper West of the Mississippi River for half a century and co-found the National Bar Association in 1925.

Three decades before official military desegregation, the graduate officers of Fort Des Moines racially integrated the command structure of America's Armed Forces and set the standard for all who would follow.

The WAAC

Some 25 years after the first black OCS, the very thought of female soldiers offended many Americans in 1942 but the Army was determined to try yet another "experiment" and once again conduct it at Fort Des Moines, Iowa.

The Womens Army Auxiliary Corps (WAAC) was formed at Fort Des Moines in 1942 where 65,000 women would eventually receive non-combat training during World War Two.

As part of the WAAC training, Fort Des Moines hosted the first officer candidate school for women graduating 427 officers, including 36 black females, on 29 August 1942. WAAC units served with distinction in England and France during World War Two and created a standard of excellence followed by female troops serving in America's Armed Forces today.

It is astonishing to imaging that these two critical events were held at the same location 25 years apart and that Fort Des Moines launched the racial and gender command integration of the United States military. The importance of our project is reflected in our Board membership that includes:

—Gen. Colin L. Powell, USA (ret) former Chairman of the Joint Chiefs of Staff;
—B/Gen. Elizabeth Hoisington, (ret) the military's first female General Officer;
—M/Gen Evan Hultman, AUS (ret) former Executive Director of 100,000 member Reserve Officers Association and United States Attorney;
—Lt. Gen. Russell C. Davis, first black Chief of the National Guard;
—Nebraska Senator Bob Kerrey, Medal of Honor winner Vietnam, and;
—Col. Delores Hampton (ret) President of the National Association of Black Military Women.

As part of our $6 million Memorial Park Project at Fort Des Moines, an active Army Reserve post which is named on the Endangered National Historic Landmark list, the renovation of Clayton Hall (Bldg. 46) should be a top priority. The dilapidated 20,000 square foot building is deteriorating and must be saved immediately before weather or vandalism destroy it.

The museum planned for Clayton Hall honors the first black officers, the WAAC, and veterans everywhere and most of all the military's historic roll in leading our greater society toward racial and gender equality. To this end, we request your $2 million funding support to save this critical part of our nation's history.

Thank you.

Senator STEVENS. Sergeant Ouellette.

STATEMENT OF MICHAEL F. OUELLETTE, SERGEANT MAJOR, USA (RETIRED), DIRECTOR, LEGISLATIVE AFFAIRS, NON COMMISSIONED OFFICERS ASSOCIATION OF THE UNITED STATES OF AMERICA

Sergeant OUELLETTE. Good afternoon, Mr. Chairman. I am Sergeant Major Michael Ouellette. On behalf of the Non Commissioned Officers Association (NCOA), we certainly appreciate the opportunity to be here.

In the interest of time, I will not go into a lot of the recommendations made in our statement, because we clearly support the statements by our colleagues earlier. Most of those individuals representing those organizations were part of the National Military and Veterans Alliance, which I currently am a Co-Director, with Colonel Charles Partridge.

I do want to take this opportunity to just mention last year's testimony. If you recall, at that time, NCOA came to you and said that it had moved the Redux retirement change to its highest level of priority. At that time, you said that you had just returned from a trip, and that is the rumblings that you had heard. And later that year, the Joint Chiefs came in and reiterated that they did in fact have a problem with that. And NCOA and the Military and Veterans Alliance are very pleased by the efforts put forth to respond to that alert.

We also appreciate your effort in the interest of pay raises, retiree COLA's, and, most recently, the $200 million that you put in the emergency supplemental to support the Coast Guard, which had been left out of that whole equation. We certainly appreciate that.

And, Mr. Chairman, it is for those reasons that you know that the Non Commissioned Officer Association has selected you to be the 1999 recipient of the L. Mendel Rivers Award for legislative achievement, which is the Association's highest legislative honor.

PREPARED STATEMENT

So, on behalf of NCOA President Roger Putnam, the NCOA Board of Directors, and of course the 148,000 members of our Association, we offer you congratulations. We appreciate your support and response to the Association's request. And we look forward to you attending our convention in Las Vegas and making a presentation for that award and accepting the acknowledgement and the appreciation of our membership.

[The statement follows:]

PREPARED STATEMENT OF SERGEANT MAJOR MICHAEL F. OUELLETTE

Mr. Chairman, the Non Commissioned Officers Association of the USA (NCOA) appreciates the opportunity to present testimony before this subcommittee on the fiscal year 2000 Department of Defense (DOD) Budget. The Association's comments and recommendations represent the views and concerns of its noncommissioned and petty officer members and will address a wide range of compensation, personnel, medical care and quality-of-life issues of significant importance to NCOA members.

Hopefully, the members of the subcommittee will consider the recommendations from an enlisted viewpoint to be of benefit and value during deliberations.

NCOA is a federally chartered organization representing 148,000 active-duty, guard and reserve, military retirees, veterans and family members of noncommissioned and petty officers serving in every component of the Armed Forces of the United States; Army, Marine Corps, Navy, Air Force and Coast Guard.

It is unfortunate that the Secretary of Defense and the military service chiefs are reporting recruiting and retention problems to the Congress. However, NCOA is enthusiastic that the solutions offered by the Secretary of Defense and the Joint Chiefs of Staff during recent testimony before the Senate and the House Armed Services Committees include military retirement system and military pay reforms as being vital to the improvement of recruiting and retention capabilities. Both of these solutions have been supported by NCOA in the past and currently are among the very highest priority legislative goals of the Association. In the interest of maintaining a strong national defense, NCOA believes this subcommittee recognizes the need to focus on the same issues as being vitally important to the success of the armed forces' ability to recruit the necessary people to support a strong national defense and ensure for the well being of the enlisted force of each military service. NCOA is pleased with the Administration's budget request supporting a 4.4 percent military pay raise on January 1, 2000, and that the DOD budget includes a funding request to support the pay increase. However, the Senate's passage of legislation to address military pay, retirement and benefits improvements far beyond those requested by the Administration could very well make a major difference. Consequently this subcommittee will be looking to appropriate increased Defense Department funding levels beyond initial forecasts and requests should S. 4 subsequently be passed in whole or in part by the House.

SENATE "FAST TRACK" REFORM LEGISLATION (S. 4) EXISTS

In an effort to address the recruiting and retention problems and meet the corresponding recommendations offered by the military service chiefs, the Senate recently passed S. 4, a bill that contains sweeping reform measures in military pay, personnel and benefit programs. The provisions of S. 4 are summarized as follows:

—Provides military members entering the service on or after August 1, 1986, a choice between the 1980 retirement system or a $30,000 bonus and retirement under the 1986 REDUX military retirement system.

—Provides a 4.8 percent military pay raise on January 1, 2000.

—Provides for a further targeted military pay raise on July 1, 2000.

—Gives authority to implement the Uniformed Services Thrift Saving Plan (USTSP) for participation by military members with provisions to match contributions in certain circumstances.

—Payment of a $180 monthly allowance to those military members who qualify for food stamps.

—Makes significant changes to the current military education benefit including, removal of the existing $1,200 enrollment fee; increase in the monthly benefit amount, and adds the ability to transfer the benefit to their families.

As the members of the subcommittee can readily see, the very existence of S. 4 would result in a need for substantial funding increases to implement these provisions within the armed forces. The cost of implementing these programs from within the current budget request would be impossible and appropriations beyond the requested levels will be needed to facilitate the reality of the measures. NCOA wishes to offer a number of pay, personnel, medical care and quality-of-life recommendations which can significantly improve the overall well-being of military members, retirees, their families and survivors. The recommendations are as follows:

—*Annual military pay raise*.—NCOA appreciates the support of this subcommittee to pass legislation in 1998 that awarded members of the armed forces a 3.6 percent full Employment Cost Index (ECI) pay raise on January 1, 1999. However, it must be noted that even though the increase matched wage inflation as measured by the ECI, it only served to stabilize the military/civilian wage differential at 13.5 percent. NCOA and many members of the armed forces are well aware that past military pay raises have been capped below private sector pay growth or full inflation in 12 of the last 17 years. The result is that military pay, even with the full ECI January 1999 increase, lags a cumulative 13.5 percent behind that enjoyed by the average American worker performing similar work. Knowing this and after sustaining weeks and months of family separation and the hardships associated with the missions of the military services, complicated by increasingly longer workdays due to force reductions and

operation tempo, enlisted men and women feel they are being "short-changed" by those in control of their destinies.

Already this year, the Senate Armed Services Committee recognized the seriousness of the pay situation by including language in S. 4 that provides for an ECI plus pay raise and an additional targeted raise in July 2000. The Administration's request for a 4.4 percent increase for January 2000 and commitment to full ECI pay raises in the future also denotes an effort to address the current 13.5 percent "pay gap." Although NCOA supports full ECI pay raises and a rapid elimination of the differential with civilian sector pay, the Association prefers the pay raise provisions of S. 4 as opposed to the Administration's plan. Therefore, NCOA recommends this subcommittee appropriate funding to support implementation of the 4.8 percent pay raise and the additional July 2000 targeted pay raise provisions of S. 4.

—*The uniformed services thrift savings plan (USTSP)*.—The Senate has already demonstrated an increased determination to establish a saving plan for members of the uniformed services. This proposal would give those eligible to participate an opportunity to contribute up to 5 percent of their basic pay into a program referred to as the Uniformed Services Thrift Savings Plan (USTSP) with the monthly deduction made from their pay by the servicing Defense Finance and Accounting Services (DFAS). Under normal conditions, such a proposal would appear to have considerable merit; however, NCOA has expressed concern in the past that such a proposal sends the wrong message or paints an inaccurate picture of the current financial capabilities of enlisted members of the military services. However, when viewed with the current efforts to improve the pay levels of military members, NCOA believes the time is now right to offer such a savings alternative. Consequently, NCOA recommends this subcommittee appropriate the funding needed to ensure implementation of the USTSP for participation by members of the armed forces, to include the Guard and Reserve, should the program be passed by Congress in 1999.

Concurrently, NCOA believes that the enlisted community would be better served by a thrift savings plan that allows pre-age 59 and one-half withdrawals without penalty at discharge, reenlistment and in special circumstances.

—*Military retirement system reform*.—In early 1998 during testimony before Congress, NCOA identified the repeal of the 1980 and 1986 military retirement systems as the Association's highest legislative priority. In view of the provisions of S. 4, as reported out by the Senate Armed Services Committee, NCOA supports the proposed alternative to the total repeal of REDUX retirement. The alternative contained in the Senate legislation would provide service members who enlisted after August 1, 1986, with two retirement choices. At the 15th year of service they could choose to stay under the REDUX program and receive a $30,000 bonus or they could elect to receive benefits under the pre-1986 retirement program. REDUX retirement would pay 40 percent of three-year averaged base pay at 20 years and would have limited (reduced) annual Cost-of-Living Adjustments (COLAs). The pre-1986 retirement benefit pays 50 percent of three-year averaged base pays plus full annual COLAs. NCOA recommends this subcommittee be prepared to appropriate the Defense Department with the increased funding levels needed to implement the Senate's proposal and permit retirement plan choice to be available to future military retirees.

Retired Pay Cost-Of-Living Adjustment (COLA).—NCOA appreciates the efforts of this subcommittee to provide a January 1, 1999, 1.3 percent COLA to military retirees. Nonetheless, NCOA remains extremely concerned with previous year's congressional activity and debate suggesting that the Consumer Price Index (CPI) overstates inflation. Should the debate continue this year, the Association urges this subcommittee to continue to resist retirement or COLA proposals that would reduce the value or purchasing power of military retired pay.

Concurrent Receipt.—Despite the reality that cost is a major factor in changing the current offset between VA disability compensation and military retired pay, NCOA remains committed to correcting this equity. Retired pay and VA compensation are made available for two distinctively different reasons. Yet, should a military retiree be adjudicated to be disabled by the VA, there continues to be a dollar for dollar offset in the payment of benefits. NCOA urges this subcommittee to work toward or be prepared to appropriate funding to reduce or eliminate the current VA disability offset to military retired pay or at least provide some relief to the most severely disabled as stipulated by H.R. 44.

MILITARY MEDICAL CARE

Mr. Chairman, availability and access to military health care or alternative options are needed to provide for the medical care needs of all military beneficiaries.

Surveys of military people and their families consistently group medical care right beside adequate pay, inflation protected retired pay and commissary availability as the top concerns of the military community. In fact, with base and hospital closures and reductions in medical personnel, the increasing lack of no-cost health care is a major concern to active and retired personnel alike. Enlisted people, both active and retired, suffer the greatest impact because of their lower pay levels which cause them to place a greater value on the earned "lifetime" benefit. Many military members are further penalized because their duty stations are normally outside of TRICARE Prime option catchment areas resulting in increased out-of pocket costs associated with the TRICARE Standard option.

Currently more than 58 hospitals have been closed as part of the Base Realignment and Closure Commission (BRAC) or other actions. Services have been cut back at many of the hospitals remaining open and many of them have been and continue to be downgraded to clinic size. Hundreds of thousands of retirees and their family members who received care in Military Treatment Facilities (MTFs) are now finding that care is no longer available. Retirees are being denied prescription drugs by MTF pharmacies in increasing numbers. They are told that many prescribed drugs are too costly and are either not stocked or are restricted for issue to only active duty beneficiaries.

The TRICARE Program has been in various states of development or implementation for nearly a decade. Still the TRICARE-Prime option is not available in many parts of the United States. For example, in California where the military managed care system has been in place the longest, there are still areas without TRICARE Prime networks. However, despite the lack of established networks, the TRICARE-Standard/CHAMPUS option is then the only alternative. Unfortunately, the CHAMPUS Maximum Allowable Charge (CMAC) is so low many physicians will not accept it. The current system is broken, and must be fixed.

NCOA fully supports keeping a strong, effective direct medical care system for the delivery of health care as being in the best interests of national security. The Association also supports making full use of the MTFs and TRICARE networks as primary providers. However those retirees (Medicare-eligible) who are either "locked-out" of TRICARE-Prime or not guaranteed access to these primary sources of care should be offered a number of alternatives or options. In this regard, NCOA supports:

—*Waiver of Medical Care Co-Pays/Cost Shares/Deductibles*.—NCOA fully supports the passage of legislation that would provide no-cost medical or waive any co-payments, cost shares or deductibles for military families assigned to isolated areas where health care options are limited and result in significant increases in out-of-pocket expenditures.

—*Medicare Subvention*.—NCOA is pleased that Congress passed legislation in 1997 providing authority to provide a Medicare Subvention (TRICARE Senior Prime) demonstration project at six sites across the United States. Although this action was a major step forward, the Association is greatly concerned by loss of military medical care access for the many Medicare eligible military retirees residing outside the confines of the designated demonstration test sites. Therefore, NCOA strongly supports the implementation of the Medicare Subvention concept across the United States in order to provide immediate relief and to minimize the injustice being levied on all Medicare eligible military retirees who have lost earned health care benefits.

—*FEHBP as an Option*.—NCOA has supported offering the Federal Employees Health Benefit Program (FEHBP) as an option to Medicare eligible military retirees, their families and survivors. Therefore the Association is extremely pleased with last years action by Congress to offer FEHBP to up to 66,000 Medicare-eligible military retirees residing within the catchment areas of eight specific demonstration sites. Additionally, the Association is also pleased that Congress directed DOD to study the feasibility of offering TRICARE-Standard to eligible Medicare beneficiaries residing outside of TRICARE-Prime catchment areas as a second payer to Medicare. NCOA urges the subcommittee to support any legislative effort to direct DOD to restore TRICARE-Standard or CHAMPUS as originally intended by Congress or authorize and fund FEHBP as an option for all military retirees and their families.

—*Medicare Part B Enrollment Penalty Waiver*.—NCOA urges the subcommittee members to support the enactment of any legislation to waive the 10 percent per year Part B Medicare late enrollment penalty for military retirees whose access to the military health care system has been curtailed due to implementation of TRICARE-Prime in any given area.

—*Mail-Order Pharmacy Program Expansion*.—Another legislative item that would be most beneficial to all military retirees would be the expansion of this

program beyond just those affected by BRAC actions. NCOA urges the subcommittee members to support legislation to expand the DOD mail-order pharmacy program and make it available to all military retirees, regardless of age, status or location. The availability of this program would be a great benefit to Medicare eligible military retirees even if Medicare Subvention or FEHBP options were expanded beyond the current demonstration project stages.

SURVIVOR BENEFIT PLAN

Because of congressional support for previous NCOA recommendations to make a number of improvements to the Survivor Benefit Plan (SBP), military retirees who enroll in SBP can now withdraw from the program during the first year following the two-year anniversary date of their retirement. Additionally, military retirees who participate in SBP will not be required to pay premiums for coverage after participating in the program for 30-years or reaching age 70 whichever comes later. Unfortunately, this change will not become effective until October 1, 2008. One further enhancement to SBP would be the repeal of the two-tier annuity computation system applicable to SBP annuities for surviving spouses under the SBP. In this regard, NCOA fully supports the provisions of H.R. 363 introduced by Rep. Bob Filner (CA) that would eliminate the Social Security offset in an SBP annuity when the beneficiary becomes 62 years of age. Passage of this legislation would go far in making the SBP more appealing to military retirees and increasing the likelihood of participation in the plan. NCOA recommends this subcommittee support any effort to enact H.R. 363 into law. Additionally, since the SBP became effective on September 21, 1972, it would seem appropriate to NCOA that the effective date of the paid-up premium change in law should be changed to October 1, 2002, a date more closely aligned with the 30-year anniversary date of the original enactment of SBP. NCOA additionally supports the passage of S. 763 to increase post-62 SBP annuity levels.

GUARD AND RESERVE ISSUES

NCOA recommends this subcommittee include provisions in the fiscal year 2000 DOD Appropriations Bill that would make a number of significant improvements for members of the Guard and Reserve. The recommendations follow:

—Authorize the crediting of all satisfactory military service toward the 30-year requirement for retirement at the highest grade satisfactorily held.

—Include provisions for reserve component retirees that would recognize extraordinary valor and heroism in the same manner as active component retirees, namely authorize a 10 percent increase in retired pay based upon such decorations.

—Include provisions that directs a DOD regulatory change to authorize identical privileges for space available travel among all retired uniformed service members, their spouses and dependents (remove current inequitable restrictions for retired reservists not yet age 60).

UNIFORMED SERVICES FORMER SPOUSE PROTECTION ACT

NCOA sincerely appreciates the efforts of Rep. Bob Stump (AZ) to introduce USFSPA legislation last year and, more importantly, to hold a House Veterans Committee hearing on the subject. NCOA strongly supports and appreciates Rep. Stump's introduction of H.R. 72 this year and urges this subcommittee to support important and educational hearings on the subject of USFSPA this year and closely monitor DOD's release of the congressionally directed USFSPA report not later than September 30, 1999.

CONGRESSIONAL COMMISSION ON SERVICEMEMBERS AND VETERANS TRANSITION ASSISTANCE PRESENTS FINAL REPORT

NCOA wishes to congratulate the Commissioners (members) of the Congressional Commission on Servicemembers and Veterans Transition Assistance for their outstanding efforts culminating with their final report will was presented on January 14, 1999. NCOA supports the Commission's recommendations but feels obligated to point out that to enactment many of its more than 100 recommendation addressing a total of 31 separate issues, must begin with this subcommittee and eventually the House and Senate Armed Services Committees working in tandem with the Department of Defense. In this regard, NCOA recommends enactment and funding of the following Commission recommendations:

—Enhancement of the Montgomery GI Bill.

—Improve Servicemembers' Transition Programs and Services.

—Identify Credentialing (License, certification, apprenticeship requirements) Barriers and Opportunities.
—Provide incentives for federal contractors to hire veterans.
—Eliminate disincentives and restrictions for retired members of the Uniformed Services to obtain federal civilian employment.
—Provide transition health care for recently separated servicemembers and their families.
—Require DOD and VA to combine purchasing power for medical products.
—Streamline the physical disability evaluation process.
—Foster personal financial management skills for servicemembers.

OTHER IMPORTANT ISSUES

Temporary Lodging Expense (TLE).—NCOA strongly supports the expansion of the TLE allowance to those military members making their first permanent duty assignment move. NCOA recommends this subcommittee fund the expansion of this allowance in legislation this year.

Welfare Program Considerations.—NCOA is encourage with the recent congressional activity and debate regarding certain military members eligibility for Food Stamps and Women and Infant Children Programs. NCOA only wants to ensure that this subcommittee consider expanding program eligibility to those qualified military families residing in oversea areas by providing necessary funding.

CONCLUSION

Mr. Chairman, perhaps the single most valuable effort this subcommittee could make to the well-being of the enlisted military community and the armed forces in general is to send a signal that Congress supports those who serve their Country and will provide some stability in pay and benefits. In 1997, the House of Representatives attempted to pass legislation to give military members annual full ECI pay raises.

Although that particular effort was not successful, there were numerous other improvements. For instance, Congress passed legislation that reduced out-of-pocket medical costs for military families assigned to isolated areas. They made improvements in Hazardous Duty Pay and Family Separation Allowance (FSA) and even gave military members a new Hardship Deployment Pay. A Retiree Dental Plan, although non-subsidized, became a reality. In 1998, Congress succeeded in passing legislation to give military people a full ECI pay raise on 1 January 1999. There were also increases in Hazardous Duty Pay for Aerial Flight Crew Members, improved Montgomery G.I. Bill levels, expansion of Hardship Duty Pay eligibility and a number of key medical care improvements. Still there remains uncertainty in the minds of military people. Still there remain reports of severe recruiting and retention problems with the services. Even with the legislative gains achieved by military people, they still seem only to remember the attempted threats to their benefits.

The insecurity caused by this constant churning of threats to benefits creates an environment of stress that takes a real toll on national security. Military members and their families simply must be given opportunities to respect and participate in change instead of living in constant dread and fear of loss. The very fact that Congress and this subcommittee in particular listens to their expressed concerns about those things that are important and then responds legislatively to meet their needs, means a great deal to the military member and family who serves.

NCOA appreciates the opportunity to present a number of enlisted views in testimony before this subcommittee. The Association looks forward to addressing further details regarding the issues discussed and any other issues with you and the subcommittee staff.

Thank You.

Senator STEVENS. That is on my schedule, and I do appreciate your comments. We will continue to try and pursue these objectives. As you know, they take authorization, so we are awaiting the authorization bill's passage. We did pass this in the House, as you know.

Sergeant OUELLETTE. That is right. I understand.

Senator STEVENS. Thank you very much. I appreciate your courtesy.

Sergeant OUELLETTE. I certainly appreciate it, Mr. Chairman. Thank you for the opportunity.

Senator STEVENS. I will see you there. It is at the end of the July recess, as I recall, on Saturday.

Sergeant OUELLETTE. Yes, that is correct.

Senator STEVENS. Yes, sir, that is on the schedule. Thank you very much.

Sergeant OUELLETTE. Thank you.

Senator STEVENS. Ann Kolker.

STATEMENT OF ANN KOLKER, EXECUTIVE DIRECTOR, OVARIAN CANCER NATIONAL ALLIANCE

Ms. KOLKER. Thank you, Mr. Chairman, for the opportunity to testify at this hearing. I am Ann Kolker, a founder and the Executive Director of the Ovarian Cancer National Alliance.

We are a relatively young organization, established in the summer of 1977. A consumer-led group, uniting ovarian cancer survivors, women's health activists, and health care professionals in a coordinated effort to focus national attention on ovarian cancer, a disease that has gone unrecognized for far too long.

The Department of Defense Ovarian Cancer Research Program plays a vital role in the ovarian cancer community's urgent effort to better understand the disease and improve survival from this deadliest of gynecologic cancers. I know firsthand. I am an ovarian cancer survivor, one of the lucky few discovered in first stage. I also serve as a consumer representative on the DOD Ovarian Cancer Research Integration Panel.

The Alliance is pleased that there was $10 million for ovarian cancer research in this year's appropriation. I thank the committee for your efforts on our behalf.

However, because of the particularly lethal nature of ovarian cancer and the smaller growth in this program as compared to the other DOD research cancer efforts—breast and prostate cancer particularly—the Alliance views the ovarian cancer research program as modest and ripe for an increase. We respectfully request this committee to increase funding for ovarian cancer research to $20 million in fiscal year 2000.

Innovative, integrated and multi-disciplinary—these are the hallmarks of this unique program. And I am happy to report that the first grants awarded reflect these themes. There are three projects funded in the first grant cycle. One is the biological basis of chemo prevention in ovarian cancer, a project that is being conducted at Duke University Medical Center. The study examines the reproductive and genetic factors which affect ovarian cancer, and explores the potential for various approaches to prevention strategies.

The second program is housed at Fox-Chase Cancer Center in Pennsylvania. Again, it is to look at the prevention of ovarian cancer and follows a particular group of high-risk women due to family history.

The third grant that was funded is the very exciting grant using new technologies to identify and investigate molecular markers for ovarian cancer. This study is housed at the Fred Hutchinson Center in Seattle, and offers the promise of identifying new molecular markers that can help to detect ovarian cancer at an early stage, when it is treatable and survival rates are much higher.

These three grants, with their emphasis on understanding the causes of ovarian cancer, early detection and prevention, are exactly what is needed to improve survival from this very lethal disease. And importantly, because these are project grants which infuse a significant amount of money into one institution and encourages collaboration between investigators of various disciplines, these grants strengthen the scientific community's commitment to ovarian cancer research.

The $2 million that was added to the program over a couple of years has resulted in 20 applications that were reviewed for this grant cycle. And I believe the announcements will be made this fall. This research is tremendously important because ovarian cancer is truly life threatening. There will be over 25,000 new cases this year. And currently over half of the women with this disease die within 5 years of diagnosis, because so often it is detected in late stage, when the survival rates for those women are only about 25 percent. But when women are detected in the early stage, as was my situation, the 5-year survival rate is over 90 percent.

The dearth of scientific research in ovarian cancer and the absence of sufficient resources contribute to these terrible statistics. As with other cancers, the key to increase survival is early detection. And yet, for ovarian cancer, there is not a screening tool like there is for prostate, breast and cervical cancer. And that is essentially why we need more research.

PREPARED STATEMENT

This can happen if we build on the work that has begun in this program by bolstering funds for a disease that each year kills one-third as many women as breast cancer, but receives less than one-tenth the dedicated research dollars in the DOD budget. With ovarian cancer research neglected and underfunded too long, the DOD ovarian cancer research program is critically important. The Alliance urges the committee to increase funding dedicated to this terrible disease that takes the lives of too many women too soon.

Thank you for your consideration and for your support.

[The statement follows:]

PREPARED STATEMENT OF ANN KOLKER

Thank you very much for the opportunity to testify at this important hearing.

I am Ann Kolker, a founder and Executive Director of the Ovarian Cancer National Alliance. Established in the summer of 1997, the Alliance is a consumer-led umbrella organization uniting ovarian cancer survivors, women's health activists and health care professionals in a coordinated effort to focus national attention on ovarian cancer. The Alliance is working at the national level to increase public and professional understanding of ovarian cancer and to advocate for increased research for more effective diagnostics, treatments and a cure. The Department of Defense Ovarian Cancer Research Program plays a vital role in the ovarian cancer community's urgent effort to better understand the disease and to improve survival from this deadliest of gynecologic cancers. I know first hand; I am an ovarian cancer survivor, one of the lucky few discovered in first stage. I also serve as a consumer representative on the DOD Integration Panel.

The DOD Ovarian Cancer Research Program is just beginning to develop a track record. Today, I will talk about the initial success of this program and the importance of building upon that success with an expanded and stronger program. The Alliance is pleased there was $10 million for ovarian cancer research in this year's appropriation. However, because of the particularly lethal nature of ovarian cancer and the smaller growth in this program as compared to other DOD research cancer efforts, the Alliance views the Ovarian Cancer Research Program as modest and

ripe for a significant increase. The Alliance respectfully requests this Committee to increase funding for ovarian cancer research to $20 million in the next fiscal year.

"Innovative, integrated and multi-disciplinary." These are the hallmarks of this unique program created by this Committee. And I am happy to report that the first grants awarded, (based on the $7.5 million Congress appropriated for this program in 1997), reflect these themes. The three projects funded in the first grant cycle are:

—"Biological Basis of Chemoprevention in Ovarian Cancer"—being conducted at Duke University Medical Center in Durham, North Carolina. This study examines the reproductive and genetic factors which affect ovarian cancer, and explores the potential use of progestins as a prevention strategy.

—"Ovarian Cancer Prevention Program"—being conducted at Fox Chase Cancer Center in Philadelphia, Pennsylvania. This study focuses on women at high risk due to family history, follows them through the decision-making about their options, including prophylactic oophorectomy (removal of the ovaries), and evaluates the efficacy of the chemoprevention.

—"Use of Novel Technologies to Identify and Investigate Molecular Markers for Ovarian Cancer Screening and Prevention"—being conducted at the Fred Hutchinson Cancer Research Center in Seattle, Washington. This study will look for new molecular markers that can help detect ovarian cancer at an early stage.

What is important about these grants is that they address the core problem facing the ovarian cancer community—poor survival, because the vast majority of cases are not detected until late stage. The three grants awarded by the DOD in 1998, with their emphasis on understanding the causes of ovarian cancer, early detection and prevention, are exactly what is needed to improve survival from this deadliest of gynecologic cancers. Importantly, because these are project grants which infuse a significant amount of money into one institution and encourage collaboration between departments and other institutions, these grants strengthen the scientific community committed to ovarian cancer research.

I would also like this Committee to know that the prospects for enhancing these innovative and pioneering approaches to ovarian cancer research with monies from the 1998 funding stream are very strong. An additional $2.5 million of funds and an expansion of eligible participants created a three fold increase in the number of proposals submitted for the 1998 funding cycle. The 20 proposals submitted were reviewed by the Scientific Review Panels in January, the Integration Panel has met, and announcements of the awards will be made within the next few months.

Let me be clear about why this research is so important. Ovarian cancer is life threatening! An estimated 14,500 American women will die from ovarian cancer in 1999 and more than 25,200 new cases will be diagnosed this year. Currently, 50 percent of the women diagnosed with ovarian cancer die from it within five years. Among African American women, only 46 percent survive five years or more. Tragically, over two-thirds of the cases in the U.S. are diagnosed in advanced stage, when the five year survival rate is only 24–28 percent. But, when women are diagnosed in the first stage, which occurs in less than one-quarter of the cases, the five year survival rate is over 90 percent. As I mentioned earlier, I was fortunate to have been diagnosed in this early stage.

The dearth of scientific research on ovarian cancer and the absence of sufficient resources contribute to these terrible statistics. Unfortunately, key aspects of the disease are unknown. Currently, diagnostic tools are imprecise and there is no simple, reliable and easy-to-administer screening mechanism for the general population. As is the case with other cancers, the key to improved survival is early detection. Yet, there are no early detection tools that work for the general population to detect ovarian cancer, like there are for cervical cancer (the Pap Smear) and for breast cancer (the mammogram). These life-saving measures will only be found when more research funding is made available.

An ultimate goal of the Alliance is to prevent ovarian cancer. But, until we can prevent ovarian cancer, an immediate priority is to increase the research dedicated to a better understanding, early detection and prevention of ovarian cancer. We need to build on the work that has begun in the DOD Ovarian Cancer Research Program by bolstering research on a disease that each year kills one-third as many women as breast cancer, but receives less than one-tenth the dedicated research dollars in the DOD budget.

With ovarian cancer research neglected and underfunded for too long, the Department of Defense Ovarian Cancer Research Program is critically important. It strengthens the federal government's commitment to ovarian cancer research. It supports innovative and novel approaches that offer promise of better understanding the cause and prevention of ovarian cancer. It encourages new investigators into the field of ovarian cancer research and it encourages programs to address

the needs of the minority, elderly, low-income, rural and other under-represented populations. And finally, it helps to build the institutional commitments to ovarian cancer research so essential to unlocking the mysteries of this deadliest of gynecologic cancers.

Thank you for your attention to this important women's health issue. The 183,000 women currently living with ovarian cancer, our sisters, daughters and granddaughters, the millions of at-risk women around the country, and all of our families look to your support for increasing the financial resources dedicated to this terrible disease that takes the lives of too many women too soon.

Senator STEVENS. Well, as you probably know, last year this committee provided a fund, and earmarked only the $2 million that had been continued from the past. That was changed in conference. I do not know what will happen this year. But clearly there was funding that we put in the bill. I think it was a line item when it came out of conference.

Ms. KOLKER. It was $10 million, that is correct. Yes.

Senator STEVENS. We will see what happens this year.

I also know that I talked to the National Cancer Institute (NCI), and they are continuing to go into this cancer very seriously.

Ms. KOLKER. They are increasing their efforts on this cancer, but we are so behind some of the other cancers and the understanding. It needs a jump start.

Senator STEVENS. I know you are behind on this bill, ma'am. But we are not going to put any more money into the bill. We put the money in last year, and we will continue to try to have a fund that DOD can fund beyond prostate and breast cancer, the cancer research they want to fund. I do not know what the House will do with that, but that will be our policy again. But we have increased the money for NCI, and particularly for this research.

We are in the process of trying to double NCI over 5 years. You cannot ask us to double here, too. You have got the money in NCI, and I hope you will approach them to get your priorities from NCI.

Ms. KOLKER. We are working very closely with NCI. But as with the other cancers, particularly breast and prostate, there are so many unique things about the money that is dedicated in this program—it is dedicated money, it funds novel and innovative research, and it is quite unique.

Senator STEVENS. I understand that. And with all the people that appear before us, we could dedicate almost the whole Defense budget to basic medical research. But it is not going to be done this year. There are too many constraints on this budget. We cannot increase that medical money.

Now, we may end up in conference allocating more to this line. We will have to wait and see what happens. But we cannot increase the total amount we are putting into medical research from the DOD bill. It is just not possible, because we are about $4 billion below the amount of money we have this year. And I hope you will go to NCI and really tell them that they should put the priority out there, because they have more money. And we are going to continue to give them more money.

Ms. KOLKER. We appreciate what you could do, Senator. Thank you very much.

Senator STEVENS. Thank you very much.

ADDITIONAL SUBMITTED STATEMENTS

Senator STEVENS. The subcommittee has received a statement from Senator Shelby and a number of statements from witnesses who could not be heard and they will be placed in the record at this point.

[The statements follow:]

PREPARED STATEMENT OF SENATOR RICHARD C. SHELBY

Mr. Chairman, I am pleased that one of the witnesses here today is a nationally recognized researcher from the University of Alabama in Birmingham School of Medicine. Dr. Sadis Matalon is a well-known expert on the condition called Acute Respiratory Distress Syndrome (ARDS).

ARDS, in layman's terms is an accumulation of fluid in the lungs, which usually occurs as a result of some precipitating injury. If not treated, ARDS eventually leads to respiratory or multi-organ failure. According to Dr. Matalon's written statement, more than 90 percent of combat casualties who died after being evacuated had evidence of ARDS. Those surviving for more than five days had a high incidence of ARDS. The incidence in the civilian population in the U.S. is some 150,000 cases a year, so this is a medical issue related to both battlefield and civilian trauma. In fact, more people die from ARDS than die from AIDS each year. (est. 60,000 ARDS vs 50,000 AIDS)

Research that will give us a better understanding of why ARDS occurs and result in more effective treatment of ARDS is particularly important for the military where close quarters, such as those found on ships, can actually confound the condition and its treatment. The threat posed by the use of chemical or biological warfare, which results in severe injury to the lungs, is an additional reason for an increased effort to combat ARDS.

It is clear that we need to do more in this area. Last year, the Defense Appropriations bill provided $19.5 million for medical research activities and indicated that lung research should be one of the focus areas in allocating these funds.

I am pleased to see the University of Alabama in Birmingham and the Lovelace Respiratory Research Institute collaborating on a research effort that could lead to a better understanding of ARDS and better methods of treating the condition. This is an issue in which all the military services have a substantial interest and I am happy to support the efforts of these two fine institutions.

PREPARED STATEMENT OF THE CALIFORNIA INDUSTRY AND GOVERNMENT COALITION ON PM–10/PM–2.5

Mr. Chairman and Members of the Subcommittee: On behalf of the California Industry and Government Coalition on PM–10/PM–2.5, we are pleased to submit this statement for the record in support of our fiscal year 2000 funding request of $750,000 for the California Regional PM–10/PM 2.5 Air Quality Study.

The San Joaquin Valley of California and surrounding regions exceed both state and federal clean air standards for small particulate matter, designated PM–10/PM–2.5. The 1990 federal Clean Air Act Amendments require these areas to attain federal PM–10/PM–2.5 standards by December 31, 2001, and the proposed PM–2.5 by mid 2003. Attainment of these standards requires effective and equitable distribution of pollution controls that cannot be determined without a major study of this issue.

According to EPA and the California Air Resources Board, existing research data show that air quality caused by the PM–10/PM–2.5 problem has the potential to threaten the health of more than 3 million people living in the region, reduce visibility, and impact negatively on the quality of life. Unless the causes, effects and problems associated with PM–10/PM–2.5 are better addressed and understood, many industries will suffer due to production and transportation problems, diminishing natural resources, and increasing costs of fighting a problem that begs for a soundly researched solution.

PM–10/PM–2.5 problems stem from a variety of industry and other sources, and they are a significant problem in the areas that are characteristic of much of California. Typical PM–10/PM–2.5 sources are dust stirred up by vehicles on unpaved roads, and dirt loosened and carried by wind during cultivation of agricultural land. Soil erosion through wind and other agents also leads to aggravation of PM–10/PM–

2.5 air pollution problems. Chemical transformation of gaseous precursors are also a significant contributor to PM–2.5, as combustion sources.

Several aspects of the research are important to the U.S. Department of Defense:

—DOD has a number of facilities within the affected region, such as Edwards Air Force Base and China Lake. Degradation of air quality and visibility could impact their operations.

—Poor air quality also degrades the health and quality of life of personnel stationed at Valley bases.

—Operations at DOD facilities in the Valley produce emissions which contribute to the Valley's air quality problem.

—Transport out of the Valley may impact operations in the R–2508 airspace in the Mojave Desert. Visibility reduction in particular could interfere with the ability to conduct sensitive optical tracking operations at DOD desert test ranges.

The Department of Defense is a double stakeholder with respect to the PM–10/PM–2.5 issue and this important study. DOD activities not only contribute to the problem, they also are negatively affected by it. The importance of this study on PM–10/PM–2.5 is underscored by the need for more information on how the federal Clean Air Act Amendments standards can be met effectively by the business community, as well as by agencies of federal, state and local government whose activities contribute to the problem, and who are subject to the requirements of Title V of the Clean Air Act. There is a void in our current understanding of the amount and impact each source of PM–10/PM–2.5 actually contributes to the overall problem. Without a better understanding and more information—which this study would provide—industry and government will be unable to develop an effective attainment plain and control measures.

Our Coalition is working diligently to be a part of the effort to solve this major problem, but to do so, we need federal assistance to support research and efforts to deal effectively with what is essentially an unfunded federal mandate.

Numerous industries, in concert with the State of California and local government entities, are attempting to do our part, and we come to the appropriations process to request assistance in obtaining a fair federal share of financial support for this important research effort. In 1990, our Coalition joined forces to undertake a study essential to the development of an effective attainment plan and effective control measures for the San Joaquin Valley of California. This unique cooperative partnership involving federal, state and local government, as well as private industry, has raised more than $24 million to date to fund research and planning for a comprehensive PM–10/PM–2.5 air quality study. Our cooperative effort on this issue continues, and it is our hope that private industry, federal, state and local governments will be able to raise the final $4.6 million needed to complete the funding for this important study.

To date, this study project has benefited from federal funding provided through USDA's, DOD's, Interior's and EPA's budgets—a total of $13.3 million in federal funding. Through the Department of Defense, $250,000 was appropriated in fiscal year 1996, and $750,000 was provided in fiscal years 1997, 1998, and 1999. State and industry funding has matched this amount virtually dollar for dollar.

With the planning phase of the California Regional PM–10/PM–2.5 Air Quality Study complete, a number of significant accomplishments have been achieved. These interim products have not only provided guidance for completion of the remainder of the Study and crucial information for near-term regulatory planning, they have also produced preliminary findings which are significant to the Department of Defense's (DOD) interests.

The Study is significant to DOD interests for a number of reasons. The San Joaquin Valley experiences some of the most severe PM episodes in the nation. The information being collected by the PM study is essential for development of sound and cost-effective control plans. Without this information, military installations such as Lemoore NAS in the San Joaquin Valley could be subjected to unnecessary or ineffective controls. In addition, previous studies have demonstrated that significant amounts of fine particles and their precursors from the San Joaquin Valley are transported trough the Tehachapi Pass into the Mojave Desert, impacting operations at both Edwards AFB and China Lake NAWS. Good visibility is a mission-essential resource for both Edwards AFB and China Lake NAWS due to reliance on optically-based methods of collecting data at the testing ranges at each facility. Significant visibility reduction could compromise testing operations at these facilities. Effective control plans for the San Joaquin Valley, based upon the results of the PM study, will help mitigate visibility reduction in the Mojave Desert through the reduction of transport from the Valley.

To this end, the PM study is expending significant resources to provide an improved understanding of visibility in the San Joaquin Valley and the Mojave Desert and transport between these two air basins. A preliminary field monitoring program was conducted during the fall and winter of 1995/96. Extensive visibility and meteorological measurements were collected. This database is being analyzed to address the spatial and temporal patterns of visibility, determine the sources which contribute to visibility impairment, and provide an improved understanding of the wind flow patterns and transport routes between the Valley and the Mojave Desert. Preliminary results indicate that secondary ammonium nitrate is the largest contributor to visibility reduction in the Valley.

The results of these analyses are being used to design large scale field monitoring programs to be conducted in 1999 and 2000. These field programs will address both the annual and 24-hour PM–10 and PM–2.5 standards. Surface and aloft monitoring of air quality, meteorology, fog, and visibility will be conducted at a cost of over $12 million. Final plans for these field studies are being developed, which will be carried out by numerous contractors over a broad area encompassing Central California, the Sierra Nevada Mountains, and the Mojave Desert. A database of the field study results will be completed in 2001, with air quality modeling and data analysis findings available in 2002. This timeline is ideally positioned to provide information for federal planning requirements as part of the new PM–10/PM–2.5 national ambient air quality standards.

The Department of Defense's prior funding and participation have enabled these projects to occur. Continued support by DOD is essential to implement a full scope of visibility and transport-related programs and to ensure that DOD concerns are met.

For fiscal year 2000, our Coalition is seeking $750,000 in federal funding through the U.S. Department of Defense to support continuation of this vital study in California. We respectfully request that the Appropriations Subcommittee on Defense provide this additional amount in the DOD appropriation for fiscal year 2000, and that report language be included directing the full amount for California. This will represent the final year of funding requested from DOD.

The California Regional PM–10/PM–2.5 Air Quality Study will not only provide this vital information for a region identified as having particularly acute PM–10/PM–2.5 problems, it will also serve as a model for other regions of the country that are experiencing similar problems. The results of this study will provide improved methods and tools for air quality monitoring, emission estimations, and effective control strategies nationwide.

The Coalition appreciates the Subcommittee's consideration of this request for a fiscal year 2000 appropriation of $750,000 for DOD to support the California Regional PM–10/PM–2.5 Air Quality Study. DOD's past contributions have helped ensure the success of the study. The coalition thanks you for your support of this important program.

PREPARED STATEMENT OF THE RESEARCH SOCIETY ON ALCOHOLISM

The Research Society on Alcoholism (RSA), is a professional research society whose 1,200 members conduct basic, clinical, and psychosocial research on alcoholism and alcohol abuse.

Last year our organization submitted testimony to this subcommittee about alcoholism in the military, a serious problem that compromises national preparedness and the defense of the nation. We are deeply grateful that the Congress recognized this problem in the fiscal year 1999 Department of Defense (DOD) Conference Report (105–746) by providing additional funding in the Defense health program for medical research. We were particularly pleased that alcohol research was specifically mentioned as one area to be funded. We would like to propose that these funds be directed towards research that will address the problem of alcoholism and alcohol abuse in the military.

Alcoholism is a tragedy that touches all Americans. One in ten Americans will suffer from alcoholism or alcohol abuse and their drinking will impact on the family, the community, and society as a whole. Recent research indicates that alcoholism and alcohol abuse cost the nation approximately $167 billion annually. One tenth of this pays for treatment; the rest is the cost of lost productivity, accidents, violence, and premature death.

In the military, the costs of alcoholism and alcohol abuse are likely to be enormous. Heavy drinking in the military is 40 percent more prevalent than in the civilian sector. Nearly one in five military personnel engages in heavy drinking, defined as having five or more drinks at least once a week (1995 Department of Defense

Survey of Health Related Behaviors Among Military Personnel). The prevalence of heavy drinking is strikingly high for each of the services: Air Force, 10.3 percent; Army, 18.0 percent; Navy, 18.8 percent; and Marine Corps, 27.8 percent. For personnel in the E1–E3 pay grades, there were high rates of serious consequences (16.9 percent), productivity loss (24.5 percent), and dependence symptoms (11.8 percent). These patterns of alcohol abuse, which are acquired in the military, persist in the veterans population. Alcoholism is one of the most common illnesses found among hospitalized veterans.

In the civilian population, alcohol is a factor in 50 percent of all homicides, 40 percent of motor vehicle fatalities, 30 percent of all suicides, and 30 percent of all accidental deaths. Projecting these figures into the military population suggests that heavy drinking could significantly compromise the military's effectiveness as a fighting force. In 1990, 23 percent of deaths in the U.S. Air Force were related to alcohol.

Many talented and dedicated people in the Department of Defense are working hard to reduce heavy drinking in the military, but current prevention and treatment programs are simply not good enough. Research holds the promise of developing more effective prevention programs and new and better methods for the treatment of alcoholism. Unfortunately, alcohol research, which is conducted primarily at the National Institute on Alcohol Abuse and Alcoholism (NIAAA) at the National Institutes of Health and in the Department of Veterans Affairs (DVA), is severely underfunded. Moreover, neither NIAAA nor the VA focus their research on prevention and treatment approaches that are specific to the needs of the military. Little attention has been paid to how the culture of the military contributes to high rates of problem drinking. Little is known about how prevention measures should be implemented in this unique social context. The Research Society on Alcoholism urges that the Department of Defense fund research into the causes, consequences, prevention, and treatment of alcohol abuse and alcoholism.

While the high rates of use and abuse of alcohol in the military are alarming, the good news is that we are poised at a time of unprecedented opportunities in alcohol research. Scientists are exploring new ways to prevent alcohol-associated accidents and violence, and prevention trials are developing methods to address problem use. For the first time scientists have identified discrete regions of the human genome that contribute to the inheritance of alcoholism. Genetic research will accelerate the rational design of drugs to treat alcoholism and improve our understanding of the interaction between heredity and environment in the development of alcoholism. The field of neuroscience is another promising area of alcohol research. The development of more effective drug therapies for alcoholism requires an improved understanding of how alcohol changes brain function to produce craving, loss of control, tolerance, and the alcohol withdrawal syndrome. This knowledge is starting to bear fruit. Naltrexone, a drug that blocks the brain's natural opiates, reduces craving for alcohol and helps maintain abstinence. Ongoing clinical trials will help determine which patients benefit most from naltrexone and how the drug can best be used. Another promising drug, acamprosate, has proven effective in European trials and is undergoing evaluation in the United States. The military needs to be part of this effort.

Alcohol abuse and alcoholism are devastating problems of national importance. Men, women, and children paralyzed in car accidents caused by drunk drivers, accomplished individuals who will never remember another new experience because of alcohol-related brain damage, children who grow up in homes with abusive alcoholic parents. These are some of the tragic consequences of drinking that we must prevent and treat.

Alcohol research has now reached a critical juncture, and the scientific opportunities are numerous. With the support of this subcommittee and the Congress, we believe that we can produce significant advances in alcohol research and aid in understanding and reducing the problem of alcoholism and alcohol abuse in the military.

Recommendation: The Research Society on Alcoholism urges that $10 million be allocated to research on alcoholism. These funds could be administered by the Department of Defense alone or jointly with the VA and NIAAA. This request balances the increased morbidity, mortality, lost productivity, accidents, and an overall reduction in readiness caused by the high rate of alcoholism in the military with the abundance of research opportunities which will prevent and abet the consequences of alcoholism.

PREPARED STATEMENT OF THE OPTICAL SOCIETY OF AMERICA

This testimony is submitted for the record on behalf of OSA, a scientific and professional organization of over 12,000 optical scientists and engineers. OSA's mem-

bers, who include many of the world's most distinguished optical scientists and engineers, conduct leading-edge research in areas crucial to national security. We have noted with alarm the eroding support for the science and technology program (S&T Program) at the Department of Defense (DOD), and are concerned about the long-term implications for maintaining a technologically superior force; a technical work force essential for the military; and support for critical fields such as mathematics, engineering and computer science.

Defense Science and Technology Base

"We must prepare for the future. We must invest in the next generation of weapons and technology if we are to maintain our ability to shape and respond to world events in the 21st century." Defense Secretary William Cohen, Feb. 1999

The S&T Program, 6.1 (Basic Research), 6.2 (Applied Research) and 6.3 (Advanced Technology Development), supports the scientific and engineering research which led to the advanced technology that has produced today's preeminent U.S. defense forces. This decisive edge was demonstrated in Desert Storm and other recent peacekeeping missions. It is the continued investment in DOD's S&T Program that will maintain this superior force for the 21st century.

The funds in 6.1 support the basic research in the nation's universities that is essential to maintaining a technologically superior U.S. defense force. Unlike the support for university research from the National Science Foundation, the Department of Energy and NASA—DOD support focuses on engineering sciences that are the bridge between fundamental science discoveries and future military applications.

DOD support was critical for the research conducted by Dr. Charles Townes at Columbia University that led to the development of the laser. Laser technology has enabled such military applications as precision laser-guided targeting—seen during Desert Storm—and has produced both the fiber-optics revolution and the rise of the telecommunications industry.

The 6.2 and 6.3 programs fund the DOD laboratories, and private sector industries that focus on technologies to support future DOD systems. These critical technologies include sensors, electronics, and computer hardware and software. The 6.2 and 6.3 programs are increasingly important to DOD since they focus on longer-term revolutionary changes in military technology—unlike industrial applied research programs that are increasingly focused on incremental, market-oriented technology improvements. It is the revolutionary, or paradigm shifting, changes in military technology that will keep U.S. forces ahead of foreign competitors and enable a quick response to emerging threats such as chemical and biological agents.

The Army Research Laboratory (ARL) conducts applied research to extend the senses and reach of the soldier. ARL was instrumental in the development of night vision technology that has dramatically enhanced war-fighting capabilities and given U.S. military forces the ability to "own the night." ARL is also responsible for the development of technologies that will allow soldiers in the field to identify camouflaged enemy vehicles and structures, and which allow sophisticated recognition of friend and foe in battle conditions.

DOD support of university research also plays a critical role in sustaining those disciplines where it is a major source of federal funding. These disciplines (below) make essential contributions to the national defense and civilian economy by fueling innovation and providing highly skilled, technical workers.

Discipline	*Percent University Research Supported by DOD*
Physics	12
Mathematics	27
Computer Science	60
Electrical Engineering	70

Source: Science and Engineering Indicators, 1998.

The support of university research advances the body of scientific and engineering knowledge that is critical to DOD's technological superiority and produces the future scientists and engineers that DOD and industry will need to compete in the 21st century.

For these reasons, the continued decline in the S&T Program is of concern to OSA. The President's fiscal year 2000 request for the Department of Defense continues the precipitous slide that began in the late 1980's. This is particularly apparent in the 6.2 and 6.3 accounts that would decrease by over 6 percent in fiscal year 2000.

The long-term decline in the 6.1, 6.2 and 6.3 programs produced enough concern for the Under Secretary of Defense for Acquisition and Technology, to request the

Defense Science Board (DSB) to establish a Task Force in the spring of 1997, to recommend a strategy to assure an appropriate science and technology base. In the letter charging the DSB with the task, the Under Secretary states, "U.S. military strategy calls for the use of superior technology as one critical enabling component of military strategy. You are requested to establish a Defense Science Board (DSB) Task Force to address the issues involved in assuring that the U.S. has adequate technology base from which to develop sustained military superiority for the 21st century * * *."

A year and a half later the Report of the Defense Science Board Task Force on Defense Science and Technology Base for the 21st Century was delivered to the Under Secretary. One of the report's major recommendations stated, "That the Deputy Secretary of Defense insure the future superiority of U.S. military forces by increasing the funding for the Department's Science and Technology Program to $8 billion per year."

The Task Force came to this conclusion after carefully studying several factors. First, the Task Force examined a model of the impact of DOD's S&T base on national security that clearly demonstrated the strong influence the U.S. technology base has on long-term military balance-of-power. In the past, this technology base was a product of both DOD and civilian S&T investment. The report notes, however: "A key point is that the civil-sector S&T investment by U.S. firms (and foreign firms) is becoming global—that is, there is leakage from the U.S. civil sector to assist foreign military capabilities. Thus, *the primary investment applicable to providing unique U.S. military future capabilities comes from the DOD S&T component* [italics added]."

Second, the DSB Task Force examined the optimum level of DOD investment in the S&T Program by drawing comparisons with industries whose competitive environment most mirrors the unique requirements of the military. The report concluded that pharmaceuticals and leading computer technology industries, for a variety of reasons, would be a good basis of comparison for investments in R&D. By looking at the percentage of revenues invested in research and development by these industries, 15 percent, the Task Force concluded that DOD should be spending at least $8 billion in order to insure the continued long-term technical superiority of U.S. military forces in the 21st century.

OSA agrees with the recommendation in the DSB Task Force report and urges the Subcommittee to increase the S&T Program funding (6.1, 6.2 and 6.3) from the requested fiscal year 2000 level of $7.4 billion, to at least $8 billion—a 2.6 percent increase over the current fiscal year 1999 funding level.

Optical Science and Engineering—Protecting the Future

The critical nature of DOD's support for its science and technology base can be illustrated by looking at the considerable contributions of optical science and engineering to national security. These current—and potential—contributions are enumerated in the National Research Council (NRC) report Harnessing Light: Optical Science and Engineering for the 21st Century. This 1998 report is a comprehensive review of optical science and engineering that assessed the field's contribution to meeting national needs—including national security.

According to Harnessing Light, DOD support of optical science and engineering has revolutionized the modern battlefield by:

—Increasing by orders of magnitude U.S. surveillance capability;
—Fueling the development of night vision technologies;
—Deploying laser systems that operate in the atmosphere and in space for applications such as range finders and laser-guided weapons;
—Developing fiber-optic systems that greatly enhance inertial navigation sensors and ground-based communication;
—Allowing long-range detection of chemical and biological threats and underwater mines; and
—Producing displays that revolutionized the acquisition, processing and distribution of information under battle condition.

"An airborne system is in active development that would intercept tactical ballistic missiles such as Scuds during their boost phase and blow them up via laser heating. This is an important deterrent since the munitions would be destroyed over enemy territory". Harnessing Light, 1998

Harnessing Light documents the critical need to enhance and ensure the future contributions of optical science and engineering to our nation's defense. OSA has joined other members of the Coalition for Photonics and Optics (CPO) in endorsing this report, and we urge the Subcommittee to consider the following recommendation as they examine the fiscal year 2000 request for DOD's Science and Technology Program:

—DOD should ensure the existence of domestic optics manufacturing infrastructure by supporting DARPA-university-industry consortia, such as the current program on conformal optics.
—A central, coordinated DOD-Department of Energy (DOE) plan should be developed to enable worldwide optical detection and verification of chemical and biological threats to civilian and military personnel.
—A central, coordinated DOD-NASA plan should be developed to enable future technology in space-based optics.
—DOD should continue to pursue key technologies such as high-power lasers and optical imaging systems.

Summary and Recommendations

All of the above recommendations depend on stable, long-term support for the 6.1, 6.2, and 6.3 programs. The research supported by these programs is threatened by wide fluctuations in funding and the consequent inability to plan multiyear research projects; and, by dramatic decreases in already appropriated funds to pay for unanticipated foreign peacekeeping missions such as Bosnia. Stable funding is also difficult to maintain when DOD's research accounts are viewed as a "bank" where funds can be withdrawn for use in other activities, but not reinvested. This happens both through redirection of funds to non-research projects and through redefining projects as research which actually involve little or no research.

OSA recognizes the many important priorities that must be considered in formulating defense policy and the consequent budget priorities. We are especially mindful of current Congressional concerns about defense personnel—their recruitment, training, and retention. Indeed, this has become a crisis situation in the hiring and retention of the skilled, technical workforce needed to operate the DOD laboratories. For instance, current civil-service hiring rules have made it almost impossible for the labs to hire the best-qualified candidates for open positions, or promote those who most deserve it. This has had a devastating effect on the labs, as has the relatively low salaries that can be offered for technical personnel (compared with the private sector).

In the face of these daunting problems, however, we ask the Subcommittee to keep in mind the ultimate goal of the DOD's S&T program—the development of a technically superior force that acts as a deterrent and mitigates losses on the battlefield.

PREPARED STATEMENT OF THE AMERICAN SOCIETY OF TROPICAL MEDICINE AND HYGIENE

Mr. Chairman and members of the Committee, the American Society of Tropical Medicine and Hygiene (ASTMH) appreciates the opportunity to submit for the record its fiscal year 2000 funding priorities.

ASTMH is a professional society of 3,500 researchers and practitioners dedicated to the prevention and treatment of infectious and tropical infectious diseases. The collective expertise of our members is in the areas of basic molecular science, medicine, vector control, epidemiology, and public health. ASTMH has had the privilege of testifying before this Subcommittee on several occasions, and we hope that our recommendations are helpful to you in determining the annual funding levels for DOD's infectious disease research programs.

DOD medical research programs play a critical role in our nation's infectious disease efforts. Furthermore, the programs are vitally important to maintain the health of our troops in the theater. Working with other U.S. public health agencies, DOD scientists at the U.S. Army Research Institute for Infectious Diseases (USAMRIID), the Walter Reed Army Institute of Research (WRAIR), the U.S. Naval Medical Research Institute (NMRI), and in DOD medical laboratories abroad are helping us to better understand, diagnose, and treat infectious and tropical diseases such as malaria, AIDS, dengue fever, leishmaniasis, yellow fever, cholera, and diarrheal diseases.

ASTMH appreciates past congressional support for military infectious diseases research. In particular, this is the year in which the long awaited new WRAIR will open in Forest Glen, Maryland. This outstanding laboratory facility will be the focus of tropical medicine research conducted by the military in its overseas laboratories. It will be staffed by military and civilian experts in tropical medicine and will be the focal point for tropical disease research conducted in the DOD's overseas laboratories.

In support of its unique role in the defense of the country, the DOD has been a leader in infectious disease research. Much of this research has been vital for the

successful outcome of military campaigns. Studies conducted by Major Walter Reed, which demonstrated the mosquito transmission of yellow fever, contributed directly to the successful completion of the Panama Canal.

This tradition of highly applied and immediately effective infectious diseases research and development continues. In several areas, programs in the military infectious diseases research program are vital for national defense and global health. These programs include clearly focused and highly successful efforts to develop vaccines for malaria, travelers diarrhea, dengue, hepatitis E, hantaviruses, and group B meningococcal disease. The military malaria drug development effort is the only such program of its kind in the world. Indeed, virtually all of the important discoveries in malaria drugs have resulted from the efforts of this program. Every American tourist or visitor who is prescribed preventive drugs for malaria is benefitting from DOD research.

Recent notable advances accomplished by military experts in tropical diseases working with corporate partners include the invention of hepatitis A vaccine at WRAIR and its ultimate licensure based on studies conducted at the U.S. Armed Forces Research Institute of Medical Sciences (AFRIMS), the licensure of Japanese encephalitis vaccine, based on studies conducted at AFRIMS and WRAIR, and the discovery and licensure of mefloquine and halofantrine for treatment and prevention of malaria. WRAIR scientists recently reported the first successful cultivation of vivax malaria. A significant accomplishment recently made by military scientists at WRAIR and their corporate partners is the discovery of the first prototype vaccine shown to be capable of preventing falciparum malaria. Novel vaccines, such as a DNA vaccine for malaria, are being developed under the leadership of DOD scientists who will soon move into the new WRAIR facility. Licenses have been requested or will soon be requested for two new malaria drugs, Malarone and Tafenaquine. With the certainty that resistance to malaria drugs quickly appears, these drugs have a useful lifespan of only about 10 years. Replacements must be sought continually.

The DOD investment in malaria vaccine development is not only good public health policy, but it also makes good sense from an economic standpoint. Malaria is estimated to cause up to 500 million clinical cases and up to 2.7 million deaths each year, representing 4 percent to 5 percent of all fatalities. Malaria affects 2.4 billion people, or about 40 percent of the world's population. Tragically, every 30 seconds a child somewhere dies of malaria. Malaria causes an enormous burden of disease in Africa and is considered a primary cause of poverty.

ASTMH is concerned that the military program in tropical diseases research is the target of budget cuts and staff reductions. These cuts seriously compromise our ability to discover the products that protect American soldiers and citizens at home and abroad, and improve global health and economic stability in developing countries. The total infectious diseases research program budget in fiscal year 1998 was $44 million. In fiscal year 1999 this budget was cut by $4 million, resulting in a total budget of $40 million. Funding for advanced testing of new tropical diseases products has been cut in half over recent years. Furthermore, inadequate funding levels for DOD basic research directly affects important vaccine and drug development work. Cutting these funds cripples the scientific base from which applied discoveries are drawn.

ASTMH is further concerned that the DOD military budget for HIV research was cut by over 40 percent in fiscal year 1999, from a level of $38 million in fiscal year 1998 to the current funding level of $20 million. This funding supports important vaccine research, therapeutic trials studying drug protocols and drug resistance, and epidemiology and surveillance activities. The reductions in the fiscal year 1999 budget will delay important clinical trials which will setback the search for a preventive HIV vaccine.

Perhaps even more important than funding reductions, DOD downsizing and restrictions on hiring has been coupled with competition for scarce medical officers in clinical assignments and retirements. The result is a serious erosion in the active duty and civilian investigator expertise in tropical diseases in the military.

The ASTMH believes the military's overseas laboratories also deserve special mention. The U.S. Army and the Navy currently support six overseas laboratories in Thailand, Indonesia, Egypt, Brazil, Kenya, and Peru. These labs are strategically located in regions of the world where the threat from existing and emerging infectious and tropical diseases is the greatest. They serve as critical sentinel stations alerting both the military and public health agencies to dangerous infectious disease outbreaks and increasing microbial resistance. Because they are located close to the source, laboratory personnel can be mobilized to respond quickly to potential problems.

The military's overseas laboratories also play an important role in collaboration with U.S. research institutions including academia, industry, and government agencies. Having the fixed facilities, field sites, and staff makes it possible to maximize our infectious and tropical disease research efforts. These collaborations are important not only for expanding our knowledge and understanding of infectious diseases, but also for providing hands-on training for students, investigators, and local health authorities. In many cases, these sites have ensured that productive projects could be carried out. Collaborations between the Walter Reed Research Unit in Rio de Janeiro, Harvard School of Public Health scientists, the Naval Medical Research Institute detachment in Lima, Peru, and the University of Texas at Galveston School of Medicine has resulted in important advances in malaria research and in improved international infectious disease surveillance capabilities.

Conclusion: ASTMH requests your strong support for the DOD Infectious Diseases Research programs. Our nation's commitment to this research is critically important given the resurgent and emerging infectious disease threats which exist today. The DOD programs are essential to advancing our war on infectious diseases to protect American military forces and civilians at home and abroad. As the world's only superpower and the global leader in biomedical research, the United States has an obligation to lead the fight against infectious disease. Our efforts in this area will lead to improved global health and the economic stability of developing nations.

ASTMH urges Congress to make infectious disease research a priority in fiscal year 2000 by increasing the DOD tropical infectious disease research budget by $20 million, and providing an additional $20 million for HIV vaccine development. We also request an additional $10 million be allocated to support DOD basic research into the microbiology of tropical diseases.

As we have indicated, there are many areas of unmet need and scientific opportunity that warrant a continued strong national commitment to this important DOD activity. Failure to act now will only result in increased health care costs and threaten future troop deployments.

Thank you for the opportunity to present our views and for your consideration.

PREPARED STATEMENT OF CHARLES L. CALKINS, NATIONAL EXECUTIVE SECRETARY, FLEET RESERVE ASSOCIATION

INTRODUCTION

Mr. Chairman. The Fleet Reserve Association (FRA) thanks you for the opportunity to present its views on the fiscal year 2000 budget for the Department of Defense. The Association's nearly 155,000 members also extend their appreciation to all members of your distinguished Subcommittee.

The role of the FRA, the oldest and largest of the enlisted military service organizations, has been constant for 75 years—to be the spokesman for the enlisted men and women of the Sea Services—the Navy, Marine Corps, and Coast Guard. The Association counts as its members those serving on active duty, in the reserve, or retired after completing the required number of years in the uniform of one of those three services. FRA is particularly proud that it has been in the forefront in initiating and supporting legislation beneficial to the well-being of the Nation's Sailors, Marines, and Coast Guard personnel. Among its major legislative accomplishments are the Civilian Health and Medical Program for the Uniformed Services (CHAMPUS)—now being replaced with the military's Tricare System—and the Uniformed Services Survivor Benefit Plan (USSBP). This past year, FRA took the lead in the campaign to repeal REDUX, the so-called 1986 "reform" of the military retirement system.

FRA's pride in its service to the Nation and the Sea Services is paled in comparison to the work of this Subcommittee. It has remained four-square in support of quality of life programs so essential in maintaining morale and readiness among the men and women in the Armed Forces. The Association thanks and commends the Subcommittee for a job well done.

THE SOLDIERS', SAILORS', AIRMEN'S AND MARINES' BILL OF RIGHTS ACT OF 1999

In anticipation of consideration of provisions of Senate bill, S. 4, "The Soldiers', Sailors', Airmen's and Marines' Bill of Rights Act of 1999," the Association has taken the liberty of offering its views on the proposals therein.

FRA has not listed all of the provisions adopted by the Senate in its bill. Many of the proposals have the Association's full endorsement and others do not. The following titled sections provide specifics.

REDUX

Of particular interest to the Association is the repeal of the 1986 Military Retirement Reform Act (MRRA), also known as "REDUX." FRA was the first military service organization to accept the challenge of seeking congressional support for repealing the law. It prepared and disseminated correspondence and "Repeal REDUX" brochures to selected members of the House and Senate. It visited congressional offices and found willing "torch bearers" in Representative Owen Pickett and Senator Pat Roberts. Each introduced a "Repeal REDUX" resolution near the end of the 105th Congress. In addition, they were followed by the distinguished Ranking Member of the House Defense Appropriations Subcommittee, Representative John Murtha, who made a valiant but unsuccessful effort in the last weeks of the 105th Congress to resolve the issue. FRA is indebted to these three gentlemen, their cosponsors and supporters.

REDUX is the worst of the military's three retirement systems. Without going into considerable detail it suffices to say that the men and women of the uniformed services who retire under REDUX will receive an estimated 24 to 25 percent less than their counterparts retiring under the post-WW II program referenced by most as "Final Pay." REDUX was enacted in 1986 for the primary purpose of providing funds for the Department of Defense Military Retirement Fund, but heralded by its sponsors as a means to end early 20-year retirements. Although all the major military service organizations, and the Secretary of Defense, opposed further change in retirement plans, the proposal sailed through both the House and Senate.

As predicted, REDUX turned out to be a loser. By 1998, uniformed service members who entered the military between 1986 and 1990, under the REDUX system, were approaching 8 to 12 years of active service. It would soon be time to consider the future, time to think of what was out there for them if they decided on a 20-year career. They suddenly understood the hard, cold fact that their retirement pay wasn't in the same ball park as that of their shipmates whose duties corresponded with theirs and who were of the same pay grade. The only difference was the date of entry in the uniformed services, perhaps no more than a day.

It wasn't long before the military services realized that there was more to the downsizing in military manpower strengths than Congress had mandated. Some of their top mid-level officers and noncommissioned and petty officers were also departing. The reasons for leaving were staggering and ranged from better jobs on the outside to family considerations. In between were complaints of poor leadership, high optempo, antiquated working facilities, inadequate pay, insufficient spare parts, aging equipment, not enough training dollars, lack of personnel, and the list goes on. But overall, the major complaint among service members with 8 to 12 years of service was the REDUX retirement plan.

The complaints caught the attention of FRA. Members of the Association's staff then visited Navy, Marine Corps, and Coast Guard installations. They were able to verify that REDUX was the cause for a sufficient number of Sea Service personnel to opt for separation rather than stay in uniform. A concerned FRA moved quickly to conduct a survey among the Sea Services to confirm the validity of the complaints. The result, tabulated over a six month period, found that 64 percent of the active duty respondents indicated that REDUX would have a negative affect on their decisions to reenlist.

There is no doubt that there are many adversities plaguing today's service members. A Rand study recommends pay increases and bonuses to correct the problem of sliding retention rates. Others may point to housing, family stress, optempos, etc., but when the time arrives for the individual to extend his or her time in uniform, benefits at the end of the retirement rainbow will be the final measure of influence.

Mr. Chairman. FRA recommends that appropriations be granted for the purpose of totally repealing the REDUX plan.

PAY AND ALLOWANCES

FRA is elated that Congress is taking the "bull by the horns" to increase the pay of military personnel. The Administration's request for a 4.4 percent pay hike is welcome, but a 4.8 percent increase is much better because it offers some headway in making military pay more comparable to that received by the military's civilian counterparts. FRA supports the 4.8 percent pay hike and urges this Subcommittee to appropriate sufficient funds to pay for the increase.

The Association also endorses a "targeted" pay raise for noncommissioned and petty officers in the grades of E4 and above. Recently, Charles Moskos, noted military sociologist, wrote that: "Pay raises should be focused on the career force, not on the lower enlisted grades." He went on to note that in the era of the draft, the

pay ratio of a master sergeant (MSGT) or chief petty officer (CPO) and a private (PVT) or seaman (SN) was seven to one. Today, it's three to one.

Moskos' recent article raising this disparity in pay among the enlisted grades supports the FRA effort over the past few years to bring the matter to the attention of this Subcommittee and others having authority over military pay. His 7:1 ratio between a MSGT/CPO (Pay Grade E7) and a PVT/SN (Pay Grade E1) must relate to the full compensation package of both pay grades. FRA has compared only basic pay finding that in the draft era, an E7 with 14 years of service earned about $4.20 for every $1.00 paid the E1. Since then the E–7's pay has declined 43 percent earning only $2.40 for every dollar the E1 receives. (See chart.)

Pay ratio chart

(To the Nearest .1 percent)

Time period	*E7 (14 YOS) to E1*
Pre-AVF	4.2:1
Pre-Fiscal Year 1982	2.3:1
Target Pay Raise, Fiscal Year 1982	2.4:1
Current, 1999	2.4:1

On the lower side of the targeted pay equation, the Subcommittee's further attention is directed to the pay of an E3 and an E4. When the E3 is promoted to that grade, the fiscal year 1999 pay differential between what was earned as an E2 and what will be received as an E3 is $150. Yet, the E3 for the most, will not gain any more authority than given at the junior grade of E2. The E4, however, becomes a noncommissioned or petty officer upon the attainment of that grade. His authority is upgraded considerably and he becomes responsible for those under his supervision. His net gain of dollars is two-thirds ($100) of what the E–3 earns upon promotion to that grade.

The situation is further aggravated in the proposed basic pay reform in S. 4. (See Chart below.)

MONTHLY BASIC PAY FOR PROMOTED E3S AND E4S UNDER CURRENT AND PROPOSED RATES

PAY GRADE	1999 PAY TABLE	PROPOSED PAY REFORM (S. 4)
E4	[1] $1,326.60	[2] $1,447.20
E3	[3] 1,225.80	[4] 1,334.10
E2	1,075.80	1,127.40

[1] $100.80 more than E3.
[2] $113.10 more than E3.
[3] $150.00 more than E2.
[4] $206.70 more than E2.

Mr. Chairman, FRA recommends that the Subcommittee adopt pay reform that targets increases to the men and women who shoulder the bulk of training, leading and supervising the enlisted force, those in pay grades E4 through E9. Their pay has been compressed in order to provide more for the junior enlisted grades. It's time for this distinguished Subcommittee to again take the lead to provide a target pay raise for noncommissioned and petty officers. If pay reform is authorized and funded, FRA suggests that the dollar amounts as recommended in S. 4 not be set in concrete so that situations such as that now existing in the pay differential between promotions to E3 and to E4 be amended in favor of the E4. FRA will be willing to work with your staff in developing new basic pay rates for the enlisted grades.

SPECIAL SUBSISTENCE ALLOWANCES FOR FOOD STAMP RECIPIENTS

FRA is opposed to the provision in S. 4 that provides a special allowance for service members who are recipients of food stamps. The Association is joined by the senior enlisted chiefs of the Sea Services in urging Congress not to authorize such an allowance. It gives a black-eye to the Armed Forces who are doing all they can to take care of their own. Much of the problem causing service members to apply for food stamps can be traced back to the service members themselves. They are not really destitute but they fail to live within their budgets. Further, most service families using food stamps would be ineligible if they had to report the in-kind value of their base housing.

A DOD study reported in the Navy Times of September 7, 1998, found that only 451 out of 1.4 million service members are at or below the poverty level. To qualify for food stamps a Seaman/Private, Pay Grade E1, with less than four months, must have a family size of five.

Another 1987 study by Rand, sponsored by DOD's Office of Family Policy, and reported in the Navy Times of October 19, 1998, found that among young enlisted service members, there's a "relatively significant financial management problem." It noted that 27 percent of the group surveyed had difficulty paying bills. 31 percent of Marines are more likely to have financial problems; 28 percent of Sailors. 21 percent said they had been pressured to pay past due bills while 9 percent had pawned valuables "to make ends meet." The senior enlisted chiefs of the Navy and Coast Guard have personally assured FRA that their experiences prove that, except for a few, their members on food stamps are financially irresponsible. To assist in correcting the problem, the Services are expanding classes to include budgeting, managing finances and checkbooks, and planning for the future. FRA believes the Services can take care of their own.

Mr. Chairman, it is most gracious of the sponsors of this provision to wish to provide a subsistence allowance to the few service members on food stamps but, is it fair to increase the pay and allowances of junior personnel so that they earn more money than their superiors? FRA believes not and urges this Subcommittee to reject such a proposal.

MGIB

There is little doubt that the Montgomery GI Bill (MGIB) requires improvement. FRA agrees with those who suggest that enhanced benefits in the MGIB may increase its use by service members separating from the military and, as predicted by the Commission on Servicemembers and Veterans' Transition Assistance, "* * * a more financially attractive MGIB could enable our Nation to fully capitalize on the unique national resource of veterans' skills, training, experience, and character."

FRA does not agree with the provision in S. 4 that would authorize all veterans participating in the MGIB to transfer the entitlement to a member of the immediate family. Instead, FRA recommends that this proposal, if agreed to, should be used as an incentive to reenlist for a career in the uniformed services. For example, if a service member reenlists for a second four-year period and sufficient successive terms to complete a minimum of 20 years of active duty, unless separated earlier for reason of disability, he or she only would have the option to transfer the entitlement to a spouse or child, or combination thereof.

While on the subject of education, FRA urges the Subcommittee to appropriate funds to increase tuition assistance for members of the Armed Forces deployed in support of a contingency or similar operations. It also supports any and all efforts to enhance education programs for enlisted service members.

BONUSES AND SPECIAL PAYS

FRA has no objection to the increases and extensions of bonuses and special pays recommended in the Senate bill, S. 4. It does; however, question the absence of increases to Sea Duty Pay and Submarine Duty Incentive Pay. The last increases to the two special pays were authorized some 10 years ago. With the number of deployments required of the Navy, nearly twice the number during the six years of the Clinton Administration compared to the eight years of the Reagan Presidency, it behooves Congress to take a look at addressing enhancements to both programs. With fewer personnel, the Navy must order greater numbers of experienced sailors to sea duty. Without a more substantial reward for serving at sea for longer periods of time there's a possibility of lower future retention rates than the Navy is suffering at this time.

Last year, FRA urged the Subcommittee to review the possibility of providing a type of cash allowance for junior enlisted Sailors assigned to sea duty; however, the recommendation hinged on the availability of additional funds to inaugurate the program. Although the Association continues to believe this special pay allowance will be of value to the Navy, it concedes that the need for the repeal of REDUX and an overall pay raise must take priority.

FRA recommends that the Subcommittee review the rates of Sea Duty and Submarine Duty Incentive Pays and consider establishing higher rates to cover the cost-of-living increases over the past decade.

THRIFT SAVINGS PLAN

Although FRA earlier had some reservations concerning the Thrift Savings Plan (see last year's statement), the senior enlisted chiefs of the Navy and Coast Guard have assured the Association that it will be a plus for their members. FRA, therefore, recommends that the Subcommittee endorse the Plan. The Association would be more enthusiastic for the Plan's adoption if the Federal government provided matching funds.

IMPROVEMENT OF TRICARE PROGRAM AND OTHER HEALTH CARE ISSUES

The Association is four-square in support of improving the Tricare Program. Not only is FRA the recipient of numerous complaints from its members and other Sea Service personnel, but personal contact with a broad audience of senior Marine noncommissioned officers has proved that the Tricare program requires significant improvements. In response to the latter, FRA polled two subsequent groups and found that the majority rate Tricare as "poor."

For most if not all the challenges in improving Tricare and other health care issues available to military beneficiaries, including pharmaceuticals, FRA invites the Subcommittee's members to review the recent statement of The Military Coalition as to what actions are necessary to make the system well. The Association will be pleased to provide a copy upon request. FRA, by the way, is a "charter" member of the Coalition and fully supports its health care initiatives.

MISCELLANEOUS ISSUES

Mr. Chairman, the following issues or programs are included in the Association's legislative agenda for 1999. Assuming that funds are made available above and beyond the cost of repealing REDUX, providing a 4.8 percent pay hike, and the July 1, 2000 pay reform, FRA urges your distinguished Subcommittee to consider appropriations for the programs listed.

Survivor Benefit Plan.—The plan needs the attention of this Subcommittee and others that have oversight authority in amending and providing funds for the program. First, the authority to terminate premiums payable to the plan in the year 2008 shall be amended to read 2003. The change will allow members who have participated in the plan since its enactment in 1972, to become eligible for the waiver of premiums. Second, to increase the minimum post-62 SBP annuity from 35 percent to 40 percent of the service member's SBP covered retired pay, and further provide incremental raises in the future to match the benefit level accorded survivors under the Federal Employees Retirement System. Third, to reevaluate the tax provision as it applies to the receipt of annuities by minor children. Currently, the tax on the annuity, particularly if its augmented by Social Security payments, is devastating.

There should be no objection to providing funds for these enhancements. The government's promise of a 40 percent share of the costs has dropped to about 28 percent over the past years. As a result, participants are paying a heavier premium to make up for the funds the government is shirking.

Personnel Strengths.—The challenges facing the Armed Forces in attaining their recruiting and retention goals, the increase in optempo, and family pressures demand that there be no further downsizing of military uniformed strengths. Although it goes without saying, no funds should be provided to the military services to reduce their military strengths below that appropriated for fiscal year 1999. Further, the Association requests that a careful review of funding for military operations be undertaken by Congress. The number of operations must coincide with the military manpower available to deploy—preferably for no more than six months of every 18 month period.

Basic Allowance for Subsistence (BAS).—Two years ago, Congress enacted an Administration proposal to cap future BAS annual increases at one percent. The result has and will continue to depress needed rate increases for enlisted personnel, some of whom are on food stamps. Congress should readdress this issue and possibly look at changing the allowance to an increase in basic pay. This would ease the financial penalties on BAS-eligibles while according unmarried personnel additional funds in lieu of a partial BAS.

Commissaries.—FRA recommends the appropriation of adequate funds to preserve the value of the commissary benefit for all eligible beneficiaries.

Impact Aid.—The Defense Subcommittee has been most generous in providing some funds for school districts impacted with dependent children of military personnel. FRA appreciates the generosity and urges the Subcommittee to continue ap-

propriating funds to be available for payments to heavily military impacted school districts.

Transition Assistance (TAP) and Relocation Programs.—The recent report of the Commission on Servicemembers and Veterans Transition Assistance recommended not only the continued operation of the military's Transition Assistance Program, but that it be enhanced to better serve members returning to a civilian environment after years of military service. FRA has been a proponent of TAP for years and believes it to be invaluable in assisting service members in job assistance and other need-to-know services and programs available to veterans. The Association urges its continued funding along with that of the Relocation Program. The latter also is invaluable in the welcoming of service members and families to unfamiliar military installations. The program saves considerable man-hours that would normally be used by the members and families in acquainting themselves with the locale and the installation's many available services.

Concurrent Receipt.—FRA continues to support concurrent receipt of both military non-disability retired pay and veterans' service-connected disability pay without loss of either. However, the issue is one that is a matter requiring joint jurisdiction. Before the Armed Services Committees can act, the House and Senate Veterans' Affairs Committees must first agree to repeal a provision in Title 38 U.S.C. that prevents the receipt of the latter without an offset to the former.

Until Congress acts on this matter, concurrent receipt is out of the question. Nevertheless, there should be no objection to enacting Representative Michael Bilirakis' bill, H.R. 44. The legislative proposal will provide a special pay to military retirees who are seriously disabled as a result of duty in the uniformed services. FRA urges this Subcommittee to consider actively endorsing the Bilirakis resolution.

Former Spouses Protection Act (FSPA).—The Uniformed Services FSPA is not currently a matter for the Subcommittee to consider but, it is an issue that adversely affects both the active duty, reserve, and retired service member who has the misfortune to be a defendant in a divorce suit. The FSPA is a terrible law. It is stacked in favor of the former spouse regardless of his or her lack of good conduct, faithfulness, and loyalty to family or this Nation. As such, FRA believes that the members of this Subcommittee should do all within their power to have the Act amended. H.R. 72, by Representative Bob Stump, is the vehicle that would cleanse the law so it will be equitable for both parties. The Association urges your support.

Base Closures and Realignments.—The Association seeks the cooperation of the Subcommittee in providing appropriations to continue the operation of military treatment facilities (MTFs), commissaries, exchanges and other major MWR facilities on military installations where there is a large complement of military retirees and their families.

CONCLUSION

Mr. Chairman, the above list is long. Yet, the issues addressed are important to the Association's membership. It would be exhilarating if all could come together, but the Association realizes that there aren't sufficient appropriations to do the job. So, FRA seeks what will be the best for the most. Its priorities are (1) repealing REDUX, (2) a 4.8 percent increase in active duty and reserve basic pay, and (3) a pay reform for July 1, 2000, that recognizes the need to target increased rates of basic pay for noncommissioned and petty officers of the Armed Forces.

Thank you, Mr. Chairman and members of this distinguished Subcommittee for allowing FRA the opportunity to address the goals of its members. Your support for these issues will as always, be sincerely appreciated.

PREPARED STATEMENT OF MAJ. GEN. ROGER W. SANDLER, AUS (RET.), EXECUTIVE DIRECTOR, RESERVE OFFICERS ASSOCIATION OF THE UNITED STATES

Mr. Chairman and Members of the Committee: On behalf of the members of the Reserve Officers Association from each of the uniformed services, I thank you for the opportunity to present the association's views and concerns relating to the Reserve components and the Defense Appropriations Bill for fiscal year 2000. A more detailed version of this testimony is available, should you require it.

First, I would like to thank you for your past support of the Reserve components. By consistently promoting Reserve component programs, you have contributed directly to morale and to the high state of Reserve component readiness.

In the National Defense Authorization Act for Fiscal Year 1991, the Congress stated that "the overall reduction in the threat and the likelihood of continued fiscal constraints require the United States to increase the use of the Reserve components of the Armed Forces. The Department of Defense should shift a greater share of

force structure and budgetary resources to the Reserve components of the Armed Forces. Expanding the Reserve components is the most effective way to retain quality personnel as the force structure of the Active components is reduced * * *The United States should recommit itself to the concept of the citizen-soldier as a cornerstone of national defense policy for the future."

Greater reliance on Reserve components

The 50 years of reliance on a large, Cold War, standing military have ended. Confronted with sizeable defense budget reductions, changes in the threat, and new missions, America's military answer for the future must be a return to the traditional reliance on its Minutemen—the members of the Reserve components. Can America's Reservists fulfill their commitment to the Total Force—can they meet the challenge?

Operations Desert Shield and Desert Storm proved that the Reserve components were ready and able. During the Gulf War, more than 245,000 Reservists were called to active duty. Of the total mobilized, 32 percent were from the National Guard and 67 percent from "the Reserve." More than 106,000 Reservists were deployed to Southwest Asia. About 20 percent of the forces in the theater were members of the Reserve components.

In Operations Joint Endeavor and Joint Guard, more than 17,000 Reservists have again demonstrated their readiness and their capability to respond to their nation's call. In light of this increasing usage of Reserve forces (up 300 percent since 1990) to close the gap between available active duty forces and contingency requirements, we must ask ourselves why we continue to reduce the size of the Reserve components. Based upon the recommendations of the last Quadrennial Defense Review, which envisioned neither our extended presence in Bosnia, nor the war in Kosovo, the Army is poised to remove 25,000 spaces from its Reserve components' end strength; this at a time when the Army Reserve is literally running out of civil affairs units to deploy to Bosnia and perhaps Kosovo.

We urge the Congress to direct the Army to take no further cuts in its Reserve components at this time, but rather to defer the issue of the 25,000 space reduction until the next Quadrennial Defense Review. We further urge the Congress to appropriate the funds necessary to support this end strength (approximately $200 million) until the next QDR can examine all of the issue involved.

RESERVE COMPONENT COST EFFECTIVENESS

ROA has long maintained that a proper mix of Active and Reserve forces can provide the nation with the most cost-effective defense for a given expenditure of federal funds. Reservists provide 35 percent of the Total Force, but cost only 7.4 percent ($20 billion) of the fiscal year 2000 DOD budget. They require only 23 percent of active duty personnel costs, even when factoring in the cost of needed full-time support personnel. We need only consider the comparable yearly personnel (only) costs for 100,000 Active and Reserve personnel to see the savings. Over a 4-year period, 100,000 Reservists cost $3 billion less than 100,000 Active duty personnel. If the significant savings in Reserve unit operations and maintenance costs are included, billions more can be saved in the same period. ROA is not suggesting that DOD should transfer all missions to the Reserve, but the savings Reservists can provide must be considered in force-mix decisions. It is incumbent upon DOD to ensure that the services recognize these savings by seriously investigating every mission area and transferring as much structure as possible to their Reserve components.

ARMY RESERVE

America's Army is the most capable Army in the world today. In executing the requirements of the National Military Strategy, the Army has provided over 60 percent of the people for the major American military operations since the end of the Cold War while receiving only one-quarter of the defense budget (Fiscal Year 2000 Army Posture Statement).

As missions increased, available budget resources, ironically, did not keep pace. For fiscal year 2000 the Army's total obligation authority (TOA) for its Active, Guard, and Reserve components is $67.4 billion, only 25 percent of the total Defense budget. Since fiscal year 1989 the Army's buying power has decreased by about 37 percent in constant fiscal year 2000 dollars, while OPTEMPO has increased 300 percent.

The Army Reserve has played a major role in this increased OPTEMPO. When the Army deployed, so did its Army Reserve. In support of Operation Desert Shield/Storm the Army Reserve provided 650 units, and 85,000 soldiers. Since the incep-

tion of operations in Bosnia, it has provided 74 percent of the all the Reserve component units called and 72 percent of the RC soldiers called. Over 11,000 Army Reserve soldiers from nearly 450 units and the Individual Ready Reserve have answered the call. In 1998 alone, 1,010 USAR soldiers from 98 units mobilized and deployed to Bosnia, Hungary, Germany, and Italy.

The reduction in the size of our active duty forces has placed a much greater reliance, especially in the Army, on Reserve components. In fact, the Army today is so dependent on its Army Reserve and National Guard forces that it can no longer conduct its expanding missions or go to war without them.

This increased reliance now requires the Army Reserve to maintain many units at substantially higher levels of readiness and to be ready to deploy these "first-to-fight" units on very short notice. However, this increased reliance has not generated adequate funding in the Defense budget.

Reserve personnel, Army

Fiscal year 1999 is once again a restructuring year for the Army Reserve as it downsizes to a programmed fiscal year 1999 end strength of 205,000. We believe the President's RPA budget request for $2.3 billion fails to provide adequate funds to train, educate, man, and support Army Reserve personnel and units. We believe the fiscal year 2000 Defense budget request critically underfunds the Army Reserve by over $117 million in several Reserve Personnel, Army accounts. Listed are the critical shortfalls that the Army Reserve could execute in fiscal year 2000:

	In millions
Professional Development Education (PDE)	$21.8
Inactive Duty Training	17.4
Army Reserve CINC Support	11.0
Soldier Incentives	15.8
Health Professional Incentives	13.5
Military Occupational Skill Qualification	33.8
Distributive Education	4.1
Total	117.4

We believe the RPA budget request understates the actual executable/critical shortfall by at least $117 million. Listed below are several examples.

Professional development education (PDE).—The fiscal year 2000 RPA training budget for Army Reserve PDE is funded at only 72 percent of its requirements and is underfunded by at least $21.8 million. This critical RPA shortfall forces the Army Reserve to limit, or not offer, professional development education (PDE), required for promotion to some unit, and many IMA and IRR personnel. It likewise forces leaders to use their limited annual training time to complete their PDE requirements, in lieu of annual training with their units, adversely affecting unit/leader cohesion and resulting in degraded training readiness levels. The Army Reserve has an executable/critical shortfall of $21.8 million in its professional development education program.

Inactive duty training.—The Army Reserve inactive duty training account, which funds inactive duty training for the members of troop program units, is underfunded by $34.8 million. Taking into consideration that there will be a number of soldiers excused from IDT due to mobilization and Active Duty for Training, there will still be an expected 3,400 soldiers not funded for IDT. The executable/critical shortfall for Army Reserve IDT is $17.4 million.

Army Reserve CINC support.—CINC support missions (overseas deployment training) provides forward presence and nation-building activities in support of commander-in-chief (CINC) engagement strategy missions for Army Reserve soldiers and units. The executable/critical shortfall for CINC Support is $11.5 million.

Soldier incentives.—Recruiting and retention of quality soldiers is becoming the one of the major challenges facing the Army Reserve. Without adequate incentives to attract and retain new and existing soldiers in the Army Reserve, the Army Reserve will be severely challenged and possibly unable to reach its end strength goals. The estimated accession shortfall is 4,000 to 8,000 personnel. The minimum acceptable risk is determined to be 85 percent of the required $11.4 million shortfall, or $9.7 million. Additionally, the Army Reserve has identified and requested $8.1 million to fund educational programs. These programs assist soldiers in obtaining a higher education, thus increasing the quality of the USAR while offering an incentive to remain in the Army Reserve. The executable/critical shortfall is $6.1 million. Combined executable/critical shortfalls in these incentive programs exceed $15.8 million.

Health professional incentives.—Health professional incentives are the primary methods used by the Army Reserve to attract and retain qualified professionals in critically short medical fields in the Selected Reserve. The increased demand for Army Reserve medical personnel to support contingencies around the world, has increased the challenge of recruiting and retaining these highly trained professionals. The total shortfall is $15.9 million and the critical/executable shortfall for the Health Professions Scholarship Program is $13.5 million.

Military occupational skills qualification (MOSQ).—The Army's MOSQ goal is to attain 85 percent MOSQ for its Reserve Components. Due to shortages of training funds the Army Reserve has been forced to use annual training funds to send soldiers to MOSQ training in lieu of attending annual training. This practice mortgages unit training by degrading units' ability to train collectively on wartime mission-essential tasks. Requiring soldiers to complete MOSQ training in lieu of unit training will adversely affect unit cohesion, resulting in degraded training readiness levels. The executable/critical shortfall in Army Reserve MOSQ training is $33.8 million.

Operations and maintenance, Army Reserve (OMAR).—The fiscal year 2000 DOD budget request for the Army Reserve Operations and Maintenance (OMAR) account is $1.2 billion. We believe there is at least a $187 million executable/critical OMAR shortfall in the fiscal year 2000 budget request that will force the Army Reserve to compensate by further reducing equipment and facility maintenance, OPTEMPO, and supply purchases. Backlogs for maintenance and repair continue to grow and necessary support to essential training continues to deteriorate, decreasing readiness.

Currently the OMAR appropriation is experiencing serious resourcing shortfalls in recruiting and advertising, OPTEMPO, information management, and the backlog of maintenance and repair. Some critical shortfalls are shown below:

	In millions
Recruiting and Advertising	$36.3
Operational Tempo	60.8
Information Management	27.0
Distributive Education	12.2
Information operations	4.2
Depot Maintenance	3.4
Real Property Maintenance	43.7
Total	187.6

Recruiting and advertising.—In fiscal year 1998 the Army Reserve met only 92 percent of its recruiting mission of 47,940 soldiers. The Army Reserve's recruiting advertising shortfall of $36.3 million in fiscal year 2000 puts at risk its ability to meet both the enlisted recruiting mission and its end strength objective. The fiscal year 2000 budget request for recruiting advertising is $16.0 million, only 30 percent of the known and identified Army Reserve $52.3 million requirement. This current funding level coupled with an increased accession mission to turn around the recruiting shortfall places the Army Reserve fiscal year 2000 end strength at risk, potentially producing a 6,000 to 11,000 enlisted recruiting shortfall. The lack of adequate funds to support the required recruiting efforts will have an adverse effect on current personnel strengths degrading unit readiness. The executable/critical shortfall for recruiting and advertising is $36.3 million.

Army Reserve operational tempo (OPTEMPO).—The Army Reserve fiscal year 2000 OPTEMPO is currently funded at 82 percent of the requirement, leaving an executable shortfall of $60.8 million for the 691 units in Force Package 4, which are early deploying and enabling units that are aligned against valid war plans. We believe the OPTEMPO budget request for the USAR critically underfunds the executable funding requirement by $60.8 million.

Information management (IM).—The geographic dispersion of USAR units, Reserve centers, and headquarters located in 1,700 facilities in nearly 1,200 locations across the United States, Europe, and the Pacific places an ever increasing, reliance on automation, communications, mail and copiers to support command and control, mobilization, and administration.Combined, there is an executable/critical shortfall of $27 million in the information management accounts.

Depot maintenance.—The Army Reserve Depot Maintenance program is readiness-sensitive and is required to repair and return end items to units. The program includes the overhaul, repair, and renovation of unserviceable but repairable army surface and air equipment. Supported equipment includes combat vehicles, communication and electronic equipment, watercraft, test measurement and diagnostic equipment (TMDE) including medical, tactical vehicles, construction, rail and other

support equipment. The total shortfall is $8.2 million and the executable/critical shortfall is $3.4 million.

Real property maintenance.—The USAR currently operates facilities in approximately 1,200 locations worldwide (CONUS, Puerto Rico, Germany, and the Pacific) and commands and controls 6 installations including 2 power projection installations (Fort McCoy, WI, and Fort Dix, NJ). We believe the fiscal year 2000 budget request critically underfunds the executable Backlog of Maintenance and Repair requirement by at least $43.7 million.

National Guard and Reserve equipment request.—The Office of the Secretary of Defense, in its February 1999 National Guard and Reserve Equipment Report (NGRER) for Budget Year 2000, states that the Army Reserve has 68 percent of its Equipment Readiness Code A (ERC A) equipment items and 84 percent of its ERC–P items on-hand for all units. This represents a shortfall of critical equipment that exceeds $1.1 billion. Realistically, the equipment on hand (EOH) includes substituted equipment—some that is not compatible with newer equipment in the Active Army, Army National Guard, and Army Reserve equipment inventory and may not perform as required.

The greatest source of relief to Army Reserve equipment shortages is the National Guard and Reserve Equipment Appropriation (NGREA). Since 1981 the Army Reserve has received nearly $1.5 billion in equipment through this special congressional appropriation. Without the appropriation the Army Reserve would still be struggling to reach 50 percent equipment on hand (EOH). NGREA works, and works well.

Due to the interest of Congress and the success this appropriation has made in increasing the level of EOH in the Army Reserve, the readiness of the Army Reserve has increased significantly over the past decade. We urge the Congress to continue NGREA and to provide $218 million for such high priority equipment as 2.5- and 5-ton trucks, tractors, rough terrain forklifts, semi-trailers, smoke generators, and triage medical sets.

Military construction, Army Reserve.—The organization, roles, and missions of the Army Reserve dictate the need for a widely dispersed inventory of facilities. It occupies nearly 1,200 facilities, consisting of more than 7,600 buildings and structures that average 37 years old. Army Reserve-operated installations add another 2,600 buildings and structures to the total inventory. The average age of facilities on these installations is about 48 years. The plant replacement value of Army Reserve facilities and installations is approximately $10.6 billion.

The Army Reserve continues to have a $1.9 billion backlog of known construction requirements. This facility shortage is further complicated by recent base closings and the loss of co-located support facilities. Many of those facilities were geographically close to Army Reserve units. Existing shortages and the recent loss of usable facilities contribute to an average utilization rate that nears 200 percent. ROA urges the Congress to authorize and fully fund the Army Reserve fiscal year 2000 $81,215,000 MCAR budget request.

AIR FORCE RESERVE

The Air Force Reserve makes up 11 percent of the total Air Force—Active, Guard and Reserve. It is composed of 74,000 Reservists and 5,300 civilians. Its aircrews are 93 percent prior service, while 86 percent fits support force has been on active duty previously. It operates 400 aircraft all over the world on a daily basis in support of Air Force and DOD missions. It is allocated 6 percent of the Air Force budget and provides 20 percent of the Air Force combat capability. It is a good deal for the service and for the country.

Its key issues are people, readiness and modernization. With support for those issues from the active Air Force and the Congress, Air Force Reserve has become an indispensable national asset. ROA thanks you for consistent support that has allowed the command to demonstrate its skill in carrying out its portion of the National Military Strategy.

Still, issues come up regularly that need the attention of both the Pentagon and the Congress. Some of these are:

The Air Force Reserve Command C–141s.—The most recent Air Force structure announcement identified the next two sites at which 10 each C–141s will be removed from the service's force structure—McGuire AFB, NJ, and Charleston AFB, SC. Along with the aircraft will go all of the crews and maintenance support and funding, i.e., force structure. This is in accordance with a drawdown plan, which will ensure the elimination of an aging and worn aircraft from the inventory by the year 2006. In the Air Force Reserve Command alone, the loss will be between 4,000 and 5,000 people.

Also, along with the aircraft goes their huge ton-mile airlift capacity, which the JCS will need to prosecute the two, nearly simultaneous major theater war scenario about which they testified about during readiness hearings in September 1998. Though 120 C–17s are in the process of being delivered to help fill the strategic airlift shortfall being created, that figure is far from an adequate replacement for the departing airlift capability. The Air Force's original requirement of 210 C–17s comes much closer to the number required to get the U.S. Army to a distant war, but that number did not survive budget negotiations. ROA urges the Congress to direct DOD to keep a minimum of 60 C–141C aircraft in the AFRC until sufficient numbers of C–17s are acquired to fulfill the ton-mile requirement of the National Military Strategy.

The Air Force Reserve Command C–130 reductions.—In 1996 Congress directed DOD and the Air Force to submit a plan justifying any further reduction in the total number of aircraft in the C–130 fleet. The Air Force conducted the Mobility Requirements Study, which resulted in the Master Stationing Plan, which indicated that 388 aircraft were adequate to meet requirements. At that time the Active component had 150 aircraft, the ANG had 190 and the AFRC had 104, for a total of 444. To draw down to the requirement of 388, the Active component was to lose 24 aircraft, the ANG 24, and the AFRC 8.

AFRC's eight aircraft were to come from Willow Grove ARS, PA (four), Peterson AFB, CO (two) and Billy Mitchell Field, WI (two)—all units with more than eight aircraft. Reductions were to begin in fiscal year 1998 and were included in the DOD portion of the fiscal year 1998 President's Budget. During its review of the budget request, Congress disagreed with the proposed reductions to the ANG and AFRC aircraft. Aircraft and resources were restored in fiscal year 1998 Authorization and Appropriations Acts for one year only. Subsequently, the 24 ANG aircraft and resources were restored by the Air Force across the FYDP; the 8 AFRC aircraft were not.

This is an obvious equity issue. As full partners in the Total Air Force, any plan to store airlift capability in the Reserve components should treat the components as equal partners, favoring neither one over another. ROA urges the Congress to direct the Air Force to restore AFRC's eight aircraft and resources across the FYDP. (Cost ranges from $10.6 million in fiscal year 2000 to $12.1 million in fiscal year 2005.)

Equipment modernization requirements for fiscal year 2000.—Thanks to the steady hand of Congress the Air Force Reserve Command is a full partner in the Total Force. Through appropriations added to the budget requests of the last several years, necessary modernization and training has been accomplished. When CINCs call to request support, they know the Air Force Reserve is fully mission-capable. But only with constant vigilance can we be assured that this necessary support will remain constant. AFRC is still in urgent need of much equipment to become and maintain constant interoperability. Requirements total $148 million and include fighter and other aircraft upgrades in color displays, situational awareness data links, tactical radios, night vision devices, weather avoidance systems, forward-looking infra-red radar, radar warning receivers and electronic warfare management systems. The KC–135Es need re-engining kits for safety and environmental concerns, and there is still a requirement for one more C–130H2/X simulator. ROA urges the Congress to continue to fund the commands' requirements, thereby guaranteeing its utility to any CINC's need for a compatible force.

Unfunded military construction requirements for fiscal year 2000.—Though ROA is grateful for whatever additional MILCON money the Congress sees fit to grant the Reserve components, we are still very concerned with the overall state of the Air Force Reserve's military construction requirements. Their total backlog is over $500 million, yet the FYDP envisions an average of only $21 million per year through fiscal year 2005. This mammoth figure represents years of inadequate attention from the active component and a long history of inequitable distribution of Congressionally added MILCON funds. When OSD's plan to fund only 25 percent of the fiscal year 2000 requirement is considered, and the reality of contractors not wanting to bid on such a project is examined, the likelihood of any such project being finished is significantly reduced. ROA thanks the Congress for its past support but urges it to correct years of inequity by beginning the process of reducing the horrendously long current mission MILCON list.

ROA remains concerned with the apparent lack of concern for the state of AFRC's military construction requirements. Our previous testimony has included all new mission and current mission requirements for the command, last year totaling nearly $500 million. Even scaling back the list to those projects approved in the FYDP, the total remains astronomical compared to the PB submission of $12 million. Factoring in OSD's plan to fund only 25 percent of that figure brings AFRC's share of the pie to $3.7 million—a paltry and ineffective sum when weighed against the com-

mand's requirement. ROA urges the Congress to take the first step toward recognizing a long history of inequity in the distribution of MILCON funding by providing a minimum of $50 million for the use of AFRC in executing its new and current mission requirements.

NAVAL RESERVE

Thanks to the Congress, in fiscal year 1999, for the first time in over a decade, the funding for the Naval Reserve is sufficient to ensure that Naval Reservists receive annual training for 14 days. In addition, thanks to the Congress, for the first time in a decade, the funding for contributory support is adequate for fiscal year 1999. In this regard, it is clearly evident that the Congress has given full recognition to the significant and well-recognized compensating leverage offered by today's Naval Reserve, which represents 20 percent of the Navy yet expends only 3 percent of the budget.

Unfortunately, the fiscal year 2000 budget submission, although a significant improvement from the past, does not reflect the same thinking as the Congress, in recognition of the increasing responsibility that has been placed on the Naval Reserve. Similarly, although the funding for Reserve equipment modernization is a marked improvement from the past, the proposed budget for equipment modernization also falls short of the $100 million to $150 million that the Congress has provided to the Naval Reserve over the past several years.

Funding shortfalls—personnel.—The Department's budget papers state that "There is mounting evidence that the historically budgeted enlisted AT participation rate of 81 percent does not afford all eligible Naval Reservists the opportunity to perform AT. * * * Therefore, this budget provides the necessary funding to increase the budgeted AT participation rate for enlisted drilling Reservists to 87 percent beginning in fiscal year 2000." As a consequence, funding to the Naval Reserve Personnel Account has been proposed at $1,464 million. The increase notwithstanding, an additional $19 million is required for fleet contributory support to provide the same level of funding in fiscal year 2000 as the Congress provided for fiscal year 1999. ROA recommends that the Congress add $19 million in ADT funding, as well as an additional $18 million for recruiting and retention incentives, enabling the Naval Reserve to fully employ its limited AT funding for the purpose for which it is intended, as well as ease OPTEMPO/PERSTEMPO demands significantly.

Equipment modernization.—ROA continues to strongly advocate the assignment of modern fleet-compatible equipment to the Naval Reserve. The fiscal year 2000 budget includes $30 million for aircraft modifications, along with $19 million for a CH–60 helicopter and $45 million for a C–40 replacement aircraft. It is also noted that funding in the out-years is included for four CH–60s and two C–40 replacement aircraft in fiscal year 2002. As previously discussed, however, this increased funding level, although not insignificant, is not of the level provided by the Congress over the previous years.

In this regard, over the past years, much of the progress made in improving the readiness and capability of Naval Reserve units has been the direct result of congressional action—to designate new equipment for the Naval Reserve in the National Guard and Reserve Equipment Appropriation (NGREA) to earmark funding for the Naval Reserve in the traditional procurement appropriations.

ROA has identified unfunded Naval Reserve equipment requirements for consideration by Congress for addition to the administration's request for fiscal year 2000, in either the NGREA or as earmarked additions to the Navy's traditional procurement appropriations. Among the top priorities are the CH–60 Seahawk aircraft, the C–40 replacement aircraft, and the P–3 update III kits. The H–60B transition to level III is a part of the helicopter master plan. Fleet capability and horizontal integration will result from this conversion at a cost of $304 million. The C–40A transport aircraft are of vital importance to fleet logistics as the Naval Reserve continues to provide 100 percent of the Navy's organic lift capability, providing direct logistics support for fleet CINCs in all operating theaters. C–40A replacement will cost $450 million. The P–3 update kits bring Reserve maritime patrol aircraft in line with Active fleet capabilities and broaden the mission of the Reserve P–3Cs beyond the role of anti-submarine warfare. P–3 update kits will cost $192 million. ROA requests that these unfunded Naval Reserve equipment requirements be considered by Congress for addition to the administration's request for fiscal year 2000, in either the NGREA or as earmarked additions to the Navy's traditional procurement appropriations.

MARINE CORPS RESERVE

The Administration's budget proposes an end strength of 39,624 Selected Marine Corps Reserve (SMCR) personnel for fiscal year 2000, down slightly from the level of 39,966 in fiscal year 1999. Similar to the Navy, there is also increased funding for the Marine Corps Reserve, at $410 million, an increase of $17 million from fiscal year 1999. Of particular note, the department's posture statement observes, "Today more than 98 percent of Marine Corps Reserve units are assigned to active duty forces in support of the Marine Corps' commitment to joint operations plans. The Marine Corps Reserve contributes approximately one-fourth of the force structure and one-third of the trained manpower of the Marine Corps. Specifically, Marine Reservists comprise all of the adversary squadrons and civil affairs groups, one-half of the tank battalions, one-third of the artillery battalions, and one fourth of the reconnaissance battalions."

Funding shortfalls.—The request to support the Marine Corps Reserve appears to be underfunded in the Operation and Maintenance, Marine Corps Reserve (O&M, MCR) and Reserve Personnel, Marine Corps Reserve (RP, MCR) appropriations as well as in equipment modernization. Additional O&M funds are needed for individual equipment issue and to provide required training, maintenance, and depot level repairables. Maintaining the necessary funding to pay, educate, and train our Marine Reservists, and to enable the units of the Marine Forces Reserve to conduct appropriate training and operations is the vital first step to combat readiness and sustainability.

The Marine Corps Reserve personnel appropriation also appears underfunded. The major deficiency in this appropriation is in the area of active duty for special work (ADSW). This valuable individual training is directly related to probable wartime tasking. The Congress' strong support to maintain ADSW funding allows Reserve Marines to sustain wartime skills while directly reducing the operating tempo of their Active counterparts. Further, ADSW provides critical support to Active force commanders, allowing them to augment Regular forces with Reserve Marines to participate in both USMC combined arms exercises (CAXs) and scheduled joint exercises in support of the warfighting CINCs.

Equipment modernization.—Modern equipment is critical to the readiness and capability of the Marine Corps Reserve. Although the Marine Corps attempts to implement fully the single acquisition objective philosophy throughout the Marine Corps Total Force (Active and Reserve), there are some unfilled Reserve equipment requirements that have not been met because of funding shortfalls. In this regard, the Initial Issue Program continues to be a top priority. This program provides Reserve Marines with the same modern field clothing and personal equipment issued to their Regular Marine counterparts. The Marine Corps Reserve is also in need of ECP–560s to make its F/A–18 aircraft compatible with the F/A 18 Cs and Ds utilized by the Active force. The cost of this program is $20 million.

Real property maintenance in the Navy and Marine Corps Reserve.—There is a particular need for additional funding for real property maintenance in the Navy and Marine Corps Reserve. For example, as a result of BRAC closures and a reduction in force structure the Naval Reserve now has the smallest number of demographic centers since World War II and one-third fewer than were in operation in 1978 when the number of drilling Reservists was just slightly above what it is today.

Some states have only one Naval and Marine Corps Reserve center, resulting in the further lessening of the integration of the nation's armed forces with the civilian population. In addition, the concentration of personnel resulting from Reserve center consolidation makes it even more important that our sailors and marines have access to modern, efficient and cost-effective facilities. Despite the reduction in facilities, the backlog of military construction and the critical backlog of essential maintenance and repair of Naval and Marine Corps facilities have continued to rise dramatically. The continuing shortage of funds for the orderly maintenance, repair and equipment replacement of these facilities is obvious. Accordingly, additional funds from the Congress are necessary to address these critical problems. ROA recommends at least $24 million of additional funding be added to keep the critical backlog of real property maintenance from increasing above the current level. This appropriation also needs approximately $21 million in additional funding for base operating support and $8.8 million for Reserve military construction.

COAST GUARD RESERVE

We are fully aware that this committee is not responsible for the direct funding of the Coast Guard or the Coast Guard Reserve. Nevertheless, funding for the Coast Guard is very austere, with only $2.941 billion in operational funding, the minimum

level required for basic services. Similarly, funding for the Department of Defense and the Department of the Navy remains constrained. Therefore, it is vital to be farsighted as we cross into the 21st century, to ensure a continued robust sea power.

Selected Reserve strength.—The fiscal year 2000 administration request is to maintain the Coast Guard Selected Reserve's authorized end-strength at the 8,000 level, whereas the appropriation's request is for 7,600. As the Coast Guard Reserve's appropriated end-strength for fiscal year 1999 is 8,000 and the Coast Guard Reserve end-strength continues to increase to meet the Congress' mandate of 8,000 Coast Guard Reservists, we have very serious concerns regarding the administration's proposal for an appropriated end-strength of only 7,600. We also have concerns regarding an authorized end-strength of only 8,000, in view of the fact that the commandant has conducted an in-depth study that clearly indicates and justifies a requirement nearly 12,300 Coast Guard Reservists. In this regard, we would request that the committee undertake a detailed examination of Coast Guard Reserve requirements.

In view of the foregoing, a request to fund only 7,600 Reservists simply makes no sense at a time when the Coast Guard is making significant strides in correcting the end-strength shortfall that has existed over the past several years. The Coast Guard has increased its recruiting capabilities and put into place a multi-year plan to get the Coast Guard Reserve back to strength. As of January 25, 1999 Coast Guard Reserve end-strength was at 7,579, having increased from a 2-year low of 7,243 in April 1998.

In summary, the Congress and the Coast Guard have made the substantial financial and manpower commitment to rectify the Reserve end-strength problem. As a result, significant progress has been, and will continue to be made. As a result, the demand for Reservists to fill fleet requirements in a Coast Guard that is short of personnel can only be expected to increase. It, therefore, makes little sense at this juncture to reverse course and force the Coast Guard Reserve end-strength downward.

Coast Guard Reserve funding.—The administration has requested $72 million for the Reserve Training (RT) appropriation for fiscal year 2000, with $24.427 million in reimbursement to operating expenses. Given the present procedures for reimbursement for operating expenses and direct payments by the Coast Guard Reserve, this is the minimum needed to fund a full training program for 7,600 personnel. Even at this minimal funding level, Coast Guard Reservists would continue to receive only 12 days of annual training (AT) each year (all the other armed services are entitled to 14 days' AT by departmental regulation).

The funding required to support the full 8,000 level authorized is approximately $78 million. It should, however, be noted that the fiscal year 1999 appropriations bill, in appropriating $69 million for the Coast Guard Reserve, limited the amount of Reserve training funds that may be transferred to operating expenses to $20 million. The House committee report notes that this limitation is included because, "Given the small size of the reserve training appropriation, and the declining size of the selected reserve, the Committee wants to ensure that reserves are not assessed excessive charge-backs to the Coast Guard operating budget. The Committee continues to believe that, absent this provision, the proposed level of reimbursement would be too high, especially given the substantial amount of reserve augmentation work hours provided by the reserves in direct support of Coast Guard missions."

The House report also specifically prohibits the Coast Guard from instituting any "direct charges" that were not in effect during fiscal year 1997.

ROA thanks the Congress for its recognition of the support provided by the Coast Guard Reserve and the provision of this additional funding through the limitation in reimbursement for operating expenses. In this regard, the Coast Guard is the only component among all the armed services that reimburses operating expenses to the Active account. The Coast Guard is reviewing its procedures for reimbursement with a view toward modification in fiscal year 2000, and we are unable at this time to give an opinion on this change in procedures. We would, however, note, that the bottom line is that the Coast Guard Reserve must have sufficient funding for 8,000 Reservists and that the reimbursement cap has over the past 2 years provided approximately $2.5 million of this much needed funding. Accordingly, we would ask that any proposed change in procedures be closely examined and meticulously monitored—to ensure that the Coast Guard Reserve is fully funded at a level of 8,000 ($77 million).

Coast Guard Reserve equipment.—We are fully aware that this committee is not responsible for the direct funding of the Coast Guard or the Coast Guard Reserve. Nevertheless, funding for the Coast Guard is very austere, with only $2.941 billion in operational funding, the minimum level required for basic services. Mobile support units (MSUs) are Reserve units designed to be a limited deployable logistical

and maintenance support and repair facility service for one, and under certain circumstances, for up to two co-located squadrons of Coast Guard 110-foot patrol boats. These units are staffed by Reservists and will support the Active component when deployed for operations overseas. The MSU provides on-site repair facilities for hull maintenance and engineering and electronics systems for use by support personnel assigned for operational maintenance. The Coast Guard is in need of $419,524 for the MSU program. In addition, chemical, biological, and radiological defense is required for Coast Guard Reserve personnel assigned to the Marine Safety Officers who have Department of Defense strategic load-out responsibilities. The current mobilization requirements call for a Reserve personnel requirement in excess of 3,500 personnel. The total cost of required chemical, biological and radiological defense equipment required is $3.135 million.

CONCLUSION

Thank you for the opportunity to represent the Reserve Officers Association's views on these important subjects. Your support for the men and women in uniform, both Active and Reserve is sincerely appreciated. I'll be happy to answer any questions that you might have.

SUBCOMMITTEE RECESS

Senator STEVENS. Thank you all very much. We will recess until May 19, when we will hear from the Department of the Army.

Thank you all very much.

[Whereupon, at 12:40 p.m., Friday, May 14, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, May 19.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2000

WEDNESDAY, MAY 19, 1999

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Inouye, Harkin, and Durbin.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

SECRETARY OF THE ARMY

STATEMENTS OF:

HON. LOUIS CALDERA, SECRETARY OF THE ARMY

GEN. DENNIS J. REIMER, CHIEF OF STAFF

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Thank you very much, General. It is nice to see you here. This morning we are going to hear from Army Secretary Caldera and Chief of Staff General Reimer. Secretary Caldera, this is your first appearance before the committee. We had a very successful visit to Alaska. I am sure you will be visiting our friend soon.

Senator INOUYE. He has been there.

Senator STEVENS. And General Reimer, time passes too fast in this committee. I am told this is your final appearance before the subcommittee as Chief of Staff of the Army.

General REIMER. It depends on how well I do. You may call me back. [Laughter.]

Senator STEVENS. Well, maybe we could demote you, Denny, and you could stay for another couple of years. [Laughter.]

It really does not seem like that long ago you were here for the first time. I do want to express our appreciation to you and all the members of the committee for all you have done to work with us and keep us informed on the needs of the Army. You have left many significant legacies, but there are two that we would highlight, and I am serious. I think the total Army concept is a really, really good one, and the leadership team you have created with General Shelton and General Plewes has created a new situation in the Army, and we congratulate you.

The National Guard and the Army Reserve are an integrated part of your force, and it is really, I think, the best situation that the Army has had with the Guard and Reserve since Senator Inouye and I joined this subcommittee. It is really, really good.

And second, your vision to push the Army into the 21st century through the digitization initiative is going to remake the Army. We want to help you in all we can, in every way we can. It is not only right to go forward into a new concept and really there is no way to step back on the modernization program. We have got to go forward with everything we have got.

We are pleased to look at your budget. It is a sound, straightforward, no smoke and mirrors budget. We think we can support you all the way.

There are pressures on the Army. We all know about those. There is no use belaboring them now. The House passed that emergency supplemental, and we are going to do our best to get it passed here sometime today I hope. If not tomorrow, but I think that that will go a long way to try and fill in some of the little chink, put our finger in the dike a little bit, but I am not saying this does it all. We know we need more, and we are going to welcome your comments about funding and the needs that you foresee for the Army, particularly commitments in Kosovo.

But Denny, we are only a telephone call away. We do take advice from friends, no matter where they go.

General REIMER. Thank you, Mr. Chairman.

Senator STEVENS. We will give you our home phone numbers. We do want to rely on you in the future if you have any comments to make about what is going on.

Senator Inouye.

STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. Thank you very much, Mr. Chairman. I would like to join you in welcoming the Secretary on his first appearance and sadly to say goodbye to our Army Chief, General Reimer, because very likely this may be your last appearances before the committee and, like the chairman, I find it very difficult to find the appropriate words to express our gratitude, but I am certain you know that we appreciate all you have done, and we wish you the best in the coming years.

Mr. Chairman, as the Army faces the next century, it is a time of great challenges and there are those, many of them, in this era of global reach and instantaneous communication, that suggest a large standing Army is not necessary. In fact, it is an anachronism. But Mr. Chairman, I am not one of them.

For most of the world's military it is the size and strength of the Army that denotes their military prowess. I believe we, too, must measure our Nation's strength by examining our Army and supporting our Army. To retain our status as the world's only superpower I believe that we must maintain our Army as a force second to none.

So like you, Mr. Chairman I look forward to hearing from our witnesses on how the requests for fiscal year 2000 will maintain the strength and readiness of our Army and I would like to, as the

chairman has assured you, to assure you that we will look upon your budget with great favor.

Thank you, sir.

Senator STEVENS. Thank you very much.

PREPARED STATEMENT OF SENATOR SHELBY

Before you begin, Mr. Secretary, we have received a statement from Senator Shelby which I will place in the record at this point.

[The statement follows:]

PREPARED STATEMENT OF SENATOR RICHARD C. SHELBY

Good morning gentlemen and thank you both for appearing here today. Secretary Caldera, it is a pleasure to welcome you to the Committee. I hope you are enjoying your tenure as Secretary of the Army. As a West Point graduate, I am sure you feel a certain kinship with the troops you are now charged with overseeing. I know that I and many others on this Committee look forward to working with you in the coming years.

General Reimer, I am told that this will be your final appearance in front of us. As you prepare to move on, I would like to commend you on your 36 years of uniformed service to the nation. I have enjoyed working with you during a period of declining defense spending, to ensure that the Army has maintained its fighting edge.

That fighting edge has been tested over the last seven weeks. As we speak, our troops are engaged in combat operations in the Balkans. I can only hope that the decisions of this committee in past years have properly prepared and equipped those soldiers for the current conflict. We must be mindful as well, that the decisions we make now and throughout this year, will affect the ability of tomorrow's Army to face some future crisis, wherever that might be. Our task is not to be taken lightly. Future soldiers are depending upon us to make prudent decisions.

Again, welcome to both of you. I have a number of questions and I look forward to your responses.

Senator STEVENS. Mr. Secretary, General Reimer, your statements are printed in full in the record already. We would appreciate it if you would make any statements you want to make.

Mr. CALDERA. Thank you very much, Senator Stevens, Senator Inouye. We first want to say thank you for your strong and steadfast support of our soldiers and our Army over the years. I appreciate this opportunity to appear before you and just wanted to make a couple of brief statements.

At this time when our Nation is involved in a conflict, your support is tremendously important to our soldiers. What you did for us last fall in terms of the supplemental for fiscal year 1999, both to pay for contingency missions and readiness, was very important, and it is paying dividends today in our ability to meet all of our obligations around the world.

EMERGENCY SUPPLEMENTAL

The emergency supplemental that will be before you shortly is also very important in terms of being able to fund some of the things we have already done in responding to the need for hurricane disaster relief assistance in Central America, as well as the surge deployment that we did to Southwest Asia in December and the mission that is now being undertaken in the Balkans. It will allow us to meet all of those obligations and still continue to be able to train and maintain the readiness posture that our forces must have to meet all of the other requirements that they need to be ready and available for.

With respect to the Senate proposal to increase pay, restore retirement benefits, and reform the pay table, it certainly does the right thing in terms of sending the message to our soldiers that their sacrifice and service is appreciated. It will allow us to continue with our aggressive training program through the rest of the year if we receive the timely payments of those past contingency missions that that emergency supplemental represents, so we would appreciate that.

FISCAL YEAR 2000 BUDGET PROPOSAL

The budget that we present to you represents our best effort to support the great soldiers who serve in the Army in terms of their training and in terms of their quality of life. We are challenged in modernization to be able to provide them the tools that they need to get the job done.

We make our most important steps forward in near-term readiness, but over the midterm and the long term we are going to be challenged to recapitalize the aging equipment we have in the Army and to press forward with the transformation activities and initiatives we have undertaken to leverage what computers and digitization offer soldiers in the future in terms of increased capabilities, command and control, situational awareness, and all of the tremendous promise the technology has for making our Army the world's first information age Army.

Having superior capabilities over any other force in the world requires a significant investment, and we are starting with the down payment and certainly moving in the right direction in terms of being able to fund necessary modernization, but there is still much more that we need to be able to do.

So we appreciate this opportunity to talk to you about the budget and the challenges that we continue to face as the Army continues to meet the needs of the Nation throughout the world in the variety of ways that we have been challenged to do.

PREPARED STATEMENT

It is a very creative, adaptable Army, with very talented people able to fulfill the full range of missions from high intensity conflict to peacekeeping to humanitarian assistance. That is why our soldiers are truly underwriting U.S. leadership in the world by their service and contributions, and are deserving of all the support that we can give them.

Thank you, Senator.

Senator STEVENS. Thank you, Mr. Secretary.

[The statement follows:]

PREPARED STATEMENT OF LOUIS CALDERA

It is with great pleasure that I appear before you today to report on the state of your Army and to talk about our proposed budget for fiscal year 2000. Since my confirmation this past June, I have traveled widely to visit our soldiers at their duty stations at home and abroad. Everywhere I have visited, from Bosnia, to Korea, to Central America, to bases across the United States, I have been deeply impressed by their motivation and patriotism, as well as the important contributions they are making to our Nation. I came away from these visits reassured that America's soldiers are fully prepared to fight and win our Nation's wars. I have also seen how they advance our national interests around the world every day through their con-

tributions to U.S.-led nation building, peacekeeping, disaster relief and humanitarian assistance missions. I am very proud of what our soldiers are doing on behalf of America. I am also proud of what they have shown me they are prepared to do when the Nation calls.

Our soldiers are the most creative, adaptable and strategically relevant force in our Nation's 21st century arsenal for freedom. They have the ability to deploy rapidly anytime, anywhere, to close with and destroy the enemy as only ground combat forces can. This all-weather, all-terrain force can also deploy rapidly to deliver competent and caring emergency assistance, forge order out of chaos, and bring hope to the forsaken. The quality of the people in our force—their individual abilities, values and good judgment, and their collective capabilities and cohesion—make them outstanding representatives of America's principles and ideals in action. They not only guarantee our freedoms at home, they also underwrite our Nation's security commitments and leadership role in the world.

THE ARMY TODAY

In recent years, the Army has assumed the central role in executing the National Military Strategy of shaping the international environment in ways that are favorable to U.S. interests, responding to the full spectrum of crises that challenge U.S. security interests, and preparing now for an uncertain future. All told, the Army has increased its pace of operations by 300 percent since the end of the Cold War, providing approximately 60 per cent of the forces involved in contingency operations. On any given day during the past year, an average of over 28,000 Army soldiers were deployed to more than 70 countries, in addition to the 119,000 soldiers that are permanently stationed overseas, to promote security and stability throughout the world.

From Korea to Southwest Asia to Central Europe, trained and ready soldiers deter aggression and reassure our friends and allies. They secure the peace from Macedonia to the Sinai, to Haiti, to Peru, while providing the bulk of the force for ongoing operations in the Balkans. Our extensive military-to-military contacts, exercise programs, and training activities further our Nation's goals of engaging and influencing other countries in ways that contribute to our national security. At home, the Army has reacted to the reality of new threats to the American heartland by training the "first responders" in our major cities to better deal with chemical and biological attacks. Throughout the world, Army soldiers also help the helpless by providing support to domestic and international humanitarian assistance operations for hurricanes, floods, wildfires, and other natural disasters.

The Army accomplished an unprecedented amount of work on behalf of the Nation in fiscal year 1998 and, with Hurricane Mitch and Operation Desert Fox already under our belt, fiscal year 1999 promises to be an even more challenging year. We do all this with a force that is much smaller than it was a decade ago. Since 1989, the Total Army has reduced spaces for almost 700,000 people while closing or realigning more than 700 installations, both at home and abroad.[1] To meet growing demands for American presence with a smaller force and budget, the Army has attempted to balance the load across units and components, and has increased efficiency in its operational and business practices. We have done this by exploiting information technology, enhancing active-reserve force integration, and implementing a broad set of defense reforms and cost-saving initiatives.

The high pace of operations being carried out by this smaller force challenges our leaders daily as they strive to take care of the great soldiers who are doing the Nation's work. Taking care of our people is more than just protecting our investment in human resources to ensure we maintain a quality force; it is the right thing to do to recognize their selfless service.

FISCAL YEAR 2000 BUDGET

The President's budget request for fiscal year 2000 provides a significant and timely increase in the resources available to the Army to do the work of the Nation. It furthers the steps begun with the fiscal year 1999 supplemental, which is already having a positive impact across the Total Army. With your support, we have been able to increase fiscal year 1999 funding for Base Operations, Army National Guard training, depot level maintenance, and recruiting initiatives across the force. Additionally, the supplemental's up-front funding for the Bosnia contingency operation

[1] The breakdown of the Army's personnel decrease between fiscal years 1989 and 2000 is as follows: Active Component: 290,000, or 38 percent; Army National Guard: 107,000, or 23 percent; Army Reserve: 114,000, or 36 percent; and Department of the Army civilians: 187,000 or 46 percent.

meant we did not have to cancel training and maintenance activities in order to pay for that operation pending uncertain reimbursement.

The fiscal year 2000 budget request builds upon the improvements funded in the supplemental by addressing our most pressing near-term readiness needs while supporting our quality of life efforts and our strategy to transform the Army for the future. Importantly, it proposes funding for the outyears that is critical to assuring Army readiness over the long-term. In general, this budget will allow us to accomplish our major priorities by providing the resources we need in the key areas of people, training, overall quality of life, and modernization.

Army people are the cornerstone of Army readiness. The President's Budget request supports our people by proposing pay and retirement reforms. It also supports commanders' efforts to execute tough training, take care of their installations, and provide the quality of life our soldiers deserve. As we near the end of the drawdown, the combined effects of increased deployments, a smaller force, perceptions of a pay gap, the erosion of retirement and medical benefits, and uncertainties related to the timing and location of deployments have exacted a toll on soldiers and their families, as well as our civilian work force. The President's leadership and the commitment of the Administration and Congress to increase pay and reform military retirement are key steps that will help us to recruit and retain the high quality people we need to man the force. They also send a clear signal to soldiers that the Nation recognizes and values their service.

Pay and retirement reforms will help with recruiting and retention. For fiscal year 1998 and the first quarter of fiscal year 1999, the Army did not meet its recruiting goals despite the exhaustive efforts of our recruiters. Recruitment for the active component was about 800 enlistees short of our target last year, and missed this year's first quarter target by 2,400 soldiers. Recruitment for the Army National Guard and Army Reserve was about 1,200 and 3,700 recruits short of 1998 targets, respectively. Despite these shortages, the Army met its quality goals for the active component and the Army Reserve.

Certain retention indicators also merit our attention. Over the past seven years, the number of soldiers indicating an intention to remain on active duty has declined by more than five percent. The top two reasons they cite for wanting to leave the military are the amount of time separated from family and the amount of their basic pay. Since 1992, satisfaction with retirement benefits fell from 62 to 39 percent for officers and from 45 to 28 percent for enlisted soldiers. While overall retention percentages still exceed requirements, we are still experiencing some retention difficulty in certain ranks and specialty skills such as aviation mechanics, military intelligence, and personnel administration. Shortages in these skills are being monitored closely so they do not detract from our operational units or their ability to accomplish day-to-day missions, especially as we field new technologies across the Army. Targeted pay table reform will help address these retention concerns.

Given our requirement for high-quality people, our recruiting shortages and the trends of retention indicators have caused us to step up our efforts in these areas. This budget request will help the Army turn the corner in these key personnel areas. The incentives contained in the budget provide strong support for our efforts to ensure that the Army continues to attract and retain dedicated, quality patriots throughout the force.

Soldiers come in to the Army to train hard, and that training is at the heart of their readiness. The fiscal year 2000 budget will have a very positive impact on our Army's ability to achieve results that support U.S. interests by increasing funding in all three of the major accounts that support training and the facilities and ranges where soldiers train: Operations Tempo, Base Operations, and Real Property Maintenance.

Operations Tempo (OPTEMPO) is the primary account that funds training. It pays for the fuel and repair parts needed to drive or fly Army equipment. To develop the readiness needed to execute the National Military Strategy, OPTEMPO accounts must be funded at levels that enable commanders to meet training requirements. The most basic of these requirements is to ensure that squads, platoons, companies, and battalions are trained to proficiency in wartime missions. Such training prepares units for, and is tested by, the rigors of our Combat Training Centers (CTCs), which can simulate everything from high intensity combat to chaotic peacekeeping environments. Although the CTCs offer the world's best training, this experience is enhanced when units have had the opportunity to do all of their collective training prior to reporting for their rotations. In recent years, commanders have had to curtail some of this home station training. In light of the CTC's role as the crown jewel of Army training, our objective is to fund OPTEMPO accounts at 100 percent of requirements so that units can fully train at home before taking the Army's preeminent test of their readiness.

The fiscal year 2000 budget request makes dramatic progress towards achieving this objective. It will fund greatly increased vehicle and helicopter use at home stations and the institutional training bases for both active and reserve units. This budget also resources Army National Guard divisions at more than 75 percent of training requirements for individual, crew, and squad training in fiscal year 2000. The budget plan for fiscal year 2001 and beyond will sustain this commitment. Additionally, the fiscal year 2000 budget provides for 100 percent of the requirements for Title XI support to reserve forces.

The fiscal year 2000 budget request also increases funding for Base Operations (BASOPS), which provides basic municipal services such as water, electricity, gas, and sewerage, and pays for leased facilities. BASOPS is "must fund" support that allows us to operate our installations—the posts, camps, stations, Army Reserve Centers, and Army National Guard armories—at a level necessary to sustain the day to day activities of the Army.

BASOPS also bears directly on our ability to improve training, particularly at home stations, for two reasons. First, adequate BASOPS funding reduces the need to shift, or "migrate," funds away from OPTEMPO accounts. When BASOPS accounts are underfunded, commanders are often forced to divert training dollars in order to provide essential services to soldiers and their families on the installations where they live and work. Second, BASOPS funds are used to support training costs not captured in OPTEMPO accounts, such as the use of installation transportation to move soldiers to training activities and the utilities needed to operate and maintain ranges and training facilities.

BASOPS not only supports training, it also directly affects the quality of life we provide for our soldiers and families. Commanders use BASOPS monies to fund installation services such as professional learning centers, gymnasiums, libraries, recreation centers, pools, automotive facilities, and craft centers. BASOPS also provides for financial counseling, the buildings used by family support groups, transition services, and relocation assistance, as well as payroll expenses for the people who provide these services. Because such services are essential to the Army's quality of life and community missions, underfunded BASOPS accounts force commanders to either curtail essential services or redirect resources from the training mission.

In short, BASOPS dollars are used to make military communities safe and desirable places to live and work. They also make it possible to operate military infrastructure needed for training. Taking care of the places where soldiers live, work, and train is a signal—comparable to the signal that we send when we raise their pay—that we recognize the importance of their service and the vital contribution they make to the Army and the Nation.

The fiscal year 2000 budget and accompanying proposal for the outyears fund BASOPS at 95 percent from fiscal years 2000 through 2005. This budget will improve essential readiness and quality of life by continuing the positive trend initiated by the fiscal year 1999 readiness supplemental, which increased BASOPS funding from the budgeted level of 84 percent to 91 percent.

In recent years commanders have also been challenged to maintain their infrastructure, a function resourced by the Real Property Maintenance (RPM) account. To measure the condition of its real property, the Army uses a system similar to the one we use to assess unit training readiness, an Installation Status Report similar to the Unit Status Report. Today, the Army's real property as a whole is assessed as C–3, or not fully mission capable. This rating reflects the backlog of facilities maintenance and repair that has accumulated over years of underfunding RPM. To get to C–1, a fully mission capable status, repairs and improvements to training facilities, maintenance facilities, community facilities, installation support facilities and railheads are needed. Coupled with the initiation of numerous Military Construction (MILCON) projects, increases in RPM funding will enable the Army to begin this infrastructure revitalization.

The fiscal year 2000 budget and outyears plan provide a substantial increase to RPM funding by increasing this account to 77 percent of requirements through fiscal year 2001, and to 90 percent for fiscal years 2002 through 2005. This compares favorably to fiscal years 1990 through 1997, when average RPM was only 56 percent of requirements. The increases in RPM funding contained in this budget proposal and the accompanying plan for the outyears will enable the Army to stem the deterioration of its facilities between fiscal years 2000 and 2002, and begin to reduce the maintenance backlog beginning in fiscal year 2003. This commitment to funding RPM will also alleviate the need to use training funds to repair infrastructure and to support quality of life programs.

ARMY MODERNIZATION

Although it depends heavily on funding in the outyears, the fiscal year 2000 budget request protects our modernization efforts in two ways. First, it stems the decreases in modernization funding that began in 1986 while providing for real increases during the outyears. Second, it provides sufficient funding in the OPTEMPO, BASOPS, and RPM accounts, which would otherwise turn the modernization account into the bill payer for current readiness requirements.

Modernization is the key to future readiness. The Army must continually transform to ensure we can accomplish current and potential future missions without knowing their exact nature. The unique challenge is to do this within expected fiscal limitations and without undue risk to the Army's people or the Nation's interests. The Army Modernization Plan is the Army's answer to meeting the challenge through its research, development and acquisition strategy. The products of the strategy are fielded systems that will provide the capabilities that we envision the Army will need to serve the Nation, while minimizing casualties, for the first part of the next century.

With this objective in mind, the five goals of the Army Modernization Plan are to: (1) digitize the force, (2) maintain combat overmatch, (3) sustain essential research and development (R&D) while focusing science and technology (S&T) on leap-ahead capabilities; (4) recapitalize the force, and (5) integrate the capabilities of the active and reserve components.

The Army's primary modernization goal is to achieve information dominance. Linking modern communications capabilities and computers within and among units, referred to as "digitization," will enable commanders, planners, and shooters to rapidly acquire and share information, and dramatically improve combat effectiveness. Digitization will increase situational awareness by allowing commanders from corps to platoon level to know where they and their forces are located, what condition they are in, and where the enemy is. This will enable commanders to seize the initiative, create opportunities, and maneuver their forces to achieve decisive outcomes, while minimizing casualties. The Army will digitize the 4th Infantry Division (Mechanized) by the end of fiscal year 2000 and the III Corps by the end of fiscal year 2004. The fiscal year 2000 budget supports this aspect of our transformation strategy.

We refer to the force with information dominance capabilities as Army XXI. It will be a hybrid force consisting of some current systems with added-on digitization capability and new "leap-ahead" systems with this capability embedded, such as the Comanche helicopter and the Crusader howitzer. In the future, using lessons learned from Joint and Army Warfighting Experiments, other advanced technologies will be leveraged to create a force, the Army After Next (AAN), with more leap-ahead systems, which will be needed to defeat threats that might emerge two to three decades hence.

Although the Army is currently unmatched in ground combat systems, we must continue to make improvements to our current force to ensure that combat overmatch, particularly as it relates to lethality and survivability, is maintained. Such improvements in combat effectiveness require periodic technology insertions through Preplanned Product Improvement (P^3I) programs. As we modernize, we must do so by brigade sets to preserve the capability to fight as combined arms teams at this level and to satisfy the requirements of the combatant commanders. P^3I programs provide a less expensive method to leverage technological innovations, while sustaining our industrial base, to ensure combat forces retain the overmatch to defeat any potential adversaries.

Maintaining combat overmatch requires continuing the research and development (R&D) necessary to insert new technologies into current systems and focusing our science and technology (S&T) efforts toward developing leap-ahead technologies. Army soldiers need high quality small arms, tanks, personnel carriers, artillery, air defense, engineer support, transportation assets, field hospitals, a substantial logistical train, and a host of other systems that enable them to survive and operate in hostile and diverse environments. These soldiers deserve the best we can afford when they are deployed in harm's way; it is toward this end that we direct the Nation's best scientific and technical talent.

Since fiscal constraints have forced us to defer the acquisition of most next-generation systems, we are focusing S&T, R&D, and the industrial base on identifying and developing leap-ahead systems that will eventually equip the Army After Next. The Army's investment in science and technology is our down payment on leap-ahead systems that will allow our children and grandchildren to effectively answer our Nation's call while manning the Army of the future.

Recapitalizing the force means replacing or refitting selected old systems to ensure they remain effective, safe, and affordable to operate and maintain. This can be achieved through individual system replacement, extended service programs (ESP), P^3I, depot rebuild, or technology insertion. The objective of this effort is to ensure mission essential systems do not exceed their refit, replace, or retire (R^3) points, a metric for determining when systems are no longer cost-effective to keep. Recapitalization is also important for maintaining an industrial capability to introduce leap-ahead technologies as they mature.

Modernization is often only associated with major weapon systems. Certainly, systems such as Comanche and Crusader will play dramatic roles in ensuring information dominance and demonstrating superior agility, and are therefore a mainstay of our modernization plan. In the short-term, however, we must modernize other systems through individual replacement just to recapitalize the force. For example, in the case of the venerable "deuce and a half," the 2½ ton utility truck that has been an Army icon since the 1960's, it is no longer economically viable or desirable to remanufacture systems. In cases such as this, we should field new systems such as the Family of Medium Tactical Vehicles (FMTV), which has far superior performance capabilities and will greatly reduce our operating and support costs. Fielding new systems with lower life cycle costs to replace our aging systems will enable us to save considerable taxpayer dollars over the long-term.

To ensure interoperability, new capabilities must be optimized across the Total Army. Accordingly, the Army will continue to modernize on a "first to fight" basis. From fiscal years 1992 through 1999, over $21.5 billion in new or serviceable equipment was provided to the reserve components, through a combination of both procurement and equipment cascading. Since we will fight as one integrated team, we must modernize the reserve component elements in accordance with their respective force packages, just as we do with active component units. The Army will ensure that deployable active and reserve component units are equipped with the latest equipment that we can provide and are fully interoperable with one another. This is particularly important with respect to digitization, which will provide the backbone of command, control and communications.

Meeting the goals of the Army Modernization Plan in a fiscally constrained environment presents a great challenge. Over the last ten years, Army modernization buying power has dropped 44 percent. In addition, the challenge of meeting increased mission requirements, while taking care of people, has forced us to accept risk in recent years by canceling or delaying modernization programs. Since 1987, we have terminated or restructured over 100 programs, and delayed many others.

Achieving our modernization goals will help us to field Army XXI and "set the conditions" for the transformation to the AAN, while retaining the capability to execute the National Military Strategy today. Deferring and delaying procurement programs make realizing all of our modernization goals over the long-term difficult. In addition, this creates a more immediate situation in which many of our forces do not have the latest generation of equipment. For example, many of our light forces such as the 25th Infantry Division and the 10th Mountain Division have yet to be equipped with the Javelin, which would provide a much-needed enhancement of their anti-tank capability.

A people-intensive force such as the Army, after providing for personnel and associated costs, has relatively few funds to devote to procurement. Given what amount to our fixed operating costs, and given the substantial investments we must make to enable the pursuit of advanced technologies, simply trading off between programs will not work. A sustained commitment to providing funding for the Army's modernization programs during the outyears is necessary to ensure the Army has what it needs to accomplish its missions without undue risk.

INTEGRATING THE ARMY COMPONENTS

Addressing Army challenges in a way that makes the most effective use of each of our components is one of our foremost objectives. Our motivation for improving integration is simple: with 54 percent of the Total Army in the reserve components and an increasing Army workload, both active and reserve components must contribute to the Army's role in ways that optimize their capabilities.

The Army White Paper One Team, One Fight, One Future provides a framework for modernizing and integrating the active and reserve components to this end. Strengthening integration means that each component will actively participate in determinations of how the Total Army can best employ assets and allocate funds so that the Nation gets the greatest return on its investment in the Army. As we examine how to optimize capabilities and strengthen relationships, we are applying

lessons learned from actual operations and carefully reviewing how to allocate forces to the full range of Army missions.

As a result of the expanded reserve component role in contingency operations and lessons learned from other missions, a number of other initiatives to foster seamless active-reserve relationships have received renewed attention. In addition to the Divisional Teaming pilot program mentioned above, we will be exploring new multi-component organizational designs to increase integration and enhance effectiveness. During fiscal year 1999, two integrated divisions, one at Fort Riley and one at Fort Carson, will be created. Each will be comprised of Army National Guard enhanced Separate Brigades (eSBs) under a division headquarters commanded by an active component Major General. This division headquarters will be responsible for the training, readiness, and mobilization of the division's eSBs. A plan for incorporating Army National Guard companies into active component light infantry battalions is also under study. As we explore new force mixes and new pairings of units, we will continue to balance new equipment fielding and distribution with evolving organizational concepts.

Two years ago, the Army National Guard Division Redesign Study (ADRS) recommended the conversion of approximately 48,000 personnel authorizations currently in Army National Guard combat force structure to provide required combat support and combat service support structure. Between fiscal years 2000 and 2005, the Army National Guard will convert six combat brigades (19,000 soldiers), with the balance of the conversion, six additional brigades, taking place by the end of fiscal year 2009. This conversion will provide combat support and combat service support force structure that will enhance the integrated capabilities of Army components.

The integration of reserve component personnel into the new heavy division structure is a major initiative for the Total Army. Along with a range of other initiatives, and operational realities, this is indicative of our mutual commitment to give the Nation the greatest return for its investment in the Total Army, and to strengthen the fabric of the Army and its ties to the Nation it serves.

ARMY EFFICIENCIES

The Army has realized, and continues to realize, substantial savings through aggressive efforts to increase its efficiency. With increasing requirements and decreasing resources, we must do all we can to help ourselves. Through such areas as infrastructure reduction, a range of logistics and contracting initiatives, and significant progress in numerous Defense Reform Initiatives (DRI), the Army plans to realize approximately $10 billion in savings during the budget year and the outyears. These savings will be used to help fund critical requirements. We will continue to expand our efforts to reap savings from efficiencies.

The closing of certain Army bases under the Base Realignment and Closure (BRAC) process has been a helpful source of efficiencies for the Army. The Army has already closed 102 of the 112 bases scheduled for closure within the United States, and has nearly completed all of the 667 bases scheduled for closure overseas. The Army BRAC program is now yielding more in savings than it costs to execute. Additional base closures will produce more cost-effective savings. Other infrastructure-related efficiency initiatives include privatizing utilities and housing at Army installations and eliminating unneeded buildings. In fiscal year 1998, the Army completed the seventh year of a Facilities Reduction Program that has divested more than 57 million square feet (MSF) of excess infrastructure. By the end of fiscal year 1999, we expect to have eliminated another seven MSF at a cost of $99.6 million in RPM. The Army supports future BRAC rounds that will enable it to reshape its infrastructure, streamline its installations, and reallocate scare resources to higher priorities, such as sustaining quality of life and modernizing the force.

In the logistics arena, the Army is pursuing a number of initiatives which offer potential savings of over $2 billion between fiscal years 1998 and 2003. The initiatives follow three strategies to achieve cost savings: inventory reduction through better management and faster delivery, demand reduction through increased component reliability, and cost reduction. Army Total Asset Visibility (ATAV) is an example of an initiative that is improving efficiency and joint warfighting capability. ATAV employs existing and emerging information technologies to furnish managers and leaders with information on the quantity, condition, and location of assets worldwide. The application of Radio Frequency technology, laser optics, and bar coding are enabling Army logisticians to monitor cargo movements, redirect crucial shipments, and locate critical supplies, even while in transit. Current capability provides visibility of more than three million types of equipment and supplies throughout the Army and the Department of Defense.

Over the last ten years, the Army has made great progress in increasing the efficiency of its business processes. Our implementation of the DRI has already yielded results which are reflected in the Future Years Defense Program (FYDP). In several areas, we are leading the Department of Defense's implementation of these initiatives. For example, the Army has the Department of Defense's highest usage rate (95 percent) of the Government Purchase Credit Card. We are also a leader in implementing "paperless contracting," and are scheduled to field the Standard Procurement Systems early next year. Overall, the Army has reduced its cost to contract per dollar obligated by over 50 percent in the last 14 years.

The Army has also been an aggressive advocate of outsourcing or privatizing when it will save taxpayer dollars without affecting the Army's ability to accomplish its missions. For example, the Residential Community Initiative (RCI), which privatizes the development, maintenance, and management of Army family housing, is an initiative that will allow the Army to focus on its core competencies while providing a better quality of life for its families at a lower cost. Just as warfighting experimentation allows the Army to get the most capability for the dollar, pilot projects such as RCI allow the Army to seek ways of getting a greater return on quality of life for the dollar. Other initiatives and DRI efforts, in areas such as the Revolution in Military Logistics, acquisition reform, A–76 cost competitions, and infrastructure management, have allowed the Army to achieve efficiencies that will continue to yield benefits in the years ahead.

SERVING THE NATION: TODAY AND TOMORROW

The Army is making a vital contribution to the National Military Strategy by ensuring peace and stability wherever American interests are at stake. While the Army promotes America and our way of life by exporting our values and ideals though its direct contact with many parts of the global community, it also remains ready to achieve decisive results through force if necessary. While the Army must continue to monitor and address factors that may affect its ability to serve the Nation, you can rest assured that your Army is on call, and will get the job done whenever and wherever necessary.

How do soldiers, many of whom until recently were young, inexperienced citizens, accomplish all that they do for the Nation? The answer is simple. America's Army has served America for over two centuries by developing and nurturing young Americans from all walks of life and turning them into professional warriors and caring ambassadors of goodwill. The Army is not only a great steward for the resources you provide us, but a great steward of the lives of America's sons and daughters. We can all be truly proud of our Army and what it produces on behalf of our Nation.

I am very pleased to represent the Army before you here today. I look forward to working with you to ensure that the Army remains an effective and efficient organization in its service to our country, and that it continues to represent the best that America has to offer.

Thank you, Mr. Chairman and Members of the Committee, for all you have done for the Army, and thank you for this opportunity to appear before you on behalf of the Army. I look forward to your questions.

STATEMENT OF GEN. DENNIS J. REIMER

Senator STEVENS. General.

General REIMER. Mr. Chairman, Senator Inouye, I first of all join the Secretary in expressing my thanks to you and the members of the committee for your great support of the Army in 1999. The supplemental that you passed initially, when you started the fiscal year, and supplemental that you are working on now have gone a long way to stabilize the Army. We deeply appreciate that, and on behalf of the million soldiers that serve in America's Army, I thank you.

I just simply say the challenge we face is very simple. It is: how do we keep the force trained and ready and at the same time conduct the most fundamental restructuring since the end of World War II, and do it in a constrained resource environment.

READINESS CHALLENGE

I would like to talk about each of those for a minute. The trained and ready piece is one we must measure against the National Military Strategy. Our National Military Strategy is based upon three pillars of shape, respond, and prepare, and we have about 30,000 soldiers on a daily basis doing that. They are in Bosnia, they are in Korea, and they are in other places, and so there is a lot of commitment in that area.

Fiscal year 1998 was a watershed year, because it focused us on the readiness problem. It was a readiness problem that did not surprise us, because we had been through 8 straight years of drawdown and reducing the force and 13 straight years of declining resources. So, the dialog that started in September of 1998 and has continued about the readiness of the force is a very important one.

MODERNIZATION CHALLENGE

In terms of restructuring the force, as you mentioned, we must continue modernization and, Mr. Chairman, you are right, we are committed to situational awareness and digitization of the battlefield. In that regard, the Force XXI Battle Command Brigade and Below is a tremendously important system, and we are working with your staff in order to make sure that we have a complete understanding of what we would like to do in that area.

We are committed to that. There is no turning back. We believe that situational awareness is the secret to success in the information age. So, we will stay committed to that and continue to work with the members of the committee so you are fully informed as to what we are trying to do.

RESOURCE CHALLENGE

In terms of constrained resources, and during the readiness discussion that took place in September of last year, I have continually said the Army is about $5 billion per year short. The budget that we have submitted to you starts to improve that, but it does not completely solve all of the problems. We are about $2.6 billion short from where I said we should be. With $5 billion per year, most of that is in modernization. There is some in near-term readiness, but it starts to make a sizeable commitment to improving the readiness, both the near-term and future readiness.

There is no secret, Mr. Chairman, to our success, and to our ability to meet the challenges that we face. It is people.

MANNING CHALLENGE

Senator Inouye, as you mentioned, I think the size and strength of the United States Army is terribly important. I think we are at the minimum right now, and we need to make sure that we continue to grow high quality leaders and make sure they are trained in information technology and in how to lead troops—the high quality soldiers that are a part of this Army and have been a part of our success for so many years.

Of course, as you mentioned also, this is a Total Army—Active, Guard, and Reserve, and I thank you for your kind comments about where we are today, but I would give most of the credit to

Generals Roger Shultz and Tom Plewes behind me, because they are the ones who have come in with an approach of doing what is right for the Nation, and we have done that, and I think we have got the momentum going. I am convinced that momentum will continue.

The most pressing challenge we face in the near term is: how do we get the right balance between recruiting, retaining, and attrition of our soldiers. Right now, our challenge is to be able to recruit. We are a little short in all components, in terms of our ability to recruit the soldiers.

Our retention is high. We are running higher than what we expected, and we established pretty high goals, but at the same time, our attrition is a little bit too high. So, we must get that balance right. We are working very hard on that. But that is the most pressing near-term readiness challenge we face.

The key to solving that challenge is the pay compensation package that is included in this budget. To be able to give our soldiers a little bit more pay, to fix their retirement system, and to reform the pay table is absolutely essential. We have to make that happen. Those soldiers are entitled to that compensation, and we need to press forward to make it happen.

During the last 30 days, I have had the opportunity to go around and visit the Army. I have been in the Pacific, I have been in Europe, and I have been in Southwest Asia. We have soldiers walking point in lonely and austere places, places like Albania, the Kabals in Southwest Asia, and the demilitarized zone (DMZ). They are doing a wonderful job of representing not only the United States Army, but the United States of America. Those are the soldiers who really are our credentials, and that is what this hearing is all about as far as I am concerned.

PREPARED STATEMENT

If I could conclude with just a personal note of thanks, and to tell you and all the members of the committee, Senator Cochran and everybody else, how much I appreciate the great support of this committee. You and your staff have been absolutely great to work with. Every time we were in a bind, we would come to you and we could discuss it and you would help. So as I leave, I want to express my heartfelt thanks to all of you for the great support you have provided America's soldiers. God bless you for that.

I look forward to your questions.

[The statement follows:]

PREPARED STATEMENT OF GENERAL DENNIS J. REIMER

It is an honor to testify before you on this historic occasion as we prepare the Army's first budget of the next century—the beginning of the next one hundred years of providing for the security of the American people. We are at a significant turning point. This is without question a year of transition. In 1998, we saw the convergence of two axes, 8 years of drawing down the force and 13 years of straight decline in real buying power. These are trend lines that can no longer continue if we are going to maintain the trained and ready Army our Nation requires. We must chart a new direction. Today we are poised for the future. We have an opportunity, with the leadership of the Administration and the Congress, to set the right course for what must be done in the years ahead. The fiscal year 2000 budget is our down payment on the Army America needs for the 21st century.

In my remarks today, I will update you on the state of America's Army, assessing both our preparedness to support the Nation and the risks we face in ensuring both current and future readiness.

First, I want to again thank Congress for their support over my tenure as the Army Chief of Staff. In previous years you have supplemented our annual budget request, funding key unfinanced requirements that have significantly improved our ability to maintain a trained and ready force. In particular, we are thankful for the supplemental funding to the fiscal year 1999 budget which included, for the Army, about $1.4 billion for contingency operations and $375 million that directly addressed our most pressing near-term readiness issues.

The supplemental funding was much needed and deeply appreciated. As I testified before you during the hearings on the fiscal year 1999 budget, in our efforts to ensure readiness for both today and tomorrow, and given the resources we had to work with, we balanced our investments as carefully as we could. Providing for current readiness meant funding the force so that our soldiers were trained and ready to take on any mission they might be assigned today. Future readiness required preparing now so that we will have the capabilities needed to meet the missions we foresee in the years ahead. To achieve both, we stretched our resources as far they could go. We programmed efficiencies to get the very most out of every dollar given to us. We also built a budget without "shock absorbers," where any shift, adding resources in one area, could only be achieved at the detriment of providing for other equally vital areas. The fiscal year 1999 budget was as "finely tuned" as we could possibly make it, distributing resources in a manner that dispersed risk prudently.

The events of the last year quickly upset our delicate balancing act. The pace at which we used land forces reflected an increasing operations tempo (OPTEMPO) for Active and Reserve units and proved higher than expected. The continuing mission in Bosnia, conducting domestic operations in response to floods and other natural disasters, preparing for the Kosovo Diplomatic Observer Mission, providing forces to reinforce our presence in Southwest Asia, and responding to aid countries in Central America in the wake of Hurricane Mitch all added to the already high global demand for American ground forces. Meanwhile at their home stations, commanders were forced to use funds allocated for training to address the chronic underfunding of our installations and quality of life programs that take care of our soldiers and families. Finally, recruiting became an increasingly greater challenge as the Army found itself in fierce competition with the other services and the commercial sector for quality young men and women. Together, these pressures significantly affected near-term preparedness. Though we had assumed some risk in current readiness to increase modernization funding, the readiness trend lines were declining faster and more precipitously than we could accept if we were to be true to our mission of executing the National Military Strategy and avoid becoming a "hollow" Army.

The supplemental funding Congress provided to the fiscal year 1999 budget significantly contributed to addressing our most pressing and immediate concerns. As a result, we are still recruiting and retaining great soldiers. They are well supported and superbly trained. In short, the additional funds, while not solving all our problems, provided a timely boost to near-term readiness. Again, on behalf of all the soldiers and families of America's Army, I thank you for your prompt and concerted effort in this particular area.

ARMY'S CHALLENGE

The fiscal year 1999 supplemental, while helpful and greatly appreciated, does not meet our total requirements. Preparing America's Army for the 21st century cannot be adequately addressed in one year or one budget. We have to think for the long term, making the right choices today so that in the future we have the flexibility to pick the best options on how to preserve the Nation's place in a free and prosperous world. In my testimony today, I want to focus primarily on the future—the Army's challenge. I describe this challenge as "being able to remain trained and ready, while conducting the most fundamental transformation since the end of World War II, in an era of constrained resources." To place the Army's proposed fiscal year 2000 budget in perspective, I would like to look briefly at each component of the Army challenge.

TRAINED AND READY FOR WHAT?

First, we insist that the Army must be trained and ready, but as I have testified before, I think we must ask, "trained and ready for what?" Fundamentally, the mission of America's Army has not changed. No one stated it better than General Douglas MacArthur when he said, "through all this welter of change and development your mission remains fixed, determined, inviolable. It is to win our wars." His words

are as relevant today as they were when he spoke them to the cadets at West Point in 1962. Arguments that we do not need to prepare for conventional wars in the future simply lack credibility. Though the United States is the world's preeminent military power, as the 1991 Gulf War demonstrated, we should never assume our forces will always go unchallenged or that we can predict with certainty where and when we will have to fight. Whatever the military does, it must be prepared to win our Nation's wars.

We know, however, that there is more to winning wars and securing a peaceful, stable world than winning battles. There are other tasks, equally important for ensuring the security of the United States, including deterring potential enemies, supporting domestic authorities, defending the homeland, addressing the conditions that might lead to war or helping nations recover from hardships and conflict, preempting future wars. Before the fall of the Berlin Wall, containing Soviet power defined the Army's primary tasks. The Soviet threat provided a simple and clear standard for measuring the readiness of American forces. Today, our tasks differ from what we performed during the Cold War. The United States has moved beyond containment with a new strategic approach that emphasizes global leadership and continuous, meaningful engagement in world affairs. This profound change is reflected in our National Military Strategy which requires us to "shape, respond and prepare." We conduct operations to "shape" the international environment. At the same time, the Army must be ready to "respond" to crisis worldwide. Finally, we must prepare now for the security tasks and challenges we will face in the future. Today, we must measure readiness against all the Nation's diverse strategic requirements for land forces.

You do not have to go much further than a newspaper to gain a sense of what is required for current readiness. I remember vividly last fall, when over the span of a few weeks each day's headlines and evening broadcasts carried an important story about America's Army:

—The President standing with U.S. soldiers in South Korea reminding us that a North Korea undeterred, if it chose to, could seriously threaten Asia's peace and security;

—Soldiers in Bosnia and Macedonia, working, on the ground, seeking to preserve stability and prevent a regional crisis;

—Across Central America, U.S. soldiers joining in an international effort responding to the devastation left in the wake of Hurricane Mitch; and

—In Southwest Asia, soldiers supporting Operation Desert Fox, keeping the pressure on Saddam Hussein.

These headlines reflected different dangers on different parts of the globe, but together they illustrate the wide range of tasks our Nation expects the Army to perform well—deterring potential enemies, reassuring friends and allies, and fostering regional peace and stability. In short, these events demonstrate powerfully that measuring and maintaining readiness today is much more complex and challenging than during the Cold War.

Regardless of the diversity of requirements, readiness is and must always remain non-negotiable. We must never place soldiers in harm's way without thoroughly preparing them for the missions they have been assigned. This imperative remains at the forefront of the Army challenge.

FUNDAMENTAL CHANGE

Fundamentally transforming the Army is the second component of our challenge. As we "shape" and "respond" today, we are changing from a Cold War force to an Army prepared to conduct military operations in the 21st century—fulfilling the requirements of the third pillar of our National Military Strategy, preparing now for the future. To accomplish this task the Army has a disciplined, deliberate change process to prepare ourselves for the challenges ahead. Our process is called Force XXI. The term reflects our commitment to providing the Nation the right land forces for the 21st century. The Force XXI process incorporates a number of wide-ranging, but integrated, activities including research, field trials, wargaming, computer-assisted analysis and simulations, strategic management, leadership development, training and force modernization programs, all focused on providing for the synchronized development of future landpower. Based on a decade of practical experience and extensive study and experimentation, we have adjusted and refined this process, using it to develop the capabilities we need to keep pace with the Nation's evolving strategic needs. Force XXI has served us well over the years, and it will continue to provide a disciplined and effective framework to guide us in the years to come.

Throughout our implementation of the Force XXI process, we have always stressed that the most important thing is that we change at the right pace. If we have learned one thing from our post-Cold War experience, it is that we cannot wish ourselves into the future. We must force change, but change, particularly concerning something as serious as the security of the Nation, takes time and must improve our capabilities to respond to future challenges. Revolutions in military affairs do not occur as quickly or dramatically as history books might suggest. Even in modern times, profound change has taken decades or sometimes even a generation. A true revolution in military affairs is more than simply "dressing-up" the current force with high-tech weaponry. It requires advancing all the Army's capabilities: equipment, doctrine, force mix, training, leadership and quality soldiers. It does us no good to have new weapons without quality soldiers trained to use them, the doctrine to employ them or the organizations to support them. We have to develop all our capabilities in a synchronized manner—and that takes time and resources.

While we change, we must continually provide trained and ready forces that are needed every day to support the Nation's strategic requirements. The world permits no "time-outs" in preparing for the future. There has been over a 300 percent increase in the tempo at which we use ground forces since the end of the Cold War. We do not expect that pace to slow appreciably in the years ahead. So, we must be prepared to develop future capabilities and, at the same time, be ever ready to place our soldiers in harm's way with the absolute confidence that we have done everything required to best prepare them for the job. That is the second component of the Army's challenge.

AN ERA OF CONSTRAINED RESOURCES

The third component of the Army's challenge is ensuring both current and future readiness in an era of constrained resources. Since 1989, reductions in defense spending have provided a significant "peace dividend." More than a decade of decreased defense spending has resulted in more than $750 billion in savings that has helped energize the economy and turn the budget deficit into a surplus for the first time in thirty years. Proportionally, we spend far less on defense today than we have in our recent history. In fact, the total budget for the Department of Defense accounts for less than three percent of the Gross Domestic Product, the lowest level of spending on defense since before Pearl Harbor.

The fiscal year 1999 budget capped 13 years of straight decline in real buying power for the U.S. Army. That has required us to manage our resources very carefully. The Army adjusted to the fiscal realities of the post-Cold War's first decade by significantly reducing our force (by almost 700,000 Active, U.S. Army Reserve and Army National Guard soldiers and Department of the Army civilians) and closing or realigning bases (more than 700 total in the United States and overseas). We have improved our business practices and programmed efficiencies over the Future Year Defense Plan (FYDP). Most important, the Army had to undertake a prolonged "procurement holiday." Since 1985, Army procurement in real terms has dropped 67 percent. The Army has terminated or restructured over 100 programs since 1987. We deferred and stretched modernization programs and research and development to ensure we maintained minimum essential near-term readiness and the trained and ready forces that have served the Nation so well over the last decade.

Today, however, we are at the point where we can no longer delay investments in future readiness. Our equipment is getting older and the Quadrennial Defense Review reductions for the total force represent the minimum level forces required at this time. If we want to maintain our ability to provide forces with dominating combat power and minimize the risk of casualties, we must ensure that our smaller forces have superior capabilities. Quality has a quantity all its own. Maintaining our strategic edge requires we provide our soldiers the best equipment available.

Our Force XXI process is a proven concept. Our Advanced Warfighting Experiments (AWEs) have demonstrated, under realistic, stressful test and operational conditions, real world capabilities that we can field right now to harness the potential of information age warfare. Our Army After Next wargames have also begun to identify the future capabilities that we must begin developing today. These two efforts provide a roadmap that is focusing the procurement and research and development required to prepare the Army for the 21st century. The results of Force XXI efforts also remind us that we must start investing in the future now or risk losing our dominant advantage in conducting prompt and sustained land operations.

To prepare for future readiness now, we remain concerned about several pressing modernization shortfalls: the pace of replacing aging equipment, modernizing the Army's Reserve component, implementing our Force XXI digitization initiatives, and

procuring next generation munitions and combat systems. The longer we delay these key modernization efforts, the greater risk the force assumes.

As I testified before you last year, to meet this third component of the Army challenge we assumed more risk in the near-term. We made a deliberate effort to shift resources into modernizing the force. This conscious decision placed even greater strains on the conduct of current operations. It was, however, an investment that we had to make to meet our commitments to the soldiers of the next generation.

Wisely balancing scarce resources, remaining trained and ready, and changing at the right pace are the taproot of the Army's challenge for the dawn of the 21st century. We have crafted the Army's proposed budget for fiscal year 2000 to address these difficult, but vital tasks.

POISED FOR THE FUTURE

Today, we are an Army poised for the future, because we know what must be done to meet the Army's challenges. We have built the Army's budget on a decade of living in the post-Cold War world—a decade of practical experience in using military force to ensure peace while promoting prosperity, freedom and justice, and, through Force XXI, a decade of groundbreaking experimentation and thoughtful reflection about how to best support and defend our country in the decades ahead. We have seen what works and what does not. We have learned, not only what to change and what not to change, but how to change. Today, we are putting this knowledge into action.

THE ARMY IS PEOPLE

The greatest and enduring lesson of our past is that people are the single most important element of any successful force. As I have said, our approach to meeting the Army challenge has been to balance risk, but one area in which we cannot compromise is ensuring the quality of our force. Quality people remain the foundation of a world class Army.

Recruiting efforts over the last year have demonstrated mixed results. Our recruiting for the Active force was difficult, but relatively successful. We came very close to meeting our recruiting goals for the year and the indicators of quality remained very high. On the other hand, the United States Army Reserve fell 3,700 recruits short, while the Army National Guard missed its quantity goals by about 1,200. These results and current indicators suggest the year ahead will be another tough one for recruiters.

Recruiting remains a continuing challenge. A strong economy and a declining propensity to serve make the job of recruiting soldiers tougher each year. This challenge is exacerbated by the fact that the cost of recruiting each individual soldier has doubled since 1986 from $5,300 to more than $10,000 today. For the first quarter of fiscal year 1999, the Active component missed its recruiting goal by 2,400. Over the last few months, I have visited our recruiters around the country from Houston, Texas, to Queens in New York City. We have an incredibly dedicated, innovative, and professional corps of Army recruiters, and we are doing everything we can to give them the tools they need to do their job, but they still face a challenging year ahead.

We are also continuing to closely monitor retention in the force. Throughout fiscal year 1998, the primary measures we use to track retention remained strong. Over the Christmas holidays, I visited our soldiers in Bosnia. They are outstanding representatives of today's Army. They are selfless and enthusiastic. In fact, we are finding that units serving in Bosnia typically lead the Army in reenlistment rates. The hopes and aspirations of the young men and women I talked to are representative of how all our soldiers feel. They ask for little and give much. They want to be challenged. They want tough, realistic training and a chance to do the job for which they've been trained. They want to continue to serve. In return, all they ask is adequate compensation for their service and sacrifice and a reasonable quality of life for themselves and their families.

We must be vigilant in ensuring our ability to recruit and retain quality soldiers. Anecdotal evidence suggests that the repeated and prolonged deployments overseas and concerns over the future are beginning to take their toll on the force. Our soldiers are deeply concerned about pay and compensation issues. They perceive that there is a gap between civilian and military pay. Service member pay raises have been capped below the Employment Cost Index for 12 of the last 16 years. Our soldiers are becoming more and more vocal that their compensation is not keeping pace with their civilian counterparts.

Further, many soldiers are concerned about the reduced retirement benefits they will receive under the Military Retirement Reform Act of 1986 (Redux). Since 1992,

satisfaction with retirement benefits has fallen from 61.8 percent to 39 percent for officers and 44.8 percent to 28.1 percent for enlisted soldiers. The value of the retirements benefit package we have offered soldiers entering the Army since 1986 is worth 25 percent less than under previous systems.

To address the serious concerns of our soldiers, the Administration has proposed a compensation "triad." This triad includes a substantial pay raise for fiscal year 2000, a return to a system of 20-year retirement at 50 percent of base pay for soldiers currently under the Redux plan, and a reform of current pay scales to increase base pay for our noncommissioned officers and mid-grade commissioned officers. Recruiters tell me that increased pay and retirement will help them make the case with young men and women looking for an attractive career option. When I talked with our soldiers in Bosnia, they were equally enthusiastic. Make no mistake, our men and women would see passage of these initiatives as a powerful statement that their service and sacrifice is recognized and appreciated. If possible, Congressional approval of a compensation package as quickly as possible would send an important, clear and unmistakable signal to those who serve the Nation. It is not a question of making anybody rich. It is about making a statement that we recognize what they have done—and we truly care.

REDUCING RISKS IN THE NEAR AND LONG TERM

While we cannot accept a degradation in the quality of our people, we also recognize that we must carefully evaluate and manage risks in operating the force. Risks reflect our measure of confidence in supporting the Nation's strategic needs and minimizing causalities in the conduct of operations. I would like to review my most serious concerns for both near- and long-term readiness and how we are working to mitigate these risks as much as possible.

PROTECTING TRAINING

With regard to current readiness, ensuring tough, realistic training is our best hedge against risk. The Army's Combat Training Centers (CTCs) remain the best training grounds in the world. Over the years we have expanded the capabilities to train at the CTCs, increasing the opportunities to conduct brigade level training and enhancing live-fire training. As a result, today the CTCs produce confident, skilled leaders and combat ready, cohesive units for the Active and Reserve forces. In addition to ensuring combat readiness, we have used the CTCs to prepare units for a wide-range of other military missions enroute to their operational theaters. The success of our soldiers in Bosnia is directly related to the rehearsal training they conduct at the CTCs before deployment. While the quality of the CTC experience remains superior, we have seen over the last year that the entry level proficiency of units, at the company, battalion and brigade level, is not as high as in the past. This is the result of decreased collective training at home station. Ensuring adequate resources to support home station training for both our Active and Reserve component forces will significantly enhance the CTC training experience and improve the Army's near-term readiness to support the full range of military missions.

Ensuring adequate home station training requires balanced and sufficient resources for training, base operations (BASOPS), and real property maintenance (RPM) accounts. In recent years, funding for BASOPS and RPM has been insufficient to run our installations in a way that provides our soldiers and families with an adequate quality of life. We have had to assume increased risk in these accounts for several years to protect essential training. Now, however, services and facilities are deteriorating to the point that we can no longer take care of our people and meet their expectations for an adequate quality of life. As a result, our commanders have been forced to migrate funds from training accounts to BASOPS. The fiscal year 1999 supplemental allowed us to increase BASOPS funding. The fiscal year 2000 budget increases funding for BASOPS to 95 percent of the requirement. These additional resources will help significantly to reduce the migration of funds, thereby protecting training and enhancing quality of life—that means improved readiness. The needs of our installations, however, cannot be solved in one or two years of funding increases. Plus-ups have helped stem the deterioration of installations, but now we have to rebuild, revitalizing our facilities and quality of life initiatives. We must continue to provide adequate funding in the right balance for training, BASOPS, and RPM.

In addition, prompt funding for contingency operations is also critically important. Until funding for these operations is forthcoming, we must reprogram funds from other accounts. As a result, planned training, maintenance, and repairs have to be deferred, disrupting commanders' training plans and sustainment programs. We must fund contingency operations promptly, giving commanders in the field ade-

quate and dependable resources so that they can make the best and most efficient use of their assets.

USING THE TOTAL FORCE

Reducing risks also requires getting the most out of all our forces. The United States Army Reserve and the Army National Guard comprise 54 percent of the Army. We simply cannot conduct any mission without the contributions of the Total Force. We cannot, however, simply transfer the high OPTEMPO of the Active force to the Reserve components. Rather, we have to make the best use out of the unique capabilities and attributes of each part of the force.

In the past year, we have made tremendous progress in seeking innovative ways to efficiently combine the assets of all our components. One important initiative is "Divisional Teaming," a pilot program that will pair selected Active and National Guard combat divisions. This is necessary to address the force structure/requirements mis-match associated between a force designed to fight the Cold War and one that can support the National Military Strategy. Under the Divisional Teaming concept, partnered divisions will conduct leadership exchanges, joint planning, training, and readiness assessments. They will refine and practice their teaming skills through deployments at the Army's National Training Center at Fort Irwin, California, and the Joint Readiness Training Center at Fort Polk, Louisiana. When called upon to support operational requirements, the divisions will team their resources for rapid response. The Active division will take the lead in global crisis response. The Army National Guard Division will augment and assist its partnered command, speeding deployment of the Active division and then conducting its own follow-on, post-mobilization preparations. In domestic emergencies, the Active division will be prepared to reinforce the Army National Guard division's lead. Through this partnership, both units will benefit, and the Army will improve its capability to respond to every military operation.

Last year, we announced that the Army National Guard's 49th Armored Division, headquartered in Austin, Texas, will deploy to Bosnia, providing the command and control for Army units participating in Joint Endeavor. The 49th Armored Division, paired with the 1st Cavalry Division at Fort Hood, Texas, will form the first Divisional Team. Supporting the Bosnia mission will give us the first opportunity to evaluate the full potential of the Divisional Teaming relationship. While the 1st Cavalry Division uses its experience from serving in Bosnia to help prepare the 49th Armored Division for its mission, Active forces of the 1st Cavalry will also be available to help provide the domestic response and assistance the 49th Division normally furnishes to its home state. As the two divisions work together to prepare for and execute the Bosnia mission, they will lay the groundwork for creating an enduring division-to-division relationship and establish the framework for effective Divisional Teaming.

Divisional Teaming is just one example of the many Active-Reserve initiatives that are creating "win-win" opportunities for all the Army components. It is also a powerful demonstration that today's force is becoming much different from the Cold War Army. We are "broadening the base" to better meet the diverse needs of the National Military Strategy with a smaller force. At the same time, we are trying to build more "predictability" into the systems so we can better employ our Reserve component forces.

THE STRIKE FORCE

Reducing risks to future readiness also requires making the right targeted investments now, not just in new equipment, but in the right organizations, training methods, doctrine, leadership and personnel development programs. One of the most important of our future-oriented initiatives is the upcoming Army Strike Force experiments with the 2nd Armored Cavalry Regiment at Fort Polk, Louisiana.

Today, we know that our land forces are applicable to a wide-range of critical security tasks. Unit for unit, our forces are more lethal, more versatile and can deploy faster than at any time in our Nation's history. In qualitative terms, their capabilities are unmatched by any army, anywhere else in the world. In addition, we are well on our way to developing the future-oriented capabilities that incorporate new path-breaking technologies and prepare us for the 21st century's security challenges. We have the range of capabilities we need—and they are improving year by year. What we must do now is enhance our ability to adapt them to each strategic requirement. The solution for best harnessing the full potential of landpower is to embed the element of adaptability into our forces, maximizing our capacity to provide just the right combination of forces for each unique strategic requirement.

Today, when we are faced with unique contingency requirements that fall in the gap between what can be provided by the rapid response of our light forces and the tremendous combat power of our heavy forces, we must deploy multiple divisions (a heavy/light mix) or create an ad hoc task force. This enormously complicates the challenge of deploying, controlling and sustaining forces.

In addition to meeting the challenge of providing the right mix of force for conventional operations, we also are increasingly concerned about our ability to tailor our forces to deal with other emerging threats. We must be concerned that:

—Potential foes are far more likely to seek out asymmetrical responses, avoiding our strengths and attacking our vulnerabilities.

—The proliferation of weapons of mass destruction—chemical, biological and nuclear arms that can hold both military forces and civilian populations hostage—will continue.

—Enemies may chose to attack our homeland, as well as threaten our forces abroad.

—Hostile powers may attempt to expand the realms of conflict into both space and "cyberspace."

—Our military forces, designed for conflicts between nation-states, are less suited for dealing with emerging transnational threats whose power, influence and interests transcend borders.

—The pace of urbanization across the globe is a growing issue for military operations. When conflict moves to the cities, the cost in human terms rises dramatically and radically alters how we must fight and what tools we can bring to bear.

We must be able to mix and match the capabilities of our ground forces to meet these threats.

Under the Strike Force concept, we will develop a system that allows us to draw just the precise capabilities we need for a given mission and integrate them into an efficient organization that can project power quickly and conduct effective early entry contingency operations. For example, a theater commander might be faced with the difficult task of seizing an airfield and then defending it against a combination of conventional forces, terrorist threats, and weapons of mass destruction. The Army's 82d Airborne Division from Fort Bragg, North Carolina, is the world-class expert in taking down airfields, but it doesn't have the firepower and resources to hold off a combination of conventional and asymmetrical threats. This mission requires a unit that can bridge the capabilities provided by our heavy and light forces. The Strike Force could incorporate 82d Airborne elements to seize the airfield; urban warfare specialists from the 10th Mountain Division to guard the urbanized avenue of approach to the airstrips; a slice of heavy fire support and army aviation to defeat conventional forces; and teams of experts from Special Operations Forces, the Army Reserve and Army National Guard to counter terrorist, chemical and biological warfare threats. Not only would the Strike Force headquarters control these assets, but it would also serve as a focal point for integrating the other joint capabilities that the force would need for the mission.

The key to the Strike Force concept will be the command and control capabilities we embed in the 2nd Armored Cavalry Regiment. We will start by making the Strike Force the Army's premier operational headquarters, incorporating lessons learned from Advanced Warfighting Experiments and emphasizing the knowledge, speed, and power achieved through information dominance. The force's command and control will provide the core around which we can task organize an array of Army capabilities as missions require and provide the linkages to quickly integrate the right set of joint capabilities. Tactical operations, logistical support, planning, joint coordination, liaison, and rehearsals will all be facilitated by the rapid exchange of high volumes of accurate, timely, relevant information made possible by transforming the regiment into a unique knowledge-based organization. We will combine the best information-age technology with the most robust and versatile command and control systems available to create an unmatched capacity to collect, understand, and distribute information. The regiment will become, in effect, a "receptacle" headquarters into which we can "plug-in" the potentially wide range of capabilities we need.

As we develop the Strike Force it will provide:

—Just the right force mix for a contingency operation, making the most efficient use of our existing capabilities.

—An early entry force that can be deployed rapidly.

—The means to more effectively tailor forces for each mission.

—Improved links to joint forces, and supporting governmental and non-governmental agencies.

—The capability to better deal with emerging threats such as urban warfare, Weapons of Mass Destruction and ballistic missiles.
—A test bed for experimenting with the capabilities we need for the Army After Next, developing both the human dimension and the technology we will require in the future force.

The Strike Force will give us a real world capability today, and with our other Force XXI efforts, will help reduce risk because it allows us to get the most out of today's force. More important, these efforts are also serving as our test bed for developing the kinds of leaders, organizations and capabilities we will need in the Army After Next. By beginning to identify and develop today the capabilities we require to deal with future security challenges, we reduce risks to long-term readiness as well.

Together our teaming and Strike Force concepts will enhance current readiness and provide the basis for the Army After Next (AAN) force—a force designed for the information-age and indispensable to the needs of the Nation. It will be a truly "seamless" force (Active, United States Army Reserve and Army National Guard) which will continue the great tradition of selfless service to the Nation.

A DOWN PAYMENT ON THE FUTURE

We do not have the resources to do everything that must be done. Despite our best efforts to mitigate risks through balanced investments, efficiencies and innovative practices and capabilities, concerns remain. I have quantified our readiness risk before Congress as about $5 billion each year over the course of the FYDP, not including requirements for increasing compensation, fixing the retirement system, and funding contingency operations.

The fiscal year 2000 budget makes a significant down payment on the future. In particular, it addresses many of our most serious concerns in near term readiness and allows us to continue to transform the Army through the initiatives of our Force XXI process.

There is, however, much work still to be done. It will take us more than one year to prepare for the future. In particular, while the President's fiscal year 2000 budget proposal addresses many of the concerns associated with training and readiness, it is only a down payment on the resources needed to fund modernization programs to the level required to assure future readiness.

I look forward to discussing these issues with you. With the leadership of the Administration and the Congress, I am confident we can make the right steps toward building the Army our Nation will need in the 21st century.

A STATEMENT ON THE POSTURE OF THE UNITED STATES ARMY, FISCAL YEAR 2000

EDITOR'S NOTE.—This text of the fiscal year 2000 Army Posture Statement has been converted from its original publication software to support Congressional Committee publishing requirements. The pictures and charts that accompanied the original text have therefore been omitted from this version. The pagination is also different from that indicated in the Table of Contents. The original document may be viewed on the internet at http://www.army.mil until February 2000. Limited numbers of hard copies are available from the editor of the Army Posture Statement at (703) 695–9913.

FOREWORD

America's Army is transforming itself in accordance with the National Military Strategy to a force that measures its readiness not only by its preeminent mission—to fight and win our Nation's wars—but also by its readiness to meet the challenges of preserving peace and countering emerging threats. The transformation has stretched the Army from a force oriented on responding to the dangers of the Cold War to a force capable of shaping the international environment, responding to crises that challenge U.S. security interests, and preparing for a range of threats and opportunities. The Army has attained an unprecedented achievement by meeting the continuous demands of current readiness while adjusting its focus and structure in significant ways. Despite the toll this transformation and increasing requirements have taken on our people, equipment and systems, the Army is proud of its central role in U.S. engagement around the world.

The Army's challenge is to take care of our people while meeting near-term readiness demands and preparing for the requirements of future readiness. To assure we can accomplish future missions, leveraging information technology to revolutionize military operations over the next ten to fifteen years is a key priority. We remain

committed to providing the American people the most readiness for the resources provided. Accordingly, we continue to focus on and support more efficient ways of doing business, such as the Defense Reform Initiatives. In conjunction with these efforts, America's role as a global leader makes it vital to fund the Army at a level commensurate with the requirements of the world's preeminent land combat force.

EXECUTIVE SUMMARY

"I do not know when or where, but we will sometime place soldiers in harm's way, on short notice and ask them to defeat a determined and dangerous foe. When that happens, we should be satisfied that we have done our best to prepare them for the task at hand." General Dennis J. Reimer, CSA

America's Army is the most potent land combat force in the world. The Army is indispensable to the protection and furtherance of our national interests because it has greater utility across the full range of contingencies than other types of military force. This utility comes from Army capabilities for executing a broad range of operations from nation building and disaster relief to defeating enemies on the battlefield. Generating and sustaining these capabilities over time requires a deliberate, complex process involving people, readiness, and modernization. The Army's challenge in recent years has been to take care of people, keep the force trained and ready, and simultaneously continue the most fundamental institutional change since World War II. Meeting this challenge with constrained resources has stretched the fabric of America's Army. We are committed to be as efficient as we can, continuing robust efforts to move forward on the Army's part of the Defense Department's Defense Reform Initiatives and the Revolution in Business Affairs. The fiscal year 1999 supplemental funding measure approved by Congress and the President's fiscal year 2000 Budget support our efforts, and address many of our most pressing readiness concerns.

The Geostrategic Environment and National Military Strategy

Changes to the National Military Strategy (NMS) in response to the geostrategic environment have driven the Army's transition since the final years of the Cold War. The containment strategy of the previous era demanded an Army focused on the Soviet threat. The U.S. Army maintained a higher level of forward presence overseas than it does today, and training was based largely on countering predictable Soviet doctrine. Increasing instability in some regions made the need for engagement evident even before the Soviet Union's demise. However, the end of the Cold War's bipolar stability allowed a more rapid emergence of regional instabilities and transnational challenges, such as terrorism, aggressive behavior by rogue states seeking power and resources, and the proliferation of weapons of mass destruction. These threats are much less predictable, and, consequently, the United States may face some combination of them at any time. The diverse nature of these emergent threats fostered a new strategy for using America's global leadership to make the world a safer place. By mitigating potential threats through shaping operations, countering actual threats and responding to crises, and preparing for future threats, the new military strategy seeks to promote global stability. As a result of the geostrategic environment and the NMS, the Army is transforming itself to a force based on capabilities needed for shaping and responding, while at the same time preparing for the future.

The Army's most fundamental capability is the exercise of sustained, comprehensive control over people, land, and natural resources. Putting American soldiers on the ground is the most effective method to shape the international environment in ways favorable to our interests. Army shaping activities are executed face-to-face and one-on-one with the armies and people of other nations. Such interaction has a lasting and positive effect that simply cannot be achieved through less direct engagement. Putting American soldiers on the ground is the most credible response to potential aggressors and to those who would exploit instability for their own ends. It is also the most tangible evidence of the nation's commitment to both allies and adversaries. Bombs and missiles can destroy selected targets and temporarily deny control of terrain, but they cannot provide the presence required to compel compliance with the rule of law and the processes of peace. Maintaining the capability to project and employ land power in the information age is essential to protecting the nation's interests against the diverse threats likely to emerge in an uncertain future.

Even as changes in environment and strategy have increased the frequency with which the Army is employed worldwide, social and economic factors created pressure for reducing defense spending. The Army has transitioned to a force about one-third smaller than it was in 1989 and has capitalized on the end of Cold War con-

tainment to shift many forces from overseas bases back to the continental United States (CONUS). The Army has sought increased efficiency in its operational and business practices to meet today's more frequent demands for American presence with a smaller force and budget. Exploiting the potential of information technology, enhancing the integration of active and reserve component forces, and implementing a broad set of defense reforms and Army initiatives are among the avenues by which the Army is becoming a more effective and efficient force.

Much leaner than it was ten years ago, the Army nonetheless finds itself almost continuously engaged at home and abroad. More than 60 percent of the people participating in 32 of the 36 major military deployments since 1989 have been soldiers, yet the Army receives only 25 percent of the defense budget. Proud of its central role in the execution of the National Military Strategy, the Army can continue to execute this strategy with acceptable risk if provided with sufficient resources. However, the resource constraints of the past fourteen years, coupled with the high pace of operations, have severely stretched the fabric of the Army. While we remain ready today to play the central role in the National Military Strategy, adverse trends in recruiting and retention (people), readiness, and modernization must be countered to assure sustained readiness for today and into the 21st century. The fiscal year 1999 supplemental and the increase in Army Total Obligation Authority (TOA) in the fiscal year 2000 Budget and outyear spending plan are helpful and are being applied to improve readiness. These funding increases will address many of the concerns expressed by Army and other Department of Defense leaders by demonstrating our commitment to take care of our people and to enhance near-term readiness. Modernization needs are being addressed by holding investments at roughly the same levels forecasted in last year's President's Budget with the expectation of growth in the outyears.

Last year, the Army identified the need for an annual increase of $5 billion over the fiscal year 1999 Budget in addition to increases required for contingency operations, pay increases and reform of military retirement. The President's fiscal year 2000 Budget sends a strong signal of support and concern for the welfare of our soldiers, Army civilians, and their families. The budget provides for known contingency funding and enhances near-term readiness. While funding increases have been helpful in many areas, modernization continues to carry the largest burden of risk. Increases to readiness accounts will reduce the need to migrate funds from modernization, and Army-wide efforts to become more efficient, along with Defense Reform Initiatives and a capacity for additional Base Realignment and Closure, create the potential for increased funding for the modernization account. The Army's Force XXI process has provided a roadmap for transforming the Army to meet 21st century requirements. Funding levels will be the primary determinant of the pace at which that transformation occurs.

Supporting the National Military Strategy

In spite of resource constraints and signs of wear, America's Army is supporting the NMS around the world, 24 hours a day. On an average day in fiscal year 1998, over 122,000 soldiers stationed overseas and 28,000 soldiers deployed away from home station were conducting operations in more than 70 countries.

Army personnel conduct numerous activities that help shape the international environment. Continued support for observer missions in Macedonia, the Multinational Force and Observers in the Sinai, and along the border between Ecuador and Peru help foster stability and promote peace. Active and reserve component soldiers and Army civilians contribute to deterrence through forward presence. Soldiers and Army civilians also enhance our relationships with allies and friends through a variety of programs. In fiscal year 1998, army-to-army activities ranged from senior-level contacts to the training of 5,980 foreign military personnel under the International Military Education and Training (IMET) and Foreign Military Sales programs. Such activities foster cooperation with other nations, and offer a unique opportunity to influence the character of other nations' militaries in a positive way. Army participation in Partnership for Peace and associated exchanges and exercises helped set the stage for the peaceful enlargement of NATO while building the foundation for cooperative efforts with non-NATO forces as well. American soldiers trained soldiers of other nations on the tactics, techniques and procedures of humanitarian demining and counter-drug operations. Under the African Crisis Response Initiative, American soldiers provided peacekeeping training to soldiers of several African nations. These important operations are proactive: shaping the world to be a safer place.

The Army also responds to crises to protect American interests around the world with its decisive combat, logistics, and administrative capabilities. The deployment of the 1st Brigade (-) of the 3d Infantry Division (Mechanized) to Kuwait in Feb-

ruary, 1998, demonstrated such a response. Within 96 hours, the brigade had completed its deployment from the United States and occupied defensive positions in Kuwait. In support of Operation Desert Fox in December, the Army once again rapidly deployed units to reinforce elements already deployed for training in Kuwait. The presence of several thousand American soldiers effectively deterred any threatening activity by Iraqi ground forces. While Desert Fox was unfolding, the Army also provided substantial support for Hurricane Mitch Disaster Relief in Honduras, Nicaragua, El Salvador, and Guatemala through both Joint Task Force-Bravo and the Disaster Relief Joint Task Force. In Bosnia, the Europe-based 1st Armored Division, with active and reserve component augmentation, provided the U.S. contingent to NATO forces ensuring compliance with the Dayton Accords for most of last year. The CONUS-based 1st Cavalry Division assumed responsibility for the U.S. portion of this contingency operation in October, 1998. Closer to home, soldiers and Army civilians were instrumental in providing support for numerous disaster relief efforts in the United States and its territories.

In addition to its shaping and responding activities, the Army is preparing for emerging threats ranging from the proliferation of weapons of mass destruction to attacks on our information systems. The Secretary of the Army's role as the Executive Agent for the Department of Defense (DOD) Domestic Preparedness program places the Army in the forefront of this key initiative. The program is the centerpiece of joint and interagency efforts to prepare our military and civilian "first responders" for incidents involving weapons of mass destruction (WMD). By giving local officials the tools to train their own response teams, the Domestic Preparedness program will provide 120 cities with the ability to train first responders by the end of fiscal year 2002. A Federal Training Team, which includes reserve component instructors, conducts the initial training for individuals who will set up the local programs. At the end of fiscal year 1998, a total of 9,950 first-responder trainers in 32 cities had received the training. In the area of cyber-defense, the Army is implementing measures to protect friendly information and decision making processes from intentional disruption. The addition of Information Operations specialists at division level and above, installation of intrusion detection devices, and development of regional Computer Emergency Response Teams in both the active and reserve components are among the steps the Army has taken in this regard.

Efforts to field the first information age Army continue as well. In response to the promise of information technology, Joint Vision 2010 (JV2010) and Army Vision 2010 (AV2010) have identified operational concepts and patterns of operation to guide the development of information-based warfighting capabilities. The Revolution in Military Affairs (RMA) refers to increased combat effectiveness through the integration and exploitation of information technology. Information technology allows the Army to give every friendly soldier on the battlefield a continuously updated picture of where other forces—both friendly and enemy—are and what they are doing. Each element of the friendly force is thereby made more effective because the ability to share information makes it possible to better concentrate the effects of friendly combat power against the enemy's vulnerabilities. A force that can achieve information dominance to this degree should also reduce fratricide, the accidental casualties within its ranks caused by misidentification. Another revolution enabled by information technology, the ongoing Revolution in Military Logistics, is transitioning the Army to a logistics system based on rapid distribution of supplies and equipment to units when they need them, as opposed to a system based on prepositioning large stockpiles in anticipation of unit needs. This "distribution-based" system employs automated systems for total asset visibility, communications, new organizational designs, improved platforms, and new distribution concepts. Such a system will enhance the Army's operational capabilities, increase efficiency by cutting demand, and reduce the deployment time for follow-on forces.

Experimentation

The Army's Force XXI process is building the first information age Army. By using a variety of different field training experiments, in which soldiers use a blend of old and new equipment under realistic conditions, the process fuels the development of equipment and concepts. Experimentation under realistic conditions permits a holistic approach to change. Soldiers gain an appreciation for the strengths and weaknesses of new concepts and prototypes under field conditions, provide immediate feedback to materiel developers and industry representatives, and then assess improvements. This so-called "foxhole to factory" linkage leads to a significantly faster development cycle, known as spiral development, and permits a more rapid fielding of equipment with information technologies to soldiers and units.

The Force XXI process not only benefits the Army by providing feedback for equipment development, but also reveals the implications of new equipment for the

Army's core competencies—our "six imperatives." These imperatives—force mix, doctrine, training, modern equipment, and leader development—must support one another at any given point in time to produce readiness. When changes in one imperative are accompanied by appropriate corresponding changes in the other imperatives, we say the imperatives are synchronized. The recent heavy-force experiments conducted with the 4th Infantry Division (Mechanized) (4ID(M)) offer an example of the power of the Force XXI process for synchronizing the imperatives. The experiments included a brigade-level Task Force XXI Advanced Warfighting Experiment (AWE) at the National Training Center and a computer-driven, division-level AWE at Fort Hood. Lessons learned from these experiments led to a redesign of Army heavy divisions. The heavy division redesign features a reduction in the number of tanks and infantry fighting vehicles (from 58 to 44) in each battalion. This reduction, essentially a change in the Army's force mix, is possible because of the increased lethality that information technology (modern equipment) allows. Through its experimentation with modern equipment, the Force XXI process illuminates desirable changes, such as the heavy division redesign, across the other imperatives.

People

Quality people are the first of the six imperatives and the single most important factor for maintaining readiness. The Army is people. Army capabilities to shape, to respond, and to prepare are embedded in the foundation our people provide. The 25-year-old Sergeant commanding a tank in California, the 18-year-old Private First Class serving in the crew of a Patriot missile launcher in Saudi Arabia, the soldiers on leave from civilian jobs to serve their Nation, and countless others performing demanding tasks all over the world are our credentials: they do the things that make us the world's best Army. Not just anyone can do these things, nor can our Nation afford to send just anyone to do them. It is the people who do the unexpected, extraordinary things in difficult circumstances who make the Army much more than the sum of its parts. Given the importance of people to our Army, recent recruiting trends and retention indicators are causes for concern.

The Army failed to meet its recruiting goals for fiscal year 1998 and for the first quarter of fiscal year 1999. The active component fell about 800 enlistees short of the target last year, and missed this year's first quarter target by 2,300 soldiers. The Army National Guard (ARNG) and United States Army Reserve (USAR) were about 1,200 and 3,700 recruits short of fiscal year 1998 targets, respectively. Quality is also an important indicator of people trends. The Total Army continues to meet most of its recruiting quality goals.

While overall retention percentages still exceed requirements, these percentages mask retention difficulties among noncommissioned officers (NCOs) and soldiers with certain Military Occupational Specialties (MOS). Also, over the past seven years, the number of officers and enlisted soldiers indicating an intent to remain on active duty has declined by more than five percent. The Spring 1998 Sample Survey of Military Personnel shows the top two reasons cited by officers for leaving the military to be the amount of time separated from family and the amount of basic pay. Since 1992, satisfaction with retirement benefits fell from 61.8 percent to 36 percent for officers and from 47.2 percent to 28.8 percent for enlisted soldiers. The REDUX retirement system resulting from the 1986 Military Retirement Reduction Act was the fastest-rising area of discontent for our soldiers on these surveys.

Recruiting trends and survey results confirm that compensation, retirement, and quality of life issues are important factors for recruiting and retaining quality people in the Army. The commitment of the Administration and Congress to increase pay and reform military retirement are important steps to reinforce the Army's recruiting and retention efforts, and will send a strong signal to soldiers that the nation values their service.

Readiness and Training

While people are indispensable to our Army's success, there are other dimensions to maintaining readiness. Military readiness is a measure of capabilities against requirements. The Army generates capabilities to meet the requirements of the National Military Strategy by synchronizing the six imperatives continuously over time. When properly synchronized, these imperatives complement each other and create optimal readiness. Today's readiness is the product of our investments in these imperatives over many years. The development of today's battalion-level officer and NCO leaders, for instance, began almost 20 years ago.

Unfortunately, readiness can dissipate far more rapidly than it can be built. Underfunded Operations Tempo, Base Operations, and Real Property Maintenance accounts, as well as late reimbursement for contingency operations, detract from training and readiness. Sustained underfunding of modernization, and subsequent de-

layed fielding of new and modern equipment, can have serious impacts on the other imperatives. Recent difficulties in recruiting and retention threaten to erode the pool of outstanding soldiers that are the heart of today's readiness and the source of tomorrow's leaders. All of these recent issues can, if left unresolved, disrupt the imperatives and unhinge readiness.

Realistic training for the Army's soldiers and civilians supports readiness by maintaining land power proficiency for the full spectrum of military operations. Army training is performance-oriented; soldiers and civilians perform essential tasks to established standards under realistic conditions. For soldiers who serve in gender-integrated units, gender-integrated training is a key aspect of training realism. Units are teams, and soldiers learn to perform their duties best when they are trained from their first days of service to understand and respect other members of their team. Gender-integrated training supports the Army's need to build teams and to have all soldiers feel like valued members of their teams. The Army's Combat Training Centers (CTCs) are another example of the Army's commitment to training realism. At CTCs, units conduct sustained operations against a skillful opposing force and under the watchful eye of a professional cadre well-versed in the latest doctrine. CTCs conduct the world's best training. Continuing to enhance CTC operations will be a critical contributor to future Army battlefield successes.

While the quality of Army training is second to none, the challenge in recent years has been to resource enough training, particularly at home station. Recent reports indicate that units are arriving at CTCs at lower levels of proficiency than in the past. Resource constraints for Base Operations (BASOPS) and Real Property Maintenance (RPM) accounts have been areas of concern affecting training and readiness. In the past, the Army resourced training primarily through Operations Tempo (OPTEMPO) accounts. OPTEMPO captures the fuel and repair parts costs associated with driving or flying Army equipment the number of miles or hours associated with executing certain groupings of training exercises. OPTEMPO does not capture many costs associated with training, such as the cost of training aids and simulators, ranges, and maintenance operations. The Army generally funds OPTEMPO at 100 percent of annual requirements for priority units, but has had to underfund BASOPS and RPM accounts in order to do so. BASOPS and RPM, however, fund many training costs not covered by OPTEMPO, as well as quality of life programs and facilities. In recent years, the cumulative effect of underfunded BASOPS and RPM has forced many commanders to decrement OPTEMPO accounts to pay for readiness-related BASOPS and RPM needs. Stemming this so-called "migration" of OPTEMPO dollars requires sufficient resourcing for BASOPS and RPM.

BASOPS and RPM affect readiness through their impact on training, maintenance, deployment infrastructure, and quality of life. Average RPM funding from fiscal year 1990 to fiscal year 1997 was only 56 percent of annual requirements, resulting in a backlog of facility maintenance requirements. BASOPS, which includes essential items such as utilities and municipal services, has traditionally been funded at a higher level; the fiscal year 1999 supplemental funding measure increased BASOPS funding from the budgeted level of 84 percent to 91 percent. The fiscal year 2000 budget and outyear proposal will allow better resourcing of these accounts. BASOPS funding is at 95 percent from fiscal year 2000 through fiscal year 2005 under this plan, with RPM at 75 percent through fiscal year 2001 and 90 percent from fiscal year 2002 through fiscal year 2005. RPM funding at these levels will allow the Army to begin reducing the facilities maintenance backlog beginning in fiscal year 2003.

The Army's substantial contributions to shaping and small-scale contingency operations also have a readiness cost. For combat units, the skills required for peace operations are oftentimes not those required for combat. Training and execution of such operations detract from unit combat training, and consequently, from warfighting skills. Nevertheless, these operations constitute a critical, proactive component of national security activities, and the Army is the force best suited to conduct them. For many combat support and logistics units, operations such as Bosnia offer an opportunity to operate under realistic conditions. Combat units also realize some training benefit from deploying, conducting force protection activities, and implementing rules of engagement. However, these missions increase the pace of operations in units by creating additional training requirements that compete for limited training time and, in some cases, decrease the level of training on warfighting skills.

The Army has also had to use OPTEMPO funds in the past to pay for contingency operations in the past. Delayed reimbursement for these operations can detract from unit training by causing cancellation of scheduled training due to lack of funds. Even though the money may eventually be replaced, it is impossible to replace the loss of training time associated with this phenomenon. Timely, non-offset funding

for contingency operations, such as that contained in the President's fiscal year 2000 Budget, is important for current readiness.

Modernization

While the fiscal year 2000 Budget request addresses many of the concerns associated with taking care of people and ensuring readiness, there simply have not been enough resources to fund all priorities. Highest priority modernization programs have been funded to ensure development of future capabilities, but at a pace slower than desired. Other programs will have to await the results of initiatives that will generate additional funding for modernization. The Army Modernization Plan is the Army's strategy for fielding systems that provide the capabilities to support JV2010 and AV2010. The Army executes its modernization plan by establishing and pursuing specific goals essential to enabling AV2010 patterns of operation. Through this framework, the modernization plan links future equipment to anticipated future operational requirements.

Digitization, our goal to modernize Army units by equipping them with digital systems, is the means by which we will achieve information dominance. It involves the use of modern communications capabilities and computers to enable commanders, planners, and shooters to rapidly acquire and share information. The Army will equip the 4th Infantry Division (Mechanized)—the Army's heavy experimental force—with information dominance capability by the end of fiscal year 2000, and will equip III Corps by the end of fiscal year 2004. The force capable of achieving information dominance is called Army XXI. Army XXI units will have some current systems that have information dominance capabilities added, as well as some new "leap ahead" systems, such as the Comanche helicopter and the Crusader howitzer. Further in the future, other advanced technologies will be leveraged to create more leap-ahead systems. Fielding and integration of these systems will create the force we refer to as the Army After Next (AAN), a force that will combine information dominance with better strategic and tactical mobility.

The four other goals identified in The Army Modernization Plan are maintaining combat overmatch, sustaining essential research and development while focusing science and technology on leap-ahead capabilities, recapitalizing the force, and integrating the active and reserve components. We maintain combat overmatch by upgrading current systems periodically through Preplanned Product Improvements programs, thus keeping our current systems more capable than those of our adversaries. At the same time, we focus the limited resources available on development of technologies and systems that promise truly revolutionary, or leap-ahead, capabilities. Recapitalization keeps our force viable and avoids block obsolescence through extended service plans, depot rebuild programs, and selective replacement of important assets, such as our truck fleet. As we modernize, we must also ensure that our active and reserve components are fully integrated to ensure new capabilities are optimized throughout the Army.

The challenge of meeting the increased mission requirements generated by the NMS while taking care of its people has forced the Army to accept risk in modernization in recent years. Since 1989, Army modernization buying power has dropped 44 percent. The Army has terminated or restructured over 100 programs since 1987. In general, slowing procurement increases costs for each system procured. Because of funding constraints, the Army has maintained procurement programs at minimum sustaining rates rather than at more efficient economic rates. Modernization also helps to reduce operations and support costs. While equipment serviceability rates remain high for fielded equipment, older equipment is more expensive and more time-intensive to maintain; allowing fleets to age beyond their economic usefulness will cost the Army future dollars, manpower commitment, and training time. Today's modernization programs are tomorrow's capabilities. Increased modernization funding will ensure future readiness and provide our soldiers the combat overmatch they need to win quickly, decisively, and with minimum casualties.

Total Army Integration

With 54 percent of the Army in the reserve components, integration of the Total Army—active component, USAR, and ARNG—is important for optimizing readiness. The White Paper, One Team, One Fight, One Future, provides a framework for integrating the active component (AC) and the reserve component (RC). The conversion of some ARNG combat forces to meet Army combat support and combat service support requirements will facilitate the integration of the components. Two years ago, the ARNG Division Redesign Study recommended the conversion of approximately 48,000 personnel authorizations currently in ARNG combat force structure to provide required combat support and combat service support forces. The ARNG will

convert six combat brigades (19,000 soldiers) between fiscal year 2000 and fiscal year 2005, with the rest of the conversion taking place by the end of fiscal year 2009.

A number of other initiatives to foster a seamless relationship between the AC and the RC have received renewed attention as a result of the expanded employment of the reserve component in ongoing missions. This year two integrated divisions will be created, each comprised of ARNG enhanced Separate Brigades under a division headquarters commanded by an AC major general. The division headquarters will be responsible for training, readiness, and mobilization of the division's enhanced Separate Brigades. Divisional teaming offers another way to enhance readiness by promoting a habitual and mutual support relationship between ARNG and AC divisions. Each division takes the lead for particular missions, and the other division in the team provides personnel, equipment, and other agreed-upon support to help accomplish the mission. Incorporating ARNG companies into AC light infantry battalions is also under study. The USAR is participating in the multi-component unit initiatives by providing personnel and units with key combat support and combat service support specialties. For instance, the Army relies on the USAR for two-thirds of its Psychological Operations capability and more than 90 percent of its Civil Affairs expertise. The redesigned heavy division includes 513 RC authorizations across two-thirds of the units in the division. Multi-component units and other integration initiatives will create flexible organizations able to respond to emerging threats in both the international and domestic arenas.

Defense Reform Initiatives

While Total Army Integration aims to optimize effectiveness through efficient use of the active and reserve components, the Army is also striving to improve efficiency in other areas. Over the last ten years, the Army has made great progress in reducing costs and increasing the effectiveness of its business processes. Support for the latest DOD-wide effort—the Defense Reform Initiatives (DRI)—includes several efficiency initiatives that are already part of our Future Years Defense Plan. We are leading in the implementation of several DOD initiatives. For instance, the Army has the highest usage rate (95 percent) of the Government Purchase Credit Card in DOD. We are also a leader in implementing the DOD "paperless contracting" initiative, and are scheduled to complete fielding of the Standard Procurement Systems during the first quarter of next year. Overall, the Army has reduced its cost to contract per dollar obligated by over 50 percent in the last 14 years. Due to our own initiatives and DRI efforts, the Army is programmed to achieve about $10 billion in savings over the Future Years Defense Plan. Initiatives such as the Revolution in Military Logistics, acquisition reform, A–76 cost competitions, and infrastructure management initiatives have reduced costs or improved effectiveness. This has enabled the Army to meet its increased commitments under the National Military Strategy during a period of severe personnel and budget reductions.

Values

This summary highlights a number of revolutionary changes and initiatives now underway to sustain readiness into the 21st century, but nothing should displace the shared values that enable soldiers to form essential bonds of trust and respect. The Army must preserve the fundamental values that are the bedrock for success in military operations. We must continue to ensure that American soldiers embrace the essential values that have been the soul of our Army since its birth. The values of loyalty, duty, respect, selfless service, honor, integrity, and personal courage have been the hallmark of the American soldier for over 223 years. The Army's Human Relations Action Plan and Character Development XXI initiatives provide the mechanisms for ensuring that soldiers understand these values from their earliest days of training and have that understanding reinforced throughout their time in the Army. The Army, therefore, serves the Nation not only by executing the National Military Strategy, but also through the value-rich example that soldiers and former soldiers provide.

Conclusion

The fiscal year 2000 Budget addresses most of the Army's people and near-term readiness concerns. Included are an essential increase in funding for contingencies, pay, and retirement. The Army is committed to ensuring these dollars are effectively and efficiently allocated to fix critical deficiencies. Modernization increases are not yet possible within current resource levels; however, we remain ready to move forward in modernization through our Force XXI processes as soon as resources can be identified. We will continue to do our part to implement Defense Reform Initiatives and other cost-saving measures to help generate funding for unfunded mod-

ernization priorities. This budget represents the best possible balance of available resources applied across the priorities of people, readiness, and modernization.

CHAPTER 1—ASSURING CURRENT AND FUTURE READINESS

America's Army is the most capable Army in the world today. In executing the requirements of the National Military Strategy, the Army has provided over 60 percent of the people for the major American military operations since the end of the Cold War while receiving only one-quarter of the defense budget. The NMS is the right strategy for protecting America's interests, and the Army is indispensable to the execution of the NMS.

The pillars of the NMS—shaping the international environment, responding to crises, and preparing for an uncertain future—are an efficient way to protect our national interests. Because the NMS addresses proactive shaping activities as well as more conventional responding and preparing activities, this strategy offers the potential for America to protect her interests with engagement rather than relying solely on the threat of military response. The Army's most fundamental capability is the exercise of sustained, comprehensive control over people, land, and natural resources; the Army can therefore perform missions ranging from nation building to defeating enemies on the battlefield. The versatility and discrimination possible when American soldiers are on the ground make the Army the force of choice for most military operations in support of the NMS.

From Bosnia to Korea, the Army continues to do the Nation's heavy lifting. Through the extraordinary efforts of our soldiers and Army civilians, the Army executes the NMS while maintaining its capability for decisive response and preparing for tomorrow.

Nonetheless, resource constraints, coupled with the increased pace of shaping and responding operations required by the NMS, have created concerns in the areas of people (recruiting and retention), readiness, and modernization. The fiscal year 2000 Budget and outyear plan provide for pay increases and for many of the Army's near-term readiness concerns. Addressing these concerns adequately precludes increasing modernization funding at this time.

READINESS, THE NATIONAL MILITARY STRATEGY, AND ARMY CAPABILITIES

America's Army is the best land combat force in the world. We stand ready today, as our predecessors have for over 223 years, to fight and win our nation's wars. Supporting the military strategy established by our National Command Authorities, we are currently conducting operations worldwide to promote peace by shaping the international environment. These operations are improving the lives of people of many nations. We are also keeping and enforcing the peace in a number of tense regions where, but for the presence of American soldiers, peace would have no chance. We are ready and able to compel our enemies to do what they would otherwise not do of their own free will, to deter those who would become our enemies, to reassure our allies and friends, and to support domestic authorities in times of disaster or other emergencies.

The Army is the largest Service component of the Department of Defense (DOD). Three interdependent elements—active component soldiers, reserve component soldiers, and Army civilians comprise the more than 1.3 million people that make up today's Army. Each element makes vital contributions to the Army capabilities needed to execute the National Military Strategy.

The Army's fundamental capability, its unique contribution to joint military operations, is the exercise of comprehensive and continuous control over people, land, and resources. Our soldiers and leaders, and those who support them, are prepared to conduct prompt and sustained operations throughout the spectrum of military operations in any environment that requires land forces. The Army is therefore the force of choice to support peace, to deter war, and to compel enemies in defense of the interests of the United States. The Army is the central element of our Nation's military readiness: a full spectrum force of decision.

Readiness for What? The National Military Strategy

Military readiness is a measure of the capabilities of our military forces against the requirements those forces must satisfy. These requirements are determined by evaluating U.S. interests in the context of the international environment. The next steps are to develop a strategy to promote and defend those interests, distill from the strategy the set of required military capabilities, and balance the required capabilities against available resources. Finally, we must take steps to acquire and maintain the capabilities indispensable for defending our interests. Achieving and maintaining readiness is thus a responsibility shared by the Executive and Legisla-

tive branches of government. In short, the Executive branch formulates both the National Security Strategy and National Military Strategy, and requests funding from Congress for capabilities deemed essential to executing the NMS. We can say that we have attained an adequate level of military readiness when current capabilities meet or exceed the capabilities required by the NMS, and the program for acquiring new or updated capabilities is keeping pace with anticipated requirements for them.

The current NMS reflects the profound change in the international environment that resulted from our victory in the Cold War. No longer are we confronted with the monolithic threat against which we assessed our readiness for the 44 years following World War II. Rather we are faced with a complex array of threats and challenges that emerged in the wake of the Soviet Union's demise. Wars between rival ethnic factions, the proliferation of weapons of mass destruction and ballistic missile technology, and a resurgence of international terrorism are but some of the characteristics of the post Cold War world.

Whereas we once viewed the mission of the American military largely in terms of fighting and winning mid- to high-intensity conflicts, we now find the military involved almost continuously in other types of military operations, including such missions as nation-building and peacekeeping. However, since mid- to high-intensity conflict remains the most demanding mission along the spectrum of military operations, we must always stand ready to fight and win our Nation's wars, even while executing operations along the lower end of the spectrum. Readiness today, then, must be assessed in terms of our ability to shape the international environment, our effectiveness as we execute military operations in response to crises, and our preparations to answer tomorrow's challenges. By answering the question, "Readiness for what?," the NMS provides the framework around which we build military capabilities.

The NMS and Army Capabilities

The first pillar of the NMS, shaping the international environment in ways favorable to our national interests, is indispensable in minimizing potential threats. Shaping activities vary widely, from efforts aimed at preventing or minimizing conflict to peacetime military engagement programs that stabilize and strengthen current alliance relationships. This pillar is best supported by long-term, face-to-face activities that build friends and cement trust, promote stability in fragile societies, strengthen coalitions, and ensure cooperation with traditional allies. The presence of the American soldier on the ground is the principal method to execute these activities. Since the majority of other nations' militaries are dominated by their armies, military engagement with these countries is most effective through army-to-army contact. Army presence in fragile societies yields multiple benefits for both the Army and the host nation: it promotes national stability and provides training opportunities for U.S. soldiers who learn and teach skills that both improve the quality of life in participating nations and enhance Army readiness. America's Army is ideally suited for and heavily engaged in the execution of this pillar of the NMS. Indeed, the Army's unique and robust shaping capabilities give it the lead role in the first pillar of the NMS.

To execute the second pillar of the NMS, our military must effectively respond to threats and challenges to our national interests. The Army, as the only Service that can compel and maintain decisive results, plays a critical role in this regard. In the current strategic environment, America cannot afford to wait for a clear threat to emerge and then rely on oceans to protect the Nation while preparing an adequate response. We must be ready to respond very quickly, and we must be ready to respond here in America as well as wherever else our interests are threatened. To respond effectively, we must maintain enough forces to make trained and ready units available for deployment on short notice, sufficient strategic air and sealift to project power rapidly, and ample forward-positioned forces and prepositioned assets to cut down deployment times for initial response forces. America's Army has proven time and again over the past ten years that we can project combat power worldwide on short notice as well as provide security and essential services in response to disasters here at home.

The third pillar of our NMS is to prepare to meet the threats we anticipate confronting us in the future. The threats of the future may have a familiar face, as some nations or coalitions grow in power and seek to challenge our interests. On the other hand, the speed of technological advance presents asymmetrical threats: a rival or group of rivals seeking to challenge our interests with some technology, weapon, strategy, or tactic that avoids our strengths and exploits our vulnerabilities. In either event, we must prepare now to ensure that we are ready to counter tomorrow's threats. America's Army is implementing a comprehensive transformation strategy to build the information-age capabilities needed to protect

our interests well into the 21st century while preserving current readiness. This strategy, discussed at length in Chapter 3, requires a substantial commitment of money, soldiers and training time to develop and validate the equipment and doctrine that will enable us to effectively wield new technologies on future battlefields. Our dominance of recent battlefields is no guarantee of future success; we must continue to generate the military capabilities that will dominate future battlefields. Only by preparing now will we maintain our ability to defend America's interests in the face of a complex array of rapidly evolving threats.

Shaping, responding, preparing the NMS has been carefully tailored to protect American interests in the context of the current international environment. The NMS is the right strategy, and America's Army is indispensable to its proper execution.

DOING AMERICA'S HEAVY LIFTING: THE ARMY AND THE NMS

The Army is prepared now to fight and win our Nation's wars, and it continues to prepare each day, bringing unique and substantial capabilities to the joint team. While contributions of air and sea power are key enablers for decisive ground combat operations, and they facilitate the application of land power capabilities throughout the full spectrum of military operations, today's NMS is demonstrably Army-intensive. The Army has a larger forward presence than any other Service, with more than 122,000 soldiers assigned to overseas bases. These soldiers perform real-world missions every day, from the Demilitarized Zone in Korea to Bosnia, Egypt, and countless other places. Furthermore, on an average day in fiscal year 1998, over 28,000 soldiers were deployed away from their home stations to more than 70 countries around the world. On a daily basis, American soldiers and Army civilians interact with host nation soldiers, officials, and citizens; implement treaty requirements and rules of engagement; and put a human face on the image of America held by people all over the world.

Shaping the International Environment

American soldiers are conducting shaping operations 24 hours a day, seven days a week. The Army shapes the international environment through the presence of our forward-deployed forces around the world, robust programs of nation-building and military-to-military activities, and support of arms control initiatives.

Most of the American soldiers stationed overseas are assigned to U.S. Army Europe (USAREUR) and to the 8th U.S. Army in Korea, where they provide the critical core of our alliances in these strategic regions. The forces of USAREUR represent an enduring commitment to NATO—a commitment that has been a key factor in providing essential stability for managing the turbulence associated with the breakup of the Warsaw Pact. In addition to their contribution to the Partnership for Peace (PfP) Program and associated military exchanges and exercises, the presence of these American soldiers is a key enabler to ongoing international efforts to maintain peace in the Balkans. In Korea, the presence of American soldiers reassures our allies and provides a potent, necessary deterrent to the unpredictable North Korean regime. Other soldiers stationed in the U.S. Pacific Command and the U.S. Southern Command areas of operation contribute to engagement operations in the countries of the Pacific Rim and throughout Latin America and the Caribbean. In sum, our substantial forward-deployed forces shape the international environment by deterring aggression, leading our response to global threats, and promoting stability through military-to-military contacts in key regions.

Keeping the Peace

Fiscal year 1998 marked the sixteenth year of American support for the Multinational Force and Observers (MFO) in the Sinai, which verifies compliance with the treaty of peace between Egypt and Israel. Army soldiers serving in similar observer and peacekeeping missions from the border between Ecuador and Peru to the Former Yugoslav Republic of Macedonia (FYROM) helped foster peace in troubled regions around the world. Over 300 AC and RC soldiers also served with the United States Support Group in Haiti, participating in operations centered on peacekeeping, humanitarian relief, and law enforcement training. Under the African Crisis Response Initiative (ACRI), soldiers of our Special Operations Forces provided peacekeeping training to soldiers of Mali, Malawi, and Ghana in fiscal year 1998. This brings the total number of countries trained under this program to six, with Cote d'Ivoire expected to join the ranks of Army-trained African peacekeepers in the near future.

Partnership for Peace

Army participation in PfP and related exchanges and exercises in fiscal year 1998 helped set the stage for the enlargement of NATO while building the foundation for cooperative efforts with non-NATO forces as well. During Exercise Peace Shield 98 in September, active and reserve component soldiers worked with soldiers from the Ukraine and 13 other eastern European countries in a multinational brigade-level command post exercise designed to improve interoperability in peace support operations. For the second year, our soldiers also participated in a "In-the-Spirit-of" PfP training exercise with the Central Asian Peacekeeping Battalion. PfP fosters military cooperation, encourages support for peacekeeping operations among participating nations, and showcases the professionalism and values of America's Army.

Military-to-Military Exchanges

In addition to operations and exercises, the Army participates in a wide variety of day-to-day foreign interactions that contribute to shaping goals. Army-to-army contacts constitute the majority of all cooperative activities between the armed forces of the United States and the armed forces of other nations. Last year, such activities ranged from senior-level contacts to the training of 5,980 foreign military personnel under the International Military Education and Training (IMET) and Foreign Military Sales programs. These programs encourage other nations to participate in international peacekeeping missions and offer an opportunity to mold the values of foreign militaries in positive ways. The Army's reserve components play a critical role in military-to-military exchanges. The National Guard State Partnership Program, for example, has been instrumental in forging close ties with the armies and governments of the former Warsaw Pact. Besides helping to shape the international environment in line with U.S. interests, these continuing contacts with foreign armies enhance our ability to participate in coalition operations today and in the future.

Counterdrug Efforts

The National Defense Authorization Act for Fiscal Year 1989 mandated DOD involvement in counterdrug activities. In accordance with applicable laws, the Army conducts a wide range of activities and operations at home and abroad in support of U.S. government counterdrug efforts.

In the domestic arena last year, more than 2,000 AC and RC soldiers performed tasks ranging from construction of fences along the border with Mexico to providing intelligence analyst support to Drug Law Enforcement Agencies (DLEA). The ARNG provides unique counterdrug support to the 54 states and territories under provisions of Title 32. This support involves over 3,000 people and consists of activities such as cargo inspections and supporting operations to reduce drug demand.

The Army also provides counterdrug support in many nations of Latin America, the Caribbean, and the heroin producing and transshipping regions of southeast and southwest Asia. Army counterdrug activities abroad include training host nation personnel by our Special Operations Forces along with aviation transportation, intelligence, planning and reconnaissance support. In close cooperation with other Federal agencies, the Army plays a key role in our Nation's fight against this transnational threat.

Supporting Arms Control and Nonproliferation

Other Army shaping operations promote American interests abroad by training foreign militaries and by supporting our government's arms control and nonproliferation initiatives. In support of our government's policy of reducing the threat of non-self destructing anti-personnel landmines, Army Special Operations Forces and Explosive Ordnance Disposal soldiers are deployed in 19 countries around the world. These soldiers are providing training and support in areas such as mine awareness, mine clearance, and planning. To date, we have led demining efforts that have trained nearly 25 percent of the world's deminers. As the DOD Executive Agent, the Army also supports the Chemical Demilitarization Program by continuing the safe destruction of the U.S. lethal chemical weapons stockpile and related non-stockpile warfare materiel in compliance with the world-wide Chemical Weapons Convention. Through these efforts, America's Army is making the world a safer place.

Building Friendships

American soldiers performed missions all over the world in fiscal year 1998. Many of these missions allowed soldiers to practice job-related skills while concurrently benefiting the host nation by improving infrastructure or providing medical care for the population. For example, USAR soldiers provided medical care for over 116,000 host nation civilians while deployed on Medical Readiness Training Exercises in five

different countries in Latin America. Other soldiers conducted similar medical training missions in Sri Lanka, Fiji, the Maldives, and Madagascar. Army engineer units conducted Civic Action Team engineering projects in Tonga, the Republic of Korea, Micronesia, Mongolia, and the Republic of Marshall Islands. Operations such as these support political and economic stability and build friendships in fragile societies that might otherwise breed conflict.

The wide range of Army operations conducted to shape the international environment helps reduce the potential for conflict and human suffering around the world. Our soldiers and civilians mold institutions and attitudes, giving substance to the image of America held by people of many nations. Support for peace operations, demining programs, and programs that promote cooperation through exchanges also provide valuable experience for Army personnel. Through the numerous activities discussed in this section, the Army is enhancing global security and stability; the results of these shaping operations will continue to advance our national security and humanitarian interests in the future.

Responding to Crises Abroad and at Home

America's Army responded to crises abroad and at home in fiscal year 1998 by deploying a heavy brigade to Kuwait in 96 hours, conducting a relief in place of forces involved in the peacekeeping mission in Bosnia, supporting the Hurricane Mitch Disaster Relief effort in Central America, and supporting a wide range of domestic support activities. These successes validate our full-spectrum readiness.

Full-Spectrum Readiness: Maintaining the Capability to Respond

The capability to respond anywhere in the world on short notice comes from our sustained commitment to the complex requirements of full-spectrum readiness. This readiness comes from the unmatched capabilities of American soldiers and the rigorous training that prepares them for battle. The readiness of soldiers today is the product of many years' investment in quality people, training, doctrine, force mix, modern equipment, and leader development. These "Army imperatives" are discussed in detail in Chapter 2. Since we fight as a member of a joint team, and often in coalition with other nations, we must also train with the other members of the joint team (joint training exercises) and with our allies (combined training exercises) to assure readiness for today and for the 21st century.

The Army executed a robust program of training deployments in fiscal year 1998 designed to validate and improve our ability to deploy rapidly, fight, and win. Exercise Bright Star, for instance, allowed us to practice deploying rapidly as well as conducting combined operations with the Egyptian military. Joint Task Force Exercise (JTF–X) Purple Dragon, one of the largest exercises of the year, included participation by soldiers of XVIII Airborne Corps and all four of its divisions along with elements of the Navy, Air Force, and Marine Corps. This massive exercise, conducted at several locations in the Eastern United States, the Atlantic Ocean, and the Caribbean, offered the unique opportunity to integrate the operations of all Services in a scenario involving everything from counterinsurgency to weapons of mass destruction. In March, over 500 soldiers from the Europe-based V Corps and from the Minnesota National Guard participated in NATO Field Training Exercise (FTX) Strong Resolve 98 in Norway. Last August, soldiers from Alaska conducted a combined training exercise with the Thai Army that featured the largest airborne operation ever conducted in Thailand. These exercises, along with a number of others, provided invaluable deployment and training experience for the soldiers and leaders involved.

Responding Abroad

In February 1998, the 1st Brigade (-) of 3d Infantry Division (Mechanized) (3 ID (M)) was ordered to deploy to Kuwait in conjunction with other forces sent to the region when Iraq refused to comply with U.N. weapons inspections. The brigade (-) moved by air and utilized prepositioned equipment to assume a ready posture within 96 hours. They joined another battalion from 3 ID (M) that was already training with the Kuwaiti Land Forces. An Army headquarters was sent to assume command of all combined and joint forces in Kuwait. On 20 February, the President authorized the call-up of RC soldiers to support military operations in Southwest Asia. As of 22 September 1998, 184 ARNG and 192 USAR soldiers had mobilized for service in Southwest Asia, where they performed chemical detection, logistics, air defense, communications, and aviation missions. In support of Operation Desert Fox in December, the Army once again deployed active and reserve component forces on short notice to augment the forces already in theater for training. The presence of several thousand American soldiers effectively deterred any threatening activity by Iraqi ground forces. The successful execution of these operations validates our program of regular training deployments to key regions, and underscores

the importance of integrating the reserve components rapidly in ongoing contingencies.

The deployment of the 1st Cavalry Division (-) last September to assume responsibility for the U.S. portion of the NATO peacekeeping mission in Bosnia offers another example of the Army's support for global contingencies. The Europe-based 1st Armored Division, augmented by a significant number of individuals and units from both active and reserve component forces in the United States, provided the American contingent to NATO forces in Bosnia for most of fiscal year 1998. The shift to the CONUS-based 1st Cavalry Division helped stabilize some Europe-based units for readiness training and reduced their time spent away from home station, or PERSTEMPO. The professional execution of this relief in place allowed the transition to occur without reducing our commitment to supporting U.S. goals in the Balkans. Reserve component support is again a key factor in our success in Bosnia. During fiscal year 1998, over 1,300 RC soldiers were mobilized in support of operations there.

The U.S. Army also provided substantial support for disaster relief efforts in the wake of Hurricane Mitch in Central America. Through Joint Task Force-Bravo and the Disaster Relief Joint Task Force, soldiers and civilians conducted relief operations in Honduras, Nicaragua, El Salvador, and Guatemala. The XVIII Airborne Corps deployed substantial logistics and aviation support to help with the immediate response to this catastrophic storm. ARNG soldiers in the United States supported relief efforts by assisting with the preparation of shipments of relief supplies. Ongoing USAR support includes a program of sequential, 21-day deployments of soldiers trained in civil affairs, engineer, medical, maintenance, and supply specialties to the region. These deployments are projected to include as many as 8000 soldiers.

Responding at Home

The Army provided substantial support to Federal, state and local authorities responding to natural disasters in the United States and its territories last year. Active, U.S. Army Reserve, and National Guard soldiers, along with many Army civilians, supported Federal Emergency Management Agency (FEMA) disaster relief efforts for Typhoon Paka (Guam), Hurricanes Bonnie (North Carolina) and Georges (U.S. Virgin Islands, Puerto Rico, Florida and the Gulf Coast), the Northeast Ice Storms (New York and Maine), and for fighting wildfires in Florida. The Army Corps of Engineers contributed greatly to Army disaster relief efforts. Army support included providing and operating power generators, flying helicopters for missions ranging from medical evacuation to damage assessment, and providing emergency shelter, water, ice and food. Additionally, on numerous occasions in fiscal year 1998, the Army provided Explosive Ordnance Disposal or Technical Escort Unit personnel in response to requests from Federal, state, and local authorities for assistance in dealing with explosives or hazardous materiel. Activities and response efforts such as these validate the ability of the Army, in accordance with the law and at the request of local authorities, to respond rapidly to domestic situations as required.

Preparing for an Uncertain Future

Preparing for an uncertain future encompasses not only the widely publicized harnessing of information-age technology to create a Revolution in Military Affairs, but also preparations for countering the threats emerging from the activities of potential rivals. Due to the scope of the Army's Modernization Plan and related programs, we have reserved discussion of this aspect of "preparing now" for Chapter 3. The remainder of this section surveys ongoing Army initiatives for addressing the challenges of terrorism, threats to the homeland, and information technology.

Combating Terrorism

The terrorist threat demands a coherent program to protect our soldiers, Army civilians, family members, information, and critical resources at home and abroad. The Army's Antiterrorism Force Protection (AT/FP) program is designed to meet this threat. The effectiveness of antiterrorism programs depend to a large degree on how well response plans are integrated amongst the appropriate Federal, state and local agencies. In addition to specifying protective measures, the AT/FP program charges installation commanders with the responsibility for ensuring connectivity with Federal, state, local, and host nation law enforcement and intelligence agencies. The program requires establishment of AT/FP committees at installation level as the mechanism for oversight and coordination of the AT/FP Program.

The Army's Antiterrorism/Force Protection program provides an operational model for safeguarding personnel, information, and critical resources from the threat of terrorism. The program includes four levels of training tailored to meet the requirements of groups ranging from individual soldiers through senior leaders. It requires periodic installation vulnerability assessments to keep plans current. In general, the

AT/FP program ensures that our personnel and leaders are aware of the threat, conduct continuous assessments of specific vulnerabilities, and take steps to reduce risks through improving physical and operational security.

Homeland Defense: National Missile Defense and Domestic Preparedness

The recent launch of a multistage missile by North Korea and continuing efforts by other nation-states to acquire or improve long-range missile systems underscore the importance of developing the capability to field a national missile defense (NMD) system. The Army supports the current joint NMD program designed to develop and test a land-based NMD system that can be operational in 2005, or sooner (2003) if so directed. With funding and guidance from DOD's Ballistic Missile Defense Organization (BMDO), the Army manages the development of the dedicated NMD ground-based elements, which include the Ground-Based Radar and the Ground-Based Interceptor. Development of both elements are on schedule. Facilities for the prototype Ground-Based Radar at Kwajalein Atoll are complete, and the radar is now operational.

The Secretary of the Army's role as the Executive Agent for the DOD Domestic Preparedness program places the Army in the forefront of joint and interagency efforts to prepare our military and civilian "first responders" for incidents involving weapons of mass destruction. This program will train instructors in 120 cities by the end of fiscal year 2002, giving these cities the ability to train their own first responders to handle emergencies involving WMD. A Federal Training Team, which includes ARNG and USAR instructors, conducts this training. As of the end of fiscal year 1998, a total of 9,950 first-responder trainers in 32 cities had received the training.

The Army also supports DOD efforts to improve its ability to respond to terrorist attacks involving WMD in support of lead Federal agencies. The Army's Technical Escort Unit and lab elements from the Soldier Biological and Chemical Command are among DOD forces that could respond today to requests for assistance under the Federal Response Plan. The Federal Response Plan comes into play in this case just as in any other disaster—in response to a presidential declaration of a disaster or major emergency.

The unique status of the ARNG as a state-controlled force (unless called to Federal service) enhances the states' initial response capability while preserving the supporting role of the DOD for domestic disaster relief. Under the DOD Plan for Integrating National Guard and Reserve Component Support for Response to Attacks Using Weapons of Mass Destruction, National Guard Rapid Assessment and Initial Detection (RAID) detachments will be trained beginning in fiscal year 1999 to provide initial response capability to WMD incidents. Each of the ten detachments (one per Federal Emergency Management Agency region) are jointly staffed by a combination of 22 Air and Army National Guard personnel. They assess suspected nuclear, biological, chemical or radiological events; advise civilian responders regarding appropriate actions; and expedite requests for assistance from state and Federal agencies to help save lives, prevent human suffering, and mitigate property damage. In most cases, these RAID detachments will remain under state control. USAR and ARNG chemical companies and USAR medical units are among the elements that will be trained to provide an enhanced DOD response capability (at the request of Federal lead agencies) to domestic disasters involving WMD.

Information Technology Challenges: The Year 2000 Problem, Cyber-Defense, and Allocation of the Electromagnetic Spectrum

The global explosion of information technology offers the potential for dramatically improved military capabilities, but reliance on this technology also creates the challenge of ensuring its integrity. Wide-spread system failures due to intentional attacks on our information systems or systemic flaws are a serious threat. The possibility that the once-common practice of referencing dates in computer software using only two digits could disrupt computer-based systems in the year 2000 a problem known as the Year 2000 "bug" (Y2K)—is one manifestation of the challenge posed by our reliance on information technology. Protecting friendly information and decision making processes from intentional disruption and commercial constraint of the electromagnetic spectrum are two others. Several Army programs aim to ensure that our information systems remain free from disruption.

The Army is implementing a detailed plan to ensure that our weapons, information systems, and information technology controlled devices are not affected by the Y2K problem. We have identified at-risk systems, classified them according to their criticality, and are carefully managing the renovation of these systems using an Army-wide database and monthly reports. For key activities that involve the integration of multiple systems, the Army is conducting "end-to-end" tests as well as

participating in joint tests and evaluations to ensure full system functionality. No Army mission-critical systems will fail due to Y2K problems.

Information Operations refers to the integration of offensive and defensive measures that provide enhanced situational awareness to friendly forces while degrading the situational awareness of our enemies. Since potential enemies also have access to information technology, the Army is implementing a series of mechanisms to protect friendly information and decision making processes from intentional disruption. Improvements undertaken in support of this approach include the addition of Information Operations capabilities at division level and above, installation of intrusion detection devices, and the development of regional Computer Emergency Response Teams in both the active and reserve components.

Many modern warfighting systems depend on the electromagnetic spectrum, making access to this spectrum an important resource for information-age warfare. Recent global initiatives to auction this limited resource as a commodity constrain military use of the spectrum for operations and for training. This development has made spectrum management an important consideration for military planners.

RESOURCE CONCERNS

The capabilities needed to execute the National Military Strategy are the yardstick for military readiness. For the Army, our vital and substantial role in shaping the international environment, responding, and preparing for the future require a sustained commitment to achieving readiness by generating and maintaining Army capabilities. While we remain ready today, constrained funding is stretching the fabric of our Army, creating concerns in the areas of people, readiness, and modernization. Chapter 5 discusses these concerns in detail; they are outlined in this section because they provide important context for the discussions of Army capabilities, modernization and quality of life in Chapters 2 through 4.

Over the past several months, Army leaders have consulted with the Administration and testified before Congress regarding readiness. The Army requested a $5 billion annual increase in Total Obligation Authority (TOA) due to concerns centered chiefly on recruiting and retention, current readiness, and modernization. The efforts of the Administration and Congress to provide additional funding in the form of a fiscal year 1999 supplemental funding measure and the President's fiscal year 2000 Budget and outyear plan have addressed many of these concerns.

Our concerns in the area of people stem from increasing difficulties recruiting and retaining sufficient numbers of high quality young Americans for military service. The Army must recruit almost 180,000 new recruits each year to provide enough trained soldiers to meet requirements. We must also retain enough experienced soldiers across the full range of Military Occupational Specialties (MOS) to continue producing quality mid-grade and senior-level leaders. The robust economy has created significant competition for the population we seek to recruit and retain.

Even though our first-to-fight units are trained and ready today, this state of readiness can dissipate rapidly if not properly sustained. Reports that units are arriving at CTCs at lower levels of proficiency than in the past underscore the need to fund training-related accounts adequately and to protect unit training time. Providing funds for contingency operations before the Army has to divert training funds to cover costs is part of the solution. Adequate funding for Base Operations and Real Property Maintenance accounts will also help protect training funds from migrating to cover severe deficiencies in infrastructure or quality of life.

The Army has accepted risk in its modernization accounts in order to fund current readiness accounts at acceptable levels in recent years. Over 100 major programs have been terminated or restructured since 1987, and Army modernization funding has decreased by 44 percent since 1989. The current rates of recapitalization and procurement are too slow to keep pace with aging fleets in many cases. Procurement programs are funded at minimum sustaining rates rather than at more economical rates. While equipment serviceability rates remain high, older equipment is more expensive and more time-intensive to maintain. The greatest challenge facing the Army today is to take care of people and meet current readiness demands while continuing to prepare for the future with constrained resources.

Assuring readiness for today and for the 21st century requires quality people, adequate resources, and modern equipment. Providing the resources to address current readiness concerns is important, and the fiscal year 2000 budget proposal does that to a large degree. The fiscal year 2000 Budget represents the best possible balance of available resources applied across the priorities of people, readiness, and modernization.

CONCLUSION

The Army is meeting the challenge of successfully executing numerous activities, exercises, and operations around the world that are essential to national security. At the same time, we have the capability today to respond, fight and win on short notice. We are stretched by current resource constraints, and our readiness levels are declining. Today, however, the Army is executing the NMS and has the capabilities to fight and win the Nation's wars.

The NMS is the strategy that defines readiness for the United States military. The current strategy requires forces committed to proactive shaping activities, more traditional responding activities, and preparing activities made essential by the uncertain geostrategic environment and the wide range of potential threats. The NMS answers the question, "Readiness for what?"

The Army conducts shaping activities all over the world. These activities cover a broad range, from training other nations' militaries in the conduct of peacekeeping operations to providing counterdrug support to authorities here at home. The Army is ready to respond on short notice anywhere in the world to protect U.S. interests through the unique powers of its land forces. American soldiers deployed twice to Kuwait in fiscal year 1998, as well supporting disaster relief efforts across the United States, in both the Pacific and the Caribbean, and in Central America. While conducting these activities, the Army also pursued a number of programs and initiatives to prepare for the future. Providing substantial support to the DOD's efforts to enhance consequence management for WMD attacks, implementing measures to secure its information systems, and striving to modernize within tight fiscal constraints are some of the major ways the Army is preparing to secure the interests of the U.S. in the future.

While the NMS is the right strategy to maximize the potential for global stability, the rapid pace of operations and fiscal constraints of the past several years have given rise to indications that Army readiness is in decline. The Army's senior leaders have identified the need for an additional $5 billion in annual TOA increases in order to reverse the effects of this decline and preserve essential readiness. The current budget request addresses many of the Army's most pressing concerns, especially in the areas of taking care of people and sustaining current readiness.

"Let us recollect that peace or war will not always be left to our option; that however moderate or unambitious we may be, we cannot count upon the moderation, or hope to extinguish the ambition of others." Alexander Hamilton

CHAPTER 2—GENERATING CAPABILITIES FOR THE FULL SPECTRUM OF MILITARY OPERATIONS

The defense of our national interests requires a broad range of military capabilities that America's Army is well-suited to provide. Each component, branch, and organization has a role to play in generating the Army's capabilities. The six imperatives quality people, training, force mix, doctrine, modern equipment, and leader development are the framework the Army uses to manage this process. By maintaining a complementary relationship among the imperatives, the Army optimizes its readiness. Training standards, for instance, should reflect the current Army doctrine and the equipment that soldiers are using to train. If this relationship holds, soldiers gain confidence from meeting relevant standards, units operate harmoniously using common doctrine, and equipment is employed to best effect. Conversely, the failure to maintain a complementary relationship among the imperatives results in a less effective force. Achieving this complementary relationship is called synchronizing the imperatives. The Army is a system of systems. Its systems work together to produce a force capable of performing the tasks required to execute the NMS.

THE ARMY VISION

The Army Vision sets the azimuth for the Total Army. It guides our execution of the National Military Strategy today and our evolution to meet the challenges of tomorrow.

The values we refer to in our vision are the Army values of loyalty, duty, respect, selfless service, honor, integrity, and personal courage. They are the values we have inherited from the American soldiers who, from the birth of our Nation, have fulfilled our oath to support and defend the Constitution of the United States. They are stamped on a tag worn with the personal identification of each soldier. Just as our personal identification tags identify us individually, our Army Vision is the collective statement of who we are.

AC, RC, AND ARMY CIVILIANS

The twin realities of the post-Cold War world diverse, almost continuous global challenges and fiscal constraints have led to a careful examination of the force structure of today's Total Army, which consists of the active component, the reserve components (ARNG and USAR), and Army civilians. We have programmed endstrengths for each of these components based on Quadrennial Defense Review (QDR) recommendations and a series of analyses of Army requirements and structure (known as Total Army Analyses). By comparing possible scenarios with the forces available to respond to contingencies, Total Army Analyses offer a mechanism for determining the proper size of the Army. Analysis indicates that further endstrength reductions beyond those already directed will place our ability to execute the NMS at greater risk. Current endstrengths make the contributions of each component vital for effective Army operations. These contributions are evident from Bosnia to Korea. Every day, all over the world, soldiers and civilians are forging the Total Army's broad range of capabilities by practicing and executing tasks required to carry out the NMS.

The Active Component

At the end of fiscal year 1998, the active component consisted of 484,000 soldiers. AC soldiers make up the bulk of the four corps, ten divisions, and Special Operations Forces that are the nucleus of the Army. The AC also provides most of the soldiers who fill the Army's staff positions and perform myriad other full-time duties, such as facilitating training at the Combat Training Centers, providing cadre to the Army's institutional training program, or serving as advisors to reserve component units. Our OCONUS forces not only provide a forward-positioned capability to respond to threats world-wide, but also reassure allies and deter potential adversaries by providing tangible evidence of America's commitment to global security. The active component was below its programmed endstrength at the end of fiscal year 1998 and will continue to manage its endstrength to meet the QDR-programmed level of 480,000 by the end of fiscal year 1999.

The Reserve Components

Comprising 54 percent of the Total Army, the RC is made up of the ARNG and USAR. These forces include a significant percentage of soldiers with critical specialties necessary to sustain and support Army forces during lengthy deployments. There are three major categories of reserve service: the Ready Reserve, the Standby Reserve, and the Retired Reserve. The Ready Reserve is further organized into the Selected Reserve, the Individual Ready Reserve, and the Inactive Army National Guard. All of these reserve categories may be called to active service in time of a national or (for the ARNG) state emergency.

One mechanism for activating RC soldiers is the Presidential Selected Reserve Call-up (PSRC). By authority of the PSRC, the President may activate as many as 200,000 RC soldiers for periods up to 270 days. Under the Bosnia PSRC, six increments of RC soldiers totaling 570 units and 16,434 soldiers were activated from 1995 to 1998. Another mechanism for activating reserve forces is Section 12302 of Title 10 (Partial Mobilization), which authorizes the involuntary call-up of reservists for up to 24 months. Under provisions for full mobilization, reservists may be called up for indefinite periods of time following the passage of a public law or joint resolution declaring war or national emergency by Congress. The importance of the RC's contributions to Army operations makes the provisions governing activation of the reserve components key enablers to the execution of the NMS.

The Army's increasing reliance on reserve component participation in ongoing contingency operations underscores a key readiness principle for the 21st Century: protecting America's interests amidst a range of threats and challenges will require constant and efficient utilization of the Total Force. Last year, the Army's White Paper One Team, One Fight, One Future provided a framework for better integrating active and reserve forces. The specific initiatives the Army is implementing (described in Chapter 3) are moving us towards our goal of a seamless Total Army.

The Army National Guard

The nucleus of the ARNG consists of combat formations comprising 58 percent of the Army's combat force organized into eight divisions, eighteen separate brigades, and two Special Forces Groups. Additionally, the ARNG comprises 38 percent of the Combat Support and 33 percent of the Combat Service Support at echelons above division. The Army National Guard is the component with most of the RC combat formations. National Guard units are commanded by their state governors unless federalized by the President. ARNG endstrength will be 350,000 by the end of fiscal year 2000.

The United States Army Reserve

The U.S. Army Reserve provides 45 percent of the Army's Combat Service Support and 26 percent of the Combat Support forces at echelons above division. The logistics-heavy composition of the USAR makes it a vital part of the Total Army's force projection and sustainment capability and allows the AC and ARNG to devote more force structure to combat forces. The USAR has provided over 70 percent of RC forces deployed to Bosnia since 1995. The 208,000 soldiers of the USAR Selected Reserve serve in troop program units, as Active Guard/Reserve, or as Individual Mobilization Augmentees. Additionally, the USAR maintains a pool of 225,000 personnel (Individual Ready Reserve) with prior military training that may be called upon to augment standing forces. The USAR will reduce its Selected Reserve endstrength to 205,000 by the end of fiscal year 2000.

Army Civilians

At the end of fiscal year 1998, over 232,000 civilians were performing important functions on Army installations and staffs worldwide. The experience and perspective civilians bring to the Army facilitate efficient, effective operations and training. In addition to filling key billets on staffs, Army civilians manage training facilities, monitor environmental compliance, and oversee or perform work in safety, force projection, force modernization, and other important functions affecting readiness and quality of life at installations worldwide. Since our soldiers and leaders change jobs frequently as part of their progression through the ranks, our civilians provide valuable continuity and assist the transition of newly assigned personnel in key areas. Army civilian endstrength will decrease to 209,000 by the end of fiscal year 2005.

INSTITUTIONAL AND OPERATIONAL FORCES

At the end of fiscal year 1998, American soldiers made up nearly half of the 2.3 million men and women serving in the active and reserve components of our armed forces. These soldiers, along with the Army's civilians, are distributed between two major, functionally distinct groups of organizations that many refer to as the institutional Army and the operational Army. Both of these groups play important roles in generating land power capabilities. The institutional Army provides the structure that supports the operational Army's conduct of military operations and training. Counting soldiers assigned for training, about 36 percent of the Total Army serve in institutional assignments at any given time; the remainder are assigned to the operational forces comprising the Army component of the joint warfighting commands or to reserve component units. Institutional and operational organizations perform complementary functions that together generate the capabilities needed to support the NMS.

The institutional portion of the Army consists primarily of the Army Staff, Training and Doctrine Command (TRADOC), Army Materiel Command (AMC), the U.S. Army Medical Command, and the U.S. Army Corps of Engineers. These elements are largely based in the United States. Under the direction of the Secretary of the Army and the Chief of Staff, the institutional Army provides strategic guidance and administrative leadership for the Army. Institutional organizations also recruit and train individual soldiers and officers, develop common doctrine for the Total Army, sustain the force, and prepare the Army for the future. The major organizations comprising the institutional portion of the Army are shown in the figure on the preceding page.

The major warfighting elements of the operational Army are its corps, divisions, and separate brigades. These combat units and their supporting elements are the deployable forces that execute the full spectrum of military operations; many are based overseas. Operational units of different types are grouped together to make the most effective use of the different functional skills and equipment characteristic of these different units. The sample divisional grouping of light infantry, artillery, aviation and other units shown on the next page illustrates this principle. Combat support units add specific functional capabilities, such as engineer support or air defense, to combined arms organizations. Combat service support (CSS), or logistics, units are normally grouped under a support command. Tables of Organization and Equipment (TOE) define each type of unit by specifying the subordinate units and equipment that the unit is authorized. These generic organizations can be temporarily adjusted, or "task-organized" to meet the requirements of specific missions.

The Army provides capabilities for the execution of the NMS by apportioning operational forces among the joint combatant commands: Atlantic Command (ACOM), Central Command (CENTCOM), European Command (EUCOM), Pacific Command (PACOM), Southern Command (SOUTH-COM), and Special Operations Command (SOCOM). Forces may be shifted between combatant commands based on

the requirements of particular contingencies. In accordance with the Department of Defense Reform Act of 1986, the chain of command for these forces runs directly from the President through the Secretary of Defense to the Commanders-in-Chief (CINCs) of the joint war-fighting commands.

TOTAL ARMY CAPABILITIES

As the world's preeminent ground combat force, America's Army brings a wide range of unique capabilities to the Joint Team and to our Nation. Our soldiers and their leaders are prepared to conduct prompt and sustained operations throughout the entire spectrum of military operations in any environment that requires land-force capabilities. From our heavy and light divisions and brigades to our Special Operations Forces, the Army is the foundation of our national military power because of our unique capabilities, the scale and duration at which we can effectively employ these capabilities, and our Nation's capability to project and sustain combat power.

Conventional Forces

The Army maintains six heavy divisions in its active component and four heavy divisions in the Army National Guard. The ARNG also has seven heavy enhanced Separate Brigades (eSB) and an Armored Cavalry Regiment. These divisions, brigades, and regiments employ tanks and infantry fighting vehicles, supported by artillery and attack helicopters, to defeat enemy forces and to seize and hold key terrain. Like much of our Army, heavy divisions have been extensively used in peace operations in recent years; in fact, our heavy divisions have executed most of the requirements of the peacekeeping mission in Bosnia.

Army light infantry forces are well-suited for operations in restrictive terrain, such as in cities, mountains, jungles, and swamps. They are capable of conducting large-scale helicopter assaults; the 101st Airborne Division (Air Assault) specializes in these operations. The 82d Airborne Division is the Army's only division that retains the capability to conduct large-scale parachute assaults. Light infantry units participate in a wide range of operations, including support for the peacekeeping mission in Bosnia and for the Multinational Force and Observer mission in the Sinai. Currently, there are four Active component light divisions, one ARNG light division, and seven light ARNG enhanced Separate Brigades. The ARNG also maintains three divisions with a mix of heavy and light force structure.

Special Operations Forces

The Army provides the bulk of our nation's Special Operations capabilities through the Special Forces, Civil Affairs, Psychological Operations, and other Special Operations units of both the active and reserve components. Army Special Operations Forces currently consist of seven Special Forces Groups (five AC and two ARNG), one Aviation Regiment, one Ranger Regiment, three Psychological Operations Groups (one AC, two USAR), four Civil Affairs Commands (USAR), eight Civil Affairs Brigades (USAR), and 25 Civil Affairs battalions (one AC tactical battalion, 24 USAR battalions). Special Operations Forces include specially organized, equipped, and trained units prepared to conduct a wide range of missions including counter-terrorism missions, such as hostage rescue, attack of terrorist infrastructure and recovery or neutralization of stolen or improvised nuclear, biological or chemical weapons. The Special Operations Aviation Regiment provides aviation support for the full range of Special Operations missions.

Special Forces Groups combine subject matter expertise in many functional areas of ground combat with in-depth knowledge of the languages and cultures of specific regions. The "Green Berets" in these units specialize in training the forces of other nations in a broad range of operational skills. The Ranger Regiment provides the capability of conducting precision raids and other "direct action" missions, including securing port and airfield facilities by parachute (airborne) assault.

Some of the most heavily deployed soldiers in our Army in recent years have been those in the Psychological Operations and Civil Affairs units. These units offer unique capabilities, such as providing specially trained liaison teams to work with foreign governments and non-governmental organizations, broadcast and print media in austere theaters, expertise on infrastructure requirements and status in an operational area, and information to host nation populations to facilitate ongoing operations. Army Special Operations Forces are the only source for many functional skills; they are important contributors to our substantial shaping and responding capabilities.

Other Unique Capabilities

In addition to these broad categories of units, the Army also has a wide array of logistics and special-function support units designed to provide food, fuel, engineer and communications support, and other resources to military forces operating in austere areas. Besides providing the essential sustainment and support for Army combat operations, these units give the Army an unmatched capability to support most of the shaping and responding operations ongoing in the world today. From purifying water for Rwandan refugees to providing temporary power generation capability in the wake of Hurricane Georges, our logistical and special function support units are used extensively across the full spectrum of military operations.

While the tasks and missions Army forces can perform are in many ways unique, the scale on which the Army can perform these missions, anywhere in the world, is itself a unique capability. With significant numbers of soldiers stationed overseas, and another six divisions able to deploy from their bases in the United States, our Army is capable of projecting overwhelming combat power. These forces are fully occupied with the many readiness-related activities associated with executing the NMS, and we have reduced Army force structure to the minimum required for executing the NMS with acceptable risk. However, the fact that we are the largest source of land combat power available for sustained, global employment makes America's Army particularly valuable to the Nation.

Power Projection—the Army Strategic Mobility Program

Current contingency plans require mobility support to deploy three divisions into a theater of operations within 30 days of notification, with another two divisions plus sustainment arriving in the next 45 days. The Army Strategic Mobility Program (ASMP) is a comprehensive program that addresses infrastructure requirements, such as rail, highway, port, and airfield improvements, to facilitate movement of personnel and equipment from bases in the continental United States to air and sea ports of embarkation. Infrastructure and equipment improvements focus on designated CONUS Power Projection Platforms, including 15 installations, 14 airfields, 17 strategic seaports, and 11 ammunition depots and plants.

Under ASMP, the Army also monitors the procurement of C–17 Globemaster III aircraft by the Air Force and additional Roll-On/Roll-Off (RO/RO) ships by the Navy to correct the shortfall in strategic lift identified in the last Mobility Requirements Study. Currently 47 of the required 134 C–17s have been delivered. The Navy has awarded contracts for 19 Large, Medium-Speed, Roll-On/Roll-Off (LMSR) ships; eight of them have been delivered. Eventually, eight of these ships will be used for afloat prepositioning and the other 11 to increase surge sealift capability.

The Army's Global Prepositioning Strategy further strengthens rapid deployment capabilities by prepositioning heavy brigade sets of unit equipment in different strategic regions of the world. Army Materiel Command currently manages seven prepositioned Brigade sets (with an eighth planned). One set is prepositioned afloat, ready for rapid transport to likely crisis areas. The combination of the Army's investments in infrastructure and the procurement requirements identified by the Mobility Requirements Study significantly enhance the Army's rapid power-projection capability.

SYNCHRONIZING THE SIX IMPERATIVES

Generating the Total Army capabilities to execute the NMS requires both the resources Congress provides to the Total Army and the process that the Army uses to turn those resources into readiness. We need quality people and equipment, time, and money to build the necessary capabilities. We build these capabilities by integrating and synchronizing the six major components of Total Army readiness: quality people, training, force mix, doctrine, modern equipment, and leader development. We call these the six imperatives.

Each imperative affects and is affected by the other five imperatives. Allowing any one of the imperatives to get out of sync with the others can have major repercussions for readiness. Conversely, when the imperatives are properly synchronized over time, the Army truly maximizes the military capabilities produced for the dollars spent.

Quality People

The Army must recruit about 180,000 soldiers annually, which is more than the recruiting needs of the other Services combined. We use three principal criteria to monitor the quality of the soldiers entering our ranks. One of these is the level of education of our recruits. Our goal is to have 90 percent of the total number of recruits enter service with high school diplomas. The second criterion is the Armed Forces Qualification Test (AFQT) score that soldiers achieve on the Armed Services

Vocational Aptitude Battery (ASVAB), a standardized test administered to determine enlistment eligibility and Military Occupational Specialty (MOS) assignment qualifications. The Army goal is for 67 percent of our enlistees to achieve scores placing them in the top three categories (Categories I–IIIA) on the ASVAB. The final criterion is to accept no more than two percent of recruits with AFQT scores in Category IV, the lowest acceptable category.

Maintaining a force capable of executing demanding missions is contingent on our ability to recruit and retain high quality people like those who comprise our current force. We need people capable of learning and growing with the information technologies that are driving the Revolution in Military Affairs and changing the way we will operate. Besides the challenges of new technologies, today's soldiers must exercise mature judgment under stressful circumstances. The soldiers keeping and enforcing the peace in numerous locations around the world must be able to understand the diplomatic and operational context of their actions to operate effectively. At any moment, any soldier performing these sensitive duties could be confronted with a problem of strategic significance. The reality of instantaneous news and information transmission makes every soldier an ambassador for America—potentially to a global audience.

Today's Army is a force of great quality. Ninety percent of the enlisted forces have graduated from high school, and over 99 percent have at least high school equivalency. About 60 percent of the active component enlisted force have some college credit. The jobs these soldiers must perform demand increasing levels of technical expertise and judgment. The people capable of meeting this challenge are sought after by colleges and are in high demand in the commercial sector. In order to attract and retain the high quality people we will need to lead the 21st-century Army, we must take aggressive steps to keep military service competitive with other career options.

Training

We build and validate the current readiness of our units by executing tough, realistic training. Since mid- to high-intensity conflict remains the most demanding mission along the spectrum of military operations, the most important measure of readiness for a particular unit is its ability to perform the essential tasks it would most likely have to perform in this type of conflict. Different types of units perform different essential tasks; therefore, the Army has a generic Combined Arms Training Strategy (CATS) for each type of unit. The CATS for a tank battalion task force, for instance, provides the recommended frequency for tank battalions and habitually associated units to conduct training on various key tasks specific to those type units. Unit training is currently funded through Operational Tempo accounts based on the amount of money required to execute the unit CATS.

Units must complete certain types of training periodically to maintain their readiness. This training is conducted under a variety of rigorous conditions, often with observers from like units to provide feedback on unit performance. Since units experience a constant turnover of personnel due to soldiers leaving the Army or moving to new jobs, the ability of a unit to perform complex missions is perishable. Based on a number of factors, such as the number of essential tasks the unit has performed recently, the level of proficiency demonstrated on those tasks, and the amount of turnover the unit has experienced, commanders make a subjective assessment of their unit's readiness.

Today's Army relies increasingly upon training simulators and simulations to augment live training and optimize the level of training achieved per dollar spent. Rather than actually maneuvering a group of Bradley Fighting Vehicles in actual terrain (live training), some tasks may be practiced using networked simulators. The simulators provide some of the training benefit while minimizing the costs of fuel and maintenance associated with live training. Simulators and simulations allow repetitive, structured training and facilitate evaluation of training to a common standard. They allow for the conduct of training under increasingly difficult (simulated) conditions, and are an efficient way to prepare for more costly live training.

Periodic rotations at our CTCs provide an outstanding opportunity to hone essential skills. At the National Training Center in California, the Joint Readiness Training Center in Louisiana, the Combined Maneuver Training Center in Germany, and the Battle Command Training Program in Kansas, units conduct prolonged operations against a highly skilled opposing force. A professional cadre, fully versed in the latest doctrine, observes and critiques unit performance at each center.

The maneuver CTCs provide training as close to real combat conditions as possible. Units deploy and conduct operations while immersed in a training environment that closely replicates the likely conditions of low- to high-intensity conflict.

Extensive use of civilian "role players" and training aids, devices, simulators, and simulations (TADSS); dedicated opposing forces; and observer/controllers ensure the CTCs offer the most realistic preparation possible for threats ranging from terrorism to full-scale combat. Units complete these rotations much more proficient at critical skills than they were at the outset. Each unit receives a comprehensive assessment to guide their future training.

In general, each maneuver CTC conducts 10 brigade rotations per year. U.S. Army Reserve and Army National Guard soldiers participate in almost all of these rotations to some extent, and some rotations are devoted to ARNG enhanced Separate Brigades. Last year alone, more than 143,000 soldiers trained at either the National Training Center in California, the Joint Readiness Training Center in Louisiana, or the Combat Maneuver Training Center in Germany.

The key to great training, at CTCs and Army bases around the world, is the execution of well-defined tasks under prescribed conditions to clearly articulated standards. The conditions must be realistic for the training to be meaningful. Soldiers must be able to meet the Army standard under such conditions in order to be considered trained. For soldiers who will serve in gender-integrated units, working with soldiers of opposite gender is a key aspect of training realism—it is one of the conditions under which these soldiers will conduct actual military operations. Gender-integrated basic training is important preparation for that portion of the Army's recruits that will go to mixed units. Units are teams, and soldiers learn to perform their duties best when they are trained from their first days of service to understand and respect other members of their team.

Force Mix

The size and mix of forces in the Total Army relates to the capabilities required by the NMS in complex ways. Most obviously, we must maintain sufficient trained and ready forces to respond to global contingencies or domestic emergencies on short notice while simultaneously executing sustained, people-intensive operations, such as Operation Joint Forge in Bosnia. Furthermore, the Army must dedicate adequate forces to conduct the experimentation necessary to prepare for information-age warfare. The force mix must allow all units to conduct required readiness training in addition to their operational missions. It must provide an adequate "buffer" to account for that constant portion of our force that is either transitioning from one assignment to another, undergoing initial entry training, or attending schools to prepare for increased responsibilities. Finally, we must maintain an adequate framework of people and organizations to perform the Total Army's institutional functions. Among its other missions, the institutional Army recruits and trains soldiers in the many skills needed for the Army as a whole. Maintaining the right number of soldiers trained in the 511 specialty skills the Army requires while achieving an optimal distribution of skills throughout the force is a difficult task. Currently, about 36 percent of the Army's forces serve in institutional assignments.

Any discussion of Total Army force mix must address the critical fact that more than half of America's Army resides in the reserve components. Army National Guard and United States Army Reserve soldiers are deployed around the world every day performing missions in support of the NMS. These soldiers deploy with their units and as individual augmentees to AC units. While the ARNG and USAR still provide the basis for rapidly expanding the Army's available forces in an emergency, they are playing an important role in ongoing contingency operations as well.

Based on recent experience, we are increasing the integration of active and reserve forces through a variety of programs (discussed fully in Chapter 3) and will deploy the headquarters of the 49th Armored Division (ARNG) to participate in Operation Joint Forge next year. Since reserve component soldiers balance their military service to the Nation with full-time jobs as civilians, it is important to structure their participation in ongoing contingencies to provide soldiers and their employers with the predictability necessary to properly manage this balance. Both the USAR and ARNG make critical contributions to our readiness at home and abroad every day: thus, adequately sized and resourced reserve components are an integral part of the Total Army's ability to execute the NMS.

Doctrine

Army doctrine describes how the Army fights, establishes the standards for how we train to fight, and details the procedures for caring for Army equipment. It also defines and outlines the needs of the future force. To maintain efficiency, any required revisions to existing doctrine should precede the fielding of major new pieces of equipment or the implementation of new organizational designs. This allows time for training Army leaders on how to conduct operations to maximize the effect of

the new system or organization as well as ensuring that the soldiers receiving new equipment have time to receive training on how to operate and maintain it properly.

Army Battle Laboratories help keep doctrine current. The Army began forming Battle Laboratories in 1992 as a means for the Training and Doctrine Command (TRADOC) to streamline its mission of identifying concepts and requirements for new doctrine, training, leader development, organizations, materiel, and soldier systems. Today there are 11 Battle Laboratories, each focused on specific functional areas that contribute to the application of effective land combat power. Each year, these Battle Labs team with industry to evaluate mature technologies from industrial research and development centers.

Since their inception, the Battle Labs have been the focal points for nine Advanced Warfighting Experiments (AWE). AWEs are large-scale, force-on-force training exercises conducted by actual units either live at maneuver training centers or with computer-driven simulations. These experiments provide the critical analysis essential to synchronizing doctrine, force structure, equipment and training.

Modern Equipment

Maintaining the Army's capability to fight and win our Nation's wars requires modern equipment. Ensuring that America's military forces have better equipment than any potential adversary—a prerequisite for the combination of training and superior equipment that creates "combat overmatch"—helps deter potential aggressors. Combat overmatch will contribute to shorter wars and fewer casualties. The Army has a comprehensive modernization plan designed to maintain combat capability greater than that of any potential adversary. While this plan is discussed in detail in Chapter 3, the highlights presented here illustrate the relationship between modern equipment and the other imperatives of readiness.

Imminent and revolutionary changes in the conduct of military operations make it critical for the United States to field systems that can capitalize on information technology. Such systems make it possible to keep friendly forces constantly up to date on where they are, where the enemy is, and where other friendly units are. By enabling this "situational awareness," systems incorporating information technology allow units to achieve greater effectiveness on the battlefield. Information technologies are significant for military logistics as well. Here, by giving logisticians a current status of what is available and what is required, modern systems can greatly improve both efficiency and effectiveness. The Revolutions in Military Affairs and Military Logistics made possible by information technologies are discussed in greater detail in Chapter 3.

Digitization refers to the fielding of equipment and to equipment modifications that provide information dominance. This capability will allow all U.S. and other friendly forces to share an accurate, constantly updated common view of the entire battlefield, enabling them to act faster than the enemy can react. The Army's digitization strategy includes experimentation, evaluation, and acquisition to achieve specific results: equipping the first digitized division by the end of fiscal year 2000 and the first digitized corps by the end of fiscal year 2004. Army XXI—the force with the fielded information dominance capability—is a critical step to maintain combat overmatch while maturing the technology required for the revolutionary force of the next century, the Army After Next (AAN).

Modernization requires a significant investment of soldiers to conduct the training experiments necessary for the development of new systems and doctrine. Recent Advanced Warfighting Experiments have been key elements for ensuring that our doctrine, leader development and force structure are synchronized with the introduction of new equipment. Experiments have guided the Heavy Division Redesign that will be the blueprint for the 4th Infantry Division (Mechanized). This redesign, explained in detail in Chapter 3, encompasses the integration of reserve component soldiers and units as well as a dramatic reduction in the number of main combat systems (tanks and infantry fighting vehicles). The reduction in numbers of tanks and infantry fighting vehicles in the new heavy division is possible because of the increased capabilities that digitization brings to the force; these capabilities were validated by experimentation.

The imperative of modern equipment involves more than the integration of new systems with enhanced capabilities discussed above. It is also important to recapitalize existing systems to account for the wear and aging that is a normal part of the life cycle of any piece of equipment. It often takes more money and time to maintain older equipment than new equipment. The inefficiency of failing to recapitalize existing systems drains critical dollars away from other Army requirements, including research and development of next-generation systems, which degrades our ability to maintain combat overmatch in the long term. A balanced, long-term ap-

proach to modernization is important to provide the Army with the equipment necessary to assure readiness.

Leader Development

The senior leaders who will have to train, maintain, and fight the Army After Next are now in our ranks. We must train these leaders to be comfortable with information technologies so they can maximize the effects of those technologies without being overwhelmed by the high volume of information. We must also constantly scrutinize the roles of officer, warrant officer, and noncommissioned officer (NCO) leaders in the future organizations of Army XXI and the Army After Next. Only by continually assessing the implications of new technologies for the roles leaders will play on future battlefields can we ensure that we provide our future leaders with the skills and knowledge they will need to fight and win.

Leader development in the Army is accomplished through institutional training, operational assignments, and self-development. Different training courses conducted by the institutional Army prepare officers and NCOs for specific levels of responsibility in units by teaching the doctrine and basic skills which leaders at that level must have. Operational assignments allow leaders to put what they have learned into practice. Finally, the shared conviction that the military profession requires special commitment motivates self-development programs that are a key contributor to leader confidence and success.

Accomplishing all of this intensive preparation while maintaining the ability to shape and respond requires a new way of thinking about leader development. The technologies that are reshaping our world offer opportunities for revolutionizing military professional education programs by fully exploiting distance learning to supplement or replace other educational techniques. Distance learning relies on information technology to bring the classroom to the student. With distance learning technology, we can make leader development a continuous process with significantly enhanced opportunities for self-development. We will blend distance learning and periodic institutional training at Army schools with intensive training and mentoring in units to develop the warrior-leaders of the 21st century.

CONCLUSION

The Army is a Total Force comprised of active and reserve component soldiers and Army civilians. We have extensive capabilities for conducting military operations throughout the full spectrum of military operations, and we generate these capabilities by synchronizing the six imperatives of quality people, training, doctrine, force structure, modern equipment, and leader development. Our contribution to national security rests on the quality of the American soldiers and civilians who make up the Total Army.

"Without readiness in necessary land forces, all so-called retaliatory and even defensive plans are mere scraps of paper." President Dwight D. Eisenhower

CHAPTER 3—READINESS FOR THE 21ST CENTURY: KNOWING WHAT TO CHANGE

The Army is executing a comprehensive plan for achieving full-spectrum dominance in the 21st century. The likely requirements of future national security strategy are the foundation of our plan for future readiness. From these anticipated requirements, Joint Vision 2010 establishes the conceptual template for America's armed forces in the 21st century. Army Vision 2010 identifies the capabilities required to ensure our Army remains ready to conduct prompt and sustained operations on land throughout the full spectrum of military operations.

The Army uses the Force XXI process to ensure it remains the preeminent information-age Army. To do this, Force XXI incorporates a holistic approach to change. This innovative approach, which we call "spiral development," compresses the development cycle for new systems by fielding prototypes and incorporating new technologies on fielded systems within a designated experimental force.

The Army Modernization Plan describes our long-term strategy for modernization given anticipated force requirements. The plan uses modernization goals, the six Army patterns of operation from AV2010, and the results of experimentation to prioritize modernization investments and acquisitions. This prioritization yields a two-stage evolution to the Army After Next. The first stage, Army XXI, is an essential step to preserve the synchronization of the six imperatives and assure readiness in the mid-term. Army XXI, the product of the Army's near-term digitization and product improvement efforts, will achieve these objectives by fielding systems that enable the Army to achieve and exploit information dominance. Army XXI will begin to come into existence when the 4th Infantry Division (Mechanized) is equipped with digital capability in fiscal year 2000. The AAN will couple information domi-

nance capabilities with lighter, more agile systems we expect to be possible with future technologies.

Amidst the many changes we are making to assure readiness for the 21st century, the Army must preserve its commitment to its core values, which are the bedrock of success in battle and in the service of the Nation. We must also continue our commitment to taking care of the quality soldiers and civilians who make up the Total Army.

STRATEGY FOR THE 21ST CENTURY

The requirements of military readiness arise from the Nation's interests and the security strategy designed to protect those interests. The current National Security Strategy identifies certain goals that have remained constant throughout our Nation's history: Protect the lives and safety of Americans; Maintain the sovereignty, political freedom, and independence of the United States, with its values, institutions, and territory intact; and Promote the prosperity and well-being of the nation and its people.

Beginning with the likely trends that will affect future national security requirements and the future military capabilities necessary to carry out those requirements, this chapter presents the Army programs for experimenting with new technologies and building required capabilities. The potential for significant changes in the conduct of military operations is the catalyst for the Army's efforts to acquire systems that can exploit the latest information technology. The Force XXI process and the Army Modernization Plan are key elements to the identification, development and acquisition of information-age systems.

Tomorrow's Geostrategic Environment

Recent studies of military readiness and national security requirements offer assessments of the shape of the 21st-century geostrategic environment based on current demographic, economic, political and environmental trends. Population growth, increasing competition for critical resources, and possible environmental catastrophes all feature in these projections. The possibility that some societies will collapse due to their inability to provide basic services is another feature common to many projections. Threats posed by terrorism and regional competitors, along with the potential emergence of a peer rival, are likely. Some forecasts are more optimistic than others. However, since military capabilities are built over long periods of time and can erode rapidly, projections of likely military requirements must address the less optimistic scenarios. The fact that multiple threats could confront the United States simultaneously increases the importance of preparing now.

Global trends indicate a continuing need for the Army to respond to crises and catastrophes abroad and at home into the next century. To mitigate and, whenever possible, prevent global threats, we are also likely to be called on to continue our current extensive commitment to shaping operations. The requirement to protect the lives and safety of Americans demands that we remain ready to fight and win our Nation's wars and to accomplish this mission decisively, with minimal American casualties.

Joint Vision 2010 and Army Vision 2010

Joint Vision 2010, a conceptual template for America's armed forces, predicts that the United States will face a wider range of threats in the future. Threats to our national interests range from the possibility of terrorist attacks here in our own country to potential for full-scale conflict with a rising global or regional peer. The proliferation of weapons of mass destruction and the unpredictability of rapid technological advances are dangerous variables that could affect conflict at any point along the spectrum of military operations. Since mid- to high-intensity combat operations present us with the most demanding requirements, and forces designed to meet these requirements are also capable of conducting operations in a lower intensity environment, JV2010 concludes that we should continue to build the capabilities required to conduct direct combat operations.

JV2010 predicts that joint and, where possible, combined operations will continue to be the most effective recipe for defeating threats in the next century. The four operational concepts of dominant maneuver, precision engagement, full dimensional protection, and focused logistics will guide the application of combat power in the information age. To support these operational concepts and achieve new levels of effectiveness as the land component member of the joint warfighting team, Army Vision 2010 distills six essential Army patterns of operation: Gaining Information Dominance, Projecting the Force, Protecting the Force, Shaping the Battlespace, Decisive Operations, and Sustaining the Force. By identifying concepts, technologies, and systems that support these patterns of operation, AV2010 provides the starting

point for the experimentation necessary to build a 21st-century Army. The Army envisioned by AV2010 will be capable of projecting power globally as part of the joint team and of conducting prompt and sustained operations on land throughout the full spectrum of military operations.

ARMY EXPERIMENTS AND THE REVOLUTIONS IN MILITARY AFFAIRS AND MILITARY LOGISTICS

The term Revolution in Military Affairs (RMA) refers to the radical enhancement of warfighting capability enabled by the application of information technology to military systems. By adding high-speed computers and communications to weapons systems and other military equipment, it is possible to provide all friendly forces with an almost-continuously updated picture of where they are, where the enemy is, and where other friendly units are. Situational awareness on this scale increases the lethality of friendly forces by allowing the focused application of combat power against enemy systems and units. At the same time, the survivability of friendly forces increases because of the enhanced ability to avoid the enemy's combat power and because of the reduction in accidental casualties, or fratricide, among friendly units. Finally, information dominance allows friendly forces to act far more rapidly than the enemy can react. For these reasons, the application of the latest information technology to the military sphere will create a revolutionary change in the nature of military operations.

The revolutionary potential of information technology extends to military logistics as well. The Revolution in Military Logistics (RML) harnesses technology to provide an almost-continuously updated picture of the logistics requirements of units as well as the location and status of supplies, equipment, personnel, and logistics organizations on the battlefield. With this level of situational awareness, friendly forces can focus logistics resources where they are needed, and, in the process enhance both the effectiveness and the efficiency of the force.

The potential for revolutionary change demands that we assess the impact of new technologies on the Army and make appropriate adjustments to maintain the best and most effective force possible. Other nations will pursue the advantages of information technology, much of which is commercially available. The Army cannot afford to pursue the acquisition of information technology haphazardly because the systems ultimately must support information sharing across the entire joint team and among both active and reserve component forces. Therefore, as the potential of emerging information technologies became apparent, the Army developed an experimentation process and campaign plan to guide our investigations of new concepts and technologies. The Force XXI process, the Army Experimentation Campaign Plan, and the Army After Next Project help the Army efficiently explore how best to match technology against the practical requirements of soldiers and leaders now and in the future.

Force XXI: A Process for Synchronizing Future Readiness and Change

The Army has adopted Force XXI as its process for building the information-age Army. The Force XXI process leverages the power of information age technology through a series of experiments ranging from the large-scale AWE to smaller-scale efforts focused on particular functional areas. By streamlining the way we turn concepts into systems, Force XXI provides us with the experimental data needed to maintain the most capable land combat force in the world. It evolved from the requirement to manage revolutionary change extending across virtually all of the functions of joint warfighting. The process allows rapid evaluation of a broad range of technologies, identification of promising areas, and development of new systems in those areas. To do this, Force XXI incorporates a holistic approach to change that ensures that innovations are synchronized with the six imperatives discussed in Chapter 2.

This innovative approach, which we call "spiral development," compresses the development cycle for new systems by fielding prototypes and incorporating new technologies on fielded systems within a designated experimental force. By locating contractors and program managers with the experimental force and conducting various military operations in a training environment, soldiers and leaders are able to provide feedback. Valid feedback is incorporated directly into system improvements, which are then used in further operational tests. This "foxhole to factory" linkage leads to a significantly faster development cycle, and permits a more rapid fielding of new information technology capabilities to soldiers and units.

This process not only develops systems more rapidly than the traditional developmental process, it also provides important insights that are often not evident with more linear development processes until after the systems are fielded. Many of the operational and human factors affecting system characteristics and doctrine do not

appear in isolated tests of the system. Only when the system is employed in concert with other Army systems and under demanding conditions do the full implications, strengths, and limitations of the system emerge. The "spiral development" of the Force XXI process facilitates synchronization of the six imperatives: it provides insights into doctrinal and force structure adjustments necessary to employ new systems and helps identify leader development and training necessary to prepare soldiers to use new systems effectively.

The Army Experimentation Campaign Plan

The Army Experimentation Campaign Plan (AECP) maps future experiments and exercises that support each successive phase of the Force XXI process. Currently, the AECP is oriented along three axes: Mechanized Contingency Force, Light Contingency Force, and Strike Force. In each of these axes, the AECP provides the framework upon which new organizational designs and concepts will be developed. The AECP will move the Army from concepts to capabilities in the new systems and organizations that will make up the Army After Next.

The mechanized axis focuses on heavy forces. Recent heavy-force experiments conducted with the 4th Infantry Division (Mechanized) (4ID(M)) have led to the redesign of the Army heavy division. Future heavy axis milestones include the Division Capstone Exercise (DCX). The DCX concept involves a live, brigade-level National Training Center rotation at Fort Irwin, CA in March, 2001, and a computer-based Battle Command Training Program Warfighter Exercise at Fort Hood, TX in September, 2001. These 4ID(M) training events will demonstrate go-to-war capabilities with the systems to be fielded over the next few years.

The light axis includes units that can fight their way into a theater of operations by seizing ports, airfields, or other areas. These units also operate well in urban and restrictive terrain and are often called "contingency forces" because of their rapid response capability. A Joint Contingency Force (JCF) AWE for this axis will occur in September 2000, focusing on crisis response and rapid deployment. One objective for this AWE is to improve the effectiveness and efficiency of joint command, control, communication, computers, intelligence, surveillance and reconnaissance (C^4ISR) through digitization, enhanced communications, and joint interoperability of systems, processes and procedures. Another objective is to improve joint operations in urban and restrictive terrain. Finally, this AWE will serve as a venue for experimentation with U.S. Atlantic Command's joint experimentation process.

The Strike Force axis will lead to the development of a highly deployable, agile, lethal, and survivable middleweight force. Strike Force will provide a bridge between early-entry light forces and slower-to-arrive mechanized forces, combining the strengths of both heavy and light forces in a rapidly deployable configuration able to enhance early-entry operations as well as operate in urban and restrictive terrain. Initially, it will be a command and control headquarters that can assimilate light, airborne, air assault, mechanized and motorized joint and combined forces to create a tailored force package for entry operations. This Strike Force headquarters will participate in the JCF AWE.

The AECP provides key experience and analysis to guide the development and employment of new systems. It allows the Army to synchronize the six imperatives over time. By employing the latest technology and dedicated experimental forces in controlled warfighting experiments, the three axes of the AECP ensure that the Army will continue to identify and address evolutionary and revolutionary changes in the conduct of land warfare.

Battle Labs and CTCs: Enabling Change

Army Battle Labs and Combat Training Centers (CTCs) have been critical to the success of the Force XXI process. Battle Labs facilitate the spiral development process through different types of experiments, ranging from large-scale Advanced Warfighting Experiments to smaller Advanced Technology Demonstrations (ATD) and Advanced Concept Technology Demonstrations (ACTD). While the larger AWE might involve the integrated efforts of multiple Battle Labs, ATD and ACTD are most often managed by individual labs. The recent Military Operations in Urban Terrain (MOUT) ACTD provides examples of experiments conducted by the Battle Laboratories in fiscal year 1998. Three experiments were conducted employing infantry platoons as the experimental force. Each experiment assessed selected technologies designed to enhance joint Army and Marine Corps warfighting capabilities in urban terrain. Tests such as these offer an efficient way to identify promising technologies and improve systems deemed suitable for further development.

Advanced Warfighting Experiments leverage the fully-instrumented training environments of Army CTCs to enable comprehensive evaluation of new systems and technologies on a large scale. The 4th Infantry Division (Mechanized) Task Force

XXI AWE at the NTC (March 1997) and the subsequent Division AWE conducted at Fort Hood in conjunction with the Battle Command Training Program (November 1997) are examples of the Force XXI process in action. The results of these experiments were key to the Heavy Division Redesign.

The Army After Next Project

The term "Army After Next" is frequently used to refer to the Army of 2025, but it also refers to a project begun in 1996. The mission of the AAN Project is to conduct broad studies of warfare out to the year 2025 to assist senior leaders in developing a vision of future Army requirements. The project examines a wide range of areas, including the future strategic setting, force projection concepts, the use of AAN-era forces in urban and complex terrain, AC/RC integration, the role of the Army in homeland defense, the nature of future joint and coalition operations, and the identification of promising technologies. Issues and insights from the AAN Project help focus the Army's science and technology efforts and combat development program.

The AAN Project institutionalizes a process for examining the probable nature of future warfare. Each year, the Army sponsors a major wargame, conducts follow-on seminars and games to examine specific issues in greater depth, and produces a report capturing the insights gained. During the fiscal year 1999 Spring Wargame, the opposing force will be a major military competitor equipped with asymmetric capabilities including weapons of mass destruction and advanced information technology systems. Subsequent events will examine the Army imperatives and the transformation of the current Army into the Army of 2025.

The Army has sponsored three major AAN wargames to date, each involving hundreds of participants in computer-supported exercises. Representatives from all services and from multiple agencies outside DOD participate in each game. During the past two years, the AAN Project has made significant contributions towards shaping both near-term transformation efforts and the Army of the future.

Joint and Combined Experimentation

As evidenced by the AAN wargames and our inclusion of other services in our AWE, the Army fully supports recent initiatives in joint experimentation. The designation of the Commander-in-Chief, U.S. Atlantic Command (USACOM), as the DOD Executive Agent for joint experimentation last May will accelerate this process. Joint experimentation will leverage Army expertise developed in our highly successful experimentation program and will employ CONUS-based Army organizations and facilities.

Through efforts to shape the development of joint operational concepts and integrate our Battle Labs with USACOM joint experimentation activities, the Army is ensuring that new systems are compatible with those of the other services. The Army is also engaged in a number of forums designed to ensure that we achieve multinational force compatibility with our allies and likely coalition partners. Cooperative research and development efforts with our NATO allies to field interoperable information systems is supplementing our own modernization efforts. Cooperative efforts with allies can help America gain access to advanced foreign technologies while at the same time enhancing the interoperability and effectiveness of future coalitions.

ARMY MODERNIZATION PLAN

The Army's Modernization Plan balances, with risk, the demands for current and future readiness within fiscal constraints. Because of the great potential of information technologies, digitization is a high priority for our near-term efforts. Since maintaining interoperability is vital in fielding digitized systems, the Army will field digital capability by Brigade Combat Team, the critical grouping of combined arms elements that wage the maneuver war. Maintaining interoperability with the reserve components is another important consideration in the Army's Modernization Plan. The plan also emphasizes recapitalization of our aging equipment, because the savings in operations and sustainment costs generated by recapitalization are critical to funding the transition to the Army After Next.

The long-term strategy for modernization which the Army Modernization Plan describes uses modernization goals, the six Army patterns of operation from AV2010, and the results of experimentation to prioritize investments and acquisitions. This prioritization yields a two-stage evolution to the AAN. The first stage, Army XXI, is an essential step to ensure the Army assimilates the revolutionary capabilities of information technologies into its training, force mix, doctrine, equipment, and leader development while maintaining readiness through the mid-term. Army XXI will achieve these objectives by fielding systems that enable the Army to achieve

information dominance. The AAN will couple these information dominance capabilities with lighter, more agile systems we expect to be possible with future technologies. This section provides an overview of Army modernization goals and surveys some major systems that contribute to the six AV2010 patterns of operation.

Army Modernization Goals

The Army's modernization strategy establishes and pursues specific goals essential to enabling AV2010 patterns of operation. The five major goals of Army modernization are: Digitize the Army; Maintain Combat Overmatch; Sustain Essential Research and Development and Focus Science and Technology to Leap-Ahead Technologies; Recapitalize the Force; and Integrate the AC and RC. The discussion in this section explains how achieving these goals will equip our Army to maintain full-spectrum dominance in the 21st century.

To achieve the capabilities required by AV2010, the Army's number one modernization priority is to achieve information dominance in the near- and mid-terms. Information dominance stems from superior information systems and the mindset and training that ensure soldiers are prepared to win on the complex battlefield of the future.

Digitize the Army

The first Army modernization goal, Digitizing the Army, is the means by which we will achieve information dominance. Digitization involves the use of modern communications capabilities and computers to enable commanders, planners, and shooters to rapidly acquire and share information. This enhanced ability to share information will improve our ability to find and target the enemy rapidly and precisely. Digitization is not a program in the traditional acquisition sense. Rather, it is a broad effort to integrate command and control hardware and software, the underlying communications systems, and weapons systems to provide information-sharing throughout the battlespace.

Our digitization efforts leverage the latest advances in information technology from the commercial sector. We will equip the experimental force—the 4th Infantry Division (Mechanized) at Fort Hood—with digital capabilities by the end of fiscal year 2000, and will digitize III Corps by the end of fiscal year 2004. The force with the fielded digital capabilities is Army XXI, the intermediate force between the Army of today and the Army After Next.

It is difficult to overstate the importance of the initial goal of digitization. Since much of this technology is available commercially, timely investment is essential to maintain our status as the world's preeminent land combat force in the information age.

Maintain Combat Overmatch

The Army currently enjoys combat overmatch in most ground combat systems. The addition of Comanche and Crusader will add decisive combat power to Army XXI and the Army After Next. Modernization of current systems is important to maintain overmatch as threat capabilities improve. Improvements in signature reduction, survivability, and air defense protection by potential adversaries will require corresponding improvements in target acquisition, lethality, and range in order to keep our current advantage. Preplanned Product Improvement (P^3I) programs will enhance combat effectiveness through periodic, focused technology insertions and will maintain much of the industrial base. Making the minimal improvements necessary to maintain combat overmatch was a function of the Army's decision to accept risk in modernization in order to fund near-term readiness requirements. The Longbow Apache program is an example of how the Army will use technology upgrades to maintain its combat overmatch capabilities.

Sustain Essential Research and Development and Focus Science and Technology on Leap-Ahead Technologies

In recent years, the Army deferred the modernization of many systems. Deferred modernization creates a capability gap as current systems approach wearout dates without replacement systems ready for fielding. In order to have systems with the required capabilities and characteristics in the far term, the Army must field some leap-ahead capability systems to bridge the gap caused by modernization deferrals. Focused Research and Development (R&D) investments addresses this challenge by accelerating essential leap-ahead technologies and ensuring the industrial base is ready to field the systems needed for Army After Next. Developing technologies to make lighter, more mobile, more supportable vehicles is an integral part of the focused R&D strategy.

Recapitalize the Force

Recapitalization of worn or dated equipment extends its usability and effectiveness. The Army recapitalizes its equipment through a combination of replacement and refurbishment programs that not only extend useful life, but also reduce operating costs. Current production and fielding rates of many Army systems do not meet the levels required to prevent fleet aging from becoming a chronic problem.

Some examples of systems requiring recapitalization include the Abrams and Bradley powerpacks (engines), other armor systems, and aviation Service Life Extension Programs.

Integrate the Active and Reserve Components

The Army will continue to modernize the reserve components along a timeline that ensures that AC and RC forces remain interoperable and compatible. Initiatives to create multi-component units underscore the importance of this modernization goal. The reserve components are at a historical high point in modernization due to a combination of procurement programs and equipment cascading from AC forces. For example, M1/M1A1 Abrams tanks have replaced M60A3s in all ARNG tank battalions, and five transport and supply companies in the USAR have been equipped with modernized Heavy Equipment Transports.

The Army's modernization plan uses the goals discussed above to allocate resources over time to transform the Army from its current state to Army XXI and then Army After Next. Current modernization investments emphasize fielding equipment with the latest information technologies. This will allow the Army to train its soldiers and leaders to operate effectively as part of the digitized force, Army XXI, and give that force as a whole "mental agility." As the evolution to the Army After Next continues, the Army's modernization investments will shift to the procurement of additional advanced, or leap-ahead, systems that will be lighter and more mobile. The force which combines the mental agility of Army XXI with the physical agility made possible by lighter systems is the Army After Next, an Army able to assure readiness for the 21st century.

FIELDING REQUIRED CAPABILITIES

As stated previously, the Army has derived six patterns of operations from the operational concepts of JV2010 and likely land power requirements of future national security strategies. The U.S. Army 1998 Modernization Plan links specific systems to each pattern of operation. This section highlights some of the systems and programs that contribute significantly to the six patterns of operation.

Gain Information Dominance

Fielding the systems necessary to gain Information Dominance is essential to realizing the potential of the Revolution in Military Affairs. As mentioned previously, digitization is not a single program but a broad effort affecting many programs.

The digitization effort ranges from upgrading tanks and infantry fighting vehicles to incorporate onboard computers to the fielding of the Army Battle Command System (ABCS). ABCS is the central framework for networking the battlefield to execute military operations faster and more decisively. It includes other critical systems that will form the backbone of the networked and digitized force. These systems include the Army Tactical Command and Control System (ATCCS); Force XXI Battle Command Brigade and Below ($FBCB^2$); Maneuver Control System (MCS); Single Channel Ground Airborne Radio System, System Improvement Program (SINCGARS–SIP/ASIP); Enhanced Position Location Reporting System, Very High Speed Integrated Circuitry (EPLRS–VHSIC); and the Joint Tactical Radio System (JTRS). Together, these systems will yield near real time situational awareness throughout the force. Such situational awareness, in turn, makes it possible to apply combat power much more rapidly and effectively than our enemies, increase the survivability of our systems, and decrease fratricide.

Ensuring compatibility with other members of the joint team is a critical part of attaining information dominance. The Army Enterprise Architecture (AEA) is the Army's process for developing and maintaining an integrated information systems blueprint. This blueprint is being developed in accordance with the 1996 Clinger-Cohen Act and will ensure Army systems meet required compatibility standards within DOD.

Project the Force

In addition to the Army Strategic Mobility Plan, which ensures the fielding of the Air Force C–17 Globemaster III and the Navy's expansion of its RO/RO sealift capability (discussed in Chapter 2), another group of programs that support Projecting the Force are those that provide Logistics Over The Shore (LOTS) capability. This

set of systems includes vessels to transport cargo from strategic sealift ships to the beach, pier, or shore. Utility craft, such as floating cranes, also contribute to LOTS operations. By ensuring the Army can conduct operations over unimproved shorelines and through restricted access ports, LOTS equipment enhances the Army's ability to Project the Force.

Protect the Force

Theater Air and Missile Defense (TAMD) is a key requirement for Protecting the Force. From initial entry to redeployment, Army air and missile defense systems support the joint TAMD architecture. In addition to defending against aircraft, the Patriot system provides lower tier protection against Tactical Ballistic Missiles (TBM) within a limited area. Patriot Advanced Capability-3 (PAC–3) will more than double the defended area, defeat more capable TBM that have more than twice the range of the Gulf War threat, and increase missile accuracy and lethality to effectively destroy TBM and cruise missiles with WMD warheads. The Theater High Altitude Air Defense System (THAAD), currently being developed for possible deployment in 2007, will provide wide-area, upper-tier protection against TBM. The Army also supports the continued development of a system capable of providing force protection for forward area critical assets against short-range ballistic missiles and cruise missiles. The Medium Extended Air Defense System (MEADS) was being developed for this purpose. No other planned or programmed TMD system of any service can fill this role.

Protection of maneuver forces against attacking aircraft has been greatly enhanced with the fielding of the Bradley Linebacker, the Sentinel radar, and the Forward Area Air Defense Command and Control System ($FAADC^2$). The future fielding of Avengers with Slew-to-Cue capability will further improve air defense capability. These improvements provide greater lethality against existing and emerging air threats and will increase the survivability of our combat forces on future battlefields.

Shape the Battlespace

Shaping the battlespace refers to the synchronized use of various Army assets and weapons systems, such as long-range missile fires, jamming, and deception, in conjunction with maneuver, to overwhelm an enemy. The destruction of enemy reinforcements with long-range fires before they can influence the fight is an example. The capability to detect enemy forces at great distances and transmit this information to friendly forces, often referred to as sensor-to-shooter linkages, are key to shaping the battlespace. The Joint Surveillance Target Attack Radar System (JSTARS) Ground Station Module/Common Ground Station receives, processes, manipulates, and disseminates data from the airborne JSTARS radar, unmanned aerial vehicles, and other tactical, theater, and national systems. The Army Tactical Missile System (ATACMS) Block IIA program combines an extended-range missile (300 km) with the Brilliant Anti-Tank munition to engage moving armor formations effectively at great distances. The capability to detect and disrupt enemy formations at long range provided by these systems is an important element of land combat power.

Decisive Operations

Decisive Operations compel the enemy to do what friendly forces want them to do (e.g., retreat, surrender, etc.). In combat operations, we achieve this result by winning battles. With the exception of the M109A6 Paladin howitzer, we currently have better systems than our potential adversaries. However, other nations are developing weapons that equal, and, in some cases, surpass the weapons we currently field. Further, the dramatic increases in system capabilities made possible by emerging information technologies could accelerate the fielding of more capable systems by other nations. This makes improving our current systems critical to maintaining our current combat overmatch.

Several other nations, including Russia and China, currently field howitzers with better ranges and rates of fire than the Paladin. The Crusader is the Army's highest priority ground combat modernization program. This howitzer will give the Army a better system for providing close artillery fire than that of potential enemies. The Crusader features advanced technology, including the world's first fully-automated reload system, which makes Crusader's rate of fire more than three times that of the Paladin. Other incorporated technology advances ensure that the Crusader will remain the world's best close artillery system well into the 21st century and the AAN. While heavier than the current howitzer, the threefold increase in rate of fire that Crusader provides translates into a dramatic reduction in the strategic lift required to provide fire support for deployed forces because fewer Crusaders can provide better fire support than a larger number of the current howitzers.

The reconnaissance, security, and attack functions of Army aviation are keys to our capability to conduct decisive operations. The Longbow Apache fuses new technology with proven performance to ensure our forces retain the best attack helicopter into the next century. The RAH–66 Comanche addresses the current deficiencies in reconnaissance and security helicopters (Kiowa, Cobra) by providing a day, night, and adverse weather armed reconnaissance capability. Comanche is fully digitized, highly deployable, and is designed to operate in the joint environment.

The Abrams Upgrade and Systems Enhancement Programs are other key pieces of the Army's modernization strategy. The upgrade consists of converting M1 tanks to an M1A2 configuration through a number of improvements which include a digital electronics package, better armor, and better night vision. The M1A2 System Enhancement Program further improves the M1A2's digital, night vision, and onboard navigation system. Because they enable each tank to send and receive reports via digital command and control systems, these upgrades are an important aspect of digitizing the battlefield. Since the Army cannot afford to upgrade all its tanks to the M1A2 standard and continue to pursue other important modernization objectives, some M1s will be converted to M1A1D models. By adding an applique computer, this upgrade gives the M1A1D digital capability.

Sustain the Force

Sustainment enables all other patterns of operation. The improved situational awareness afforded by digitization is essential to achieve both the Revolution in Military Logistics and the capability for focused logistics envisioned by JV2010. The Global Combat Support System-Army (GCSS–A) will be the automated system that will provide global visibility of assets and requirements. GCSS–A will interface with the Combat Service Support Control System (CSSCS), which is the component of the Army Tactical Command and Control System that will provide instant visibility of tactical logistics requirements and assets. CSSCS features automatic connectivity to consumption sensors that eliminate the need for manual input from logistical, medical, financial and personnel systems. These systems, together with other improvements in equipment, communications, and organizational design, will help streamline sustainment and contribute to reduced demand. GCSS–A and CSSCS are key contributors to a more responsive logistics system.

Tactical Wheeled Vehicle (TWV) modernization is another key to providing the logistics capabilities required for the 21st century. Approximately 25 percent of the TWV fleet has exceeded its life expectancy. Congress provided additional funds in fiscal year 1999, which has helped with the procurement of new vehicles. To support the requirement of sustaining the force and avoid the inefficiencies of maintaining an aging fleet, the Army must continue funding of TWV modernization, including recapitalization.

FUTURE FORCE STRUCTURE

The Total Army has decreased in size by 37 percent since the end of the Cold War. The endstrengths recommended by the QDR (480,000 AC and 530,000 RC) make the Army as small as it can get while continuing to meet the demands of the National Military Strategy with acceptable risk. Further, reducing the size of the Total Army is likely to increase the time it takes to win future wars, with an attendant rise in casualties.

The Army has undertaken a number of initiatives in the force structure arena. We are continuing the Total Army Analysis process for evaluating our force structure. Based on recent experimentation, we have created a new design for heavy divisions that exploits the potential of digitization. Future light force experimentation and ongoing initiatives to achieve seamless integration of AC and RC forces will also influence force structure in the near term. Together, Total Army Analysis 2007 (TAA07), the Heavy Division Redesign, the ARNG Division Redesign, and the series of Total Army integration initiatives reflect the Army's efforts to shape the force to best meet the requirements of the NMS.

Total Army Analysis 2007

The Total Army Analysis process provides periodic assessments of Army force structure. TAA07 will capture the full range of Army requirements, going well beyond the possibility of having to fight two nearly simultaneous, major theater wars (MTW). TAA07 will be the first study to evaluate the force requirements for both the institutional and operational forces of Army XXI. It will consider the full range of emerging requirements, such as Homeland Defense and Domestic Operations Support, and will integrate Force XXI organizational designs. As part of the ongoing TAA process, TAA07 will ensure that our Army is employing its total strength in the most effective manner possible.

Division XXI: Redesigning the Heavy Division

The redesigned heavy division has fewer people in both its armor and mechanized infantry variants than the current Army of Excellence (AOE) division due to the greater synergy and efficiency made possible by digitizing the force. The enhanced situational awareness made possible by digitization allows maneuver forces to move to points of positional advantage with greater speed and precision, avoid enemy strengths, and combine effects of direct and indirect fires more quickly and effectively than non-digitized forces. Consequently, the number of main battle systems (tanks and infantry fighting vehicles) decreases from 58 to 44 in each line battalion in the Division XXI force structure. The increased efficiency gained from digitization in the logistics arena allows for a reduction in the number of soldiers performing the division's combat service support functions. In sum, the Division XXI armor and mechanized infantry divisions are about 12 percent smaller than their AOE predecessors, with total required strengths of 15,593 and 15,812, respectively.

The Division XXI design features a number of innovations. Each variant has 513 Reserve Component authorizations, including one ARNG MLRS battery and one ARNG general support aviation company. Embedding RC soldiers and units in the Division XXI force structure recognizes the essential role they play in Army operations today and will facilitate sustaining their readiness and rapid deployability in the next century. Among its other features, the new design adds a 49-man reconnaissance troop to each maneuver brigade, and increases mechanized infantry strength by including three squads of nine men each in infantry platoons. Based on the anticipated increase in direct support artillery capability provided by the Crusader, the Division XXI design reduces the number of howitzers in the new division from 24 to 18. Overall, the new design significantly reduces the number of people in our heavy divisions as a result of the increased lethality, survivability, and efficiency we expect from digitization.

ARNG Division Redesign Study

Total Army Analysis 2005 identified a 72,000-soldier shortfall between required and available combat support (CS) and combat service support (CSS) force structure. Two years ago, the ARNG Division Redesign Study recommended the conversion of approximately 48,000 personnel authorizations currently in ARNG combat force structure to provide some of this required CS and CSS structure. The ARNG will convert six combat brigades (19,000 soldiers) between fiscal year 2000 and fiscal year 2005, with the rest of the conversion taking place by the end of fiscal year 2009.

Total Army Integration

The pace of operations demanded by the NMS, resource constraints, and the historical tradition of the citizen-soldier in America make the further integration of the AC and RC an essential priority for America's Army. The Army's integration initiatives employ a combination of enhanced senior leader coordination mechanisms, leader and component exchange programs, and multi-component composite units to build the shared experience and trust essential for a seamless Total Army. Total Army integration initiatives demonstrate our commitment to ensuring the efficiency and relevance of Total Army force structure.

To facilitate the tough force structure decisions necessary to achieve peak efficiency, the Army has moved aggressively to improve communications among the senior leadership of the components. The Assistant Secretary for Manpower and Reserve Affairs has emphasized the role of the Army Reserve Forces Policy Committee, a committee composed of general officers of all three components. The Vice Chief of Staff re-energized another key avenue for inter-component communication, the Reserve Component Coordination Council, in order to better address difficult policy and resourcing issues. Although resource constraints require sacrifices by all, retaining the bedrock commitment to pursue the policies that best serve the nation will enable our senior Army leaders to speak with one voice and achieve the goals of integration.

The Army is expanding an initiative to embed both active and reserve elements in one unit. Programs ranging from simple leadership exchanges to the establishment of multi-component units at all levels seek to increase cross-component understanding through shared experiences. The Army is currently placing AC officers in key RC command and staff billets. This year, this program will be expanded to include assigning RC officers to command AC units. The creation of two integrated divisions, each comprised of ARNG enhanced Separate Brigades (eSB) under a headquarters commanded by an AC major general, is another AC/RC integration highlight for this year. The division headquarters will be responsible for training, readiness, and mobilization of the eSB. We are also experimenting with using RC compa-

nies to replace one of the companies in our AC light infantry battalions. These initiatives and others like them will create the kind of flexible organizations able to respond to emerging threats in both the international and domestic arenas.

Yet another initiative, divisional teaming, establishes a habitual relationship between an active component division and a reserve component division. The RC division would lead responses to certain kinds of contingencies, such as disaster relief and response to domestic emergencies, with the AC division providing personnel and equipment to augment the reserve unit. In the case of a contingency involving deployment abroad, the AC division would assume primary responsibility while accepting augmentation from the associated RC division.

Divisional teaming is in place today between the 4th Infantry Division (Mechanized) and the 40th Infantry Division (Mechanized) of the ARNG. Likewise, the 1st Cavalry Division is teamed with the 49th Armored Division. Next year, the 1st Cavalry Division will be able to use its current experience in Bosnia to help prepare the 49th Armored Division to assume responsibility for Operation Joint Forge, the U.S. portion of the Bosnia mission.

Both the increased communication at senior levels and the various proposals for blending components at all levels have the potential to enhance the future readiness of the Total Army. Any significant Army operation today must draw on the reserve components. The expanded role of the Total Army in the execution of the NMS makes rapport and cooperation among all components essential for national security.

TRAINING SOLDIERS AND LEADERS

The senior officer and NCO leaders of the AAN are platoon leaders and privates today. In addition to the fundamental mental and physical toughness that will always be required of warriors, the leaders of the AAN will require broad proficiency in a wide range of complex skills to win information-age battles. We are preparing these leaders today just as we prepare soldiers every day, all over the world through demanding training in our units and institutional schools. The Revolution in Military Affairs offers dramatic new opportunities on the battlefield, but it also offers new opportunities to leverage information technology for training soldiers and leaders more efficiently and effectively than we do today. The Total Army School System (TASS) and improvements in Training Aids, Devices, Simulators, and Simulations will contribute significantly to the preparation of tomorrow's soldiers and leaders.

The Army Leader Campaign Plan

The Army Leader Campaign Plan (ALCP) is designed to integrate current leader development efforts to produce leaders with the right values, attributes and skills to be successful in direct, organizational and strategic leadership roles. The doctrinal basis for these efforts, Field Manual 22–100, Army Leadership, has just been rewritten to establish a common framework incorporating the redefined Army values, a character development model, and an ethical climate assessment instrument. The addition of the Army values to new officer, NCO, and civilian evaluation reports is one initiative under the ALCP. Another is the increased emphasis on leadership assessments in an operational setting, such as at Combat Training Centers.

The Total Army School System

The Army is using information technology to improve how it teaches the many diverse functional skills our soldiers need to acquire. All soldiers and leaders must complete periodic skill training to attain proficiency in the new responsibilities associated with higher ranks. The Total Army School System (TASS) provides the requisite training through a network of schools spread over seven geographical regions and a distance education program based largely on correspondence courses. Information technology is helping streamline the TASS by ensuring soldiers have easier access to standardized Total Army Training System Courseware (TATSC). TATSC is making it easier for all soldiers to get the right training at the right time, regardless of where they are.

The Total Army Distance Learning Program (TADLP) is one of the initiatives for making required instruction more accessible to soldiers. This program offers a significant means for delivery of standardized individual, collective, and self-development training to soldiers and units at the right place and time through the application of multiple means and technologies. TADLP consists of a variety of different types of instruction, including video tapes and interactive multimedia instruction. The program is being significantly improved through the use of video-teletraining (VTT) and web-based instruction. Over 140 classrooms with VTT and CD–ROM capability will be fielded by the end of fiscal year 1999 to both active and reserve component sites.

The mission of the Total Army School System is challenging. Through the TADLP and TATSC, the Army is changing the education paradigm for our soldiers and leaders to meet this challenge. Eventually, these programs will replace the current system of periodic instruction with one in which soldiers and leaders participate continuously in professional education throughout their careers.

Training Aids, Devices, Simulators, and Simulations

As part of our ongoing efforts to increase the efficiency of the Army, we are incorporating a wide variety of TADSS to achieve the most realistic training possible at the lowest cost. TADSS refers to a wide range of equipment and software, from the simple laser that replicates the firing of a rifle or machine gun to the complex computer programs that drive computer-driven command post exercises to help train staff officers and NCOs at battalion and higher levels. TADSS is a valuable supplement to the live field training that is the foundation of readiness.

Computer simulations of combat operations are useful staff training tools. The Battle Command Training Program (BCTP), for example, provides an experience analogous to the combat maneuver training centers for corps, division and RC brigade staffs. The BCTP subjects staffs to fast-paced, simulated combat operations and generates the associated information flow to test the staff's ability to track subordinate units and plan future operations around the clock for several days. The virtual "enemy" is maneuvered by a professional cadre well-versed in current U.S. doctrine, making every BCTP event a challenging training exercise.

Weapons system simulators replicate the functioning of advanced weapon systems, such as the Bradley Infantry Fighting Vehicle or an attack helicopter. The efficiencies possible through the appropriate use of these TADSS are obvious. Helicopter simulators, for instance, enable air crews to achieve training proficiency on certain tasks and thus reduce the actual helicopter flying hours required for training.

In many cases, TADSS afford the Army a way to attain levels of readiness that would otherwise be impossible to achieve within safety, environmental, and resourcing constraints. Future TADSS will incorporate the Synthetic Environment (SE) Core in which a group of related systems simulators (e.g., Close Combat Tactical Trainer, Aviation Combined Arms Tactical Trainer, Fire Support Combined Arms Tactical Trainer II, etc.) will be integrated to conduct high fidelity combined arms operations. The SE Core concept will allow commanders to simultaneously train all battlefield operating systems, in real time and on the terrain of choice, across the full spectrum of military operations. The synthetic environment will link live, virtual, and constructive domains. These TADSS will substantially supplement, but cannot replace, the necessary field training that allows soldiers to train to proficiency on actual equipment while exposed to the full effects of weather and terrain.

PRESERVING ARMY VALUES

The changes embodied in the Army's modernization, force structure and training initiatives are truly revolutionary. As we implement these initiatives, it is important to balance our desire to make the changes necessary to maintain readiness with the need to preserve the fundamental qualities that have been and remain the bedrock for success in battle. We must continue to ensure that our soldiers embrace the essential values that have been the soul of our Army since its birth.

The values of loyalty, duty, respect, selfless service, honor, integrity, and personal courage are deeply rooted in our American character. These values have been the hallmark of the American soldier for over 223 years. While these values are not new, competing values in our society can obscure and dilute them. This section provides an overview of the initiatives designed to ensure that our values remain the central feature of our Army.

The Human Relations Action Plan

Our Human Relations Action Plan, published in September 1997, responded to incidents that revealed equal opportunity and sexual harassment problems in our ranks. The Army has implemented a series of initiatives outlined in the plan to fix these problems: an emphasis on teaching Army values and traditions in Initial Entry Training and in the Army at large, the assignment of additional personnel to improve supervision of Initial Entry Training, and the implementation of Army-wide Character Development XXI initiatives. Additionally, the Army is increasing the number of Equal Opportunity Advisors from 350 to 500. This year, a reassessment of the human relations environment throughout the Army will determine the effectiveness of the measures implemented under the Human Relations Action Plan.

Character Development XXI

Character Development XXI implements initiatives in doctrine and policy, training and education, and communication to strengthen the values focus of our Army. Policy initiatives include the revision of the Army leadership manual and evaluation instruments for officers, NCOs, and Army civilians discussed previously. In the training arena, the Army has lengthened Initial Entry Training by one week to permit increased training on Army values and disseminated an Ethical Climate Assessment Survey for use by Army leaders. Communications initiatives emphasized the Army's values through measures like the production of the video "Living Army Values" and the distribution of soldier cards and values tags to all soldiers.

The Consideration of Others Program

The Consideration of Others Program consists of regular small-group discussions oriented on values. Soldiers' lives are full of opportunities to meet the high standard of Army values, from the way they treat other soldiers in their units to the performance of routine inspections during guard duty. The Consideration of Others Program fosters better understanding of Army values by allowing soldiers and leaders to focus on the concrete aspects of their organizational and training environment that directly illustrate Army values in action. The program is based on the successful approach used at the United States Military Academy, and it has been implemented Army-wide as a recurring, mandatory requirement.

CONCLUSION

The Army is implementing a comprehensive modernization plan based on the anticipated requirements of future strategy and extensive experimentation with emerging technologies. The execution of this plan will provide the Army with the capability to conduct prompt and sustained operations on land throughout the full spectrum of military operations in the 21st century. The new equipment and initiatives that will realize the Revolution in Military Affairs do not change the fact that quality soldiers are the single most important factor in achieving both current and future readiness. The Army's focus on traditional values the source of our organizational excellence is a critical aspect of attracting, developing and retaining quality soldiers and leaders.

"Officers and men must know their equipment. They must train with the equipment they intend to use in battle. Equipment must be in the best operational condition when taken to the Theater of Operations." General George S. Patton, Jr.

CHAPTER 4—THE ARMY COMMUNITY—GETTING THE BALANCE RIGHT

America's Army is a community united by its special purpose to defend the Constitution of the United States. We are a community rooted in service, with installations and organizations in every state and around the world. These Army communities are good stewards of our Nation's sons and daughters, committed to providing a good quality of life and a family-friendly environment. They are also good stewards of the Nation's financial, natural and cultural resources, pursuing every reasonable efficiency and striving to comply with Federal and state regulations. The Total Army serves the Nation not only through our readiness, but in the way that readiness is achieved—while taking care of its people and the other resources entrusted to its care.

Army installations and organizations take care of soldiers, Army civilians, and family members through a collection of programs and activities that range from providing medical care to Morale, Welfare, and Recreation activities. These activities aim to preserve the quality of life within the Army community.

Whether striving to remain ready through rigorous training or applying the skills gleaned from training to the execution of the NMS, the Army is committed to be an efficient organization. Army efficiencies and Army support for the wide-ranging DOD Defense Reform Initiatives are making a difference: The Army is programmed to achieve about $10 billion in savings over the Future Years Defense Plan. By streamlining, privatizing, and seeking cost reductions across a full range of activities and processes, the Army is harnessing the Revolution in Business Activities to improve both effectiveness and efficiency.

A COMMUNITY WITH A MISSION

America's Army is a community with a mission: to fight and win America's wars. For the Army, this mission requires constant readiness to conduct prompt and sustained operations throughout the entire spectrum of military operations. Military service places unique demands on military members, their families, and the civil-

ians who work with them. These shared sacrifices forge common interests and form the foundation of the military community.

The physical manifestations of the Army community today are our installations and organizations, just as they were when frontier outposts guarded key routes and points of access to the nation. Many soldiers and their families live in military communities located and designed to support the Army's mission. Our military communities are also important for the readiness-enhancing functions they perform. Installations manage the land the Army uses for training as well as many other resources that contribute to readiness. They oversee many programs that contribute to the quality of life of soldiers and their family members. The sections that follow describe important Army-wide programs and procedures for managing installations and organizations. These programs incorporate safety into Army operations, maintain quality of life, sustain the environment, and improve efficiency.

MANAGING ARMY INSTALLATIONS AND ORGANIZATIONS

Army installations range in size from the small outposts that support peace operations in Bosnia and other places around the world to major bases that combine large maneuver training areas with communities the size of small towns. Installation staffs perform over 100 functions that parallel those of a city, business or commercial enterprise. They operate in accordance with Army regulations and standards. Efforts to increase efficiency and readiness Army-wide have led to the development of a comprehensive, annual report to monitor the status of key installation functions and facilities; a vision to guide the evolution of Army installations into the next century; and a comprehensive effort to manage the increasingly complex network of installation computers and information systems.

The Installation Status Report

The Installation Status Report (ISR), a decision support system designed to assist the Army's senior leaders in the management of our installations, provides an assessment of the status of facilities, environmental compliance, and services both on individual installations and Army-wide. The ISR provides assessments of installation readiness to perform missions such as supporting deployments and conducting mobilization training. In addition to helping installations and organizations comply with Federal and state regulations, it is a useful tool for informing resource allocation decisions.

Installation Vision 2010

Installation Vision 2010 (IV 2010) is the conceptual template for installations that supports Army Vision 2010. It is based on five tenets: Maintaining Readiness, Providing Power Projection, Maintaining Quality of Life, Sustaining the Environment, and Operating Efficiently. For each tenet, IV 2010 assigns specific goals and strategies to achieve those goals. By providing guidance and standardized strategies for achieving common goals, IV2010 will promote installation management efficiencies Army-wide.

The Installation Information Infrastructure Architecture

The Installation Information Infrastructure Architecture (I^3A), a component of the overarching Army Enterprise Architecture effort discussed in the last chapter, ensures Army systems relying on information technology meet Army and DOD capability and compatibility requirements. The I^3A provides a tool for managing installation information technology resources down to individual building level. By showing the existing and planned information technology infrastructure, the I^3A helps the installation Director of Information Management decide where and how to best use available resources. A related security architecture helps the Army protect its information systems.

SAFETY

The Army operates the largest, most comprehensive safety program in the world. Protecting its people and preventing the accidental loss of resources is a top priority for the Army's leadership. The Army has experienced dramatic improvements in its safety record over the past few years.

Army safety activities are organized to protect the force and enhance warfighting effectiveness through a systematic and progressive process of hazard identification and risk mitigation that is embedded in Army doctrine. Commanders use this risk management process to identify safety problems before they can degrade readiness or mission accomplishment. When they identify safety problems, commanders take action to address them. The Army integrates risk management into all its day-to-

day processes: from the sustaining base to combat training centers and from testing and depot activities to all types of contingency operations.

Besides protecting the force during operations, emphasis on safety at installation level insures that Army communities are safe places to live and work. Safety offices on Army installations are directly linked to the command. Installation safety managers are direct advisors to installation commanders. Each installation safety manager is responsible for the design, development, and execution of an installation safety program tailored to the unique mission functions of the installation. Safety offices on Army installations monitor safety trends identified by the Department of the Army and major command (MACOM) safety offices.

QUALITY OF LIFE

Quality of life for our soldiers and their families is a top priority for the Army leadership because it plays a key role in Army readiness. Besides influencing recruitment and retention, installation programs and services help soldiers and their families cope with increased PERSTEMPO, frequent relocations and deployments, and long separations.

To track the attitudes of soldiers and their families towards quality of life and other important issues, the Army uses the Sample Survey of Military Personnel (SSMP). The U.S. Army Research Institute for the Behavioral and Social Sciences conducts the SSMP semi-annually in the spring and fall. SSMP results contribute to the development of strategies for maintaining quality of life. These results indicate that the programs and facilities discussed in the following paragraphs—Army family and single soldier housing; healthcare; commissary and exchange privileges; family programs; and morale, welfare, and recreation (MWR) programs—are all important contributors to quality of life for soldiers and their families.

Army Family Housing

The Army's leadership is committed to providing high quality Army Family Housing (AFH). The cost of achieving this goal exceeds the funding level available. Our strategy for attaining the goal of quality housing while avoiding the high cost of revitalizing and sustaining AFH is to privatize and transition to a business basis all AFH operations and management to the maximum extent possible.

The 1996 Military Housing Privatization Initiative, also known as the Residential Communities Initiative (RCI), authorizes the use of appropriated funds and Army property to attract private-sector capital and expertise for operating, managing, repairing, improving and constructing military housing in the United States. The principal objective of the RCI, part of the DOD Defense Reform Initiatives discussed later in this chapter, is to eliminate inadequate military housing by the year 2010. Although RCI has not been authorized overseas, the Army intends to privatize all Army Family Housing in the United States by 2005. The first Army RCI project, at Fort Carson, Colorado, involves having a business lease land and housing from the Army and use them to meet Army Family Housing requirements. The organization will revitalize the inventory and build 840 new units within five years. In addition, it will own, operate and maintain the inventory for 50 years. Families will pay rent, but the rent will not exceed allowances. In addition to the Fort Carson project, additional RCI projects at 42 installations, including about 85,000 units, are either being planned or are under development. When complete, the Army community will have improved quality of life and divested a major resource burden.

While the RCI initiative is gaining momentum, the Whole-Neighborhood Revitalization Program (WNRP) is an ongoing program for systematically improving existing AFH. The goals of this program are to improve housing to current standards, reduce recurring maintenance and repair costs, and reduce energy and utility costs. There are 12 funded WNRP projects (10 in the United States and 2 in Europe) for fiscal year 1999. Fiscal year 1999 is the last year the Army will fund the WNRP in the United States; beginning next year the program will be funded exclusively overseas, where it will remain the Army's tool for managing AFH until RCI authority is extended to overseas areas.

Single Soldier Housing

Quality barracks for our single soldiers provide a safe, clean living environment and support both recruiting and retention efforts. Modernizing permanent-party, single soldier housing to what we call a "1+1" standard is our highest priority for facilities. The 1+1 standard provides each soldier with a private living/sleeping area as well as a service area (with refrigerator and microwave) and a bathroom shared with one other soldier. The Army aims to achieve this standard in the United States by 2008. With some funding assistance from host nations, we should also achieve the 1+1 standard in Europe by 2010 and in Korea by 2012.

The Army has undertaken a reexamination of barracks design for soldiers undergoing initial entry training (IET). The Trainee Barracks Design Subcommittee will work from the existing standard design developed in 1986. As part of the process of defining future facility requirements, this Subcommittee will challenge all assumptions about how soldiers in IET live and train.

Medical Care

The Army completed implementation of the TRICARE program in the last of eleven TRICARE regions in June, 1998. The TRICARE program offers CHAMPUS-eligible beneficiaries three options for obtaining health care: TRICARE Prime, Standard or Extra. Automatically enrolled in TRICARE Prime, active duty personnel continue to have their health care needs managed in military medical treatment facilities and pay nothing out of pocket for referrals to civilian providers. Depending on the rank of their sponsor, the enrolled families of active duty soldiers pay $6 or $12 for each outpatient visit to nonmilitary medical care facilities. TRICARE Standard and Extra benefits are the same as under the CHAMPUS program, with the exception that TRICARE Extra offers discounts for beneficiaries who use providers from a preferred provider network. Non-Medicare-eligible retirees under age 65 pay an annual enrollment fee of $460 per family (or $230 for the retiree alone) in addition to the copayments.

Although Medicare-eligible retirees are currently ineligible for TRICARE coverage, the Army began a demonstration program in September 1998 to test using the military program to provide care for these retirees. The 1997 Balanced Budget Act authorized the Health Care Financing Administration to reimburse DOD medical facilities for care provided to the retirees who participate in this demonstration. DOD expects to implement Medicare subvention system-wide upon successful completion of the demonstration.

The level of enrollment in TRICARE indicates the high value military members place on the benefit of high-quality medical care for themselves and their families. This benefit reassures deployed soldiers that their families will receive adequate care. The Army aggressively supports the TRICARE managed care program and managed care support (MCS) contracts, and continues to work with the Office of the Assistant Secretary of Defense (Health Affairs) to tailor TRICARE to better suit service readiness and patient needs.

Families of active duty soldiers receive dental coverage through the Family Member Dental Plan that covers a significant portion of dental procedures. Soldiers pay monthly premiums of $8.09 for one additional family member and $20.00 for more than one additional family member to be covered under this plan. Starting in February 1998, retirees and their family members began enrolling in the newly established Department of Defense Retiree Dental Plan that charges premiums according to a retiree's geographical region and number of people covered.

Commissaries and Exchanges

Commissaries and exchanges continue to be a benefit our soldiers, retirees and their families value highly. Results from a recent SSMP (Spring, 1998) indicated that commissary and exchange privileges are the two factors (out of 56) with the highest levels of satisfaction (over 70 percent) for enlisted soldiers. Commissary privileges also were the single factor with the highest level of satisfaction among officers (82 percent).

Commissaries and exchanges are an important contributor to military quality of life. These facilities offer an economical alternative to shopping in commercial grocery and department stores. Additionally, revenues generated by exchange profits contribute to installation morale, welfare, and recreation programs. The presence of commissaries and exchanges reduces the uncertainty of frequent relocations, particularly for soldiers and family members moving overseas for the first time. For those stationed overseas, commissaries and exchanges often offer the only practical access to American products.

Morale, Welfare, and Recreation Programs

Army MWR programs improve soldier readiness by promoting mental and physical fitness, increasing family wellness, and enhancing soldier and Army civilian quality of life. The programs offer a variety of recreational activities: sports and fitness facilities, libraries, indoor recreation centers, outdoor recreation centers, arts and crafts facilities, automotive skills facilities, and entertainment and leisure travel programs. Among enlisted soldiers surveyed in the SSMP, the quality and availability of Army recreation services received the third and fourth highest levels of satisfaction. The availability of recreation services was also important to the officers surveyed—rating third overall on the SSMP.

Civilian MWR professionals support major deployments by providing a range of MWR services for deployed soldiers and Army civilians. For instance, 139 civilian professionals have voluntarily served in the Operation Joint Endeavor/Guard/Forge Area of Responsibility (AOR), promoting physical fitness and providing recreation, social and other support services. At the end of fiscal year 1998, 21 MWR specialists were operating 30 MWR service points in the Bosnia AOR, supporting soldiers with DOD and United Services Organization (USO) entertainment programs, recreation programs, and special events.

Army Family Programs

Army Family Programs help soldiers and their families balance the demands of military life, provide a forum for addressing quality of life issues, and assist families in handling the stress of deployments. These programs are an important asset for our Army because 62 percent of our soldiers are married, and another four percent are single parents. By increasing our families' self reliance and improving access to the support available from within our communities, Army Family Programs are a "force multiplier" that enhance readiness.

Army Child and Youth programs support Army families by making high quality, affordable services accessible to soldiers. The Army matches child care fees paid by parents with appropriated fund support. Family Child Care homes help meet specialized care requirements. Computer labs, homework centers, and summer camps are available for school-age children. Middle school and teen open recreation programs go beyond traditional sports and recreation by providing supervision that helps these impressionable youngsters learn appropriate and healthy behavior. All of these programs help balance the demands of the Army with the needs of Army families.

The Army harnesses the volunteer spirit of its members through Family Support Groups (FSGs). These groups provide a strong internal support network for Army families. FSGs are voluntary organizations centered around the soldier's assigned unit. Scheduled meetings, telephone rosters, and newsletters foster communication and friendship within the unit "family." Many FSGs schedule regular activities designed to provide social and emotional support. When a unit deploys, the FSG becomes a mechanism to focus community support for the families of deployed soldiers. Family Assistance Centers (FAC), operated by Army units and installations during major deployments, work closely with FSGs to provide assistance, information, and referral to soldiers and family members. FACs have direct access to the resources available in key community agencies, like the Red Cross, Army Community Service, and the Judge Advocate General.

The Army Family Teambuilding Program (AFTB) enhances personal and family preparedness for three audiences: soldiers, civilians serving in positions that might require deployment, and families. Each track provides training on Army community resources. AFTB promotes self-reliance in those new to the Army, and also prepares leaders in the FSGs and units to assist others with problems. In the family member track of AFTB, the training begins with an orientation to the military for new members, and it provides a vehicle for welcoming new people into the community as well as teaching the "nuts and bolts" of Army life and Army community resources.

The Army Family Action Plan (AFAP) is one of the Army's most effective tools to manage change and help maintain high quality of life standards for soldiers, family members, and civilian employees. By providing a forum for installation and Army quality-of-life issues, the AFAP gives commanders and leaders an accurate assessment of how the people in their organizations view Army quality of life. The AFAP process begins with local conferences, where representatives of the installations' organizations identify issues of concern and recommend solutions. Most issues are resolved at local level, but some are forwarded for action at higher levels. To date, issues raised through this forum have led to 54 pieces of state and national legislation that benefit all military families. The program has also contributed to Army quality of life by generating important policy revisions, programs, and services.

Army Family Programs are an important resource for making the Army more than just the sum of its parts. By easing access to essential services and harnessing the spirit of volunteerism, these programs foster a spirit of sharing and caring that help make the Army a "family friendly" community.

Retired Soldiers

The Army community includes over 900,000 retirees and surviving spouses. These valuable members of our community provide a tangible reminder of the dedicated service of countless soldiers throughout our Nation's history. Many retirees are active members of unit associations that foster esprit among today's soldiers through

ceremonies commemorating past unit achievements. They also sponsor volunteer projects in local communities and support recruiting efforts. For today's soldiers, retirees are a compelling example of Army values and an important reminder of our duty to something larger than ourselves.

SUSTAINING THE ENVIRONMENT

The Army recognizes environmental stewardship as necessary to conserve the Nation's natural resources and promote a world that supports the quality of life of future generations. Accordingly, the Army executes no mission without addressing its environmental impact. The environmental program sustains readiness, improves the Army community's quality of life, strengthens community relationships, and provides sound stewardship of resources.

Compliance with environmental laws and regulations protects the environment, demonstrates stewardship, and prevents costly fines and penalties. The Environmental Compliance Assessment System (ECAS) is the cornerstone for Army compliance. These external assessments are conducted at active Army installations, National Guard facilities, and Army Reserve Centers. In addition, the Army uses the Installation Status Report as an internal audit system at all active and reserve installations. This annual report highlights areas of excellence in an installation's environmental program and pinpoints areas for improvement.

Pollution prevention shifts the Army's environmental focus from compliance and restoration to reduction or elimination of pollution at the source before it enters the environment. It provides a high return on investment through cost avoidance. Pollution prevention supports readiness by reducing maintenance and supply costs through centralized management of hazardous materials. By promoting non-hazardous substitutes for hazardous materials, it reduces the volume of hazardous waste disposed and the associated compliance overhead. Pollution prevention supports Army modernization through promotion of materials and processes that preclude future environmental liability.

Conservation of natural and cultural resources preserves the Army's 12 million acres for readiness activities. Conservation enables a realistic training environment; it also provides a clean, healthy environment for the recreation of soldiers, their families and the general public.

Through the Installation Restoration Program, the Army has acted aggressively to evaluate contamination from past practices and then take the appropriate steps to restore affected areas. To evaluate a site, the Army conducts a technical assessment and classifies each site according to their relative risks (high, medium or low). The Defense Planning Guidance (DPG) has established goals for reducing all such sites by 2014. The Army will fund restoration sufficiently to maintain progress towards meeting DPG goals.

DEFENSE REFORM AND ARMY INITIATIVES: ASSURING A REVOLUTION IN BUSINESS AFFAIRS

Over the last ten years, the Army has made great progress in reducing costs and increasing the effectiveness of its business processes. The latest effort—the Defense Reform Initiative—includes several efficiencies that are already included in our Future Years Defense Program. We expect to achieve about $10 billion in savings from efforts like the Revolution in Military Logistics, acquisition reform, A–76 cost competitions, and infrastructure management initiatives. By reducing costs or improving effectiveness, each of these programs has helped the Army to meet the requirements of the National Military Strategy as our force and funding has grown significantly smaller.

Though not strictly a part of the Defense Reform Initiatives, Total Army Quality (TAQ) and Army Performance Improvement Criteria (APIC) support the intent of the DRI by fostering efficient processes throughout the Army. TAQ, an adaptation of successful commercial management practices to the "business" of military readiness, is the Army's strategic management approach. The APIC provides a systematic framework for assessing continuous improvement through seven proven criteria. They are based on the Malcolm Baldrige Criteria for Performance Excellence used by leading American businesses and industry. By applying TAQ and APIC, the Army is streamlining and continually improving business operations and practices. This is evidenced by the three Army organizations that have earned the Presidential Award for Quality, the highest recognition given by the Federal government to organizations that implement best business management techniques, strategies, and performance practices: the U.S. Army Tank-Automotive Research, Development and Engineering Center in Warren, MI (1995), the U.S. Army Research, Development and Engineering Center in Picatinny Arsenal, NJ (1996), and the U.S. Army Infan-

try Center and Fort Benning in Fort Benning, GA (1997). TAQ has contributed to many of the efficiencies discussed in this section.

Reinvention

The National Partnership for Reinventing Government (NPR) is an attempt to improve efficiency by implementing the imperatives of putting customers first, empowering employees, cutting red tape, and eliminating activities that do not support core missions. Army support for this program has led to the creation of 47 reinvention laboratories and six reinvention centers. The commanders of these organizations have the mandate to reinvent processes and waive DOD regulations as needed. At the end of fiscal year 1998, the Army had implemented 333 reinvention waivers, and in concert with DOD, is developing a process to review reinvention waivers for broader application department-wide. Army reengineering efforts continue to receive executive branch recognition through competition for the Vice President's Hammer Award. The Hammer Award recognizes teams whose reinvention actions have led to new processes that support the NPR imperatives. Through fiscal year 1998, 55 Army teams had received a Hammer Award. The 23 Hammer Awards approved last year (fiscal year 1998) promise savings in excess of $465 million.

Acquisition Reform

Acquisition reform is a key component of the Defense Reform Initiative and has been a major part of the business transformation of the Army. Continuing to lead the way in acquisition reform, the Army is acquiring equipment and services more quickly and at less cost. The Army continues to lead the way in acquisition reform. Our successful Government Purchase Credit Card program for simplified acquisitions (95 percent usage) led to the Deputy Secretary of Defense directing the Army to lead a joint Program Management Office. This office is responsible for ensuring that over 90 percent of DOD is using the card by January 1, 2000. We are also a leader in implementing the DOD "paperless contracting" initiative, and are scheduled to complete fielding of the Standard Procurement Systems during the first quarter of next fiscal year. The Past Performance Information Management System (PPIMS) has been another contributor to Army contracting efficiency since it was implemented at the beginning of fiscal year 1998. With PPIMS, contracting officers can quickly check the past performance of contractors to determine their history of contract execution. Overall, the Army has reduced its cost to contract per dollar obligated by over 50 percent in the last 14 years.

Our proactive training and continuing education program for Army contractors have been instrumental in the success of our acquisition reform effort. We are leading DOD in requiring and offering continuing education for its contracting workforce. The Army Civilian Training Education Development plan requires contractors to complete 80 Continuing Education Units (CEU) every two years. The Office of the Deputy Assistant Secretary of the Army (Procurement) awards CEUs for the Acquisition Reform training that it offers. Since 1993, the Army has trained over 12,000 acquisition professionals on acquisition reform.

Streamlining Civilian Personnel Administration

In response to NPR streamlining mandates to reduce overhead, the Office of the Secretary of Defense (OSD) directed the military departments to regionalize civilian personnel services. The Army is leading DOD in the implementation of this initiative, with regionalized civilian personnel services in effect for approximately 96 percent of the Army's civilian workforce at the end of fiscal year 1998. Army Civilian Personnel Operations Centers (CPOCs) achieve economies of scale by performing automated functions that do not require face-to-face interaction. Small on-site staffs at Civilian Personnel Advisory Centers (CPACs) remain at installations to provide advisory services to commanders, managers, supervisors and employees.

Financial Management

Financial management practices have steadily improved as DOD struggles to improve its accountability and stewardship of the nation's resources. In the Army, these efforts are directly responsive to the Government Performance and Results Act (GPRA) and the Chief Financial Officer's (CFO) Act. The GPRA, established in 1993, requires Federal agencies to develop and establish strategic plans, performance measures, annual performance plans, and performance reporting. In support of DOD execution of GPRA requirements and in accordance with DOD guidance, the Army continuously reviews and monitors its strategic plans and mission objectives. The CFO Act, established in 1990, puts the Federal government on a "private industry" standard for financial reporting by requiring annual, audited financial statements. To meet the intent of this law, the Army has made great progress in integrating its functional and financial systems to achieve single-source, transaction-

driven financial control. When completed, decision makers will have accurate and timely financial management information and financial statements with unqualified audit opinions.

Activity-Based Costing

Activity-Based Costing (ABC) is the Army's tool for implementing cost management, a process of continuous improvement that focuses on cost and performance to gain efficiencies and improve operations. Local managers trace the cost of resources consumed to provide products or services. The program encourages cost control through rewards and incentives. The Army has a number of ABC efforts ongoing. U.S. Army Forces Command (FORSCOM) is instituting ABC methodologies across all of their installations. Installation directorates have developed models to measure the cost of the garrison support activities. These installations have identified areas for business process reengineering through their ABC efforts. TRADOC has ABC efforts underway at Fort Huachuca, AZ and Fort Knox, KY. Army Materiel Command has implemented ABC at Picatinny Arsenal, NJ and Corpus Christi Army Depot, TX.

A–76 Cost Competition Studies

The Army's A–76 Cost Competition Studies are a major part of the Defense Reform Initiative. These studies evaluate whether a given activity can be provided most efficiently by a streamlined government work force or by a commercial provider. The Army plan is to complete A–76 studies of about 73,000 positions by fiscal year 2005, including all commercial activities and some activities currently considered governmental. Since fiscal year 1979, the Army has completed A–76 cost competitions for functions covering over 25,000 positions. Nearly two-thirds of these positions (13,000 civilian and 2,900 military) were converted to contract. The average savings achieved by these studies, either by outsourcing to a private competitor or instituting a reengineered process within the current activity, has been about 28 percent of the pre-competition cost.

Base Realignment and Closure

Base Realignment and Closure (BRAC) is one way the Army reduces its excess infrastructure. The Army has already closed 102 of the 112 bases scheduled for closure in the United States and has nearly completed the 667 overseas closures resulting from the BRAC process thus far. The Army is on schedule to complete the closures authorized in the most recent BRAC process.

The annual savings from BRAC actions currently being implemented exceeds the annual costs of implementation. Although the Army will spend $5.2 billion implementing current BRAC actions, about 32 percent of that amount is invested in constructing or modifying facilities at locations that are gaining realigned activities. With the completion of scheduled closures under current BRAC authority in fiscal year 2001, the Army will have reduced its infrastructure by 30 percent since the Cold War. Additional base closures can realize even more cost-effective savings. While closing installations costs alot in the near term, the long-term benefits in terms of Army efficiencies and property made available for public use exceed the costs. The Army supports the DOD position requesting additional BRAC authorizations as part of our continuing defense reform efforts.

Other Infrastructure Management Initiatives

In addition to implementing BRAC decisions, the Army also has a host of other equally important initiatives that contribute to improved economic efficiency and combat capability in both the active and reserve components. The Army is reducing costs and managing its infrastructure more efficiently through several infrastructure management programs that are part of the Defense Reform Initiatives. These efforts include initiatives to dispose of excess infrastructure, use its infrastructure in innovative ways and privatize utilities. In 1997, the Army completed the seventh year of a Facilities Reduction Program that disposed of more than 57 million square feet of excess infrastructure. By the end of fiscal year 1999, we expect to have eliminated an additional 7 million square feet, at a cost of $99.6 million in fiscal year 1999 RPM funds.

Three major initiatives improve how the Army uses its current infrastructure. The first moves Army units from commercially-leased space to renovated Army facilities. Four Army activities were moved into renovated Army facilities in fiscal year 1998, eliminating the expense of leasing the 69,500 square feet of commercial space these activities required. The fiscal year 1999 budget contains another $15.9 million to construct buildings and renovate space to support moving another 35 activities out of commercially-leased space by fiscal year 2002.

The second initiative is to lease Army real property temporarily available for other use to private organizations in accordance with the provisions of 10 U.S.C. 2667. The Army earns about $20 million annually in revenues and an unknown amount of in-kind benefits through this initiative.

Under the third initiative, the Asset Management Strategy, the Army seeks to obtain private sector financing to accomplish installation objectives and generate revenues in exchange for shared use of real property with commercial firms. The result is a win-win situation for all—the Army, the private sector partner, the local community, and the American taxpayer. Three pilot Asset Management Strategy programs are currently underway at Yuma Proving Ground, AZ; Picatinny Arsenal, NJ; and Fort Sam Houston, TX.

The utilities privatization initiative transfers ownership and responsibility for operation, maintenance and upgrade of Army-owned utilities to the local utility provider who can ensure safe, efficient operation at a savings to the Army. The privatization goal is to transfer ownership of all Army-owned utilities by 30 September 2003, except for those not economically justifiable or that meet unique security requirements. Forty-nine of the 1,101 Army-owned utilities have been privatized, and privatization has been determined either undesirable or economically unjustifiable for another 34. One hundred thirty-six utilities are currently under study. Eighty-seven are either awaiting negotiation, under negotiation, or have requests for proposal under development. The remaining 795 utilities require study.

Logistics Efficiencies

The Revolution in Military Logistics is a major component of Army and DOD efforts for reducing costs. The RML is also important to ensuring that the Army remains dominant on the battlefields of tomorrow. The RML, part of the Defense Reform Initiatives, will convert Army logistics over several years from a system based on maintenance of large stockpiles (mass) to one based on the ability to move required items to the point they are needed at the time they are needed. This transition includes a number of Army logistics initiatives that offer potential savings of over $2 billion during the period fiscal year 1998 to fiscal year 2003. RML initiatives follow three strategies to achieve cost savings: inventory reductions through better management and faster deliveries (Army repair parts inventories have been reduced $9.5 billion, or 50 percent, from fiscal year 1989 to fiscal year 1998), demand reductions through increased reliability of parts, and cost reductions.

Total Asset Visibility and Velocity Management

Army Total Asset Visibility offers one example of a comprehensive initiative that will make the Army a more efficient organization while enhancing Army warfighting capabilities. ATAV will realize the JV2010 operational concept of focused logistics. It employs existing and emerging information technologies to furnish managers and leaders throughout the Army with information on the location, quantity, condition, and movement of assets worldwide. Radio frequency technology, laser optical technology, and bar coding are examples of technologies that allow Army logisticians to monitor cargo movements, redirect crucial shipments and locate critical supplies. We are currently able to track more than three million types of equipment and supplies throughout DOD and the Army.

In support of the DOD-directed Lateral Redistribution and Procurement Offset Initiative, ATAV provides asset data to all services and to the Defense Logistics Agency (DLA). This information is used to redistribute critical assets to meet user requirements.

A related initiative, Velocity Management, achieves savings by substituting velocity (rapid delivery from wholesale level) for mass (large stockpiles in theater). The work of a number of process improvement teams (PIT) has served to accelerate the overall delivery process. The Order-Ship Time PIT, for example, has reduced Order-Ship Time for high priority shipments worldwide by coordinating regular shipments between Army installations and the DLA, providing dedicated transportation support, and eliminating wasted time in the supply distribution chain. The key to improving Order Ship Time is the fielding of the Standard Army Retail Supply System-Objective (SARSS–O) and related automatic identification technology throughout the Army. We are already seeing tangible improvements. Comparisons conducted by RAND's Arroyo Center indicate our Order-Ship Time results are far better than those of the private sector.

Integrated Sustainment Maintenance

Integrated Sustainment Maintenance (ISM) streamlines all maintenance organizations and activities in the Army at general support level (the second level of maintenance support above the using unit) and higher by bringing them all under a single management structure and by establishing regional component repair programs.

Centers of Excellence (COE) within each region support several major commands and all components of the Total Army. COE focus the demand for specific types of maintenance within a particular region. A national-level management structure under control of the Army Materiel Command provides inter-region coordination. Local Sustainment Maintenance Management (LSMM) offices feed installation requirements into the regional and national system. Cost savings from all facets of ISM are expected to total $142 million over the period from fiscal year 1998 to fiscal year 2003. Actual savings from fiscal year 1998 totaled $26.7 million.

Operating and Support Cost Reduction

An internal initiative, the Army's operating and support cost reduction program, seeks to lower costs by funding the redesign of selected high-cost spare parts in order to increase reliability, reduce manufacturing and repair costs, and optimize the financial benefit of repair instead of replacement. For instance, adding a replaceable, leading edge erosion strip to the tail rotor of the AH–64 helicopter extends the life of the blade and is replaceable at depot maintenance level. Through this measure, the Army reduces the frequency with which it must replace the relatively expensive tail rotor by adding a less expensive component to absorb wear and tear. The Army's Operating and Support Cost Reduction program currently has 71 active projects, and the Army Audit Agency has concluded that the program should save $295 million over the fiscal year 1998–2003 time period.

Depot Consolidation and Competitive Sourcing

Depot consolidation and competitive sourcing is an effort that balances the savings possible through BRAC and commercial procurement with the requirement to preserve organic core depot capabilities as part of America's industrial base. From the BRAC perspective, there are obvious savings to consolidating core capabilities at remaining depots. The relocation of core capabilities often allows commercial enterprises to move into vacated depot facilities. Competitive sourcing of the depot workload has historically been limited by Title 10 U.S.C., Section 2466, to no more than 40 percent of the total required workload per fiscal year. The Fiscal Year 1998 Defense Authorization Act increased this threshold to 50 percent, allowing DOD to utilize the private sector to perform more non-core depot maintenance work.

Prime Vendor Initiatives

The Prime Vendor program is another major Defense Reform Initiative. A number of programs achieve savings for the Army by providing one or more prime vendors with the Army's high-volume market for various commodities. Prime vendor programs focus Army purchases to allow vendors to achieve efficiencies possible with high-volume sales. The benefit is passed on to the Army through the reduced total cost of the purchases.

A recent DOD success with Subsistence Prime Vendor (SPV) illustrates an additional benefit of this initiative. Installations using SPV reduce Defense Logistics Agency depot support demands by procuring products through local prime vendors. The DLA recently reduced its surcharge for installations using SPV. The surcharge reduction was in part the result of decreased operational costs in depot support due to installation purchases from prime vendors. All AC CONUS installations, which have been under SPV since the end of fiscal year 1997, benefited from this surcharge reduction.

ARMY INSTALLATIONS AND ORGANIZATIONS: GOOD NEIGHBORS NATION-WIDE

As the largest Service component of the DOD, the Service with the largest reserve component force structure, and the proponent of the Army Civil Works Program, the Army has a special relationship with American communities nation-wide. Through over 190 major installations and many thousands of readiness and reserve centers across the country, the Army is rooted in the nation we serve.

America's Army: The Community Next Door

More Americans serve in the Total Army than in any other branch of Service. For many Americans and for many people around the world, contact with an American soldier is the most tangible contact with our government they experience. Army leaders often say that soldiers are our credentials, but American soldiers are America's credentials as well. The nature of the Army's contribution to the NMS brings soldiers into direct contact with civilians, in our communities and abroad, to a greater extent than for any other branch of Service. The Army is a quality team of America's sons and daughters representing all Americans today. The values, diversity and teamwork of our soldiers are compelling examples for people at home and abroad.

Contributing to the well-being of the nation we serve both directly and indirectly, Army installations and organizations are good neighbors for America's communities. They provide a market for community goods and services and are committed to safety, environmental stewardship, and maintaining good relations with local authorities. The Army was the largest single source of prime DOD contracts (those worth more than $25,000) in 17 states and the second largest source of such contracts in 19 additional states in fiscal year 1997.

The 530,000 soldiers of the Selected Reserve balance their military service with full-time civilian jobs. These soldiers and their families bring the vitality of America to the Total Army. They also take Total Army values to their civilian endeavors.

By the same token, American communities support our soldiers. Community organizations sponsor soldiers deployed around the world. On a recent Multinational Force and Observers (MFO) peacekeeping deployment, sponsored units received "care packages" of magazines and disposable cameras from community organizations at home. Soldiers returned pictures and letters describing their duties and activities. "Grassroots" programs such as these build morale for deployed soldiers and keep communities in touch with the contributions of their Army.

The Army Civil Works Program

Civil Works missions conducted by the U.S. Army Corps of Engineers (USACE) are extremely beneficial to the Nation. The Army's harbor projects are vital to the import and export trade, and waterways maintained by the USACE help move inter-city cargo. Flood protection projects have prevented billions of dollars in damage. The Army produces 25 percent of the Nation's hydropower and provides water to about 10 million people. Civil Works missions in natural resources, water quality, flood plain management, and toxic waste control assist the Army in complying with Federal environmental statutes and help the Army maintain a grass-roots presence in communities across the Nation.

The Army maintains a force of approximately 300 military and 27,000 civilians, supported by tens of thousands of contractor employees, to carry out the Civil Works program. The USACE provides the Army experience in many specialized fields. This significant force stands ready to meet the engineering and technical needs of the Army and the Nation.

CONCLUSION

America's Army supports our Nation through more than simply our military capabilities. In addition to doing America's heavy lifting in the execution of the National Military Strategy, the character of America's Army—a community with a mission—supports the well-being of all American communities and the American people. The Army's commitment to taking care of its soldiers and Army civilians benefits the Nation by fostering strong families, safe communities, and volunteerism. Our commitment to service makes America's Army a good custodian of the Nation's financial, natural and cultural resources. For America, the Total Army is a high-yield investment, ready to fight and win the Nation's wars and striving to be all we can be.

CHAPTER 5—STRETCHING THE FABRIC OF THE ARMY

Recent funding constraints and increasing operational demands are stretching the fabric of our Army in three major areas: people, readiness, and modernization. During recent testimony before Congress, the Chief of Staff, Army, identified the need to increase the Army's Total Obligation Authority by $5 billion per year in addition to funding for contingency operations and increases in military pay and retirement. In response, Congress authorized a fiscal year 1999 supplemental funding measure which included $377.5 million for Army readiness and $1,859 million for contingency operations, of which the Army received $1,495 million. The President's fiscal year 2000 Budget builds on the progress begun with the supplemental. The fiscal year 1999 supplemental appropriations and the fiscal year 2000 President's Budget Request are steps in the right direction; these measures begin to address our concerns in people and near-term readiness. Modernization needs are being addressed with investment levels remaining roughly at the same level as in fiscal year 1999, with the expectation for increases in future years.

Army concerns in people, readiness, and modernization programs voiced last year are real concerns that cannot be addressed with a one-time funding fix or in one year's budget. Manning the force adequately by recruiting and retaining quality men and women requires a sustained commitment to a pay and benefits package that makes military service a competitive option. The Army must also carefully manage PERSTEMPO and quality of life while meeting the increased demands of

the NMS. To assure current readiness, the Army requires more than just the OPTEMPO dollars that fund the bulk of Army training. Sustained, adequate funding for contingency operations, base operations, and real property maintenance also protect training dollars and enhance readiness. Modernization is a continuous process that requires disciplined investment to achieve and sustain an effective fighting force.

The complexities of readiness today require careful allocation of resources to meet national objectives. Readiness across the full range of missions we must perform to execute the NMS remains our fundamental precept. The Army's increased role in the execution of the NMS since the end of the Cold War requires increased resources for Army readiness. The readiness warning signs that emerged last year were a function of trying to meet expanded requirements with reduced resources. The fiscal year 2000 Budget Request represents the best possible balance of available resources applied across the priorities of people, readiness, and modernization. These three areas require a sustained commitment to an increased level of funding for the Army. This chapter describes the issues associated with each area and points out how the fiscal year 2000 Budget addresses many of the Army's concerns in the areas of people and current readiness for the coming year. This budget, with timely and non-offset funding for any unfunded contingencies, will allow the Army to execute the NMS in fiscal year 2000.

TAKING CARE OF PEOPLE

Quality soldiers are the single most important factor in achieving and sustaining readiness, but recruiting and retaining them is increasingly difficult. The Army must recruit, train, and retain enough soldiers to meet the requirements of 511 different specialty skills needed to generate the Army's warfighting capabilities; our studies show that the population of young males today is less willing to enlist for military service than their counterparts of a decade ago. Keen competition for the quality people we seek to enlist and for those we seek to retain, coupled with a decrease in the propensity for military service, has doubled the cost to recruit a soldier since 1986. To meet the challenge of attracting and retaining enough quality people for our Army, it is important to reduce dissatisfaction with compensation and restore the retirement benefits lost with the introduction of the Military Retirement Reduction Act (MRRA) retirement plan. We must also mitigate the challenging PERSTEMPO associated with executing the NMS and provide commanders the tools to help them manage PERSTEMPO and quality of life.

Recruiting, Retention, and Compensation

As indicated in the chart on the next page, the Total Army is having difficulty recruiting sufficient numbers of high-quality young men and women to meet requirements. The AC missed its fiscal year 1998 target of 72,550 new recruits by 797 soldiers. The United States Army Recruiting Command missed their USAR target by 3,729 soldiers, and the ARNG fell 1,237 soldiers short of their recruiting goals. Compounding this problem, the cost of recruiting each individual soldier has doubled since 1986 from $5,300 to more than $10,000. Recruiting enough soldiers to meet our targets is important for filling the ranks today, but it is also critical to ensure that we have enough high quality NCOs for the future.

Meeting quality goals is another area of concern. Eighty-nine percent of the Total Army fiscal year 1998 enlistees who had no previous military service were high school diploma graduates. Both the AC and the USAR met the 90 percent target for high school diploma graduates. To achieve this goal, however, the active component had to draw upon some of its pool of Delayed Entry Program (DEP) candidates for fiscal year 1999. Because the DEP is traditionally a way to begin building the pool of recruits for any given year, the fact that we inducted some of the fiscal year 1999 DEP pool in fiscal year 1998 is making it harder to meet this year's goals. Sixty-five percent of Total Army non-prior-service enlistees in fiscal year 1998 had AFQT scores in the top three ASVAB categories. All three components satisfied the third quality criterion by accepting two percent or less of non-prior service enlistees with AFQT scores in Category IV. The Army is resourcing its recruiting efforts to improve future recruiting performance.

Because the recruiting goals of all three components are higher for fiscal year 1999 than they were last year, the Army has taken active steps to increase the number of recruiters and revamp its advertising strategy. The $13 million devoted to recruiting under the fiscal year 1999 supplemental has helped address the increased costs of recruiting by providing money for increased enlisted bonuses and additional advertising for the USAR. Other incentives include increasing the College Fund maximum from $40,000 to $50,000 and extending enlistment bonus and Loan Repayment Program maximums. In spite of these incentives, current projections in-

dicate that the active component will fall several thousand recruits short of its fiscal year 1999 goal.

Retention and Compensation

Our soldiers and leaders are working hard. Frequent deployments result in a challenging pace. Because many of our soldiers have families, they must balance training and operational deployments with Little League, child care, and other important responsibilities to their spouses and families. Many of our single soldiers are among those still wrestling with important career choices. For all of our soldiers, compensation, retirement benefits, and quality of life are important factors for determining whether they remain in the Army.

In general, the Army exceeded its retention (or reenlistment) goals for fiscal year 1998. However, these overall percentages mask retention difficulties in certain ranks and specialty skills. Between 1991 and 1998, the percentage of both officers and enlisted soldiers indicating they intended to remain on active duty until retirement declined by over five percent. According to a recent (Spring 1998) Sample Survey of Military Personnel, the top two reasons cited by officers for leaving the military were the amount of time they were separated from their family and the amount of basic pay. The top two reasons for leaving cited by enlisted soldiers were the amount of pay they receive and the quality of Army life. The survey reflected a statistically significant increase (up 5.6 percent for officers and 6.9 percent for enlisted soldiers between 1993 and 1998) in the percentage of both officers and enlisted soldiers citing inadequate retirement pay as a reason for leaving the Army. These results confirm that compensation, retirement benefits, and quality of life issues are important factors for recruiting and retaining quality people in our Army.

A soldier's regular military compensation has three components: basic pay, various cost of living allowances that accrue to each soldier based on his or her marital status and area of assignment, and other factors such as hazardous duty, special skill pay, and deployment pay. Military pay raises have been capped at .5 percent below the Employment Cost Index (ECI). Over time, the perception of a gap between military pay and pay for comparable work in the civilian sector has grown to the point that it is a frequent complaint among soldiers. Research indicates soldiers believe they receive less pay than Americans doing comparable work in the civilian sector. The Army supports increasing pay over time, but the money to achieve this goal must come from an increase in the Army's Total Obligation Authority. We cannot accept further reductions in force structure or other Army accounts without increasing readiness risks unacceptably.

Military retirement pay is another factor that affects individual decisions to enlist, reenlist, or remain in the Army. Consequently, changes to military retirement can have repercussions for force structure and readiness. Depending on when they entered service, our soldiers are covered by one of three retirement plans. As shown in the graph at the top of the page, each of these retirement systems provide retired soldiers with some percentage of their base pay multiplied by the number of years of military service. As of the end of fiscal year 1998, the 8.4 percent of the AC who entered service prior to 1980 were under the traditional plan, the 14.4 percent who entered service between 1980 and 1986 were under the "High Three" system, and the 77.2 percent who entered service after 1986 were under the MRRA system. In addition to using a smaller percentage of base pay to calculate the retired benefit, the MRRA system features a smaller annual cost of living allowance that further erodes the benefit over time. The disparity between the MRRA plan and the other retirement systems is an issue of growing concern among soldiers who will begin retiring under this plan in 2006. For these and other reasons, the Army opposes any further reduction in military retirement and supports the Administration's proposal to restore the 20-year retirement at 50 percent of final base pay.

The Army is aggressively pursuing better marketing and recruiting techniques to help meet the challenge of recruiting and retaining enough quality people to assure readiness for today and tomorrow. We support measures to reduce our soldiers' perception of a gap between military and civilian pay and redress the disparity between the MRRA retirement plan and previous plans. Our success in recruiting and retention will ultimately depend on making military service attractive to the pool of high-quality young people eligible to serve.

Managing PERSTEMPO

Deployments and separations have always been a part of military life, and the increased operational commitment of American soldiers abroad combined with necessary readiness training and training deployments make them even more common today. While the excitement of military deployments and travel is part of the attraction of military life for many people, the time that soldiers spend away from home

can negatively affect morale, quality of life, recruiting and retention if not managed properly. Deployments can also disrupt our units' normal training rythyms, particularly when the deployments are for missions that emphasize nonstandard skills.

There are a number of benefits to the nontraditional missions the Army has been called upon to execute in recent years. We believe the peace operations the Army is executing today serve to reduce the need to respond to potential crises tomorrow. Finally, many Army combat support and logistics units are doing substantially the same thing in Bosnia and other peace operations that they would in full-scale conflict. All soldiers participating in such operations get some training benefit from their experience, whether it is implementing rules of engagement, conducting force protection missions, or executing deployment operations.

These benefits notwithstanding, however, the pace of operations since the end of the Cold War has increased the "wear and tear" of military life. Ongoing peacekeeping and peace enforcement commitments affect many more units and soldiers than are actually deployed at any given time. Because these missions require special skills not associated with most combat units' normal wartime tasks, units committed to peacekeeping and peace enforcement roles must conduct preparatory training before they deploy and refresher training to regain warfighting skill proficiency after they return. Peacekeeping and peace enforcement missions also require augmentation from sister units and from soldiers with certain low-density skills or Military Occupational Specialties (MOS). The net effect is that missions such as Bosnia affect the combat readiness training of more units than are actually deployed at any given time. A good rule of thumb to assess the readiness impact of these kinds of missions is to count two additional units as committed for each one actually deployed.

The increased pace of contingency operations and associated training cuts into time available for home station training on essential tasks. This contributes to the decline in proficiency noted in our CTCs. We are still proficient, but we are not as proficient as we were a few years ago.

The employment of the reserve components for contingency operations helps the Army manage PERSTEMPO. The RC has been a big contributor and has helped greatly in our missions abroad. We need the RC to conduct operations if we are to sustain readiness training and manage PERSTEMPO. With the expansion of Total Army integration initiatives, employment of reserve forces will increase in the future. For example, the 49th Armored Division (ARNG) will provide the division headquarters for the Bosnia mission in fiscal year 2000.

While the employment of the 49th Armored Division is significant, the Army must manage RC PERSTEMPO also. The PERSTEMPO impact on a reserve component unit performing a mission such as Bosnia is even greater than the impact on AC units. Including the time required to conduct the necessary preparatory training, committing RC soldiers to Bosnia requires us to pull them away from their jobs, and from their employers, for about a year. When one considers that over 16,000 RC soldiers have served in Bosnia thus far, and the Army will continue to rely on their contribution, the message is clear. We must manage RC PERSTEMPO carefully.

Total Army Integration initiatives offer a variety of combinations to capitalize on the strengths of the various components and manage PERSTEMPO. We must explore these initiatives to help continue the effective use of both AC and RC units in peacekeeping and peace enforcement roles, while minimizing the costs and negative impacts on individuals and units. For this reason, the divisional teaming initiative focuses extensively on keeping the main efforts of the reserve components on missions like Homeland Defense and Disaster Relief. These are important missions, and they are compatible with the special PERSTEMPO considerations of employing RC personnel in peacetime.

Managing PERSTEMPO is an important consideration for Army operations. Excessive PERSTEMPO is one of a number of factors that can undermine the attractiveness of military life and erode our ability to recruit and retain quality people. Commanders must manage soldier PERSTEMPO while meeting the demands of their operational and training missions. We can help commanders manage some PERSTEMPO by funding modernization, training, BASOPS, and RPM because the equipment and other resources available to our soldiers affect the time it takes to accomplish necessary training and to maintain equipment.

CONCERNS WITH READINESS AND MODERNIZATION

From fiscal year 1989 to fiscal year 1999, Army Total Obligation Authority declined 37 percent in fiscal year 2000 dollars (normalized for one-time transfers). The Army's share of Department of Defense TOA declined from 27.5 percent in fiscal year 1989 to 25 percent in fiscal year 1999. Concurrently, the Army has played an

increasing role in executing the National Military Strategy, providing over 60 percent of the people for 32 of the 36 major military operations since the end of the Cold War. While we have preserved readiness for today by deferring modernization and taking advantage of our soldiers' extraordinary efforts, sustaining readiness requires increased resourcing to enable the Army to take care of people, meet current readiness requirements, and prepare for the future.

The difference between funding levels and actual readiness costs in the last decade has required Army leaders to take increased risk in modernization (including recapitalization) and maintenance of facilities so they could resource current readiness. The funding for many of the direct costs associated with training (OPTEMPO) has also suffered, in part due to the migration of funds to shore up readiness-related elements of BASOPS and RPM. The fiscal year 2000 Budget provides funds to address the most significant of our near-term readiness concerns. Funding current readiness and taking care of people precludes increasing modernization accounts at this time.

Readiness

Properly resourced training prepares our quality soldiers to do their current jobs and assume increased responsibilities in the future. Assets such as our combat training centers make the American Army the best-trained Army in the world. Frequent deployments and scarce resources, however, have decreased our ability to conduct home-station unit field training at battalion and brigade level in recent years. The result has been a major challenge in maintaining unit proficiency between CTC rotations.

Army leaders plan training in detail, integrating their training plans with other units to ensure that training is properly resourced and efficient. Leaders evaluate training and lead after action reviews (AARs) with all participants to ensure soldiers get the maximum benefit from each event. This systematic approach allows the Army to identify resource requirements with some precision. Additional resource requirements identified in recent testimony before Congress included fully funding the training costs of some RC units, upgrading ranges Army-wide to support quality training with our most modern weapon systems and targetry, and protecting OPTEMPO dollars from being used for funding contingency operations or other readiness-related expenses. Although funding for CONOPs must be addressed with each new contingency, the fiscal year 2000 Budget Request satisfies most of the near-term readiness requirements we have identified.

Recent funding constraints have forced the Army to adopt a tiered-resourcing strategy to fund training for first-to-fight units. The resource tiers are related to a given unit's place in one of four "force packages." Force Packages (FP) are groupings of units based on their order of anticipated commitment to support contingencies. Units in FP 1 through 3 are funded for 100 percent of the operations, spare parts, and training costs associated with each unit's Combined Arms Training Strategy (CATS). We have not been able to fully fund training for reserve component units in FP4 in recent years. The fiscal year 2000 Budget and outyear plan increases OPTEMPO funding for these units.

The Army must also upgrade its range facilities to ensure soldiers are properly trained to employ new weapon systems and technologies. Ranges must enable training at greater distances and must allow the integration of weapon systems with information technologies. The Army Ranges and Training Lands Requirements Review and Prioritization Board has prioritized 157 range and training land projects. These projects include digital ranges to support our modern weapon systems, urban terrain training facilities, and qualification ranges. High quality ranges with advanced target systems are important tools to train soldiers to fire and maneuver effectively and safely. Such ranges contribute to reducing fratricide in combat. The budget request funds some improvements to ranges in fiscal year 2000, with additional funding planned through fiscal year 2005.

Contingency deployments have become routine in recent years. Since they are technically "unforeseen" requirements, they generally are not funded in advance. When the Army sends soldiers to these deployments, the funding comes out of our TOA for the year of execution; specifically it comes out of our OPTEMPO funds. These funds also support our training. When a large chunk of this money is unexpectedly committed to cover the costs of a contingency mission, the training that money was earmarked to support is jeopardized. Though the funding may eventually be provided, there is no way to recapture the lost time if a training event must be cancelled. Timely, non-offset reimbursement for contingency missions is essential to protect training. The fiscal year 2000 Budget provides funding for known contingency operations.

BASOPS and RPM

BASOPS and RPM accounts are important. They affect readiness because they fund the installation facilities and activities that support training, maintenance and deployment. They also affect morale by impacting the quality of life of soldiers and their families. In the fiscal year 2000 Budget and outyear plan, our BASOPS and RPM accounts are funded at 95 percent and 75 percent of requirements, respectively. RPM funding increases to 90 percent from fiscal year 2002 through fiscal year 2005.

Deterioration of facilities and activities that support training, maintenance, and deployment over the past several years resulting from underfunded BASOPS and RPM accounts has forced commanders to use training money to provide needed funds for the maintenance of readiness-related infrastructure. In an effort to identify the readiness-related components of these two accounts more clearly for the purpose of readiness reporting, the Army has developed the concept of Operational Readiness (OPRED). The OPRED concept will give better visibility to the resources needed to fund the infrastructure that contributes to readiness. This includes infrastructure such as ranges, land, power projection facilities and facilities housing supply operations, TADSS, and maintenance activities. The fiscal year 2000 budget and outyear plan fund BASOPS and RPM at a level that should help stem the migration of training money and will allow the Army to prevent further deterioration of critical facilities.

Better funding of RPM will also makes it easier to streamline infrastructure. As described in the previous chapter, the Army is pursuing a wide range of programs that divest excess infrastructure to free resources for better care of needed facilities. Divestiture takes place through a number of programs, ranging from Base Realignment and Closure (BRAC) to demolition of old facilities unsuitable for other purposes. Proper funding of RPM facilitates getting rid of unusable facilities and saves the money that would otherwise be spent on them.

Modernization

Shaping and responding operations compete for the same limited resources needed to modernize. At the same time, the increased wear and tear on Army equipment associated with supporting contingency operations causes a higher than programmed toll on that equipment's useful life, thus shortening potential life cycles and further increasing the need for recapitalization. Maintaining current readiness at the cost of modernization has resulted in slowing, stretching, or canceling key programs. In accepting the inefficiencies of these actions, the Army has deferred the capabilities these systems would provide.

Declining Army TOA has had the most acute effect in our modernization accounts. Over the past decade, Army Research, Development, and Acquisition funding has dropped 47 percent. Furthermore, Army RDA spending constitutes only 16 percent ($14 billion including Chemical Demilitarization funds) of total DOD RDA dollars. In acquisition, procurement programs are generally most efficient and yield the lowest cost per item when manufacturers can produce equipment at rates that optimize the efficiency of production facilities and people. Due to funding constraints, the Army has terminated or restructured over 100 programs since 1987 and has maintained procurement programs at minimum sustaining rates rather than more efficient rates.

While the funding increases contained in the fiscal year 2000 budget begin to address many concerns in the areas of people and near-term readiness, the Army continues to carry the largest burden of risk in its modernization funding. This budget holds modernization accounts at roughly the same level as last year. This level of funding is sufficient to sustain our highest priority programs at the minimum essential levels to ensure development of future capabilities, but at a pace slower than desired. The Army expects to be able to fund modernization at a higher level in future years. Among the priorities for these funds will be increasing the pace for the modernization of soldier support systems, replacement of aging equipment, improvement of combat systems, procurement of modernized munitions, expansion of RC modernization, and Force XXI digitization.

RESOURCES AVAILABLE: THE FISCAL YEAR 2000 BUDGET

The fiscal year 2000 Budget submission for the Army totals $67.4 billion. The following chart shows both the fiscal year 1999 (current year) budget and the proposed fiscal year 2000 budget by major spending categories:

FISCAL YEAR 2000 ARMY BUDGET

[Dollars in billions, current dollars]

Appropriation	Fiscal year 1999	Fiscal year 2000	Change
Military Personnel	26.8	27.8	+1.0
Operation and Maintenance	21.1	22.9	+1.8
Procurement	8.5	8.6	+.1
Research, Development, Test and Evaluation	5.0	4.4	−.6
Military Construction	1.2	.7	−.5
Army Family Housing	1.2	1.1	−.1
Base Realignment and Closure	.5	.2	−.3
Chemical Demilitarization	.8	1.2	+.4
Environmental Restoration	.4	.4	.....
Defense Working Capital Fund, Army	.....	.1	−.1
Total [1]	65.5	67.4	+1.9

[1] Totals may not add due to rounding.

The budget reflects almost a $2.0 billion increase from last year's budget. Increases in funding for contingencies, pay, retirement, and near-term readiness are included. The budget funds OPTEMPO at 100 percent for both AC and RC units in Force Packages (FP) 1 through 3. OPTEMPO for the RC units in FP4 has been increased. Funding for BASOPS covers 95 percent of requirements. This increase from last year's budgeted level of 84 percent (91 percent after the supplemental), is significant because it will reduce the need to migrate funds from OPTEMPO accounts. Funding for RPM is 75 percent, which is also an increase from last year. This level of Real Property Maintenance funding will allow the Army to begin reversing the deterioration of its facilities, and anticipated increases to 90 percent of requirements in future years will enable a modest revitalization program beginning in fiscal year 2003. By providing funds for modernizing ranges, the budget supports another key near-term readiness requirement. Finally, the budget funds modernization programs at roughly the same level as last year.

CONCLUSION

Today's Total Army is one-third smaller than the Cold War Army, yet it conducts many times the number of operations per year as that larger force. The NMS places unique demands on America's Army and American soldiers because of the nature of our missions as well as the nature of our readiness and modernization requirements. The Army should receive resources commensurate with its role in executing the NMS.

Assuring readiness for today and for the 21st century requires a steady commitment to providing funds for people, readiness, and modernization. The cost avoidances made possible by reduced defense spending in the wake of the Cold War, now in excess of $750 billion, support such a commitment. Adequately funding readiness requires keeping BASOPS and RPM accounts at levels that protect training dollars. Contingency operation funding must be provided early and must come above the Army's top line. Adequate funding is essential to preparing American soldiers for the full spectrum of military operations necessary to support national security.

Attracting and retaining quality people requires funding the programs that provide those people and their families with an adequate quality of life. At a time when the NMS requires sending soldiers abroad more than at any time in recent history, we must strive to improve pay and retirement to a level that provides adequate compensation for a career of service to our Nation. In short, we must let America's sons and daughters know that the Nation values their service. By providing funds to increase pay, the fiscal year 2000 Budget sends the right message, at a critical time, to our soldiers, civilians, and families.

The fiscal year 2000 Budget addresses most of the Army's people and current readiness concerns. Modernization funding continues at roughly the same level as in fiscal year 1999, which allows the Army to sustain its highest priority programs. The Army will continue to do our part to implement Defense Reform Initiatives and other cost-saving measures to help generate funding for unfunded modernization priorities.

Shaping, responding, and preparing now—the elements of our NMS—are landpower intensive and are essential to protecting America's interests. The Army has been increasingly, and almost continuously, called upon to commit our soldiers to operations that serve the Nation's interests both at home and around the world. The execution of the NMS has dramatically increased the operational pace of America's Army even as we have reduced the size of that Army by one-third. The proper execution of the Army's substantial piece of this strategy demands adequate resourcing. American soldiers, trained and ready, serving the Nation's interests around the world, deserve no less.

"We must be prepared to pay the price for peace or assuredly we will pay the price for war." President Harry S. Truman

ADDENDUM

DATA REQUIRED BY THE NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 1994

(BOLD ITALICS INDICATE SUPPLEMENTAL DATA REQUIRED BY HQDA)

Section 517(b)(2)(A): The promotion rate for officers considered for promotion from within the promotion zone who are serving as active component advisors to units of the Selected Reserve of the Ready Reserve (in accordance with that program) compared with the promotion rate for other officers considered for promotion from within the promotion zone in the same pay grade and the same competitive category, shown for all officers of the Army. For fiscal year 1998 the promotion rate to Major was 67.2 percent for officers serving as Active component advisors to the Selected Reserve. The promotion rate to Lieutenant Colonel was 38.55 percent. The table below compares these rates with the Army average as well as rates within other selected commands.

[In percent]

	Fiscal year 1998 MAJ Board	Fiscal year 1998 LTC Board
AC/RC	67.2	38.6
FORSCOM	70.6	77.5
USAREC	48.9	25.0
Cadet Cmd	59.9	27.3
TRADOC	76.2	62.6
Army	76.8	67.5

Section 517(b)(2)(B): The promotion rate for officers considered for promotion from below the promotion zone who are serving as active component advisors to units of the Selected Reserve of the Ready Reserve (in accordance with that program) compared in the same manner (as the para above). The promotion rates for officers within the promotion zone and below the zone are summarized below:

[In percent]

	AC/RC	ARMY AVG.	AC/RC BZ	ARMY BZ
Fiscal year 1998 MAJ	67.2	76.8	4.4	6.5
Fiscal year 1998 LTC	38.55	67.5	.....	3.4

Section 521(b):

(1) The number and percentage of officers with at least two years of active-duty before becoming a member of the Army National Guard; ***and the number and percentage of officers with at least two years of active-duty before becoming a member of U.S. Army Reserve Selected Reserve units.*** In fiscal year 1998 there were 17,479 officers with at least two years of active-duty before becoming a member of a U.S. Army Selected Reserve unit for a percentage of 51.87 percent. The Army National Guard (ARNG) has 19,077 or 48.53 percent of the assigned officer strength with at least two years of active-duty before becoming a member of the Army National Guard.

(2) The number and percentage of enlisted personnel with at least two years of active-duty before becoming a member of the Army National Guard or the U.S. Army Reserve Selected Reserve units: In fiscal year 1997 there were 55,375 soldiers with at least two years of active-duty before becoming a member of a U.S. Army

Selected Reserve unit for a percentage of 36.98 percent. The Army National Guard has 155,144 or 48.01 percent of the assigned enlisted strength with at least two years of active-duty before becoming a member of the ARNG.

(3) The number of officers who are graduates of one of the service academies and were released from active duty before completion of their active-duty service obligation: 92 officers who were graduates of one of the service academies were released from active duty before they completed their active duty service obligation in fiscal year 1998. Of those officers—

(A) the number who are serving the remaining period of their active-duty service obligation as a member of the Selected Reserve pursuant to section 1112(a)(1) of ANGCRRA, 39 academy graduates are serving the remainder of their active duty commitments as members of the Selected Reserve.

(B) the number for whom waivers were granted by the Secretary under section 1112(a)(2) of ANGCRRA, together with the reason for each waiver: No officer received waivers by the Secretary of the Army in fiscal year 1998.

(4) The number of officers who were commissioned as distinguished Reserve Officers' Training Corps graduates and were released from active duty before the completion of their active-duty service obligation: 18 officers who were commissioned as Distinguished Reserve Officers' Training Corps graduates were released from active duty before they completed their active-duty service obligation. Of these officers—

(A) the number who are serving the remaining period of their active-duty service obligation as a member of the Selected Reserve pursuant to section 1112(a)(1) of ANGCRRA; ten officers who were commissioned as Distinguished Reserve officers' Training Corps Graduates are now serving in the Selected Reserve.

(B) the number for whom waivers are granted by the Secretary under section 1112(a)(2) of ANGCRRA, together with the reason for each waiver: No officer received waivers by the Secretary of the Army in fiscal year 1998.

(5) The number of officers who are graduates of the Reserve Officers' Training Corps program and who are performing their minimum period of obligated service in accordance with section 1112(b) of ANGCRRA by a combination of (A) two years of active duty, and (B) such additional period of service as is necessary to complete the remainder of such obligation served in the National Guard and, of those officers, the number for whom permission to perform their minimum period of obligated service in accordance with that section was granted during the preceding fiscal year. Twenty-four ROTC graduates were released after serving a minimum of two years of active duty. Effective fiscal year 1995, the Army initiated a program to insure these officers have a letter of acceptance from a National Guard or Army Reserve unit prior to release from Active Duty.

(6) The number of officers for whom recommendations were made during the preceding fiscal year for a unit vacancy promotion to a grade above first lieutenant and, of those recommendations, the number and percentage that were concurred in by an active duty officer under section 1113(a) of ANGCRRA, shown separately for each of the three categories of officers set forth in section 1113(b) of ANGCRRA:

ARMY NATIONAL GUARD.—In the Army National Guard, fiscal year 1998, the number of officers recommended for a unit vacancy promotion was 958. All of these officers were approved for promotion.

U.S. ARMY RESERVE.—The U.S. Army Reserve FSP units promoted 11 officers by unit vacancy promotion in fiscal year 1998. The remaining units promoted 39 officers by unit vacancy boards in fiscal year 1998. The Army Reserve does not have a federal recognition program like the National Guard. U.S. Army Reserve unit vacancy boards are centralized under HQDA management. Active duty officers are an integral part of all the U.S. Army Reserve's unit vacancy board selections.

(7) The number of waivers during the preceding fiscal year under section 1114(a) of ANGCRRA of any standard prescribed by the Secretary establishing a military education requirement for noncommissioned officers and the reason for each such waiver. There were no waivers granted in fiscal year 1998 for either the ARNG or the USAR.

(8) The number and distribution by grade, shown for each State, of personnel in the initial entry training and nondeployability personnel accounting category established under 1115 of ANGCRRA for members of the Army National Guard who have not completed the minimum training required for deployment or who are otherwise not available for deployment and a narrative summarizing procedures to be followed in fiscal year 1998 to account for members of the USAR who have not completed the minimum training required for deployment or who are otherwise not available for deployment:

NATIONAL GUARD.—The number and distribution of ARNG soldiers in initial entry training and other nondeployable personnel accounting status are maintained

by National Guard Bureau. The total number of non-deployables in the ARNG is 31,076. Information by grade and state is maintained by National Guard Bureau (NGB).

ARMY RESERVE.—The U.S. Army Reserve identifies the number and distribution of non-deploying personnel in the Units Status Report (USR). In the Reserve Forces, DOD requires a complete USR each quarter and change report in each month that a change occurs.

(9) The number of members of the Army National Guard, shown for each State, that were discharged during the previous fiscal year pursuant to 1115(c)(1) of ANGCRRA for not completing the minimum training required for deployment within 24 months after entering the National Guard and a narrative summarizing procedures to be followed in fiscal year 1998 for discharging members of the USAR who have not completed the minimum training required for deployment within 24 months of entering the USAR.

NATIONAL GUARD.—None.

ARMY RESERVE.—Soldiers who have not completed minimum training required for deployment within 24 months of entering the U.S. Army Reserve are discharged in accordance with Army Regulations 135–175 Separation of Officers, and 135–178 Enlisted Separations. Enrollment and completion of minimum training requirements are monitored through personnel (Total Army Personnel Database Reserve) and training (Army Training And Requirements Resources System) databases that identify USAR soldiers' military education and their adherence to regulatory guidelines.

(10) The number of waivers, shown for each State, that were granted by the Secretary during the previous fiscal year under section 1115(c)(2) of ANGCRRA of the requirement in section 1115(c)(1) of ANGCRRA described in paragraph (9), together with the reason for each waiver. Account was fully implemented in July 1994. During fiscal year 1998, there were no waivers granted within either the National Guard or the U.S. Army Reserve.

(11) The number of Army National Guard members, shown for each State, and the number of U.S. Army Reserve members shown by each Army Reserve Command/General Officer Command who were screened during the preceding fiscal year to determine whether they meet minimum physical profile standards required for deployment and, of those members—

(A) the number and percentage who did not meet minimum physical profile standards required for deployment; 39,706 soldiers were screened medically and 1,159 failed to meet the minimum physical profile standards required for deployment for a percentage of 2.91 percent of all soldiers screened.

(B) the number and percentage who were transferred pursuant to section 116 of ANGCRRA to the personnel accounting category described in paragraph (8). 186 soldiers were transferred to the personnel accounting code category described in paragraph (8).

(11) The number of members, and the percentage of total membership, of the Army National Guard, shown for each State, and of the U.S. Army Reserve shown by each Army Reserve Command/General Officer Command, who underwent a medical screening during the previous fiscal year as provided in section 1117 of ANGCRRA. During fiscal year 1998, 253,911 or 69 percent of Army National Guard members completed medical screening. During fiscal year 1998, 39,706 or 21.6 percent of USAR unit members completed medical screening.

(13) The number of members, and the percentage of the total membership, of the Army National Guard, shown for each State, and the number of members, and the percentage of the total membership, of the U.S. Army Reserve shown for each Army Reserve Command/General Officer Command who underwent a dental screening during the previous fiscal year as provided in section 1117 of ANGCRRA. ***Note: Funding is not approved for implementing this provision at this time.*** Funds were not available to conduct dental screening during fiscal year 1998. Twenty percent of USAR members received a visual check by a physician, not a dentist, during their periodic physical exam. This is not a true dental screen, which by definition of the Dental Consultant at the Army Surgeon General's office would have to be performed by a dentist, to include x-rays of teeth.

(14) The number of members, and the percentage of the total membership, of the Army National Guard, shown for each State, and the number of members, and the percentage of the total Selected Reserve unit membership, of the U.S. Army Reserve, shown for each Army Reserve Command/General Officer Command, over the age of 40 who underwent a full physical examination during the previous fiscal year for purposes of section 1117 of ANGCRRA. Section 1074a of Title 10 covers the requirement for full physical examinations (personnel over 40) and annual medical screenings (all personnel). The over 40 population of the Army National Guard is

77,170 or 20.9 percent of the total membership. Of the over 40 population, 13,234 (17.1 percent) received full physical exams during fiscal year 1998. (National Guard Bureau maintains the state breakdown.) The over 40 population of the USAR unit membership is 43,957 or 24 percent of the total unit membership. Of the over 40 population, 7,588 (17.3 percent) received full physical exams during fiscal year 1998.

(15) The number of units of the Army National Guard, and the U.S. Army Reserve, that are scheduled for early deployment in the event of a mobilization and, of those units, the number that are dentally ready for deployment in accordance with section 1118 of ANGCRRA. Section 1118 of the ANGCRRA was repealed in Section 740 of the 1996 ANGCRRA. The requirement for annual medical screenings and care is now covered under Section 1074a of Title 10. 155 Army National Guard units and 371 USAR units are scheduled for early deployment in the event of mobilization. Dental readiness screening has not begun due to lack of approved funding in fiscal year 1999.

(16) The estimated post-mobilization training time for each Army National Guard combat and FSP unit, and U.S. Army Reserve FSP unit, and a description, displayed in broad categories and by State for Army National Guard units, and by the ARCOM/GOCOM for U.S. Army Reserve units, of what training would need to be accomplished for Army National Guard combat and CFP units, and U.S. Army Reserve units, in a post-mobilization period for purposes of section 1119 of ANGCRRA.

(A) Estimated time required by units for postmobilization training is reported through the Unit Status Report and is available from the unit readiness rating system. This classified information is now included in classified summary tables of unit readiness, which are compiled and reported by DCSOPS, DAMO–ODR.

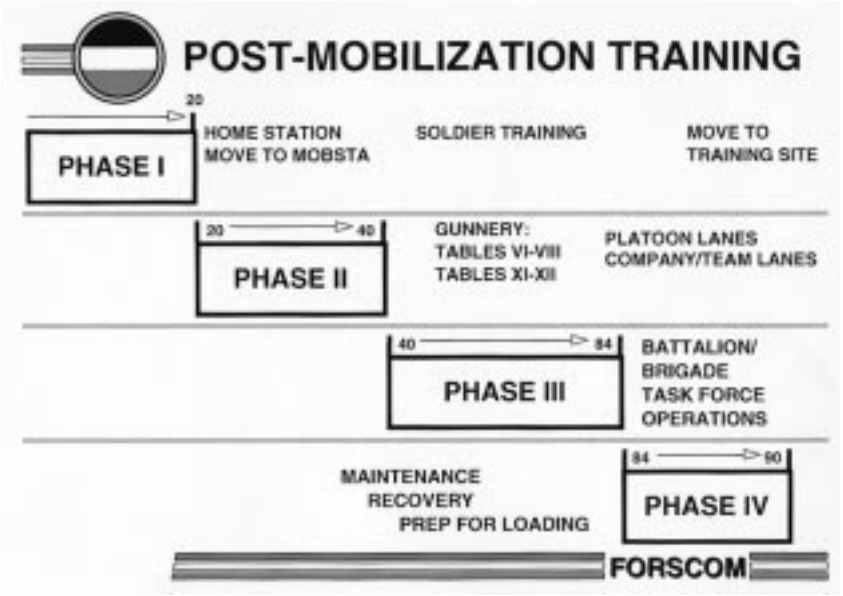
(B) Information on types of training required by units during postmobilization is maintained by CONUSA. That information is summarized in paragraphs and tables that are maintained by DCSOPS, DAMO–TRC.

1. Types of postmobilization training required for Enhanced Separate Brigades (eSB) can be generally categorized as maneuver, attack, defend, protect the force, gunnery and NBC defense. Tables showing types of postmobilization training required for each eSB is maintained by DCSOPS, DAMO–TR.

2. Types of postmobilization training required for Force Support package (FSP) units can be generally categorized as Common Task Testing, NBC Defense, Force Protection, Sustainment, Command and Control, Weapons Qualification, and Tactical communications Training. Virtually all units also required branch specific technical training to meet deployment standards. Tables showing types of postmobilization training required for FSP1 and FSP2 units organized by component and branch are maintained by DCSOPS, DAMO–TR.

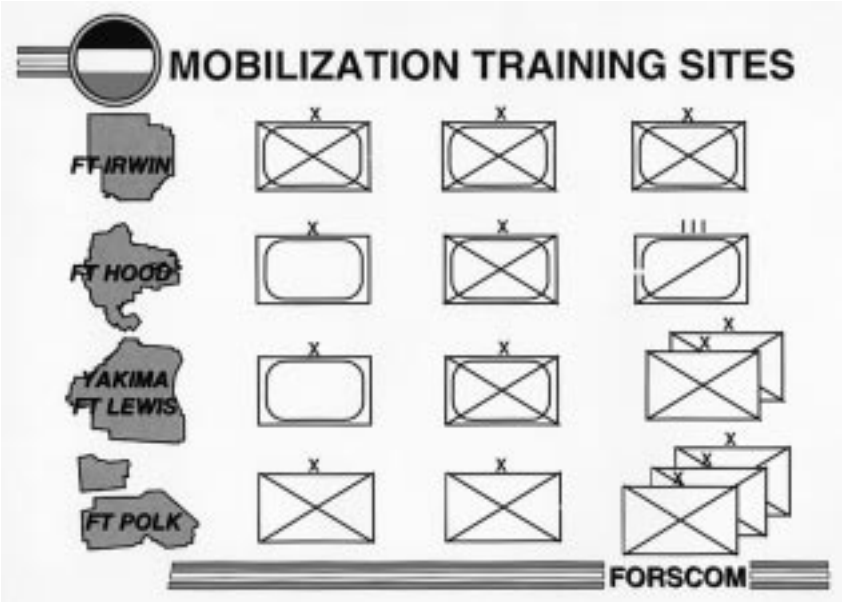
Enhanced Brigades.—Initiatives continue to ensure that each Enhanced Brigade is prepared to deploy within 90 days of its mobilization. Mobilization timelines will coincide with availability of training areas and lift capability. FORSCOM/Army National Guard Regulation 350–2, which is currently being rewritten, remains the guidepost for Enhanced Brigade training in the near term. Specific data regarding the training requirements of the individual Enhanced Brigades is maintained by Directorate of Operations (G–3), Forces Command.

The following diagram depicts the Post-Mobilization Training phases of the ARNG Enhanced Brigades.



THIS DIAGRAM DISPLAYS THE COMPOSITION AND SEQUENCE OF THE ENHANCED BRIGADE POST-MOBILIZATION TRAINING PLAN. IT ENCOMPASSES FOUR PHASES AND WILL TAKE 90 DAYS.

The following diagram demonstrates how ARNG Enhanced Brigades would flow into the various post-mobilization training sites.



THIS DIAGRAM DEPICTS HOW UNITS WOULD FLOW INTO THE NUMBER OF HEAVY ENHANCED BRIGADE POST-MOBILIZATION TRAINING SITES RECOMMENDED BY RAND (3), AND LIGHT ENHANCED BRIGADE SITE.

THE NATIONAL TRAINING CENTER, AT FORT IRWIN, WOULD TRAIN THREE MECHANIZED ENHANCED BRIGADES.

FORT HOOD WOULD BE USED TO TRAIN THREE HEAVIES.

ENHANCED BRIGADES HOME-STATIONED IN THE NORTHWEST, NEAR I CORPS, AS WELL AS THE 29TH HAWAII, WOULD TRAIN AT YAKIMA.

THE LIGHT ENHANCED BRIGADES (EXCEPT FOR THE 41ST IN OREGON AND 29TH IN HAWAII) WOULD GO TO THE JOINT READINESS TRAINING CENTER, TO MRC REQUIREMENTS.

(17) A description of the measures taken during the preceding fiscal year to comply with the requirement in section 1120 of ANGCRRA to expand the use of simulations, simulators, and advanced training devices and technologies for members and units of the Army National Guard ***and the U.S. Army Reserve.*** The ARNG has continued to incorporate simulation and simulators into individual, crew/team, platoon, and battalion and brigade battlestaff training. The ARNG's use of virtual and constructive simulation provides a solution to reduced funding and a method to increase individual and unit readiness.

The use of virtual simulators provides for increased proficiency when the crew/team move into the collective training event. The ARNG has been fielding the Abrams Full-Crew Interactive Simulation Trainer (A–FIST) a full-crew precision gunnery trainer for armor units, and the Engagement Skills Trainer (EST). There are currently two mobile platoon sets of the Close Combat Tactical Trainer (CCTT) being used by the ARNG. There is one platoon set for each of the Abrams and the Bradley versions of the M–CCTT. The two M–CCTT platoon sets are currently based at Camp Beauregard, Louisiana. The EST is a multi-task trainer for dismounted infantry teams and squads. The EST also functions as a marksmanship trainer and training support tool for mortars, the Mark 19 40 mm Grenade Launcher and other crew-served weapons. They have fielded the Fire Support Combined Arms Tactical Trainer (FSCATT) Howitzer Crew Trainer (HCT), the GUARDFIST II (Guard Armory Device Full-crew Interactive Simulation Trainer—GFII) observed fire trainer, and the Digital Systems Test and Training Simulator (DSTATS) for Field Artillery units. The ARNG has also expanded collective battlestaff training using SIMITAR Janus, and the USAR's Brigade and Battalion Battlestaff Simulation System (BBS).

The Total Army Distance Learning Program (TADLP) is in the process of establishing Distance Learning (DL) classrooms on Active Army Posts, in Total Army

School System (TASS) battalions quartered in National Guard Armories, and in Army Reserve Centers. These classrooms will be used by all components of the Army to include the civilian workforce. The National Guard has been aggressively pursuing the establishment of additional DL classrooms with special Congressional funds. Currently, the Guard has placed 32 DL classrooms into operation. In fiscal year 1998, an additional 112 were planned for installation, which would bring the total to approximately 144 operational DL classrooms. The addition of hardware, software, and an integrated strategy now provides the Total Army with a method to distribute training to a large geographic area. The Army Reserve has also developed plans for fielding DL classrooms beginning in fiscal year 1998.

The Simulation Brigades U.S. Army Reserve Divisions (Exercise) (Div(Ex)) under the Training Support XXI (TSXXI) training initiative conduct Battle Command and Staff Training (BCST) annually to: Force Support Packages (FSP) units; units with a Latest Arrival Date (LAD) of less than 30 days; Divisional Round Out units; and, ARNG Enhanced Separate Brigades (eSB). All other units conduct BCST triennially. Five USAR Battle Projection Centers (BPC's) provide both Army Reserve and Army National Guard units with the ability to train using Army standard simulation tools: the Battalion and Brigade Battlestaff Simulation System (BBS), the Corps Battle Simulation (CBS), the Janus Battle Focus Trainer, and the Combat Service Support Training Simulation System (CSSTSS). Constructive simulations will facilitate realistic large scale training for commanders, battlestaffs and their units and soldiers. The USAR has also expanded its ability to support collective and staff training using the SPECTRUM (a computer software program for battlestaff training) constructive simulation system.

The five Battle Projection Centers (BPC's) continue to use legacy constructive simulation systems: CBS, BBS, and CSSTSS. The fielding of the Warfighter's Simulation 2000 (WARSIM 2000) to the 78th and 91st Divisions (Exercise) is currently scheduled for fiscal year 2002. The three other Div(Ex)'s (the 75th, the 85th, and the 87th) are scheduled to receive WARSIM 2000 during fiscal year 2003. Legacy simulations are still required to provide training to the force WARSIM 2000 is fully fielded to the USAR Div(Ex)'s. Continued funding is necessary for continued functionality and development crosswalks and transition requirements. This way the Army Reserve meet its mission to train the priority warfighting and supporting commands of the Reserve Components in the field.

Funding constraints limit Active Army, Army National Guard, and Army Reserve efforts to increase the use, to the extent desired, of training devices, simulations, simulators, and advanced training technologies, to support individual and unit training. These constraints impact the Reserve Components especially hard due to the limited time available for units to train.

(18) Summary tables of unit readiness, shown for each State for Army National Guard units, and for each ARCOM/GOCOM for the U.S. Army Reserve units, and drawn from the unit readiness rating system as required by section 1121 of ANGCRRA, including the personnel readiness rating information and the equipment readiness assessment information required by that section, together with—

(A) explanations of the information shown in the table: Classified tables have been developed by NGB and OCAR with a detailed narrative analysis of personnel and equipment readiness trends indicated since implementation of the January, 1994, revision to Army Regulation 220–1 on Unit Status Reporting. They are currently maintained by the Office of the Deputy Chief of Staff for Operations and Plans (DAMO–TR).

(B) based on the information shown in the tables, the Secretary's overall assessment of the deployability of units of the Army National Guard, and U.S. Army Reserve, including a discussion of personnel deficiencies and equipment shortfalls in accordance with such section 1121: The classified overall assessment of the deployability of ARNG combat units, and FSP units of both Reserve Components is currently maintained by the Office of the Deputy Chief of Staff for Operations and Plans (DAMO–TR).

(19) Summary tables, shown for each State, for units of the Army National Guard and for each ARCOM/GOCOM for units of the U.S. Army Reserve, of the results of inspections of units of the Army National Guard by inspectors general or other commissioned officers of the Regular Army under the provisions of section 105 of title 32, together with explanations of the information shown in the tables, and including display of—

(A) the number of such inspections;

(B) identification of the entity conducting each inspection;

(C) the number of units inspected; and

(D) the overall results of such inspections, including the inspector's determination for each inspected unit of whether the unit met deployability stand-

ards and, for those units not meeting deployability standards, the reasons for such failure and the status of corrective actions. ***For purposes of this report, data for Operational Readiness Evaluations will be provided on Enhanced Brigade and FSP units of the Army National Guard and for FSP units of the U.S. Army Reserve. Training Assessment Model data will be provided to meet this reporting requirement for all other units of the Army National Guard and U.S. Army Reserve. Data on Army National Guard units will be reported by State and on U.S. Army Reserve units by Army Reserve Command/General Officer Command.***

Forces Command (FORSCOM) conducted 1,957 inspections, evaluations and assessments of Reserve Component (RC) Force Support Package (FSP) units during fiscal year 1997. These included Training Assessment Model (TAM) assessments, Operational Compliance Evaluations (OCE) formerly Operational Readiness Evaluations (ORE), and Aviation Resource Management Surveys (ARMS). These were conducted primarily by CONUSA, installations, and associated units. The ARMS were conducted by FORSCOM ARMS teams. The number of inspections, evaluations and assessments of eSB and FSP units in fiscal year 1998 exceeded fiscal year 1997 by 326 percent, from 600 in fiscal year 1997.

a. *First U.S. Army*.—During fiscal year 1998, First U.S. Army conducted a total of 1,132 inspections, evaluations, and assessments of eSB and FSP units. The number of inspections, evaluations and inspections conducted on eSB and FSP units increased 343 percent in fiscal year 1998, from 330 in fiscal year 1997. Of the total evaluations, 137 OCEs were conducted on company, battery, or detachment sized eSB and FSP units. Operational Compliance Evaluations conducted on eSB and FSP units increased 274 percent in fiscal year 1998, from 50 OREs in fiscal year 1997.

b. *Fifth U.S. Army*.—During fiscal year 1998, Fifth U.S. Army conducted a total of 485 inspections, evaluations, and assessments of eSB and FSP units. The number of inspections, evaluations and inspections conducted on eSB and FSP units increased 179 percent in fiscal year 1998, from 270 in fiscal year 1997. Of the total evaluations, 94 OCEs were conducted on company, battery, or detachment sized eSB and FSP units. Operational Compliance Evaluations conducted on eSB and FSP units increased 208 percent in fiscal year 1998, from 45 OREs in fiscal year 1997.

c. Summary tables depicting CONUSA inspection numbers by state for the ARNG and by Regional Support Command for the USAR units are available in DCSOPS, DAMO–TR. Results of FORSCOM ARMS on RC units are also maintained there.

(20) A listing, for each Army National Guard combat and FSP unit, and the U.S. Army Reserve FSP unit, of the active-duty combat and other units associated with that Army National Guard and U.S. Army Reserve unit in accordance with section 1131(a) of ANGCRRA, shown by State for the Army National Guard and ARCOM/GOCOM for the U.S. Army Reserve and to be accompanied, for each such National Guard and U.S. Army Reserve unit, by—

(A) the assessment of the commander of that associated active-duty unit of the manpower, equipment, and training resource requirements of that National Guard or U.S. Army Reserve unit in accordance with section 1131(b)(3) of ANGCRRA. Completed assessments are maintained by the Office of the Directorate of Operations (G–3) FORSCOM. A summary of responses addressing eSB and FSP units are found below; and

(B) the results of the validation by the commander of that associated active-duty unit of the compatibility of that National Guard or U.S. Army Reserve unit with active duty forces in accordance with section 1131(b)(4) of ANGCRRA. Completed assessments are maintained by the Office of the Directorate of Operations (G–3) FORSCOM. A summary of responses addressing eSB and FSP units are found below.

In April 1994, the Secretary of the Army designated the Army National Guard Enhanced Separate Brigades as the principal Reserve Component maneuver forces of the Army. Enhanced Separate Brigade locations and Active Army training associations are shown below.

TRAINING ASSOCIATIONS FOR DIVISIONS AND BRIGADES

ARNG DIVISION/BRIGADE	PEER MENTOR	SENIOR MENTOR	NOTE
28 IN DIV—HARRISBURG, PA	3 IN DIV (M)—FT STEWART	XVIII CORPS	
29 IN DIV (L)—FT BELVOIR, VA	82 AB DIV (ABN)—FT BRAGG	XVIII CORPS	
34 IN DIV—ST PAUL, MN	101 AB DIV (AASLT)—FT CAMPBELL	XVIII CORPS	
35 IN DIV (M)—FT LVNWTH, KS	FT RILEY—FT RILEY	III CORPS	TAM BY CONUSA.
38 IN DIV—INDIANOPLIS, IN	10 MTN DIV—FT DRUM	XVIII CORPS	TAM BY CONUSA.
40 IN DIV (M)—LONG BEACH, CA	I CORPS—FT LEWIS	I CORPS	TAM BY CONUSA.

TRAINING ASSOCIATIONS FOR DIVISIONS AND BRIGADES—Continued

ARNG DIVISION/BRIGADE	PEER MENTOR	SENIOR MENTOR	NOTE
42 IN DIV (M)—NEW YORK, NY	4 IN DIV (M)—FT HOOD	III CORPS	
49 AR DIV—AUSTIN, TX	1 CAV DIV—FT HOOD	III CORPS	
27 IN BDE—SYRACUSE, NY	10 MTN DIV, BDE—FT DRUM	10 MTN DIV	E BDE.
29 IN BDE—FT RUGER, HI	25 IN DIV (L), BDE—SCHOFLD BKS	25 IN DIV (L)	E BDE.
30 IN BDE (M)—CLINTON, NC	3 IN DIV (M), BDE—FT STEWART	3 IN DIV (M)	E BDE.
39 IN BDE—LITTLE ROCK, AR	101 AB DIV (AASLT), BDE—FT CAMPBELL.	101 ABN DIV	E BDE.
41 IN BDE—PORTLAND, OR	25 IN DIV (L), 1 BDE—FT LEWIS	I CORPS	E BDE.
45 IN BDE—EDMOND, OK	1 CAV DIV, BDE—FT HOOD	1 CAV DIV	E BDE.
48 IN BDE (M)—MACON, GA	3 IN DIV (M), BDE—FT STEWART	3 IN DIV (M)	E BDE.
53 IN BDE—TAMPA, FL	82 AB DIV (ABN), BDE—FT BRAGG	82 ABN DIV	E BDE.
76 IN BDE—KOKOMO, IN	101 AB DIV (AASLT), BDE—FT CAMPBELL.	101 ABN DIV	E BDE.
81 IN BDE (M)—SEATTLE, WA	2 IN DIV (M), 3 BDE—FT LEWIS	I CORPS	E BDE.
116 AR BDE—BOISE, ID	4 IN DIV (M), 3 BDE—FT CARSON	4 IN DIV (M)	E BDE.
155 AR BDE—TUPELO, MS	1 CAV DIV, BDE—FT HOOD	1 CAV DIV	E BDE.
218 IN BDE (M)—NEWBERRY, SC	1 IN DIV (M), 1 BDE—FT RILEY	FT RILEY	E BDE.
256 IN BDE (M)—LAFAYETTE, LA	4 IN DIV (M), BDE—FT HOOD	4 IN DIV (M)	E BDE.
278 AR CAV RGT—KNOXVILLE, TN	3 AR CAV RGT—FT CARSON	FT CARSON	E BDE.
31 AR BDE—NORTHPORT, AL	1 AR DIV, 1 BDE—FT RILEY	FT RILEY	TAM BY CONUSA.
92 IN BDE—SAN JUAN, PR	82 AB DIV (ABN), BDE—FT BRAGG	82 AB DIV (ABN)	TAM BY CONUSA.
207 IN SCT GP—FT RCHDSN, AK	6 IN DIV (L), 1 BDE—FT RICHDSN	USARPAC	

1. *Enhanced Separate Brigades (eSB).*

Information on the manpower, equipment and training resource shortfalls for the eSB is annotated below. The above chart shows the AC Training Associations for the eSB and ARNG Divisions. The column that is identified as certifier means that the AC associated commander will have the responsibility to conduct an assessment at the two and one year mark prior to a potential rotation by a Combat Training Center (CTC) by an eSB. The results are then provided through command channels to the Commander FORSCOM for review. The decision on whether a brigade will continue in its program for an NTC or JRTC rotation will be made by the state authority based on the value of the anticipated training experience weighed against the cost of the rotation. The 41st IN light and the 116th AR heavy completed their CTC rotations, NTC and JRTC respectively, in Training Year 1998.

a. *Manpower*.—The majority of the eSB reported shortages in both junior and senior enlisted personnel (11B, 11M, 13B, 13F, 19K) and officers. Throughout the eSB, Duty Military Occupational Skill Qualification (DMOSQ) tends to be the major training challenge with many soldiers attending DMOSQ schools instead of Annual Training.

b. *Equipment*.—Equipment on hand in some eSB have not kept up with the MTOE changes. Across the board, the eSB are short ERC–A communications equipment (primarily SINCGARS radios) which impacts on their ability to communication with their AC counterparts. Shortages exist in chemical defense equipment, especially chemical alarms. Shortages in night vision devices limits the ability of the eSB to conduct night training. One brigade is short HEMMTS and MICLICS and lacks dedicated signal support. Additionally, the engineers are short bridging equipment.

c. *Training Resource Shortfalls*.—Funding constraints have limited units from sending soldiers to MOS producing schools, such as 11M, 13F, 19F, 19K, 77F and 88M. Reported shortfalls in school allocations, particularly for master gunners and aviation specialties, are harming professional development and unit leader training programs. Changes to MTOE and accompanying reclassification and retraining in Air Defense Artillery and Military Intelligence skills exacerbate the situation with regard to training funding and school seats. Extant shortfalls in Additional Flight Training Periods (AFTP) cut into the flying hour budget, causing reduced aircraft availability, which, in turn, impact air crew proficiency. Shortage of available ranges and adequate maneuver areas, and distance to ranges and areas increases the cost of conducting training and hampers platoon and crew training readiness.

d. *Compatibility*.—Compatibility is limited due to lack of communications equipment, especially SINCGARS and MSE radios. Incompatibility of automation equipment and lack of equipment at the unit level hampers connectivity and training. After completion of the Aviation Restructuring Initiative, one air cavalry squadron is organized instead as an attack battalion, thus reducing its ability to conduct avia-

tion reconnaissance operations. Recent fielding of M1s and M3A2s has enhanced compatibility of the ARNG heavy brigades with the AC force.

2. *ARNG and USAR Force Support Package Units.*

a. ARNG and USAR FSP units are represented by the following branches or areas of concentration: Chemical; Combat Engineer; Engineer; Aviation; Military Police; Signal Corps; Adjutant General; Logistics; Maintenance; Rear Tactical Operations Center; Supply; Corps Headquarters; Finance; Supply Command Headquarters; Public Affairs; Medical; Military History; Military Intelligence, Ordnance; Quartermaster; and Transportation. The ARNG had Air Defense Artillery, Field Artillery and Armor units in addition to those types listed; the USAR had Military Intelligence and Judge Advocate General units within their FSP units.

b. Information on the manpower, equipment and training resource shortfalls for the FSP units is available in reports submitted by associated AC commanders. These reports are maintained at DCSOPS, DAMO–TRO. That information is also summarized below:

(1) *Manpower*.—Several FSP units have soldier shortages in the range of 8–12 percent. Also a shortfall in DMOSQ soldiers affects a number of units. The most predominant shortcoming is in Military Intelligence units, in language skills.

(2) *Equipment*.—Some FSP units are short NBC equipment and some lack tactical communications equipment, especially SINCGARS. A number of units are lacking ERC–A equipment, which renders them non-deployable, placing the burden of acquiring the equipment on the mobilization station. If FSP units remain without essential equipment for extended periods of time, it will seriously degrade their ability to perform their wartime mission without significant training and time at postmobilization.

(3) *Training Resources*.—Several FSP units do not have an adequate training area by which to perform their mission essential task list training. Some engineer, air defense artillery and aviation FSP units are reporting inadequate funding. Others are having problems getting school seats, i.e. for training engineer, military intelligence language and quartermaster water specialities.

(4) *Overall Comments on RC Force Compatibility with AC Force*.—Communications equipment shortages, particularly SINCGARs, is having the greatest impact on compatibility. As MTOE changes and unit reorganizations continue to mature, and, coupled with distribution of equipment by priority fill, communications and automation compatibility between AC and RC units will progressively improve.

(21) A specification of the active-duty personnel assigned to units of the Selected Reserve pursuant to section 414(c) of the National Defense Authorization Act for Fiscal Years 1992 and 1993 (10 U.S.C. 261 note), shown (A) by State for the Army National Guard and ARCOM/GOCOM for the U.S. Army Reserve, (b) by rank of officers, warrant officers, and enlisted members assigned, and (c) by unit or other organizational entity of assignment. The Total Army Personnel Command does not maintain assignment data as specified above, as active component personnel are not managed by state or reserve component command.

The Active Component/Reserve Component (AC/RC) reorganization consisted of a three-phase program. The first phase of this Congressionally mandated program was the Pilot Program, which assigned 2,000 Active Duty personnel as full-time advisors to selected Army National Guard and U.S. Army Reserve Units. Personnel rotations for phase one took place in fiscal year 1994 and fiscal year 1995. Phase two followed enactment of Sec. 1132, Title XI, Fiscal Year 1993, National Defense Authorization Act. This expanded the dedicated Active Component (AC) support by 3,000 active duty personnel, bringing the total to 5,000 Congressionally mandated active duty personnel beginning in fiscal year 1995. The original target for 100 percent fielding was 1 October 1997.

During fiscal year 1996 and 1997, FORSCOM conducted a Support to Organizational Training Functional Area Assessment (SOT FAA). Its mandate was to streamline command and control, and reduce any redundancy in unit missions and functions. In March 1997, the Vice Chief of Staff, Army approved FORSCOM's plan to restructure the AC/RC program, resulting in over 1,200 duty position and location changes.

Beginning in fiscal year 1998 and continuing throughout fiscal year 1999, FORSCOM is executing the third phase of the AC/RC restructuring program. This restructure moved titled positions within the AC/RC program to meet force structure needs. The new structure also created two dual component (AC, ARNG) Integrated Division Headquarters at Fort Riley and Fort Carson which will each serve as the division headquarters to three National Guard Enhanced Brigades. Furthermore, five tri-component (AC, USAR, ARNG) Training Support Division Head-

quarters were added to command and control the training of the Reserve Component. DA PERSCOM is now assigning against the future structure.

The charts below depict the current enlisted and officer fill for titled positions based on the current force structure mandated by TDA 3098. These charts show personnel fill for AC/RC titled positions by command and grade:

The current reorganization will cause some soldiers to be assigned to unauthorized positions as the AC/RC force structure changes to meet the TDA 1000 requirement. Where possible, these personnel will be reassigned to vacant Title XI positions in the new structure. The remainder of these soldiers have been identified and placed on orders to move from the AC/RC assignment to the mainstream Army beginning May 1999 through September 1999.

The Army is committed to providing enough personnel to fill titled positions to 100 percent. As the Army reaches the end of its three-phased AC/RC restructure process in October 1999 and the force stabilizes, fill for titled positions is projected to reach 100 percent by the end of 1st Quarter fiscal year 2000. Assignment to Title XI positions is included in the highest priority of fill in the Army.

KOSOVO

Senator STEVENS. Thank you very much. I want to yield to Senator Inouye. I understand he wants to go to another committee.

But before I do, do either of you know anything about what we heard in the news this morning about the possibility of ground forces now to Kosovo?

General REIMER. I am sorry?

Senator STEVENS. The news indicates the President has indicated there is now the possibility of ground forces to Kosovo. Have you all been informed about that?

General REIMER. My understanding is the President said that all options are still on the table and that he has not discarded the use of ground forces under the proper conditions, but that is all I know. I saw the reports. One paper concluded that the use of ground forces was an option, and one paper I read concluded it was not an option, so I think what he said is that using ground forces is still an option on the table under the right set of conditions. That is my understanding.

Senator STEVENS. Senator Inouye.

MODERNIZATION

Senator INOUYE. Mr. Chairman, I thank you very much. I have a few questions, and I would like to submit the rest for the record.

General Reimer, you pointed out that for the last 13 years we have been cutting back not only in troop strength but in procurement programs. At this stage, what war-fighting procurement programs are most critical for readiness?

General REIMER. Well, Senator, we are committed primarily to situational awareness, and the effort to make sure that we develop that awareness is our top priority. Our Advanced Warfighting Experiments being conducted on a number of different axes—the heavy, light, and Strike Force—really focus on situational awareness, answering three small questions: Where am I? Where is the enemy? Where are my buddies? If we can answer those three questions, we can fundamentally change the way we conduct operations.

Situational awareness and the Force XXI Battle Command Brigade and Below program is absolutely essential. To do that, we have about $2.8 billion committed to digitization programs.

In addition to that, the only two new programs we have are Comanche and Crusader. Comanche, of course, is the Scout helicopter. It is the quarterback of our digitized battlefield. Its ability to find targets and be able to identify them for other systems is absolutely fundamental.

If we had Comanche now, I am sure we would have it deployed in Albania and with Task Force Hawk, because it complements the Apaches very well. The Crusader is really a means of making sure that we synchronize the combined arms team to conduct fire support. As I said, the current system we have has been in the Army as long as I have. We have probably gotten as much out of both of us as we can. It is time to move on to a new system, and Crusader gives us that system. It gives us three times the capability for the same amount of lift.

Crusader and Comanche are the two new systems. In addition, we need to continue our work with night vision devices to ensure we really do own the night by turning the night into day, and we are making progress in that area. At the same time, we need to recapitalize our trucks and other current systems.

So, those are the issues. We have not had enough money in our modernization account to keep the balance we should, and that is what we are asking to do, to keep the balance about right.

Senator INOUYE. And you believe this budget would fulfill that?

General REIMER. This budget is still a little short, Senator. I said about $5 billion is an amount that we need in addition each year. We are about $0.8 billion short in terms of near-term readiness and another $1.8 billion short in the modernization account. That is the very minimum. There are more unfinanced requirements out there, but we are primarily short in our modernization account.

OPERATING AND PERSONNEL TEMPOS

Senator INOUYE. During the past 8 years, your Army has been faced with one crisis after the other. If it is not Bosnia, it is the desert. If it is not the desert, it is Korea. If it is not that, it is Kosovo now.

How are the men and women managing current OPTEMPO and PERSTEMPO demands?

General REIMER. Amazingly well, because you are exactly right, they have been worked very hard, and it is something that we have got to keep under control.

I think the greatest thing that we can do is to provide them predictability. They understand if they have to deploy on a moment's notice for some major crisis, but if we can give them planning guidance—that they are going to have to go and will be gone for a certain amount of time—that seems to sooth the pain associated with the deployment.

We have to keep it manageable. We cannot deploy them one right after the other, and our system has to be such that as soldiers come back from Europe and they have been in Bosnia, they do not join the 1st Cavalry Division and are sent right back to Bosnia. We must manage that very carefully, and we are doing that at the Department level and at all levels, by trying to ease the tempo and balance the burden, so to speak.

Critical to this is to be able to use the Reserve components (RC). We have 54 percent of the Total Army in the Guard and Reserve now. That is over 20 percent higher than any other service, and we have to continue using the RC more. There have been approximately 15,000 reservists who have served in Bosnia during that operation, and so this has been a Total Army effort.

The 49th Division from Texas will take a primary rotation in Bosnia. So, there are two points to be made: it is predictable, and it spreads commitments across the force as best as we possibly can by using more of the total force. But, we have to be careful that we do not burn out these young soldiers. That is why your point about the size and strength of the Army is important. If we let the size get smaller, we are going to have major, major problems.

CONTINGENCY OPERATIONS FUNDING

Senator INOUYE. As you know, we just concluded our supplemental appropriations conference, and in that context there was no funding requested for rotation or redeployment. Is there any significance there?

General REIMER. I thought the 2000 budget, and I will have to go back and verify that, had some contingency operations forecasts. However, we have been unable to forecast exactly what contingency will take place, and we have always had to come back to you for a supplemental, because we could not forecast the exact cost.

I do not attach any significance to it, other than the fact that we expect we will be involved in contingency operations in 2000. We just do not know where and to what extent.

Senator INOUYE. Once again, I would like to thank you for all you have done for this Nation, and we wish you the very best, sir.

General REIMER. Thank you very much, sir.

Senator INOUYE. Mr. Chairman, may I submit my questions for the record?

Senator STEVENS. Yes, sir. We will have a series of questions. Thank you.

Senator Cochran.

URBAN TRAINING

Senator COCHRAN. Mr. Chairman, thank you. Let me first of all congratulate General Reimer on his outstanding service as the Army Chief. I appreciate his comments, as I know all the members of the committee do, about the responsiveness that we have tried to make available in times of emergency and other times to help make sure that we are funded where we need to be in order to maintain the security interest and safety and security of our country. We appreciate your leadership. I think it has been truly outstanding.

Mr. Secretary, welcome to you. We appreciate very much your service as Secretary of the Army.

I noticed the other day some comments in the newspaper about urban training exercises and how this has been a problem in some cities where the Army has tried, the Marine Corps, too, to train troops in what might be urban combat situations, but it is hard to find places to train where you do not disturb the people who live there.

Somebody has suggested that we add to the National Training Center an urban complex, or in some other place create a training site that would be more conducive to training and would not disturb the civilian population. Are there any plans like this, and do we have other places besides, maybe, Fort Irwin, where such training could take place?

General REIMER. We have one site at Fort Polk, which has urban terrain, a small village, and we use that extensively for training. That supports most of our light forces that rotate through the Joint Readiness Training Center. We would welcome a facility at Fort Irwin, and we need to build another one. Our problem is getting the funds to do it at the proper time so our heavy force would also have the opportunity to train in that particular area.

Most of the other installations have small places. Fort Drum, for example, has a small military operations urban terrain training area. Fort Carson has just built one. There are various types of training areas around the Army, but the major areas where we can do the most realistic training should be at our Combat Training Centers: the Joint Readiness Training Center at Fort Polk, the National Training Center at Fort Irwin, and the Combat Manuever Training Center at Hohenfels in Germany.

Senator COCHRAN. Mr. Secretary, do you have any comments you would like to make?

Mr. CALDERA. That is exactly correct—we are doing more of that kind of training. What you see at Fort Drum, I saw at the site they are building at Fort Carson when I was there recently. That is helping us in terms of training soldiers for the Bosnia rotation, because they actually get to be in a village that is a replica of the kind of environment they will be operating in.

In the future, urban areas are the likely place where forces will be employed and where we need to develop the training, leaders tactics, and doctrine that will help soldiers be successful in that environment. So, we need to have places and opportunities to do that kind of training.

MISSILE DEFENSE

Senator COCHRAN. There have been some significant developments recently with respect to the ballistic missile threat that confronts our country, particularly in medium-range missiles. Pakistan, Iran, North Korea are places where we have seen evidence of new capabilities in this area and North Korea has launched the Taepo Dong I. How well-equipped, if you can tell us, is the Patriot system that is available to us to counter and defend against these threats?

General REIMER. The Patriot will be able to handle the medium-range threat, the theater missiles, ballistic missiles, but it does not provide a capability for the longer range national missiles. We need a different type of system to provide that particular capability.

Senator COCHRAN. What is the outlook for the THAAD program that you have under your jurisdiction, to be developed to a point where it will provide an answer to some of these new threats?

General REIMER. The theater high altitude area defense, or THAAD, is on track. We are conducting the test at the beginning of next month. We have had nine. There have been successes and

failures with that system, and it is on a fast track. It provides you the high altitude capability that complements the Patriot and gives you the capability to engage in both endoatmosphere and exoatmosphere conditions. It is terribly important to provide as much assurance as we can to people on the ground that we are going to be able to get those theater ballistic missiles, and it is in competition with Navy theater-wide.

The Department of Defense has kind of a shoot-off program, and I think it down-selects somewhere around 2001 to go to one type of system, but THAAD is a serious competitor in this particular area. It is absolutely essential that we get a high altitude capability. THAAD provides the only exoatmospheric and endoatmospheric capability that is on the drawing boards today.

Senator COCHRAN. There has been a lot of attention paid to the initiative for a national missile defense. We have had legislation passed in both Houses, as you know, to state a new policy, and that is to deploy a system as soon as technology permits us to.

The question is, how much of our resources are we going to allocate to that effort, and how much should we allocate to some of the other missile defense programs like the ones that we have been talking about in the Patriot system, for example. Is there enough money in your budget to keep these programs under development and moving forward in a way that will assure that our forces in the field will have the protection of missile defense systems in theaters of operation?

Mr. CALDERA. Senator, I think the investments we are making in THAAD and Patriot advanced capability-3 (PAC–3) will pay dividends in terms of national missile defense in terms of what we are learning, and in terms of the lessons learned and their application to developing those kinds of systems.

Protecting soldiers in the field is, of course, a critical capability that we have to be able to provide wherever it is that they are deployed. That is part of the importance of THAAD and PAC–3, that is, to provide the umbrella of protection we need. The THAAD program is a real challenge, but a challenge that we are going to successfully overcome. I am confident that the THAAD program is very close now in terms of its ability to have the metal on metal hit that the system requires.

I think we recognize within the Office of the Secretary of Defense (OSD) that there is a significant investment that has to be made, not just to the service missile programs, but investment for national missile defense which is competing, frankly, with all of the priorities that we have, as we look at what the future threats are going to be and what our country is going to expect us to be ready for.

Senator COCHRAN. Thank you, Mr. Chairman.

FISCAL YEAR 2000 BUDGET PROPOSAL

Senator STEVENS. Thank you very much.

Mr. Secretary, first, a question to you. I have been laboring trying to find out what the problem is with this budget, and let me tell you, the budget that was submitted to us recommends $1.65 billion in unspecified rescissions—this is Department-wide, now—$3.1 billion for incrementally funding military construction, that is

a savings, supposedly, $2.9 billion of credits for real estate investment tax revenues, and I have yet to find out how we get a hold of that to spend, and $6.6 billion of credits for military retirement trust fund payments.

Those are all savings that we are told have been worked out, and that means the Department has roughly—I know it does not quite add up, but we are told that the calculation of our budget people is that under the terms of the Budget Act we need $8.3 billion to fully fund the budget that was presented to us for the Department of Defense.

If we look at your share of that, the Army share of that is substantial. As a matter of fact, of the money, the $1.65 billion rescissions alone, $450 million would have to come out of the Army on a pro rata basis.

My problem is, were you aware that under this budget that it is underfunded by $8.3 billion?

Mr. CALDERA. We were aware that as the budget was being built and submitted, in order to be able to have some of the readiness plus-ups that were needed and identified last fall, additional money needed to be put into the budget. Some of the efforts to find that money within the budget caps included things like incremental funding for military construction.

The rescission notion was that it was an unprogrammed rescission, and that as we went through the year, we would look and see where we were underexecuting and look for those places to be able to——

Senator STEVENS. But rescissions, we have not rescinded more than $250 million Department-wide since I have been here. This is $1.65 billion in rescissions. Did anyone ask you to identify the Army's pro rata share of those rescissions? No one has told us what to rescind.

Mr. CALDERA. We have not been asked to identify what those rescissions ought to be.

Senator STEVENS. You are aware of what it means, is that while the news is out that there is an increase here of $4 billion, it is actually not so. We do not have that $4 billion at all. That is made available theoretically because of this $8.3 million we are supposed to save somewhere.

We are actually more than $4 billion short going into this budget, and I am having a hard time trying to figure out how we can tell all of you that we do not have the money for the things you have requested, because this budget is not smoke and mirrors, it is just puff. It is not even—it is a cloud. It is not even good smoke. I do not know what to do with this budget, and it bothers me considerably that we have the problem of a war going on, and Bosnia and Iraq, and I do not know what to say.

I think some of you in the Department ought to stand up to the Office of Management and Budget (OMB) and tell them to stop jerry-rigging these budgets, because it is just not possible for us to deliver an answer to the President's budget based upon the assumptions that are in it.

KOSOVO

Now, we have been asked—we understand what the President announced, and I have to ask you, have you been asked to prepare any plans for the additional forces, and do we know any estimate of what the cost will be as far as the deployment for ground forces when that occurs?

Mr. CALDERA. If the forces were deployed in a peacekeeping mission——

Senator STEVENS. Now, Mr. Secretary, that is not what the President has said. This is a wartime deployment now. We had the figures before that General Clark mentioned to us of deploying, what was it, 4,000 troops in a peacekeeping mode. Clark told us above 50,000, almost 70,000 forces would be needed if we went in under wartime conditions into Kosovo. That is an entirely different set of facts.

Mr. CALDERA. It is, Senator. The initiative to start with, the initial base, which was 4,000 in a peacekeeping mode, was about $1.3 billion for the first year. If you increase that number—because you are talking more like 7,000 to 8,000 soldiers—then obviously that cost increases tremendously if it is not a peacekeeping mode. If it is a different mode of entry, then clearly it would be higher than the $1.3 billion.

Senator STEVENS. You are not suggesting we could incrementally increase the peacekeeping amount and adequately fund forces going to war. You are not suggesting that to me, are you?

Mr. CALDERA. No, sir. To the extent that we introduce those soldiers, that is a contingency that is unplanned, and we would ask for supplenmental funding.

Senator STEVENS. But I am asking you, do you have the figures yet, what it was going to cost to put those figures in under fire?

Mr. CALDERA. Well, the estimated cost is for soldiers not under fire, Senator. I think the estimates are $1.3 billion to $3 billion, depending upon the size of the peacekeeping force, but not if you are introducing them into combat operations.

TASK FORCE HAWK

Senator STEVENS. General Reimer, I do not know who made the decision not to reinsert the Hawk helicopters, but I applaud it, because I think that is as close as you can get to a ground war without support. Are we going to hear some more about that now? Are there changes made in terms of the utilization of the Hawks?

General REIMER. Well, Task Force Hawk, as you said, is in Albania. The decision was made to deploy them there, but there has been no decision yet to employ them. They were sent there because, at the time, the weather conditions were really such that you almost had to have some capability available to get underneath the clouds.

As the weather has improved and the other situations have changed, there has not been a need to use them at this particular point. I would not rule out their use. I would not rule it in or rule it out. It would be dependent upon the conditions that exist over there and what the ground commanders decide needs to be done. So yes, there could be more information coming about that, but

right now we are not using them, because the conditions are not right. But, they are ready to go.

UNMANNED AERIAL VEHICLES

Senator STEVENS. Are those Predators going to support the operations of the Army also? I know they are operated by the Air Force.

General REIMER. There are two unmanned aerial vehicles (UAV's) over there. One of them is the Predator, and it is flying in support of the force. We have access to that information with Task Force Hawk, and we also have Hunter over there flying out of Skopje, Macedonia. The UAV's are also providing intelligence information to which Task Force Hawk has access. Task Force Hawk has access to all the intelligence information in the theater, so yes, they are flying in support.

MANNING CHALLENGE

Senator STEVENS. You made the statement, General, you are doing pretty well on recruiting. My staff tells me we are about 3,800 recruits behind this year in the active component alone. That is not enough to worry you?

General REIMER. No, that does worry me, Mr. Chairman. If I said recruiting, I misspoke, because recruiting is our challenge, and our estimates are that we will probably come in around 5,000 short on the recruiting goal we had, which is around 75,000.

Senator STEVENS. Are you talking about retention?

General REIMER. Retention is high. We are retaining at about 112 percent, and we did set high objectives, and so our real challenge is to recruit soldiers into the Army. We are retaining them in terms of the macro numbers.

We are also going to have spot shortages, because you do not retain evenly across the force, but in terms of the macro numbers on retention, they are very good. Recruiting is not good.

Senator STEVENS. Your budget proposes a buy-back of the noncommissioned officers (NCO) positions that were downgraded 2 years ago.

General REIMER. Yes, sir.

Senator STEVENS. How do you buy back people that have already left?

General REIMER. Well, when we cut the force down, Mr. Chairman, we cut the NCO content of the force too much. All we are suggesting here is we have to buy back NCO spaces, grow our NCO's from specialist to sergeant and sergeant all the way up, so we will open up the promotion gates to ensure that NCO's who are qualified get promoted. It is a matter of recognizing the spaces, then promoting the qualified NCO's into them.

That is one of our biggest issues in terms of readiness—the NCO shortages. We have had to work very carefully to keep it in balance, so the NCO content buy-back is terribly important to the near-term readiness of the United States Army. It is a matter of creating the spaces and buying back the number of NCO's we need. Increasing the NCO content of the force is essentially what we are doing.

Senator STEVENS. Is your buy-back proposal fully funded?

General REIMER. Yes, it is.

Senator STEVENS. Do you have enough for that?

General REIMER. Yes, we did.

QUALITY OF LIFE IN THE PACIFIC

Senator STEVENS. I have got to get a little provincial here. I hope you do not mind that. I asked the staff to look at what happened to the $137 million we provided the Army for quality of life enhancements projects. Do you know where I am going?

General REIMER. Yes, sir.

Senator STEVENS. The Army allocated that to seven bases in the whole Army, and no increase was provided for the Army of the Pacific and, as a matter of fact, if we look at the overall spending for this year, the Army of the Pacific got 25 percent of the funds which were allocated to the Army of Europe, and so I am sort of compelled to ask you two things. One, is this Kosovo operation and the things going on in Bosnia and Kosovo and Iraq, is that putting such pressure that we do not have readiness in the Pacific?

Senator Inouye and I feel that that is the lowest ebb we have seen now in the Army of the Pacific, and if we at the world, as you know, the six and seven largest armies of the world are in the Pacific. Really, the threat against this country for the coming century is in the Pacific.

Now, there are lots of threats against other places in the world, but the real one against us is in the Pacific, and we seem to be downgrading the Army of the Pacific considerably. Can you tell me why we should kick priorities over to Germany over the Pacific? There is four times as much money going into the Army of Europe alone compared to what is going into all of the Pacific.

General REIMER. The $137 million you mentioned, Mr. Chairman, was the 1999 supplemental that you gave us, quality of life enhancement for defense.

Senator STEVENS. That was in the general bill, General.

General REIMER. The decision we made was to upgrade our barracks program. When we looked at it across the force, the only major command that needed barracks upgrades at that particular point in time was in Forces Command, and so that money went to Forces Command.

If you look back at 1998 and then also look at 2000, there is a better balance of the allocation of funding. Your point about the percentage going to Europe and the percentage going to the Pacific is one that I will take a look at, because I do not know the exact percentage.

In Europe, the barracks are in very bad shape right now. That does not mean we could not improve the ones in the Pacific, but the bigger issue is the downgrading of the Pacific. That is absolutely, in my mind at least, not occurring in the Army. I just came back from there and, of course, one of my messages was to make sure that we were vigilant there just because of the reasons you talk about.

That is still a very dangerous complex area, and the threats over there are numerous. I did not see a downgrading in terms of readiness, in terms of the percentage of money going for barracks upgrade and quality of life. I will take a look at that.

Senator STEVENS. Well, General, I have a firm memory of the time Senator Hollings and I were sent by Senator Stennis to look at conditions in Germany when we were freshmen Senators, and that was the time of a draftee force, and we had families living in third and fourth story walk-ups. We called them cold water flats. In those days, however, the host nation support was that they provided the barracks and they provided the bases for us.

Now, once we started deploying families with our people and a volunteer force the host nation stopped providing assistance for the quarters. As a matter of fact, our costs per capita in Europe have gone up staggeringly compared to deployment in, say, Korea, or even Japan, and we find this bill just being acted on now, that passed the House last night, there was a considerable amount of money to go into facilities in Germany.

I think we have got to really look at that situation, that deployment. If the host countries are not going to contribute to our maintaining forces there, I think I am going to dust off Mansfield's resolution and bring some of them home, because the cost of that deployment, when we are providing 100 percent of the cost and 25 percent of NATO and maintaining the supply lines we do to keep those forces resupplied and rotated, a reasonable rotation is just horrendous, compared to the force in the rest of the world.

But above all, it does seem to me we have got to take a long look at this cost. They even wanted to modernize some of the towers, and I guess that is your base, I know, but all of that in the past was host country support, and I seriously question whether we should get into another 50 years of maintaining a force there totally at our expense, because I am looking at this budget trying to find money, and I find it seeping out under the edges. The modernization is going not to modernization of the force, it is going to modernization of facilities in Europe to keep the force there, an enormous amount.

I invite you to take a look at that amount and project what it is going to cost if we are going to modernize those facilities for deploying families rather than just forces. Maybe we should change our policy and do what Senator Stennis thought, and that is have unaccompanied tours, shorter tours to Europe, have them unaccompanied and have them be one-quarter Reserve, one-quarter Guard, 50 percent Regular.

As a matter of fact, he talked about that when he had this chair I have, and it is time we started looking at some way to maintain those costs, because a friend of mine used to say, you should never let someone else eat your lunch. Those people are eating—the cost of those people are cutting into the core of your modernization program for the total force, and I would urge that we try to do something about it.

MONTGOMERY GI BILL BENEFITS

Last, and I know my friends here are waiting to ask questions, the Senate bill 4, as it passed the Senate, had a provision in there that really increases the cost of the Government issued (GI) bill considerably. I wonder if you all have studied that.

Secretary Cohen indicated it would be from $11 billion more than the budget that the Department had submitted, but primarily the

GI bill is associated with the Army enlistment, and I think Congressman Montgomery is to be credited and deserves a lot of credit for giving some real backbone to the GI bill in peacetime, but this suggestion is that we now make the GI bill transferable to a spouse or children of the service person, and we understood when we supported Montgomery's bill to enhance enlistment.

I do not know how passing on those benefits to a spouse and children is going to enhance your enlistment. Maybe out 20 years it might, but not now, and it is a very great enlistment tool, but it looks to me like it is about ready to be, if not destroyed, severely limited by this suggestion. Have you all studied that, and do you have any comments to make about the modifications that S. 4 proposed to the GI bill?

Mr. CALDERA. Well, one concern about the transferability proposal is that today a lot of the young people who come into the Army are sons and daughters of career military personnel, and if you can transfer the GI bill to them and they have the option of going to college without serving themselves, there is a concern that that might actually work against enlistments in the future.

I think there is an issue with respect to spouses who are in places like Germany, where they cannot qualify for in-State tuition programs. If they want to continue their education, or achieve their educational goals, it is hard for a spouse to be able to pursue a college program while they are in a "deployed" status. There are some things we are looking at in terms of the same kind of tuition assistance for spouses that we do for soldiers.

I think some of the services have tried that and experimented with it a little bit.

Senator STEVENS. I have not seen the report on that. I would like to see it.

Mr. Secretary, you know, the tents that I visited there in Bosnia, there are three universities there operating at the camp I visited, and your young members, male and female, were attending college while they are deployed in Bosnia.

Now, in terms of Germany, we did change the law so spouses could work on our bases and earn some money while they were there so they could help pay their cost of furthering their education. I remember that was one of the reasons suggested at the time. Now it is being suggested that we extend the GI bill money over there. It does look to me like it is just too much of an invasion on the GI bill money. I would urge you to study it.

Senator Harkin.

TASK FORCE HAWK

Senator HARKIN. Thank you very much, Mr. Chairman.

First of all, thank you, Mr. Chairman and Mr. Secretary and General Reimer. I just returned from a Senate delegation led by Senator Hutchison. We were in Albania and also in Macedonia, Aviano, Brussels, Hungary, and Bulgaria. We visited the military forces in Tirana, and some of those who are helping us also in other places, in Aviano especially.

Again, I just want to tell you that I found the morale very high, the purpose well imbued. They knew what they were doing. They knew why they were there. I especially thought that the profes-

sionalism of the Apache helicopter pilots was very high. I was one of those always asking tough questions of briefers, General Shelton and others, about why they did take so long to get the Apaches to the area.

Having been there, I now understand, and I must say, General, and Mr. Secretary, I am awed, overawed by what the Armed Forces were capable of doing in a 4-week span of time. You would be amazed at what they did in Tirana in 4 weeks in terms of the material that was brought to the region.

They actually had to go out to a quarry. They had trouble bringing the Apaches in. It was a mud hole, so they had to go out to a quarry to get the rock, bring the rock in, build the pads, build everything so they could bring in the helicopters. They did all this in 4 weeks.

Actually, when I saw the material there, I thought the material had come by ship. Then I found out they flew in all that stuff. To me, that is just an awesome show of force and power, as well as all of the support that is necessary to accomplish something like that, so I congratulate you for that phase of the operations under very, very tough conditions.

The Apache helicopter pilots I believe are getting the training they need. I agreed with their commander. A lot of questions were asked about the two Apaches that were lost, but as one of the commanders said, he does not want to send any of his men into battle unless they are totally and fully trained. It is very difficult terrain, and I agreed with him.

I remembered when I was in after-flight training, after I got my wings, and I was in training. I remember, we lost a couple of people in training, too, because you want to train for the real thing, and so you push the envelope, and things like that are going to happen.

But I believe they are getting the best possible training under the most adverse of all circumstances, and I agree with that process and the procedure to make sure they are fully and totally trained to the nth degree before we ever ask them to go into battle with the Apaches.

UNMANNED AERIAL VEHICLES

So again, I just want to congratulate you on a job well done thus far. You mentioned something about the Hunters and the Predators. Maybe not in this forum but in another forum, I would like to know whether or not you have enough, and what the basis of that program is. Again, I am a believer in these programs now. I am a real firm believer that we need more of these. The eyes and the intelligence that these provide us is just immeasurable.

I do not know if you have ever seen what these Hunters can do, and what they can do with their optics, and how they can pinpoint targets and call the fire power in, and without risking anybody.

They have shot down a couple of them, but you are not losing any personnel, but what they are capable of, their capabilities, they are just amazing, and so I am just hopeful that we have the wherewithal to keep the Hunters and the Predators in the air, and that we have enough, and we have enough backup, and we have enough people who know how to operate them. Can you reassure me, Gen-

eral and Mr. Secretary, that that is the case, that we are not lacking for those aircraft?

General REIMER. Senator, may I say first of all, thank you for two reasons. One, for going over there and visiting the troops. That means an awful lot to them, and they really appreciate that. Second, thank you for sharing your experience. I was there about a week ago and earlier also. My view is the same as yours, and this is not a story that is understood by a lot of people because they say, "Why is the Army so slow getting there?" They have not seen the conditions. You have to see it to believe it. That is an amazing accomplishment.

And I looked those young warrant officers in the eyes, as you did, and they are ready to go. It is a matter of whether or not the conditions require their commitment or their deployment.

In terms of the UAV's, we have enough Hunters over there to do what they are being asked to do. Our issue is one of sustaining them for a longer period of time. But the bigger issue is the need for a tactical UAV in the Army, and that is the one we are addressing.

We have a program in the budget to bring on the tactical UAV so that we can have this capability full-time, not only for Kosovo but wherever we have our people. Deployed, it does give us the capability of looking over the hill without putting soldiers at risk, and it does provide great intelligence, as you indicated.

Senator STEVENS. Would the Senator yield there?

Senator HARKIN. Sure.

Senator STEVENS. You know, I am an Air Force background and so is the Senator, but why is this problem between the two services over these UAV's? The Hunters and the Predators have—they function together, as I understand it, and we saw the Air Force operating them for you, but why can't we get them deployed to the Army?

General REIMER. Well, I think they are supporting the Army, Mr. Chairman. The tactical UAV is the Hunter. The Predator is the medium altitude UAV. They provide two different capabilities and the Predator has a longer dwell time, but they both support all of the systems. They are funneled through the intelligence system and end up supporting the Task Force Hawk, for example. As I indicated, Task Force Hawk has access to all of that.

Senator STEVENS. We found they were waiting for the Predators. They were still here waiting for some manual. Has that been corrected?

General REIMER. Waiting?

Senator STEVENS. We were told they were waiting for a manual before they sent over the Predators. Have the Predators arrived now?

General REIMER. The Predators and Hunters are over there flying.

Senator STEVENS. It was a very limited number when we were there.

General REIMER. Well, it may still be a limited number. I am not sure of the exact numbers, but I do know the Predator is flying over there.

Senator STEVENS. Well, I am with the Senator. I believe we should just have a maximum utilization of that new technology. It is absolute protection for pilots to know who is out there and where they are going in that kind of country, which is sort of like China. I remember China, and wish to God we had had UAV's. We should have them over there in great numbers.

General REIMER. My staff will tell you, Mr. Chairman, I am really frustrated about our ability to get the tactical UAV to work properly over there. I think the Hunter is demonstrating the capabilities. We just have to institutionalize it within the military.

Senator HARKIN. I appreciate what the chairman said. I did not ask the question then, and if you cannot say now, you cannot say in an open meeting, but I want to know, do we have enough Hunters? Do we have enough? I mean, obviously, we are going to lose some.

They are not that expensive in the scheme of things, but the intelligence and what they are capable of doing in real time fire power is amazing. If you really want to strike fear and terror in the hearts of the Serb soldiers, the Hunters can do it.

General REIMER. The answer, I think, is that given the mission that we have right now, we have enough Hunters. If the initiative expands, then we will be very short on Hunters.

Senator STEVENS. I agree with the Senator that the use of those, there ought to be as many of them up there—I would like to see them use their hand-held weapons on Predators and Hunters. That is cost-effective for us, though, but they ought to be out there, and they ought to be out there now, and some of them are still in warehouses, General.

Senator HARKIN. If that is the case, we ought to get them out of there.

General REIMER. I will check on the Predator. We have some Hunters back there, but they have enough to do with what they have been tasked to do over in Skopje.

Senator HARKIN. Especially now, when we have another month, and the weather is getting better over there, so now these things can really be used to their maximum effectiveness. I would like to look into this more and just make sure, and I do want to get more fully briefed on the difference.

I know only a little bit about the difference between the Predator and the Hunter. I know more about the Hunter. I do not know so much about the Predator. I have got to get more up to speed on that, but it seems to me from what I saw that the Hunter is what we need over there.

I do not know if I am wrong or not. I could be wrong, but that is just——

Senator STEVENS. It depends upon the range and altitude.

General REIMER. Pardon me?

Senator STEVENS. It depends upon the range and altitude.

General REIMER. It does.

Senator STEVENS. The Predator can stay out longer, and the Hunter is lower level, more tactical short-range.

AFRICAN AMERICAN MILITARY MUSEUM OR MEMORIAL

Senator HARKIN. That I understand, but it seems to me that—well, anyway, we will get into that some other time.

Let me get to another thing here. Mr. Chairman, I guess about a week ago—I was not here, but there was a man from Des Moines by the name of Robert Morris that came and testified in your open hearing, and I would like to describe a little bit about this for both of you, and again for the chairman.

The first U.S. Army Officer Candidate School for African American soldiers was established, believe it or not, in Des Moines, Iowa, at Fort Des Moines in 1917. Many of the 639 officers who graduated went on to lead the all-black 92nd and 93rd divisions in France. They came back to America, and many of them became leaders in the battle for racial equality in our Nation.

One of those was Lieutenant Morris, who came back to Des Moines and started a newspaper and it became one of the larger African American newspapers anywhere in the country, and his whole family went on to become lawyers, very distinguished citizens of our country.

Well, one of his grandchildren is spearheading this project, and they have put together a board that is called the Fort Des Moines Black Officers Memorial, Incorporated. The building in which World War I officers trained, believe it or not, is still standing, barely. The roof is leaking and the windows are gone, and the Iowa winters are pretty harsh.

Well, Iowa veterans, community leaders, leaders in the African American community, have pledged substantial support for establishing a permanent museum at this original site. The Department of Defense's (DOD's) support would represent the first substantial contribution by the DOD in support of a large African American military museum or memorial, and so I guess—and they have got a board set up of a lot of distinguished people, and I guess—I do not know if you are aware of this or not.

I hope you become more aware of it, Mr. Secretary, and I would like to ask if the Army could provide some support for repairing and refurbishing the facilities and the associated grounds. Senator Grassley, Kerrey and I had asked for $2 million to help start repairing this facility. I know you have got a lot of demands and I think this is a very important part of our history.

Senator STEVENS. He committed when he was here to look into that. He has got a very good plan, Senator.

Senator HARKIN. Well, that was Mr. Morris from Des Moines.

Senator STEVENS. Right.

Senator HARKIN. He does have a good plan, and I guess I just want to raise the issue here to see if perhaps we can find some support from DOD. Maybe not Army, but a DOD umbrella-type thing, because the building really ought to be preserved, so I would hope you would look into that, Mr. Secretary.

Mr. CALDERA. Will do.

ROCK ISLAND ARSENAL

Senator HARKIN. Now, last, Rock Island Arsenal. You may know the Army recently announced a few hundred employees of Rock Is-

land Arsenal Industrial Operations Center will be let go, and I know Senator Durbin is also strongly interested in this, and the reason is simple. The Army is not providing any work at the arsenal. That was causing concern for me, and the Iowa and Illinois delegation. Our story is that Rock Island is being denied the opportunity to even compete for the work.

Most recently, it was denied, I am told, the opportunity to even join the competition for the 155 howitzer, despite the arsenal's long history of howitzer production. Rock Island was never given—again, I am told this—an official reason why it was dropped from the program. Rumors are rife at the arsenal that the Army pressured the prime contractor so that the arsenal was removed from the competition.

I further understand that the current contractor is facing cost overruns and program delays.

So Mr. Secretary, my request is this. Would you review the status of the 155 howitzer contract, and why, if, in fact, Rock Island was even denied an opportunity to participate?

Mr. CALDERA. I certainly will, Senator. Clearly, we look for competition to help deliver the best value, but the arsenals' ability to compete is sometimes impacted by their utilization. If they are underutilized, their overhead tends to be relatively high so they have a hard time being competitive. But, I do not know about this particular situation. I certainly will look into the 155 millimeter howitzer competition.

Senator HARKIN. My staff reminded me they are underutilized because they cannot compete. If they cannot compete, they are not utilized, so they are underutilized.

Mr. CALDERA. Part of what we are trying to do with the arsenals is to make sure that they are sized properly in terms of staffing so they do not have excess overhead in order to preserve that capacity, but preserve it at a level at which they can be competitive. So, Army Materiel Command has been working to shape those arsenals in a way that makes it possible.

FAMILY OF MEDIUM TACTICAL VEHICLES

Senator HARKIN. I want to find out more about the situation. I am sure Senator Durbin has other questions.

Last and very briefly, and I appreciate the chairman's indulgence—now, Mr. Secretary, I think you have got a big scandal brewing, and it is already hitting a little bit, and it is going to hit even more, and you have really got to look at it. In November of 1998, the General Accounting Office (GAO) came out with a report on the Army medium trucks. That is, FMTV's, the family of medium tactical vehicles. They came out with another report in January 1999.

ABC News—I just say that, and I do not say that they are totally accurate, but ABC News did a program on it in February. I asked for these GAO reports, I asked for these studies, and when you read them, I mean, it is pretty damning.

When you look at the GAO results, the current contract allowed the manufacturer to produce trucks during testing even though the trucks were unable to pass testing and demonstrate that they met

the FMTV performance and reliability, maintainability requirements. That is just one issue out of many in the GAO reports.

We had a corrosion problem described in the reports in which the Army determined the first 4,955 trucks produced did not meet the FMTV's corrosion protection requirements. The contract specified the trucks would be designed to prevent corrosion from perforating or causing other damage requiring repair or replacement during the initial 10 years.

Corrosion was found in the cabs of trucks less than 3 years old that were still awaiting modification at the contractor's plant. They had not even been out in the field yet.

Now, rather than making the contractor replace all of these truck cabs at a cost of $31 million, the Army accepted the contractor's proposal to repair the corrosion damage and to provide a 10-year warranty not to exceed $10 million against any future corrosion. This dollar limitation in effect relieved the contractor of a potential $21 million liability.

The Army also subjected one of the trucks to a contract-specified corrosion test. It failed, with corrosion being detected in 60 areas.

Now, this is not a small item. This is a $15 billion program that is going to go to the year 2022, I believe, and yet the first 10 years, that first 10 years is now completed and I, quite frankly, after getting these GAO reports, I really do not see much happening at your level to really look into this, and to find out whether or not this contractor ought to be rewarded with another, what, 10,000 trucks. After all of this we are going to say, well, that is OK, you are going to get another 10,000 trucks.

Mr. CALDERA. Well, it certainly is receiving attention both at the Army and at OSD through the Under Secretary of Defense for Acquisition and Technology. Some of the items that have been identified were identified during performance tests designed to see if FMTV meets all the specifications and requirements, as well as to identify problems. This testing allows us to work with the contractor to iron out those problems and make sure they are fixed before we go into longer-term production.

We are also developing the second source production models in order to look at the economics of introducing some competition into the production of the trucks. Our goal is to get the best value for the taxpayer if we can develop a second source that can more economically produce these trucks. But, we certainly are addressing all of the issues that have been raised with respect to trucks.

Some of the comments that have been made about the trucks in terms of rollovers are not accurate, and we have tried to correct the record. There are some assessments that do need to be looked at, but there are other assessments that are not really accurate.

Senator HARKIN. Is it true this contractor who had got this contract had never made trucks for the Army?

Mr. CALDERA. They had not made trucks for the Army before. They had been involved in industrial production. They did not produce trucks; they produced agriculture and other industrial vehicles.

Senator HARKIN. I have information the marines have gone to a second contractor for its medium trucks. Is that true?

Mr. CALDERA. I do not know.

Senator HARKIN. Well, I will just tell you, these GAO reports and everything we have looked at here, the cost per truck rose 74 percent in one year, from $142,000 per truck to $251,000 per truck. Every time I look at that——

Mr. CALDERA. Some of those cost increases, though, reflect a better product. That is, we increased the capabilities that we asked them to put into the truck in terms of——

Senator HARKIN. Do not go down that road, Mr. Secretary, a better truck, and you are finding corrosion on a truck that has not even been out in the field yet and the contract specified 10 years corrosion-free. They did one test on one truck, found 60 corrosion areas in one truck, and we are getting a better product? I do not think so. I do not think so.

I am going to keep on this, because I will tell you—and I hope you are going to keep on it, Mr. Secretary, because I am telling you, it is going to hit, and it is going to start hitting hard, and if they are going to be rewarded with 10,000 more trucks to this contractor after the shoddy business that they have done in the past, something is wrong, and I do not know where it is all leading, but this truck program is important.

It is important to the troops that are going to be fighting the future wars, and I will be damned if I want to have trucks that are going to be corroding and falling apart, windows shattering when they slam the doors. This is a fact. This is in the GAO report. Do not take my word for it. Is that the kind of trucks we are going to put our troops in, in the battlefield? I do not think so.

Anyway, I am really upset about this one.

Thanks, Mr. Chairman.

Senator STEVENS. Senator Durbin.

Senator DURBIN. Thank you, Mr. Chairman. General Reimer, Mr. Secretary, thank you for joining us.

First, I would like to thank Under Secretary Bernie Rostker, who has been working with us on the Joliet Arsenal. We have an exciting plan there, and I want to tell you that Mr. Rostker and the Army have been very cooperative in moving us along. I think it will be a good example of the kind of decommissioning of a facility that ultimately is going to benefit the surrounding community, so thank you very much on that.

ARSENALS

If I could follow through on Senator Harkin's question about the Rock Island Arsenal, Secretary, could you just tell me what your vision is about the future of facilities like the Rock Island Arsenal?

Mr. CALDERA. Well, I think we need to maintain the capability in our arsenals that exist there today. That is important to the Nation's future production of armaments that are important tools for our soldiers. We have had excess capacity in our arsenals, and some of that excess capacity is being worked down as we try to reshape the arsenals to be sure that they can be competitive and that they have enough work to be cost-effective while maintaining their capacity. We want to ensure we get the benefits of competition and outsourcing to the private sector when it makes sense to do so.

Senator DURBIN. So if the arsenal facility can be competitive, price-competitive with the private sector, do you feel they should have an equal chance to bid on work?

Mr. CALDERA. Certainly, absolutely.

ROCK ISLAND ARSENAL

Senator DURBIN. I think that is the point Senator Harkin was making, at least in the instance with the howitzer, the feeling is that that was not the case for the Rock Island Arsenal. Over a period of time, for whatever reason, the Army has been moving in the opposite direction, trying to find reasons not to allow the arsenal and its facilities to do the work, or even compete for the work; that seems shortsighted.

Another thing that concerns me and Senator Harkin related to it was this question of moving jobs away from the arsenal. I have to believe that this investment we have in places like the Rock Island Arsenal has got to be cost-competitive with going into the private sector and trying to find comparable space to locate individuals.

We own this land. It has to be price competitive for us to keep as many facilities as we can, realistically, at these locations. The suggestion of moving the civilian personnel operations centers and 180 jobs away from the arsenal, and then for the Army and taxpayers to pay in the private sector for 30,000 square feet of office space somewhere else does not strike me as a very thoughtful decision. Are you familiar with that at all?

Mr. CALDERA. I am familiar with that. In fact, where we can, we have actually been trying to move from where we are paying the private sector onto military bases, to try to get out of those situations. I share your concerns, and we will look into it.

JUNIOR RESERVE OFFICER TRAINING CORPS (JROTC)

Senator DURBIN. If you would, I would appreciate it.

Can I mention two somewhat local issues and, if I can, one that is much more national, or international in scope. The Chicago public school system has a junior ROTC program which is a roaring success, bringing 7,500 cadets into this program in all four branches of the Armed Services.

These kids have turned out to be much better students. I have seen them, gone to the high schools and seen the kids in uniform. Their attendance is better, their grades are better, they have fewer problems, and they really do start thinking about the possibility of being involved in serving our country in the Armed Forces.

What steps is the Army taking, if you know, with local sponsors to expand junior ROTC?

Mr. CALDERA. We actually have the largest junior ROTC (JROTC) program of all the services and a waiting list of schools that want our program. We are expanding the JROTC program by putting more dollars into it and offering the program to more schools. In particular, we are working in the Chicago area to increase the number of schools that are able to offer the junior ROTC program. It is a great program.

I have had a chance to visit several different schools around the country. JROTC has a great dual pay-off in terms of better citizen-

ship among students and some recruitment for us when they come into the enlisted ranks and the officer accession programs. So, I share your enthusiasm and support for JROTC. Within our resource-constrained environment, we have found additional resources for the JROTC program.

MONTGOMERY GI BILL BENEFITS

Senator DURBIN. I want to follow up. Senator Stevens made reference to the Montgomery GI bill, and our old friend Sunny Montgomery's efforts, and I am sure that has a lot to do with enlistment.

I have a high school intern in my office in Springfield, Illinois now who is going to be joining the Army very shortly, and I asked him, why did you want to do that? Well, he said, my dad was in the Army. He still is in the Reserves. He served in Vietnam. I have always thought about the Army. But, he said, the GI bill is really what I like, the idea that when it is all over I can go to college and have some money to do it. So that has a lot to do with it.

I think the other side of that equation is just as we have mentioned here, to get young people at an early age to consider the possibility of military service, and so I encourage that, and particularly would ask if you can take a look—we have Bronzeville Academy, the Chicago Military Academy at Bronzeville, where we are working with the junior ROTC. I would hope you can take a look at where they are on the waiting list.

SCHOOL OF THE AMERICAS

So those are the parochial, local things you would expect when you come to these meetings. Now to go to one much more controversial, and almost international in scope. I have been voting to close the School of the Americas at Fort Benning every year I have had an opportunity, and it has not been offered as an amendment in the Senate. I am going to offer it this time, this year.

I have about a dozen cosponsors, people who feel, as I do, that the Army should have stepped back years ago, a decade ago, and decided that whatever benefits were derived from the School of the Americas, that certainly should be reassessed in terms of today's world.

The countries of Eastern Europe as they emerged from the Cold War took a brand new look at the world. Poland decided to push away all that Soviet and Russian thinking and instead look to the West, looked to the North Atlantic Treaty Organization (NATO). So many stories like that in country after country suggested a reassessment of their priorities and their vision.

The School of the Americas was established and functioned during a very controversial period in the history of America and Central America. I am certain that there were men and women trained at that facility who were professional military, who benefited from that experience and went back and did good things for their countries. I will concede that point.

I would hope that the Army would concede that there were some things done at the School of the Americas which we are not proud of. Some of the training manuals that were used, that the Army ultimately conceded did not reflect American foreign policy, manu-

als that envisioned torture and things that were just inconsistent with American values, were scrapped after they were discovered.

And if you go through the list of graduates of the Army School of the Americas, there are certain classes where you would never want to have a reunion, because they included—and I read it on the floor of the United States Senate—page after page after page of those who matriculated through the Army School of the Americas only to return to their home countries and to be involved in atrocities which we would never countenance, never, neither you, Mr. Secretary, nor any of the men and women in uniform behind you.

It strikes me that there is a compelling case here for the Army to step away from that model, that name, that history, and to say, if they are to have a future role in training the military in any country, that they come to the United States and pick up the skill, that it should be in a different context, the context of the 21st century and not the darkest days of the 20th century. I am going to offer that amendment.

When I speak to my friends in uniform, I just marvel at the fact that they have not seized an opportunity to make a break, to close this school, and to say, if we are going to have one in the future, it is going to be dedicated to much different principles.

Coca-Cola realized that New Coke was not going to make it, and they realized it very quickly, but for some reason there is just a feeling in the Army that they cannot concede that anything might have gone wrong there. What is your thinking?

Mr. CALDERA. Senator, I have to tell you, I think actually the School of the Americas functions in the way you would want it to function. First of all, it is a U.S. Army school and, therefore, is run as a U.S. Army school. It reflects the same values and principles we expect of all of our U.S. Army soldiers. We do not teach U.S. Army soldiers to violate human rights, and we do not teach the soldiers of any other nation to do that.

Today, the School of the Americas is a very important tool for emphasizing those lessons to the militaries of Central America and South America. Their countries have legitimate security concerns, such as patrolling their borders against drug traffickers, and in the past they faced insurgencies.

I think our Army officers who were there as advisors will tell you they are very proud of the fact that they helped those governments work through periods of insurgency and turmoil, where much of the Cold War was being fought out in Latin America. Those countries today are democracies, are turning toward market-based economies, and want to be closer to the United States and to emulate our country and our principles.

So in addition to teaching military courses there, we also have a very significant block of instruction for protection of human rights, strengthening democracy, and the role of civilian control. They are also taught in military subjects like demining—to get these mines out of the countries that were left by wars in the past—and how to deal with disaster assistance; important topics for how they see their own militaries changing in this post-Cold War era to be more relevant in supporting their countries.

I think the School of the Americas plays a very important role in U.S. foreign policy by engaging the countries of Central America and South America to be more like the United States in terms of what it means to have a professional military in service to a democracy.

In addition, the school has been investigated several different times and has a very distinguished board of visitors that allows human rights leaders, positions for clergy, and others to be involved in supervising and scrutinizing the instruction at the school.

Going back over what was used in the past in terms of manuals and instruction books, the things that were found were unauthorized materials.

Now, there have been some 60,000 graduates of the School of the Americas, and clearly we cannot be responsible for the actions of the graduates any more than any other educational institution is for all of the actions of all of its graduates.

They are regrettable, and I think that if you go back and go through the lessons of it, where there were countries that violated human rights, the U.S. Government responded by removing military assistance, by removing advisors, by refusing to deal with those countries, and one of the chief messages our military advisors and our soldiers there had was, if they expect support from the United States for their government, they have to act like a professional military, and they have to protect the rights of the people in their country.

So I actually think it is very important for us to now, today, continue to have this school and to go forward engaging the militaries and the leaders of these countries in order to support and strengthen the appropriate role of the military in a democracy.

Now, let me add as a final note that we have other schools where we have foreign officers. They can come to the War College, they can come to the Command and General Staff School, but they come in small numbers, and those schools are taught in English language subjects.

The School of the Americas is an opportunity to train and teach many more students in their native Spanish language, and for our country to have a leadership role in advising those militaries as they develop. One of the most important things that happens at the School of the Americas is that they come to Fort Benning, Georgia, where they are welcomed by the local community and they develop personal relationships with Americans who invite them into their homes for meals, to meet their families, and to develop friendships.

And they get to see what our country and our form of government and democracy is all about. They go back wanting the same things for their country, and it is a terrific interaction between our soldiers and the soldiers of those countries; one that our country would be poorer for if we did not have that school.

Senator DURBIN. Mr. Secretary, we have no quarrel over what you have set out as the goal of this training program, and I think, as I have traveled around the world, and have seen the changes which we have been fortunate enough to witness in our lifetime, that the United States has an important lesson that it can teach in terms of civilian control and a responsible military.

I hope you will acknowledge that in the past that has not been the case in some of these countries. The army has been a force of oppression against efforts by the people to bring true democracies to their countries. Those dictators who sought power did not stop first at the equivalent of the American Civil Liberties Union for an endorsement. They stopped at their army headquarters in their local countries, and when they came to power, it was the army that forced their power on the people to stop democracy.

Too many of those people in the army were graduates of the School of the Americas of years gone by. When I read the pages of people who have come out of that school, these are not just occasional mistakes, these are leaders in foreign countries who have graduated from the School of the Americas and were involved in the most brutal repressions against indigenous populations, against the Catholic clergy and nuns, things that frankly you and I would never countenance as having the approval of the United States.

It is beyond me that the Army cannot understand that there has been such a generational change in thinking about Central America that they should make a clear break with the past, not just in terms of curriculum, but in terms of the kind of change where people would say, they got it, they understand it, it is a new world.

And I think that is why there is such resistance to the continuation of the School of the Americas. The votes in the House of Representatives are always within a handful of votes of closing this facility. I cannot image, as Secretary of the Army, that you have missed that, and in the Senate it will be tougher.

But the fact is that there is a continued drum beat against this, and why the Army has not stepped back and said, we need to break clean from the past, to serve the goals you have articulated in a way that we can be proud of in the future, is beyond me. It just strikes me that that is one of the things, as Secretary, that you could accomplish, and I hope you will consider.

I thank you very much for your testimony, and thank you, General.

General REIMER. Senator, may I say something on that, because I have been involved with the military in that area since 1974. I have seen a great growth in terms of professionalism of that military force, and I would argue that one of the reasons you have democracies in all of those countries save one, Cuba, is a little because of the military commitment we have made in that area, not only the School of the Americas, but also the mobile training teams we have had working with them.

And as I deal with their military, I know they are very professional. I also know they appreciate the School of the Americas in terms of the training that their people receive.

Yes, there have been people who have gone there who have not turned out right, and my guess is that any institution in the world could make the same statement, and it would probably be true, but I do not think that we should back off from our commitment to make them more professional.

If the School of the Americas contributed to that professionalism, then I do not see why we should have to close it. I would invite you to come there and look at the School of the Americas and let us tell you what we are doing there. If you find something wrong,

we are more than willing to change, if we are doing something wrong. We have made that commitment to all of the critics, and generally when we get them to come there, they take a little different view of the situation.

Senator DURBIN. In fairness, General, I received that invitation, and it is my fault I have not been there yet, and I hope to visit it to see it first-hand. I owe that to you and to the Army, and I do concede the point that you made. In the countries where the army becomes professional and does not become a political tool and is not dedicated to repression, these are the countries where you see real emerging democracies, the positive contributions by the military that we value so much in the United States.

But I hope that you can also step back and concede that some of these operations in the past, the dictators and repression, have been accomplished through misuse of military force. Many of these same people who supposedly came through this training learned little or nothing and, as a consequence, there are people in these countries who do not view the military in a very positive light, and do not think much of us for what we did in the years gone by.

And so I hope that we can find some way to resolve this. This should be resolved. There ought to be a way to combine military professionalism and the sensitivity for human rights, and a dedication to a new approach that suggests that it is a new day for Central America, South America, and for the United States. I would like to work with you on that.

Thanks, Mr. Secretary, and thank you, General. Thank you, Mr. Chairman.

Senator STEVENS. Thank you very much.

We are discussing what to do with your UAV's, General.

General REIMER. Could you share it with me, Mr. Chairman? [Laughter.]

Senator STEVENS. We would be glad to chat with you about it. I think we have some ideas about them. I still believe it is cost-effective to have those things out there to attract, if for nothing else to attract those hand-held weapons.

This is going to be our last meeting. We want to thank you very much for your presentation. We are going to mark up this bill starting Monday, and hopefully we will have it ready to go to the floor, if things break right on the floor, next week, before the Memorial Day recess.

ADDITIONAL COMMITTEE QUESTIONS

Mr. Secretary, it is a pleasure to start working with you, and General, it has been an honor, a downright privilege to work with you. I do thank you for all you have done. I think I pressed you a little hard on the Guard to begin with, but you took that ball and ran right around me.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO SECRETARY LOUIS CALDERA

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

THEATER AND NATIONAL MISSILE DEFENSE

Question. Secretary Caldera, what role do you envision the Army playing in the development and fielding of Theater and National Missile Defense systems?

Answer. The Army has, and will continue to have, a critical role in the development and fielding of Theater Missile Defense (TMD) and National Missile Defense (NMD) systems.

In the area of TMD, the Army has the Nation's only fielded, TMD (active defense) capable system, Patriot. In fiscal year 2001, we will achieve First Unit Equipped (FUE) for Patriot Advanced Capability-3 which, as our lower tier program with its proven hit-to-kill capability, will protect our deployed forces from short-range theater ballistic missile threats, including those armed with weapons of mass destruction. Additionally, the Army's upper tier program, Theater High Altitude Area Defense, designed to defeat both short- and medium-range ballistic missile threats, is scheduled for an FUE of fiscal year 2007. A battalion of soldiers is on the ground, participating in development and testing, and is trained and ready to deploy upon receipt of operational missiles. The Army is also directly involved in the international cooperative program, the Medium Extended Air Defense System. Finally, the Army is developing an elevated sensor, the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System, which will be of great benefit to the entire TMD mission area.

In the area of NMD, the Army, in conjunction with the Ballistic Missile Defense Organization and the NMD Joint Program Office, is developing the ground-based elements of the current NMD system. These elements include the X-band radars, the interceptors, the in-flight interceptor communications system, and the site battle management command, control, communications, computers, and intelligence. Army National Guard soldiers would provide full time manning of the system.

ENHANCED FIBER OPTIC GUIDED MISSILE

Question. Kosovo has demonstrated the need for a precision weapon, like Enhanced Fiber Optic Guided Missile (EFOGM), which minimizes the risk of fratricide and collateral damage while enabling the Army to attack high value targets at long range. EFOGM has demonstrated success in five consecutive flight tests, including hitting two out of two targets. If Congress funds EFOGM in fiscal year 2000, will the Army support the continuance of the program and field the first long range, precision strike weapon for light forces?

Answer. The Army has not budgeted funds for continuing EFOGM beyond fiscal year 1999. While EFOGM has several operationally attractive capabilities, there are also some significant operational issues with the EFOGM technology. Two teams of experts, our independent Operational Test Command and the Training and Doctrine Command's (TRADOC's) Infantry Center, have recommended against continuing the EFOGM program. The TRADOC Light Anti-Tank (LAT) Study, that supports this recommendation, consisted of both Northeast and Southwest Asia scenarios and a warfighter analysis of doctrine, training, leadership, organization, materiel, and soldier with respect to anti-tank systems. However, our analysis did not rest solely on the findings in the TRADOC LAT study, but also included information gained during the Rapid Force Projection Initiative Advanced Concepts Technology Demonstration, as well as from field exercises of our light forces at the Combat Training Centers. In addition, the Army had a long range weapon system (the Apache helicopter equipped with Hellfire II missiles) in place to use in Kosovo, had the situation warranted. The Army Staff recommendation is consistent with those of the Test Command and the Infantry Center in that the Army believes that investment in the precision non-line-of-sight capability provided by EFOGM is not justified by unmet requirements. Thus, we have chosen not to continue to fund the EFOGM program.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

RECRUITING AND RETENTION

Question. Mr. Secretary, in your prepared testimony you note that the Army missed its recruiting goals in 1998 and in the first quarter of fiscal year 1999. Can you give us an update on how you are addressing this problem and the results to date?

Answer. In order to meet the difficult challenge in fiscal year 1999, we:

—Implemented a prior service selective reenlistment bonus and break-in-service selective reenlistment bonus for an expanded number of military occupational specialties (MOSs);
—Increased the maximum benefit of the combined Montgomery G.I. Bill and the Army College Fund to $50,000 from $40,000 and offered it to 32 MOSs, an increase from 16 MOSs;
—Increased the maximum enlistment bonus for three-year term of service to $6,000 from $4,000;
—Implemented $3,000 seasonal bonus from November 1998 to May 1999;
—Expanded the number of MOSs eligible for the Loan Repayment Program to 109 from 78;
—Expanded job match opportunities for applicants;
—Accelerated the fielding of the Army Recruiting Information Support System; and
—Expanded the number of MOSs allowing two-year terms of service to 57 from 32.

So far, these initiatives have not had the desired effect of enabling us to meet the fiscal year 1999 accession mission. At this time, we estimate we will miss our fiscal year 1999 accession mission by about 6,700 recruits.

18-MONTH ENLISTMENT

Question. Mr. Secretary, do you believe it would be cost effective to go to an 18-month enlistment for most of your recruits?

Answer. We believe that anything less than two years service, including training time, is too short to recoup the investment in training, increases turbulence in an already turbulent force, and presents other problems, such as increased accession requirements in future years. Our historical data indicate that soldiers with two-year terms-of-service leave the service at a higher rate at the end of their first enlistment than those with longer enlistments. We anticipate that for each 1,000 additional two-year enlistments, we will see an increase in future accession and training requirements of 200 soldiers per year. If the terms-of-service were 18 months rather than two years, we would expect an increased future annual accession and training requirement of at least 267 soldiers for each 1,000 18-month enlistments. With a two-year enlistment, we get approximately 18 trained man-months from each enlistee, after accounting for training and leave time. With an 18-month enlistment, we would get approximately 12 trained man-months. So, for a 25 percent increase in enlistment length (24 months versus 18 months), we get a 33 percent increase in utilization (18 months versus 12 months).

Question. Secretary Caldera, considering the recruiting and retention problems that the Army is facing, do you think the Army should look to more innovative approaches, like shortening basic enlistments even if 18 months is not the right approach for the bulk of your forces?

Answer. The Army intends to reinvigorate its two-year enlistment option, but believes that anything less than two years of service, including training time, is too short to recoup the investment in training, increases turbulence in an already turbulent force, and presents other problems, such as increased accession requirements in future years. We believe that the two-year enlistment option may be a way to expand the high quality market. We have requested legislative changes to allow payment of an enlistment bonus for a two-year term-of-service and to remove the military occupational specialty-specific limitations on the two-year Army College Fund.

STRIKE FORCE

Question. Secretary Caldera, what are the resource requirements for the Strike Force, and what are you planning on spending on this initiative in fiscal years 1999 and 2000?

Answer. Over the last six months, the Strike Force concept has been maturing, with more and more definition of the requirement. The Secretary of Defense resourced the Army Experimentation Campaign Plan, including the Strike Force concept, at the level identified by the Army in the fiscal year 2000 budget request. Based on the information available at that time, Strike Force was considered fully funded. The funded amount for fiscal year 1999 is $11,600,000. In fiscal year 2000, the budgeted amount is $56,300,000. As the Army continues to refine the Strike Force concept, including the doctrinal, organizational, training, leader development, materiel, and soldier support requirements, additional funding requirements may be identified.

JOHNSTON ISLAND

Question. Secretary Caldera, the Army has been destroying its stockpile of chemical weapons at its facility in Johnston Island since 1985. According to your plans, the total amount to be destroyed at Johnston Island is expected to be completed in 2000 and the plant will be closed in 2001. Are you still on that timetable?

Answer. Yes, the Johnston Atoll Chemical Agent Disposal System (JACADS) is scheduled to complete disposal operations in late calendar year 2000. Since JACADS began destroying its stockpile of chemical weapons in June 1990, a significant portion (in excess of 80 percent) of the original stockpile located on Johnston Atoll has been safely destroyed. Closure planning is actively underway, with participation by environmental regulators, other island tenants, and external stakeholders, to further define JACADS closure requirements. A substantial portion of the closure activities will be completed during calendar year 2001; however, completion of final closure activities, including contract closeout actions, will continue into the first half of calendar year 2002.

Question. Mr. Secretary, almost every year there are those who want to revisit the issue of where chemical munitions should be destroyed. They want to consider whether they should be shipped to existing plants instead of being destroyed where they have been stored. All your experts agree that the most dangerous thing to do with chemical munitions is to ship them. Do you know of any reason why this debate should be reopened?

Answer. Currently, approximately 90 percent of the United States chemical stockpile is under contract for destruction on-site. There is no need to open the transportation issue for these sites. However, destruction of the other 10 percent, which is stored in Pueblo, Colorado, and Blue Grass, Kentucky, has been delayed by legislation. Should destruction prove infeasible or impossible at these sites, transportation of this material to sites where destruction has already begun, and the legislative changes that would enable such transportation, should be carefully considered.

QUESTIONS SUBMITTED TO GEN. DENNIS J. REIMER

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

ENHANCED POSITION LOCATION AND REPORTING SYSTEM

Question. General Reimer, I understand that the Enhanced Position Location and Report System (EPLRS) provides secure, jam-resistant, near real-time data communications, and that it is the data backbone for situational awareness and tactical internet operations for Force XXI activities. I've been informed that a recent review revealed a 60 percent increase in the Army's data radio requirements.

What will be the operational impact if this increased requirement is not met?

Answer. Our current requirement is 8,157 EPLRS. The Army procured 5,015 EPLRS prior to fiscal year 1999. The remaining 3,142 systems are required to resource the First Digitized Corps and Force Package One first-to-fight divisions and meet data radio requirements for the Avenger Slew-to-Cue (STC) program. Failure to procure the remainder of the EPLRS requirement jeopardizes ongoing digitization initiatives and our ability to resource first-to-fight units with position navigation and anti-fratricide capability. Avenger STC, a critical air defense system, is designed to operate with EPLRS radios, and the system would be at risk without the radios.

Question. How would an accelerated rate of procurement of EPLRS impact this situation?

Answer. Procuring the remaining EPLRS at an accelerated rate (fiscal year 1999–2001) versus the current budgeted program (fiscal year 1999–2004) will afford a cost avoidance of $53 million in the out-years and will accelerate fielding of EPLRS by three years.

FIRST FORCE INSTRUMENTED RANGE

Question. The Deployable Force-on-Force Instrumented Range System (DFIRST), a new global positioning system-based maneuver training instrumentation system for mounted maneuver training exercises, showed significant readiness benefits for Army National Guard (ARNG) home station training during the DARPA/SIMITAR evaluation in 1996 by the Idaho Army National Guard. The system's increased training safety benefit through constant identification of friendly and adversary forces led to its selection as the instrumentation system for the Secretary of Defense's All Service Combat Identification Evaluation Test.

The need for a mounted maneuver instrumentation system is supported by the ARNG-commissioned independent study conducted by the ARIST Corporation that assessed the ARNG Home Station Instrumentation (HIS) needs to complement the Active Army's HIS goals. The study identified a near term need for six ARNG training sites to be developed into complete HIS sites at a rate of two per year.

It is my understanding that if funding was available, the first two ARNG training sites to receive the DFIRST system would be Fort Pickett, Virginia, and Camp Shelby, Mississippi.

General Reimer, will Camp Shelby, Mississippi, and Fort Pickett, Virginia, be the first two sites to receive the DFIRST system if funding is available?

Answer. Yes. Camp Shelby, Mississippi, and Fort Pickett, Virginia, have been determined to provide the best force-on-force mounted combat maneuver training area for utilizing DFIRST for the Army National Guard.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

PATRIOT

Question. General Reimer, I have a question concerning the Army's plan to improve the Patriot Weapon system.

Could you clarify the Army's position on the need for the Patriot Anti-Cruise Missile (PACM) as a complement to PAC–3?

When do you foresee continuing PAC–3 testing?

Answer. The Army has no requirement or plan for procurement of the PACM missile. The centerpiece of the Army's Theater Missile Defense modernization plan is to deploy the Patriot Advanced Capability-3 (PAC–3) weapon system as soon as possible, not PACM.

PAC–3 testing is currently underway. The Army is prepared to conduct its next PAC–3 flight test as soon as conditions at White Sands Missile Range (WSMR) permit. Due to extremely dry conditions in the target booster drop zone, WSMR has placed the flight test on hold due to fire hazard.

LONGBOW APACHE

Question. General Reimer, the Army's Apache helicopter has been in the news almost nightly since the Kosovo crisis began. I understand that modernization of the Army's helicopter fleet is a big issue to the future of Army Aviation. I would like to hear your assessment of the modernization process in general, and more specifically, please comment upon the implications of the Apache Longbow "530" Plan.

Answer. The Army remains strongly committed to fielding a modernized aviation force. Although not funded at optimum levels, the Army has been able to fund these major aviation programs at a level sufficient to meet our wartime requirements. The Longbow Apache "530" Plan represents a unique aviation modernization challenge. At present funding levels, the Army cannot afford to procure two major aviation systems simultaneously, Longbow Apache and Comanche. The Apache is a proven system and, with the Longbow improvements, it will continue to provide the Army an attack helicopter overmatch well into the future. Tactical reconnaissance and security remains the Army's priority in aviation modernization. Comanche will fill the reconnaissance requirement and together with the Longbow Apache, provide the Army with a tremendously lethal fighting force. The "530" Plan provides the Army flexibility to husband resources, while maintaining the Comanche fielding schedule.

Question. If Air Guard and Reserve Apache units are required to operate the "A" model, will those units be as useful to our Unified Combat Commands as units equipped with Apache "D" models?

Answer. The AH–64D Longbow is a more capable aircraft and will be fielded to both the Active and Reserve Component attack helicopter battalions. Several Strategic Reserve battalions equipped with AH–1s will be given the AH–64As. As Comanche is fielded to the attack battalions, Longbow Apaches will cascade and replace the Strategic Reserve AH–64As. In the interim, the AH–64A will continue to be relevant and useful well into the next decade.

Question. If the Apache fleet is split, what effect will there be on maintenance, training and logistics in Army Aviation?

Answer. As the Army fields the Longbow Apache under the "530" Plan, split fleet operations will be unavoidable out to at least fiscal year 2006. Approximately 70 percent of the Longbow requires the same logistics and maintenance efforts as an "A" model. The Army is considering an innovative proposal known as Apache Prime Vendor Support that will mitigate the split fleet logistics impact on the Army. The Army is in the process of reviewing its aviation modernization plan. The plan will

consider the impact of maintaining dual training base and the logistical impact of maintaining unique "A" model-only parts.

QUESTION SUBMITTED BY SENATOR KAY BAILEY HUTCHISON

PATRIOT

Question. General Reimer, my question concerns the Army's plan to improve the Patriot Weapon System. My recollection of the Army's plan to upgrade Patriot is to improve its anti-missile capability with one new missile, the Patriot Advanced Capability-3 (PAC–3) missile. I'm also aware that we funded a contingency program, the Patriot Anti-Cruise Missile (PACM) upgrade program, as a hedge in case the advanced cruise missile threat emerged before we could deploy an adequate inventory of PAC–3 missiles.

I read your recent report documenting the results of the PACM evaluation. In the letter that accompanied the PACM report, Army Assistant Secretary Hoeper stated that the "Army is confident that the * * * PAC–3 Missile will be capable against the entire threat spectrum including Tactical Ballistic Missiles armed with Weapons of Mass Destruction warheads."

Recently, our Senate Armed Services Committee recommended in their markup of the Defense Authorization bill that an additional $60 million be added to initiate Low Rate Initial Production of the PACM. So, I am a little confused. Now that you have recently concluded your first successful intercept with the PAC–3 missile, and I understand you will soon go for a second intercept when weather permits, would you clarify for the committee whether you require two missiles to fulfill your Patriot upgrade plans or is it still just one new missile that is required, the PAC–3 missile?

Answer. To clarify any misunderstanding, I want to be clear that the centerpiece of our Patriot modernization plan is to deploy the PAC–3 missile as soon as possible. The PACM seeker technology demonstration program was helpful in our PAC–3 missile risk mitigation effort, but we do not plan to deploy any PACM configured missiles at this time. We fulfilled our PACM development and test obligations and documented the results in the report that you mentioned. I believe we need to focus our production priority on deploying PAC–3, the only Patriot missile for which the Army has a valid operational requirement, not PACM.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

RECRUITING AND RETENTION

Question. General Reimer, what actions have been taken or are required to man the force?

Answer. We have increased our enlistment incentives to include enlistment bonuses (EB), the Army College Fund (ACF), and the Loan Repayment Program (LRP). They are part of a comprehensive package of incentives and benefits designed to attract a broad spectrum of high quality applicants into hard-to-fill military occupational specialties (MOSs). We offer a regular EB in 67 MOSs. We offered a $3,000 seasonal bonus for all Armed Forces Qualification Test Score Category (TSC) I–IIIA applicants who accessed during the period November 12, 1998, to May 31, 1999. We also offered the $3,000 seasonal bonus to TSC IIIB applicants who accessed during the period January 26, 1999, to May 31, 1999. We increased the number of MOSs eligible for the $50,000 combined Montgomery GI Bill and ACF incentive from 16 to 32. We also increased the lower ACF levels from $20,000 to $26,500 for a two-year term of service, from $25,000 to $33,000 for a three-year term, and from $30,000 to $40,000 for a four-year or more term in 90 MOSs. We now offer the LRP for 109 MOSs.

We have asked Congress for the authority to offer a 2-year EB and to expand the 2-year ACF. In addition, Congress is considering raising the maximum EB level to $20,000. All of these are critical in ensuring the Army can offer an enlistment incentive package comparable to that offered by the private sector and colleges or vocational schools.

The Army's enlistment incentive program has been effective in appealing to the dominant buying motives of most applicants, such as money for college. The program is critical in channeling applicants into the MOSs in the numbers and at the time they are needed.

18-MONTH ENLISTMENT

Question. General Reimer, recently some experts have argued that the Army should return to an 18-month enlistment. They contend that many young men and women are reluctant to join the military for a longer tour. What do you think shorter enlistments would do to readiness?

Answer. Our projections show a short term enlistment option (18 months) would probably have a slightly adverse effect on readiness. We believe anything less than two years of service, including training time, is too short and would exacerbate the difficulties we are already experiencing in manning the force. Assuming a four-month period of initial entry training, the soldier would only be available for 14 months of operational duty. This would severely limit his distribution options. For example, an 18-month enlistee would not be available for assignment on a Permanent Change of Station basis to any long tour area overseas where the tour length exceeded 14 months (e.g., Alaska, Hawaii, Europe, etc.). Consequently, he could be assigned only in the continental United States (CONUS) or to dependent-restricted areas outside CONUS. Additionally, the additional turbulence, which shorter terms of enlistment would foster, would hinder the development of the environment of cohesion, continuity, and stability necessary to the enhance combat effectiveness of our squads, crews, and teams.

STRIKE FORCE

Question. General Reimer, in your prepared statement you note that the 2nd Armored Cavalry Regiment (ACR) at Fort Polk will be the experimental force for your new Strike Force concept. Can you explain this concept, and how the 2nd was chosen for this mission?

Answer. As we have committed forces repeatedly to a wide variety of contingencies over the last several years, we have invariably found we need to adapt our Cold War force packages to meet the specific operational requirements of each contingency. In other words, we generally have not been deploying units the way we designed them for the Cold War. We have either had to supplement them with other units or we have mixed different kinds of units to create the exact capabilities appropriate for the mission.

At the same time, we cannot just discard our Cold War structure because we need that conventional capability for potential hot spots like Iraq and Korea. For these kinds of operations, it is a superb, proven force that comes in unit packages well-designed to address these more conventional "MTW" threats. Ironically, the features that make it so effective as a deterrent to would-be aggressors are also precisely the ones that cause them to explore asymmetric ways to challenge us.

Our near-term challenge is thus fairly easy to describe. On the one hand, we still need our Cold War force to address potential conventional threats. On the other hand, we need a new, more adaptable force to address the wide range of other military requirements, such as asymmetric threats, but we do not have enough money to build it quickly. So, the essential question for us is how do we take our Cold War Army and make it adaptable to the challenges of the post-Cold War world?

Our only truly practical alternative is to take our Cold War force and make it more adaptive to execute the full range of military operations in the post-Cold War world. Because each particular mission requires different capabilities and, hence, different force requirements, we need a "converter" organization that allows us to adapt our current Cold War force structure to meet the needs of the post-Cold War world. That "converter" should allow us the freedom to counter mid- to low-range threats while, at the same time, keeping our major warfighting headquarters—at corps level—free to address major conventional threats, if and when they arise. The Strike Force is well suited to serve this purpose. It acts much like a transformer does in converting 220 voltage current to 110 voltage current.

The Strike Force provides us with a near-term strategic capability to rapidly deploy initial-entry forces that can be readily adapted to meet diverse requirements and threats—across the full spectrum of operations. It will also serve as a vehicle for testing Army After Next organizations and developing the leader development and critical soldier skills for such organizations. This experimentation effort will speed our transformation from an industrial age force to an information age Army, while maintaining readiness to support the National Military Strategy.

For the Strike Force to be maximally adaptive—to give us the knowledge, speed, and power we need in the Army After Next—we need to begin with the Strike Force's headquarters and make it a world class command and control system. Starting with the headquarters allows us to explore four key areas:

(1) How best to command and control diverse forces;

(2) How to streamline our command and control with the information technology becoming available to us (potentially eliminating layers of command structure);

(3) What we need in terms of "reach back" capabilities to take advantage of all the national systems available to us (but are not normally available to a unit at this particular level);

(4) How we develop leaders for these tremendously more challenging tasks; and

(5) How we rapidly build teams with diverse capabilities.

We want to employ our Army's full arsenal of capabilities—Active, Guard, and Reserve—and give the Strike Force headquarters the ability to take the component forces they need and forge them into a cohesive, highly effective team with the right capabilities. To do that, we must have a vastly improved command and control system, and we must develop leaders and staffs capable of commanding and controlling whatever organization is needed for a specific situation.

We are asking the 2nd ACR to take the lead. The oldest regiment in continuous active service, the 2nd ACR is based at Fort Polk, Louisiana. Initially, the key to the adaptive capacity of the Strike Force will be the command and control capabilities we embed in the 2nd ACR. In addition, Fort Polk is home to the Joint Readiness Training Center, one of the Army's combat training centers. The 2nd ACR will rely heavily on the training facilities on post as it goes through its Strike Force development.

In sum, Strike Force is the natural bridge between today's forces and tomorrow's. It will provide us with the responsiveness and adaptability to configure for whatever contingency we face and give us a vehicle for experimenting with ways to address the emerging threats we are seeing today. It will allow us to reshape Cold War force structure into post-Cold War force packages. The beauty of this concept is that Strike Force allows us to begin converting the full power of our Cold War force without having to "rewire the entire house." We believe that this is the most cost-effective way to manage risk and requirements. It is the right kind of force for the threat environment we face.

Question. General Reimer, can you tell us how a Strike Force might be employed and how it might support a regional Commander-in-Chief (CINC)?

Answer. In my view, the mission Task Force Hawk has assumed in Albania is one ideally suited for the Strike Force and is an example of how Strike Force can provide support to regional CINCs. It requires us to bring a variety of units from across the Army together rapidly to perform a specifically tailored mission. Using the Strike Force's command and control platform as the integrating headquarters for this mission in Kosovo would free corps command and control assets to respond to the larger and potentially more serious hot spots in the world.

Question. General Reimer, last year, the U.S. Army Pacific Commander, General Steele, proposed that Army units under his command stationed in Alaska and Hawaii be developed into crisis response units capable of responding to the requirements of the Pacific Command. How does this idea match up with your Strike Force headquartered at Fort Polk?

Answer. Lieutenant General Steele considered forming an ad hoc Army component of a joint task force (JTF) that would respond to a crisis in the Pacific Command (PACOM) area of responsibility (AOR). The Army's new Strike Force can fill the JTF role or become the nucleus for a JTF that could respond in the PACOM AOR. Under the Strike Force concept, we will develop a system that allows us to draw just the precise capabilities we need for a given mission and integrate them into an efficient organization that can project power quickly and conduct effective early entry contingency operations for any Commander-in-Chief.

QUESTIONS SUBMITTED BY SENATOR ERNEST F. HOLLINGS

CHINOOK ENGINES

Question. General Reimer, I note the Army included a proposal for $56 million on the unfunded priorities list for additional—714 engines for the CH–47.

I understand that there are enough engine conversion kits in stock to increase the monthly engine conversion rate from six to ten or more per month. This would in turn permit an increase in the rate at which engines are put into the field. Funds to support much of this increase have already been provided.

If Congress could find the additional $56 million, can you assure me that the conversion and fielding rates will be increased starting early fiscal year 2000 as a transition to the fiscal year 2000 program without causing any disruption within the vendor or subcontractor base?

Answer. The additional $56 million will increase both the conversion and fielding rates. The conversion rate will ramp up from six to ten per month. The rate will reach ten per month in fiscal year 2001, thus stabilizing the vendor and subcontractor production base at an economic production.

Question. Please confirm my understanding that these additional funds initiate, if not completely fund, the fielding of the improved—714 engines to Korea.

Answer. The additional $56 million, combined with budgeted fiscal year 2001 funding, will procure a sufficient quantity of improved engines to complete the fielding to Korea 26 months earlier than current funding would allow.

SUBCOMMITTEE RECESS

Senator STEVENS. I thank you very much for what you have done, and we have got a much better relationship, and that is an ongoing relationship. We hope to improve thanks to your work. We appreciate it very much.

General REIMER. Thank you, Mr. Chairman.

Senator STEVENS. Thank you.

[Whereupon, at 11:40 a.m., Wednesday, May 19, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

DEPARTMENT OF DEFENSE/MILITARY CONSTRUCTION APPROPRIATIONS FOR FISCAL YEAR 2000

WEDNESDAY, JULY 14, 1999

U.S. SENATE,
SUBCOMMITTEES OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittees met at 10:03 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman of the Defense Subcommittee) presiding.

Present: Senators Stevens, Domenici, Burns, and Inouye.

Also present: Senator Roberts.

DEPARTMENT OF DEFENSE

FORWARD OPERATING LOCATIONS (FOL) FOR COUNTERDRUG OPERATIONS

STATEMENTS OF:

GEN. CHARLES E. WILHELM, COMMANDER IN CHIEF, U.S. SOUTHERN COMMAND, U.S. MARINE CORPS

HON. WALTER B. SLOCOMBE, UNDER SECRETARY OF DEFENSE (POLICY)

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning, Mr. Slocombe and General. This morning we want to hear from you about the establishment of military operating locations in Latin America. I do want to thank Senator Burns for joining us, and Senator Roberts.

NEW MILITARY FACILITIES

This proposal to open up four new military facilities in Aruba, Curacao, and Costa Rica impacts the work of both subcommittees, the Defense Subcommittee and Military Construction Subcommittee, and has implications on future year funding.

Last month, Senator Inouye and I notified Secretary Cohen that the Defense Subcommittee was not in a position to approve the request for $45 million to commence the establishment of these new bases in operating locations at the time the Department was seeking the authority to close additional bases in the United States, and our forces face expanded overseas contingency deployments.

We believe the committee needed to review the proposal in greater detail to understand the fiscal and operational implications. Senator Inouye and I noted in our letter to Secretary Cohen this sub-

committee has consistently increased fundings available for the defense counterdrug missions over the levels sought by the President in the budget request.

For the fiscal year 2000, the bill passed by the Senate, we added $54 million directly for the DOD counterdrug operations. General Wilhelm, in your testimony you rightly note the Coast Guard is the lead U.S. agency for drug interdiction. In light of that role, however, the subcommittee increased defense funding for the Coast Guard counterdrug operations, adding $200 million to the Coast Guard allocation for the fiscal year 2000.

In the Kosovo emergency supplemental passed in May, the subcommittee added a further $200 million for 1999 for the Coast Guard to enhance counterdrug roles. These considerations led us to seek a better understanding of why new military facilities were needed overseas at a time when operational stress is resulting in some of the lowest personnel retention figures since the establishment of the all-volunteer force.

There is no question that the military has an important contribution to make in our national effort to stop the flow of drugs into the United States. The appropriate role for the military in that effort must take into account other missions faced by the Armed Services, especially the unprecedented pace of long-term overseas deployment.

INFRASTRUCTURE COSTS

I will defer to Senator Burns, and I am sure Senator Inouye also, on the implications of the infrastructure costs associated with the new locations.

For the fiscal year 2000 the Armed Services and Appropriations Committees of the Senate judged that the permanent infrastructure costs should be funded through the military construction budget rather than through the defense appropriations bills as sought in the budget. This hearing affords both subcommittees the benefit of your views on the matter as we proceed to act on reprogramming requests that are still pending and the funding sought for fiscal year 2000.

Both of your prepared statements will be inserted into the record in full. I want to turn to my colleague, Senator Inouye, and then if Senator Burns does not mind, Senator Roberts is in the chair at 10:30, and I want to see if he has any comments before he leaves.

STATEMENT OF HON. DANIEL K. INOUYE

Senator INOUYE. Thank you very much. Mr. Secretary and General Wilhelm, we appreciate your presence here this morning.

No one questions the importance of the counterdrug mission, and I do not believe that that is an issue here this morning. What is at issue is how the Department of Defense interprets its authority to conduct overseas operations in advance of receiving congressional approval.

Also, the subcommittee needs to understand what the impact of establishing four new temporary overseas facilities will have on family separations, readiness, retention, et cetera, and there are questions regarding how long we will be operating from these new bases.

DOD keeps insisting that we need to reduce infrastructure to consolidate bases here in the United States, but with this plan we see the possibility of establishing new overseas locations that will be manned by U.S. military personnel.

These are some of the questions that many of us have, and why our chairman has called this hearing, and so we look forward to your testimony to explain this approach.

I thank you very much, Mr. Chairman.

Senator STEVENS. Thank you, Senator. Senator Burns, do you object to turning to Senator Roberts?

Senator BURNS. No.

Senator STEVENS. Senator Roberts.

STATEMENT OF HON. PAT ROBERTS

Senator ROBERTS. Thank you, Mr. Chairman. Thank you for your indulgence. I thank my colleague from Montana for his patience. I plan to maintain my status as an honorary member—that is not ornery member, that is honorary member—of the Appropriations Committee. I am on good behavior, sir, and will make my remarks as short as I possibly can.

EMERGING THREATS

I am chairman of a new subcommittee on the Armed Services Committee called Emerging Threats and Capabilities. We have an obligation to take a look at the emerging threats that we think are of vital interest to our national security. We have had six hearings. Most of those hearings dealt with weapons of mass destruction, cyber threats—that is, information warfare—terrorism, and down on the list, and I do not mean that in terms of priority, but also down on the list is the problem of drugs.

I was invited by General Wilhelm to come to the Southern Command. I went down and talked to General Wilhelm at length, and I must say that I had my eyes opened. My horizon was broadened, because I think in terms of the Southern Command and what is entailed in 32 nations down there, 360 million people, and the stakes involved, that it is terribly, terribly important.

When I became the chairman of the Emerging Threats and Capabilities Subcommittee, I tried to make a concerted effort in the hearings that we held to the future and the security environment, rather than that of the past. One of the conclusions we reached is that Latin America will either be a source of great strength for the United States or it will be a principal weakness, and we want to make sure that it is a strength.

Now, what am I talking about? What are the stakes? In my prepared remarks I go into the energy situation, the Panama Canal, our trade interest compared to other theaters, to the regional threats in regards to a very fragile area in regards to democracy and the terrorism problem, also the drug problems, the corruption problem, narcotrafficking, but I just made a list this morning.

We do not want to reverse the success that we have had in the eighties in this region, Mr. Chairman. Thirty-one out of thirty-two nations now have democracy in this very crucial part of the world. It is a tremendous success story. I do not know of too many people

who have really written the history of what we went through in the eighties and where we are today.

Three hundred sixty million people, average age about 17, 18 years old, a lot of very crucial needs. With 31 out of 32 nations now having democracy, obviously the only one remaining is Cuba.

There could be a threat to our Nation's oil supply. Venezuela does supply approximately 18 percent of our oil supply. With a situation in Colombia and unrest there and rebels dedicated to interests that are not in our vital interest, that could be a real problem, and so consequently I do not think we want to see gas lines and oil price inflation. That is a situation that could occur.

This is a situation where we must maintain a presence because of our world's leading trading partners, Mr. Chairman. I was over in Brussels talking with the European Union, trying to get some progress in regards to the World Trade Organization talks. I must tell you that I do not think the potential or the prospects for trade in that part of the world are very good.

FOOD SAFETY

We have a food safety situation over in Europe, where sound science is being tossed out the window. Eighty-five percent of the subsidies paid on agriculture today come from the European Union. Where must we look? We must look south.

Again, 360 million people who need a good, nutritious diet. We can export those bulk commodities. The Appropriations Committee will be considering on down the road an emergency bill in regards to agriculture probably totalling $5, $6, $7, $8 billion. If we had fast track now in place, and we were in a competitive situation with our competitors overseas, the Southern Command, the southern area is where we should go.

It has a lot of ramifications for the Kansas wheat farmer out there now, saying I get $2 a bushel for my wheat. That is the kind of individual relationship that we have with our constituents in regards to their economic livelihood.

We are going to have a hearing on down the road in the Emerging Threats Subcommittee on the weapons of mass destruction. John Deutch is in charge of a commission. There has been some press about it. We are going to have him in there for a hearing.

I asked General Schumacher what would be the easiest way to introduce a weapon of mass destruction and nuclear device into this country. Guess what, in a shipment of cocaine. That would be the easiest way to get it into this country, and so in terms of our vital national interest in that kind of a threat, why, this region is all-important.

I know the General will mention that we are into a culture of the Americas and not an American culture any more. I know the General will mention the problems with immigration, the fact that by 2010 the Hispanic Americans will represent the largest minority population of the United States.

FORWARD OPERATING LOCATIONS

I think with some kind of presence, Mr. Chairman, whether it's the forward operating locations—I will go out on a limb. I think the situation with Howard Air Force Base was a mistake. I think we

ought to have some kind of a lease-back arrangement. I know that is probably not possible, and I am not sure what kind of format it will take with the forward-operating locations, but I will tell you, sir, that I think that on a cost basis we could do it about half the cost in regards to the cost of Howard.

So how that works out, obviously, sir, that is your responsibility, that of the Department of Defense. I just wanted to go on record in saying that as chairman of the Emerging Threats Subcommittee, strategically, geopolitically, with a whole range of issues, this part of the world is extremely important.

We have had a success story, but the history of foreign policy and involvement in that part of the world is that when we have success we tend to draw back, and then we get into real problems.

With that, Mr. Chairman, I want to thank you for the opportunity to come before the committee. I am an admirer of General Wilhelm. He has certainly opened up my eyes. I would encourage every member of the committee to go down there to the Southern Command and let him walk you through some of the obligations and the missions.

This is just not about drugs. Drugs are very important, but I think from the standpoint of our strategic interests it is exceedingly important.

I want to thank the General for the job that he does, and I thank you, Mr. Chairman, for the opportunity to make a statement.

Senator STEVENS. Thank you.

General, Senator Roberts demonstrates there is no such thing as an ex-marine. [Laughter.]

Senator Burns.

STATEMENT OF HON. CONRAD BURNS

Senator BURNS. I would concur with that. There are only farmers and whatever. Thank you, Mr. Chairman, and thank you for holding these hearings.

NORTH AMERICAN FREE TRADE AGREEMENT

I also want to footnote on what Senator Roberts has just revealed to us as far as not only from a drug interdiction and security in the area, from the trade point of view also. There is a great success story down there, and the European Union has made overtures already to include South America in their plans of an extended, what we call our North American Free Trade Agreement. We have been trying to expand, so there is much more at stake here than just military security and drug interdiction.

There is a possibility and a future of an extended relationship in the Americas that I think will be very beneficial to everybody that lives here both in North America and in South America.

My questioning will go along the lines of what we have in existence there as far as facilities are concerned. Also the requests that have been made here through military construction, because any time we have any expansion we are dealing with a finite amount of money that is being stretched almost to the breaking point. Mr. Chairman, as you know, you have wrestled in your full committee with all of these appropriations, and you know how we have to set

our priorities on where we can get the best, where they should be used.

We did not really know about this until we had already marked up our bill this year. The administration made no revelation to us the amount of money that they were going to request to construct facilities for the fiscal year 2000 budget, and we just found out about it. Now we are trying to scramble to get our house in order where we may at least facilitate or help facilitate our presence there and the mission that we have ahead of us.

The committee did not receive detailed justification for these projects until June of this year. So we want to better understand the requirement of these bases as well as the justification to spend $122 million in these overseas areas, especially when we have existing bases, and some would judge might be able to support these missions.

So I look forward to the testimony this morning, and again I want to thank the chairman for these hearings.

Senator STEVENS. Senator Domenici, do you want to make a statement?

Senator DOMENICI. No, thank you, Mr. Chairman.

REPROGRAMMING

Senator STEVENS. Mr. Slocombe and General, I just want to relate two things to you. First, this reprogramming was from operating funds to military construction, and we did not approve it partially for that reason, and second, when we went to Kuwait and visited with General Pate after the President increased the deployment to Kuwait, I inquired where the money came from, and how we started this base that was there. That was not an air base. It was Army, as I recall, and General Pate told me he was building a base for 50 years.

When we looked at King Sultan Airfield, which until Aviano was the largest Air Force base for our military, it was never really a subject of an authorization. I was told that when we appropriated funds for the account which had been mentioned in the statement that would be a field there to replace after the Khobar Towers, as I recall, in Iran, and the problem of Iran. It was viewed as an implicit approval of the new bases that were to be established.

Now, I just do not want to see a situation where we implicitly are approving bases, and I hope that the Congress will agree with us on that. As I said in my statement, the issue before us is not your judgment about whether they should be there.

The issue really is, what is the deterrent today to the reenlistment of our people? Only 29 percent of our pilots who are up for retention reenlisted this last year, and I believe that is the result of extensive overseas deployments and unaccompanied tours.

I hope you will tell us, will these be unaccompanied tours, and how long will these tours be, and are we setting up three more bases that will take people away from their families for 4, 5, 6 months of a year and lead to further problems as far as retention is concerned?

Mr. Slocombe, who wishes to go first?

Mr. SLOCOMBE. Mr. Chairman, with your permission, I suggest that General Wilhelm go first to outline the details of the proposal

and its relation to both our counterdrug effort and our broader interest, and then I will have a short summary of my statement afterwards.

Senator STEVENS. General.

STATEMENT OF GEN. CHARLES E. WILHELM

General WILHELM. Mr. Chairman, distinguished members of the committees, I welcome this opportunity to appear before you this morning to discuss and testify about what I consider to be the single most important issues that confronts United States Southern Command today.

Mr. Chairman, I took notes during the very powerful and direct opening statements which you made and the members of the committee made, and I have made some notes to myself prior to coming in here this morning as to some points that I might raise in my opening statement.

I certainly do not want to waste the time of the committee, and I think that you have defined very clearly the path you would like for this testimony to take, so I am going to pick my way through my notes and try to really just hit those points that are of concern to the committee.

POST PANAMA THEATER ARCHITECTURE

As we withdraw our forces from Panama, as we must under the provisions of the 1977 treaties, reestablishing the United States Southern Command theater architecture in a way that will enable us to perform our missions in the 21st century has become for me the single most important task that I will perform during my tenure in command, and I have made that statement to Secretary Cohen, and he has agreed with the direction that I have decided to go.

I will tell you it has been a difficult task. It has been made more difficult by the very short time that has been available to make these arrangements.

To be very honest, Mr. Chairman and members of the committee, when I assumed command at Southern Command in September 1997, I did so with about a 99 percent expectation that we would succeed in our negotiations with Panama for the creation of a multinational counterdrug center there and as a part of that I really contemplated a residual presence of about 2,500 to 3,500 U.S. personnel to do many of the things that we need to do in the region to preserve the financial and other equities that members of the committee have already mentioned.

As I mentioned, we have done pretty well. In my formal statement I have given you a brief recap of where we are in our repositioning and relocation efforts. With the help of this committee, with the help of some of your staffers—Mr. Cortese, Ms. Ashworth are here today. They have been very helpful with the things that we have done on Puerto Rico, which has really in a great many ways assumed the role that Panama did in the past.

This morning, as I see it, we have got one major task that remains to be performed, and that is to identify a network of forward operating locations that will enable us to perform the missions that we previously performed from Howard Air Force Base in Panama,

and I would hasten to add that as important as it is, the counterdrug mission is only a portion of this.

Senator Roberts in his statements made some comments about the growth of democracy in this region, the fact that 31 out of 32 countries are now ruled and governed by people who are in office based on the wishes of the populace, and these countries have free market economies, and I think all members of the committee are aware of the directions that our financial dealings with this part of the world have taken since 1990.

Our exports to Latin America have more than doubled, as I have mentioned in other statements. Today we do more business with Chile, a country of 14.5 million people, than we do with India, with 952 million. We do more business with either Mexico or Brazil than we do with China, with 1.3 billion, and the list goes on.

FORWARD OPERATING LOCATION

I believe that the forward operating location concept that we have developed provides an efficient and a very cost-effective way to perform the missions that we previously performed from Howard Air Force Base. Just to very quickly review the bidding on the cost, the numbers cited by the chairman are precisely correct.

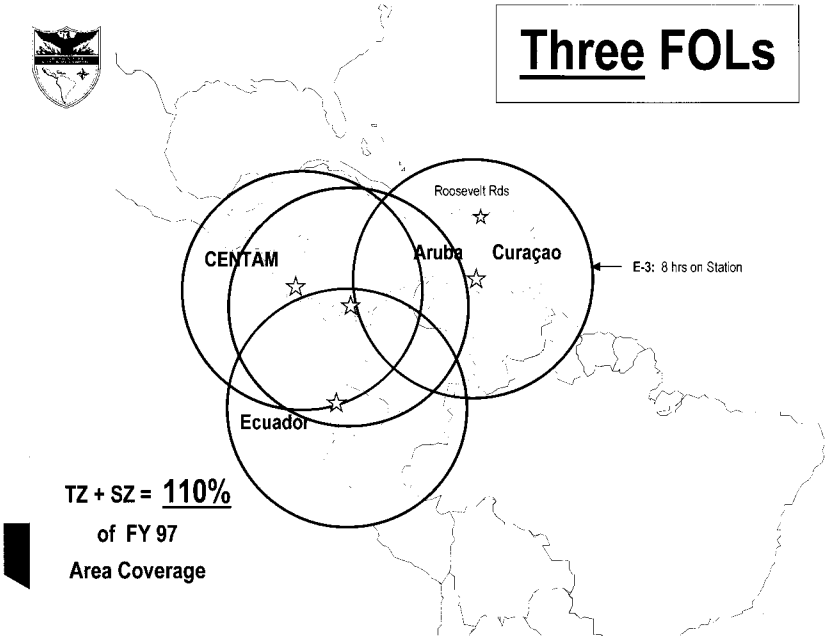
In fiscal years 2000 and 2001, we have a requirement for a total of $122.5 million, not to build bases, but simply to improve existing facilities in Ecuador, in Curacao, and Aruba, and to bring them to a state where they meet safety and operating standards that are acceptable to the United States Air Force and the U.S. Customs Service.

I really need to make that distinction. We are not intending to build bases, simply to improve the operating conditions at these existing host nation facilities which we have negotiated access to and that will permit us to carry out important counterdrug and other engagement missions.

I have taken a little bit longer-term view of this, and I think it is important that we put these outlays into a meaningful context. The cost of annual operations at Howard Air Force Base was $75.8 million. After we complete these upgrades that I have mentioned, we estimate that the annual operating cost for the forward operating locations will range somewhere between about $14 to $18 million, and so if we look at this over a 10-year operating horizon, operations from the forward operating locations will actually cost only 40 percent of what we would pay if we continued to conduct these operations from Howard.

I really think that to fully understand the importance of the FOL's and to make the important distinction that these are really a network of facilities, geography is very instructive. Mr. Chairman, if you do not mind, I would like to refer to a chart.

Senator STEVENS. Yes, sir.



General WILHELM. Sir, to walk you through the chart, the pink circle in the middle depicts the operating range of an E–3 AWACS aircraft operating out of Howard Air Force Base.

Senator STEVENS. General, is it possible to turn that around so people out there can see the same thing and we can see it, too?

General WILHELM. Yes, sir, we probably can.

Senator STEVENS. We had the charts. They do not have the charts. If you could just move it around so people out there can see it, too.

AWACS

General WILHELM. Again, the circle in the center in pink depicts the operational reach that an AWACS, an E–3 AWACS aircraft would have operating from Howard Air Force Base. These two operating circles here in blue and overlapping in pink depict the same coverage that we would get from the same aircraft operating from the forward operating location at Manta, Ecuador, here to the northeast.

This operating radius depicts the coverage we would get from the AWACS operating from Curacao or Aruba.

I should make the point that this reflects 2 hours transit time out to the mission area, 8 hours on station, and 2 hours back. That is the standard profile for an AWACS mission, and the range of the arc depicts the range of the radar on the aircraft itself.

Now, there are some important points to be made here. It has been suggested that perhaps we could realize significant savings if we did not operate the full family of detection monitoring and tracking assets, to include the AWACS from Manta, Ecuador. I

need to draw something on the map, because this is the most important order that we contend with when we look at the counterdrug mission and more and more regional stability, and I will sketch it right on, sir.

This is the border here, between Colombia and Peru. This is the air bridge that we worked so hard and devoted so many resources to interdict starting in the earlier part of this decade, and in my statement I think you saw, if you will pardon the phrase, the body count that we have achieved on narcotrafficking aircraft, over 123 aircraft since 1995 shot down, forced down, seized or confiscated as a result of our air bridge interdiction operations.

What is important is the operating arc coming out of Aruba and Curacao does not reach the border between Peru and Ecuador. We could stand to lose what we worked so hard to gain.

On the positive side, looking at Aruba and Curacao, it does provide us very favorable coverage over the Eastern and Central Caribbean. Ecuador is extremely important for two reasons: one, again, very, very short reach to the Peru-Colombia border, and it provides us excellent coverage of this portion of the Eastern Pacific, which at this point in time has largely been an open back door, feeding narcotics up toward Mexico through the Sea of Cortez into Mexico's specific ports and then over our Southwest border.

And as you know from other testimony by General McCaffrey and others, 59 percent of the drugs get here over those routes, so this needs to be considered as a network of facilities which will provide us the operational reach or coverage that we need to fully address the challenge.

Now, I have added in this final arc which reflects the positioning of a Central American forward operating location. For the purposes of this chart we have placed the center part, the star over northern Costa Rica, roughly where the Liberia Air Base is. As to whether or not we can negotiate an FOL agreement with Costa Rica at this point is perhaps problematic, but if not Costa Rica, I am very confident that we could negotiate an access agreement with another country in Central America.

As you can see, this arc then provides us complete coverage of all of Central America and the balance of the Eastern Pacific transit routes headed up toward the coast of Mexico.

I felt it very important to try to put this entire issue into a geographic context, because I think only when we regard the FOL's as a network do they really make strategic and operational sense.

Thank you, sir. I appreciate your patience with the chartology.

PREPARED STATEMENT

Mr. Chairman, members of the committee, I had a number of things I was going to say about the nature of the drug threat, about what it has done and is doing to the societies in our region, and what it has done to our own society, but as Senator Inouye stated, you are very much aware of that, so I think it would not be a good use of the committee's time for me to cover ground that has already been pretty well trod upon, and so I would like to terminate my opening statement at this point, sir, and I look forward to your questions and the questions of the members of the committee.

Senator STEVENS. Thank you, General.

[The statement follows:]

PREPARED STATEMENT OF GEN. CHARLES E. WILHELM

INTRODUCTION

Mr. Chairman, distinguished members of the committees, I welcome this opportunity to discuss with you the plans and concepts that will enable us to sustain a strong Department of Defense contribution to the crucial struggle against illicit drugs. As we complete the withdrawal of United States military forces from Panama, the Forward Operating Locations (FOLS) we are establishing in the Caribbean and Latin America become a critical means of access to the region, providing the U.S. an efficient and cost-effective alternative to Howard Air Force Base for the execution of critical counterdrug missions. Moreover, in addition to enabling Southern Command to meet its responsibilities under Presidential Decision Directive 14 (PDD–14) and Goals 4 and 5 of the U.S. National Drug Control Strategy, the FOLs will emerge as a vital component of our cooperative regional engagement strategy.

Over the last two decades, regional stability has been a key element in fostering economic growth and democratization throughout the Caribbean and Latin America. However, drug trafficking and its relationship with organized crime are seriously threatening the hemisphere's potential to achieve long-term stability, peace, and economic prosperity.

The complete withdrawal of United States forces from Panama is challenging our ability to sustain necessary levels of effort in countering this threat. Up until now, DOD and other interagency organizations provided the majority of support in the fight against the illegal drug trade from U.S. military facilities in Panama. To offset the loss of basing rights in Panama, we are aggressively executing a plan to realign and rebalance the theater architecture to sustain counterdrug efforts in support of PDD–14 and The National Drug Control Strategy. An interlocking network of FOLs is an essential element of this new architecture.

In this statement I will present my assessment of this region's importance to the United States, followed by an overview of the transnational threats that jeopardize our regional interests. I will conclude with a discussion of the FOL concept, the FOLs themselves and the absolutely pivotal role they will play in our regional engagement and counterdrug strategies.

THE IMPORTANCE OF THE REGION

Growing economic interdependence and the wave of democratic reform that has swept over this region, as well as shifting cultural and demographic trends have significantly elevated the importance of the Caribbean and Latin America to the United States.

Latin America is our fastest growing export market. Today, 44 cents of every dollar that the 411 million inhabitants of the region spend on imports are for goods and services from the United States. Statistics can be instructive. It is meaningful to note that our annual trade with Chile, a nation of 14.5 million people, exceeds our trade with India with a population of 952 million. With almost 1.3 billion inhabitants, China is the most populous nation on the earth, yet we do more business with our 98 million next-door-neighbors in Mexico. By 2010, trade with Latin America is expected to exceed trade with Europe and Japan combined, and if the Free Trade Area of the Americas (FTAA) initiative is in place by 2005, we can expect to see additional growth in hemispheric economic interdependence.

The influence of Latin America is also reshaping America's cultural and demographic landscapes. What was once an "American Culture" is rapidly becoming a "Culture of the Americas." Today, the United States is the fifth largest Spanish speaking country in the world. By 2010 Hispanics will become our largest minority population and by the mid-point of the 21st century demographers project that 100 million U.S. citizens will be of Hispanic descent.

Along with these trends, the dramatic expansion of democracy and resolution of intra-regional disputes and rivalries provides visible evidence of a hemisphere that has taken important first steps toward the achievement of long term peace and stability, at least at the state-to-state level. In the last twenty years, the paradigm of coups, military dictatorships, communist-inspired insurgencies, border disputes, and economic crises has gradually given way to elected governments and militaries that are subordinate to civilian leadership and support democratic processes. These are nations that are resolving disputes without resorting to the use of force. As an example, last October, we witnessed a watershed event—the resolution of Peru and

Ecuador's longstanding border dispute with the historic signing of a peace agreement between the two countries.

Viewed through the prism of the national security strategy of engagement and enlargement there is no better success story for U.S. Foreign policy. On the other hand, history has demonstrated that success is many times harder to sustain than failure is to fix, and these positive trends must be nurtured, encouraged and reinforced.

THE THREAT

Despite positive cultural, economic, and political developments, there is a pervasive sense of unease in the region regarding security issues. Our enemies are not well known, our challenges are unclear, dangers are not always obvious and responses are frequently difficult to formulate. It has been suggested that uncertainty is the norm and apprehension the mood. Some of the region's democracies remain fragile; facing economic adversity, rapid population growth, and proliferating transnational threats. Out of area powers have shown increased interest in our next-door neighbors. Under these circumstances it is reasonable to anticipate setbacks, particularly when fledgling democracies are confronted with chronic corruption, narco-financed insurgencies, and deeply rooted organized crime. United States presence within the hemisphere demonstrates our commitment to the region, prevents the creation of a security void, and provides engagement opportunities to counter emerging threats to regional security and prosperity.

Today, I believe the primary threat to the region can be summed-up in a single word—corruption. Corruption in all its forms eats at and stunts the growth of young democracies. In Latin America, at the heart of most forms of corruption are the corrosive effects of the drug trade. Drugs and the people who grow, produce and sell them, are aggressively challenging the ability of many governments to provide long-term stability and economic prosperity. Illegal drugs are killing and sickening the people, sapping productivity, draining economies, threatening the environment, and undermining democratic institutions. We are not immune to these problems—far from it. In the United States in 1996 alone, drugs and drug related illness and violence claimed the lives of 14,843 Americans. In an historic context that equates to 88 percent of our losses in the Korean Conflict! Each year, illegal drugs send a half million Americans to emergency rooms, turn our urban neighborhoods into battle grounds, and for many of our youth turn the American dream into an American nightmare. No nation, not even one as powerful as ours can afford such devastating social, health and criminal consequences. Because this tragedy has been with us for years, and because it kills and disables our citizens one at a time, I sometimes fear that we've developed a tolerance for it. If we experienced these kinds of losses in a day, a week or even a month, they would simply not be tolerated. By my definition, illegal drugs are a "weapon of mass destruction," and should be treated as such.

The countries of the Caribbean and Latin America have grown to accept and understand the drug threat as a shared challenge and they are now more ready than ever to join us in the fight. However, they need our help and encouragement for the long struggle ahead. SOUTHCOM and DOD play a supporting role in this fight through both theater engagement and counterdrug operations. Presidential Decision Directive 14 and goals 4 and 5 of the National Drug Control Strategy provide the foundations for Southern Command's counter-drug campaign.

FORWARD OPERATING LOCATIONS

An adequate operational presence in our theater of operations is absolutely essential for the full and successful implementation of our counterdrug and regional engagement missions. While executing our counterdrug campaign plan, forces strategically placed in the theater give us flexibility and allow us to be proactive rather than reactive in confronting narcotraffickers. Our goal is to force them into a defensive posture. The past two years have witnessed significant reductions in coca cultivation in Peru and Bolivia. During the past year alone cultivation has been reduced by 26 percent in Peru and 17 percent in Bolivia, while production of coca base has been reduced by about 25 percent in both countries. These successes are attributable to a combination of effective host country eradication and alternative development programs and aggressive U.S. and host country efforts to interdict the air bridge that previously linked cultivation sites in Peru and Bolivia with processing and production laboratories in Colombia.

The Air Bridge Denial Program has employed forward-deployed U.S. aircraft to provide intelligence, surveillance, reconnaissance, airborne early warning, and tracking support to host nation forces. Last year, with U.S. support, host nation

interceptors shot down, forced down, seized or destroyed 26 narcotrafficking aircraft, bringing the total to 123 narcotrafficking aircraft taken out of action since 1995.

As a result, we have observed a shift in trafficking patterns. The cost of cocaine base in Peru and Bolivia plummeted to unprofitable levels as pilot fees skyrocketed. As a consequence, more illegal drug shipments were diverted to the rivers. To compensate for setbacks in Peru and Bolivia, Narcotraffickers increased their cultivation of coca by 28 percent in Colombia and further streamlined their operations by consolidating cultivation and production. We are now supporting efforts by Colombia and its neighbors to effectively counter these revised trafficking patterns.

Continued forward presence by our forces is mandatory if we are to sustain the progress that has been made. The combination of U.S. detection, monitoring and tracking aircraft and host country interceptors has proven to be an effective team; one that strikes an appropriate balance between U.S. and host nation capabilities and roles in pursuit of end games. Continued forward presence under the FOL concept will enable us to continue this support, and provides an efficient and cost-effective alternative to the permanent bases that we previously occupied.

ALTERNATIVES TO PANAMA

Historically, DOD support for source zone countries has been provided from military facilities in Panama—over 2,000 counterdrug flights per year originated from Howard Air Force Base. From Panama, we also supported transit zone interdiction operations, pier-side boarding and searches, and training for U.S. and host country counterdrug units.

The Panama Canal Treaties of 1977 mandate a complete withdrawal of U.S. Military Forces not later than December 31, 1999. The departure of forces does not, however, alter Southern Command's mission responsibilities or requirements. When negotiations with Panama for a Post-1999 presence were terminated, Southern Command conducted a strategic analysis and determined that a series of Forward Operating Locations (FOLs) would be necessary to provide the capabilities required to achieve our counterdrug mission objectives.

FOLs have become an integral part of SOUTHCOM's theater architecture for the next century. While they will allow us to remain fully engaged in the multilateral effort to combat narcotrafficking, they are not bases to be constructed at U.S. expense nor are they intended to replace Howard Air Force Base. Rather, FOLs are intended to replace the counterdrug operational capability that was provided by Howard Air Force Base without incurring the expense of base construction and at reduced annual operating cost. In simple terms, FOLs are agreements between the United States Government and Host Nations whereby the United States will be granted access to existing facilities that are owned and operated by the host nation. These sites will provide a 24-hour, seven-day per week, operational capability. U.S. Aircraft will rotate in and out of FOLs as mission needs dictate. Each site must be night and all weather capable with an air traffic control facility, an 8,000-foot runway with the capability to support small, medium and heavy aircraft. Each FOL must also have refueling and crash/fire rescue capabilities and minimum ramp, hangar, office, maintenance, and storage space.

Numbers of support personnel will vary depending on numbers and types of aircraft deployed and the availability of host nation support. We envision a requirement for 8–12 permanently assigned personnel at each FOL. Depending on mission requirements, FOLs will be required to support as many as 200 temporarily deployed personnel.

Three FOLs are needed to maintain the optempo and area coverage that we previously enjoyed from Howard AFB; one in South America for source zone operations, and one each in the Caribbean and Central America to support transit zone and northern source zone operations. Three FOLs also provide the flexibility that is necessary to contend with weather patterns and changes in trafficking routes. Initial access agreements have been negotiated and operations are currently underway from FOLs in the Caribbean and South America. Site surveys at each location have identified improvements that are needed to support full-scale operations and to upgrade host nation facilities to U.S. safety and operational standards.

In close consultation with host nations, we have devised a three-phase program for FOL development. Phase one, which commenced on 1 May, coinciding with the termination of flight operations from Howard Air Force Base, consists of what we have termed "expeditionary operations." This entails use of facilities in "as is" condition. Phase one operations are in progress at Curacao, Aruba and Manta, Ecuador, albeit at reduced operational tempo. The second phase will begin in fiscal year 2000 with the initiation of MILCON projects that will increase the operating capacities of the FOLs and bring them up to U.S. standards. During the third phase in fiscal

year 2001, MILCON projects will be completed and we will attain full operational capacity and capabilities. At the end of phase three we will achieve operational reach or area coverage that will equal or exceed that which we had from Howard at roughly 25 percent of annual recurring operating costs.

MANTA, ECUADOR

The FOL at Manta is critical for adequate support of operations in the crucial source zone. Operations are now underway from Eloy Alfaro International Airport in Manta. This site allows forward-deployed intelligence, surveillance, and airborne early warning aircraft to monitor key narcotics trafficking routes deep in the source zone and over the Eastern Pacific—a pipeline that feeds Mexico, and ultimately the U.S.

The USAF, as DOD executive agent for this FOL, recently sent a Site Activation Task Force to survey Manta facilities. The team concluded that the runway was suitable for most counterdrug aircraft but would require upgrades to accommodate AWACS, a critical asset for execution of our source zone strategy. The task force also recommended construction of various maintenance and other support facilities.

Ecuador has been an eager and gracious host. The local Air Force commander has worked tirelessly to correct deficiencies at the airfield and to provide the safest possible operating environment.

The footprint at Manta is expected to consist of five to eight aircraft and six to eight permanently assigned staff personnel. As previously discussed, when full capabilities are attained, the numbers of DOD and interagency personnel temporarily assigned to Manta will fluctuate based on missions and numbers and types of aircraft deployed.

ARUBA AND CURACAO

The airfields on the islands of Curacao and Aruba are approximately 45 miles apart; therefore, they must be improved and managed separately. These two airfields are well situated and together they provide adequate capacity to support operations in the Caribbean Transit and Northern Source Zones. Operations by DOD and U.S. Customs Service aircraft have commenced from Hato International Airport in Curacao and Reina Beatrix International Airport in Aruba under diplomatic notes negotiated and exchanged with the Kingdom of the Netherlands. The Site Activation Task Force identified requirements for improvements to ramps and taxiways at Curacao and Aruba. For longer-term operations, their report recommends construction of maintenance and operations facilities at both sites.

The footprint in Curacao is expected to consist of seven to nine aircraft, 12 to 15 permanently assigned staff personnel and as many as 200–230 temporarily deployed operations and maintenance personnel. In Aruba, the footprint is expected to consist of four U.S. Customs aircraft, with approximately 15 permanently assigned staff and 20–25 deployed operations and maintenance personnel. As in the case of Manta, the numbers at Aruba and Curacao will be small initially and will grow incrementally as we improve existing facilities to accommodate more deployed aircraft and personnel.

THE COST OF DOING BUSINESS

My Air Force Component Commander, Lieutenant General Lansford Trapp, has visited all three sites and has reviewed the findings of the Site Activation Task Force. To achieve Southern Command's strategic goals and to meet requisite safety and operational standards, he assesses the MILCON requirement to be $122.47 million for Manta, Curacao and Aruba. For purposes of comparison, our most recent annual operating costs at Howard Air Force Base were $75.8 million. Once deficiencies are corrected at the three FOLs, we estimate that annual operating costs will be in the neighborhood of $14 million to $18 million. Based on 10 years of operations, FOL costs would be approximately 40 percent of those we would have incurred over the same period at Howard with permanently assigned forces.

CONCLUSION

The departure of United States military forces from Panama has created unique and difficult challenges for U.S. Southern Command. In the space of less than one year we have been required to recraft a theater architecture that was almost a century old. The end of this task is in sight. Our Theater Special Operations Command has successfully displaced its headquarters from Panama and is now conducting full-scale operations from its new home in Puerto Rico. U.S. Army South will haul down its colors at Fort Clayton in Panama on the 30th of this month and raise them

over a new command post at Fort Buchanan in Puerto Rico. We have already successfully merged Panama-based Joint interagency Task Force (JIATF) South with its counterpart organization JIATF East in Key West. This consolidated organization is now planning and overseeing execution of counterdrug operations in both the transit and source zones. With support from the government of Honduras we have increased our presence at the Soto Cano Air Base absorbing urgently needed helicopter assets previously based in Panama. These actions, coupled with the earlier relocation of our Headquarters from Panama to Miami, have resulted in a leaner United States Southern Command, but a Southern Command that is nonetheless properly postured to conduct its regional engagement and counterdrug missions in the 21st century. The Forward Operating Locations are the final pieces of the future theater architecture. In this statement I have emphasized how crucial this final element is, and I am not alone in this assessment. On June 30th I attended an interagency meeting at the White House. Included among those present were National Security Advisor Berger, Office of National Drug Control Policy Director McCaffrey, Assistant Secretary of State for Western Hemisphere Affairs Romero, Special Envoy for Latin America McKay, Commandant of the Coast Guard and United States Interdiction Coordinator Admiral Loy, representatives from the Departments of Transportation and Justice and others. We discussed the FOLs and the requirements for them. There was unanimous support and universal acknowledgment that the FOLs are essential for the continued prosecution of an effective supply-side counterdrug campaign. I concluded my presentation to this interagency gathering with the simple and direct statement that without the FOLs, United States Southern Command would be unable to effectively confront the threat postulated in Presidential Decision Directive 14, and we would be incapable of carrying out missions in support of goals 4 and 5 of the National Drug Control Strategy. We at Southern Command are grateful for the support and encouragement we have received from the Congress as we have gone about the difficult business of resetting our theater architecture. Timely implementation of the FOL concept is the final step in this process. For a modest investment the FOLS will enable us to safely and efficiently carry out vital missions without the costs and other encumbrances associated with overseas bases.

STATEMENT OF HON. WALTER B. SLOCOMBE

Senator STEVENS. Mr. Slocombe.

Mr. SLOCOMBE. Thank you, Mr. Chairman. It is as always an honor to appear before this committee and to address your concerns and the programs of the Department of Defense, particularly in this case with regard to Latin America and the counterdrug effort.

FORWARD OPERATING LOCATIONS

General Wilhelm has explained the operational necessity for the three planned forward operating locations. I would just like to add a couple of points. Everybody recognizes the importance of the counterdrug mission, and certainly the Department of Defense. We recognize and appreciate the consistent support from this committee and from the Congress as a whole.

The surveillance and detection in the areas that would be covered by these aircraft operating out of these locations is a key part of our overall counterdrug effort, but I want to make the point that it is a relatively small part, a very small part of the overall Government effort, which just at the Federal level alone is something like $17 billion, and quite a small part even of the Defense Department effort, which is just under $1 billion annually, about a quarter of that for source zone operations.

Second, I think General Wilhelm's presentation has explained the geography, which makes it so clear that it is essential to have operating locations within the region, and that it is not practical to conduct these operations from bases either in the United States or Puerto Rico or Guantanamo, just because of distance.

There is another consideration, and this goes in a sense to what Senator Burns and Senator Roberts said. We have a broader interest in a presence and influence in Latin America. In particular, a consistent and vigorous U.S. effort to deal with the transit and source zone problem are essential to our credibility in getting the countries in the region to take actions in their own interests and ours, particularly with respect to their own counterdrug efforts, an area where there is still a lot to do but where a fair amount of progress has been made.

Third, I want to underscore the point that we recognize that this committee has always given especially rigorous scrutiny to military construction and other capital expenditures by the U.S. military on facilities overseas. This is as it should be, not only because we are trying to reduce the burden of unneeded infrastructure both overseas and in the United States, but because of the concerns that you, Mr. Chairman, in particular have raised about our long-term ability to sustain the level of operations that we now maintain.

As General Wilhelm's statement I think makes clear, these are not the construction of new bases. To build new bases in this region to replace Howard would simply dwarf by many times the amounts of Milcon money we are talking about here. These are necessary measures on what I think is a pretty austere basis to bring these facilities up to the standards that we need to be able to operate from them.

It is an efficient approach. It makes use of existing foreign airports and foreign facilities. Indeed, one of the main purposes of the FOL concept is to do this important mission with the smallest footprint possible. Over the long run, the forward operating locations will actually cost less than Howard would have cost had we continued to operate there and maintain that facility, had we been able to reach agreement with the Panamanian Government.

And third, we are in this area, as I hope is the case everywhere, trying to accomplish the mission in a way that is most efficient not only from the point of view of dollars spent on military construction and operation, but burden on our people. General Wilhelm can give the details, but these will be relatively short tours for the air crew involved. The permanent presence will be extremely limited, something like a dozen people at each facility.

As a part of recognizing the many pressures on the budget, but more important the pressures on our people and on key assets, we scrub very carefully every request to undertake a mission like this, and particularly because this is primarily surveillance aircraft, which are in heavy demand in other theaters. That is particularly the case here.

REDUCTION IN DEPLOYMENTS

We believe we have struck an appropriate balance in allocating both the available inventory of surveillance aircraft and the pace at which they operate. As part of this effort, we are reviewing a number of our current overseas activities. Secretary Cohen yesterday was in Bosnia and indicated the very real prospect that we will be able to make substantial reductions in our deployments and our allies' deployments there in Bosnia, and we are reviewing both the

size and, indeed, the need to continue our operations in a number of other areas.

PREPARED STATEMENT

In summary, this is, as the committee—and we fully understand you know this—this is a very important mission. It can, under current circumstances, be conducted only from bases, facilities in the region, and we believe that we have put forward a proposal which is an efficient and, indeed, an austere one to get this critical job done at a minimal cost to the taxpayer and, equally important, at a minimal impact on the burden on our military service personnel who will have to carry out the mission.

I look forward to answering the committee's questions.

[The statement follows:]

PREPARED STATEMENT OF WALTER SLOCOMBE

Mr. Chairman, as always it is an honor to appear before this committee to discuss the Department of Defense's role in United States counterdrug activities, how these activities support our national security interests, and specifically the importance of Forward Operating Locations in an environment shaped by our changed relationship with Panama. I particularly welcome the opportunity to address these issues with General Wilhelm who, as CINC SOUTHCOM has personal responsibility for the counterdrug operations at issue. I want to thank both subcommittees for their support of the counterdrug program in general. Congressional support enables us to counter some of the drug threat, which costs our nation over 14,000 lives and billions of dollars each year.

The Threat

We as a nation face a comprehensive threat from drugs and must, as a nation, carry out a comprehensive response. Treatment and suppression of demand are critical elements, and are up to domestic law enforcement and other agencies. But dealing with the source of drugs must also be a key element of our effort.

Nearly all the cocaine and most of the heroin consumed in the United States is produced from crops in Colombia, Bolivia, Peru and Mexico—the "source zone." Drug traffickers transport the cocaine to the United States in a multi-step process by air, and over sea and land through a "transit zone" consisting of the Caribbean, Central America and the waters of the eastern Pacific. Areas through which illegal drugs flow into the United States and its immediate environs are termed the "arrival zone," where DOD as well as federal, state and local law enforcement agencies cooperate to apprehend drug traffickers. While global seizures of cocaine average 270 metric tons per year, the current annual production capability of 550–650 metric tons continues to be sufficient to meet current user demands in the United States, Europe and South America. The bottom line is that while our progress has been significant, the threat remains very, very potent.

DOD's Role in Counterdrug Activities

The U.S. Government's role in counterdrug initiatives has evolved from disparate activities conducted by a various agencies to a unified mission characterized by joint military and civilian collaboration—a mission that was established by Congress and which has received consistent Congressional support. Congress passed the Anti-Drug Abuse Act of 1986, which gave the Executive Branch more authority to fight the tide of illegal drug shipments. Also in 1986, the President issued National Security Directive 221, which declared drug trafficking to be a threat to U.S. national security. Two years later, the Congress enacted another anti-drug abuse act in order to establish a coherent and comprehensive national policy to unify the efforts of the more than thirty Federal agencies and numerous state and local agencies engaged in counterdrug activities. The National Defense Authorization Act for Fiscal Year 1989 proved a watershed for Congressional interest in counterdrug activities conducted by the U.S. military, assigning primary responsibility for the detection and monitoring of aerial and maritime transportation of illegal drugs into the United States to the Department of Defense.

The National Drug Control Strategy

The 1999 edition of the National Drug Control Strategy embodies the 1989 Act's mandate that the Department take the interagency lead in drug detection and interdiction. The Strategy states that our domestic challenge is to reduce illegal drug use while ensuring individual liberty and the rule of law. Our international challenge is to develop effective, cooperative programs that respect national sovereignty and reduce the cultivation, production, trafficking, distribution and use of illegal drugs while supporting democratic governance and human rights.

The Strategy highlights the critical need to "[s]hield America's air, land and sea frontiers from the drug threat," by interdicting the international flow of drugs in the transit and arrival zones. Yet, even in 1989, when the Department was first assigned the lead in aerial and maritime detection and monitoring, we knew that defending Americans from the influx of drugs in the arrival and transit zones represented only part of the solution. Going beyond the transit zone and into the source zones to break foreign and domestic sources of supply was and remains a key element of our integrated strategy. DOD pursues this element by working with source zone nations in both civilian and military capacities to provide intelligence, training and other building-blocks of national self-sufficiency regarding counterdrug activities. Under General Wilhelm's leadership, and in concert with the U.S. embassy country teams, the Southern Command has aggressively pursued these contacts with cooperative source zone nations.

Consistent with Congressional direction, we have devoted significant resources to this endeavor, and we believe we have achieved significant successes. It is the Department's commitment to this Congressionally-directed mission that brings General Wilhelm and me before the subcommittees today. Our success to date has depended on effective aerial surveillance and interdiction of key drug transit routes. We need to reach beyond the transit routes and deep into the source zones to continue this fight. Quite simply, from both a military and policy perspective, we cannot continue to execute this mission that Congress has given us without the Forward Operating Locations. We must be able to project our own assets, our own detection and monitoring resources well into the transit and source zones. Without this ability to meet the threat where it originates, the Department will not be able to fully execute the mandate it has been given by Congress. Moreover, we will not be able to sustain the effort to convince the governments of producing nations to cooperate in regional, integrated efforts.

Successes

There have been some notable successes. Howard Air Force Base in Panama provided a key staging area for counterdrug missions into both the transit and source zones. Among other achievements, this capability helped U.S. assets support Peruvian interdiction efforts that disrupted the movement of cocaine base from Peru to Colombia by air. Peru's airborne interdiction of several dozen drug-trafficking aircraft over a three-year period resulted in the significant disruption of the traditional north-south airbridge between Peru and Colombia. As a result, Peruvian coca cultivation exceeded traffickers' transport capabilities and drove down coca prices. Depressed coca prices from 1996 to 1998 dramatically reduced coca base production in Peru from more than 450 metric tons to 240 metric tons annually. In addition, coca cultivation declined substantially in Bolivia in 1998 as the result of ground interdiction efforts in the Chapare region and controls on processing chemicals.

The net impact of these gains was offset by the increased coca cultivation in Colombia during the same period. Significantly, it is the Colombian production in particular that can be addressed by U.S. assets deploying from Forward Operating Locations. We are working with the Colombians and others in the region to address movement of cocaine hydrochloride—the "finished product"—by air from local laboratories to transshipment points on the north and west coasts of Colombia. It is from these locations that cocaine is smuggled into Mexico and the United States. The infrastructure supporting the smuggling of cocaine by air has been the key to efficient operation of the cocaine industry. We cannot begin to attack this infrastructure—figuratively and literally—without the operational flexibility provided by the FOLs. In particular, the FOL at Manta, Ecuador allows us to reach this infrastructure deep in the Colombia source zone, Peru, as well as the increasingly popular eastern Pacific transit zone, although this facility requires improvements to realize its full potential.

The International Dimension

Regrettably, the option of continued operation from Howard Air Force Base in Panama is not available. The United States and Panama discussed at length the possibility of a continued U.S. military presence beyond the effective date of the

Panama Canal Treaty but agreement was not possible. As a result, counterdrug operations from Howard Air Force Base ceased as of May 1, 1999.

The importance of the counterdrug operation and the need for a forward-based U.S. presence to sustain it led SOUTHCOM to develop the current Forward Operating Location concept. The FOL concept, explained in detail in General Wilhelm's statement, uses existing airport facilities owned and operated by host nations that are made available under bilateral agreements. Indeed, the concept has already proven its value as U.S. aircraft have continued their detection and monitoring missions on an interim basis from the newly established Forward Operating Locations in the Netherlands Antilles/Aruba and from Ecuador. SOUTHCOM was able to put its FOL contingency plan into effect after closure of the Howard AFB runway on May 1.

The Department of Defense will spend $247 million in fiscal year 1999 on counterdrug activities in source zone countries this fiscal year, focusing on cocaine production and movement in Peru and Colombia. The Department will work with other U.S. agencies to dismantle the cocaine cartels and the cocaine "business," and with the Peruvian and Colombian governments to break traffickers' air transit routes. The concentration of traffickers in this area, and their dependence on air routes, makes the source zone a special focus of our near-term efforts. The value of military presence options afforded by FOLs for this mission, specifically the additional location at Manta, Ecuador, cannot be overestimated. However, continued detection and monitoring efforts in the source and transit zones using the FOLs depend on Congressional support. Funds are needed both for operations and for construction of minimum essential upgrades to facilities. The inability to reprogram fiscal year 1999 operating funds, or a shortfall in fiscal year 2000 construction funds, will force us to continue operating the Aruba and Curacao FOLs on an interim basis, deploying our personnel as expeditionary units: quality of life and efficiency will suffer drastically.

On April 16, 1999, the Air Force was designated "Executive Agent" for the FOLs. In this capacity, the Air Force will implement necessary upgrades and maintain the three planned FOLs. The Air Force determined that a total $122.5 million in MILCON funding is required to augment existing host-nation FOL facilities during the fiscal year 2000–2001 period. This funding will support upgrades to facilities in Curacao, Aruba, and Manta so that the Department can continue to execute its statutorily mandated counterdrug mission.

Conclusion

The Department is firmly committed to meeting the goals of the National Drug Control Strategy as well as its congressionally-mandated leadership role in detection and monitoring. The key to continued effective execution of this mission is the ability to operate in the source zones. We cannot extend our reach in this manner without the Forward Operating Location strategy. I join General Wilhelm in urging your support and we look forward to working with you.

FORWARD OPERATING LOCATIONS COST

Senator STEVENS. Thank you very much.

Mr. Slocombe and General, our attention was called to an Inside the Pentagon report on May 27. I am sure you must have seen it, and the real problem as pointed out in this, in many ways, and I am quoting, the Manta location alone was found earlier this year by a site survey to need such substantial modifications that it may eat up at least twice the $50 million in funds budgeted to start up the three initial FOL's.

Each of the Caribbean islands was judged by the military site surveyors to require $50 million in long-term improvements. Concrete is deteriorating—I am just going down this—the debris is dangerous, lighting is substandard, the base has an emergency power supply but it is broken, and cable is deteriorating. As a result, the United States will have to build a power base, I guess. Something is missing here. The base water is not potable. It provides only 50 percent of the current demand. Air traffic control tower is antiquated.

The Manta airfield, security at the airfield is plentiful. Wildlife abounds. Bird activity is horrendous. Off-base medical care substandard, should be avoided. It will take 6 months to improve the airfield, and office space for military personnel, and it goes on, is very critical.

But the main point that was raised to me, though, is we would be replacing Howard, which was an accompanied tour base, with three forward locations where our people once again will be deployed without their families, and it just seems to me we ought to have some review of that.

Now, General, you mentioned the savings over a 10-year period. I question whether there should be an agreement signed for 10 years without approval of Congress in any event, but beyond that, those savings are the savings from not having families with our people. That is the difference.

As a matter of fact, I think if you put forward, operating on the FOL's, and if you put the cost of full family deployment, it would cost more for three bases than it did for Howard, so are we not redeploying this at the cost of the burden on our personnel by going to forward locations to operate without their families year after year after year? Is that not what this is all about?

General WILHELM. Senator, I do not think so. I think that this is a manageable proposition. As Mr. Slocombe mentioned in his testimony and in his opening statement, our personnel structure would be quite different. His numbers were correct. We project about 8 to 12 personnel permanently assigned to each one of these locations to handle the day-to-day management and contracting tasks that would be necessary to sustain operations at the FOL's.

DEPLOYMENTS

The deployments of the aircraft themselves, based on past patterns, these would not be lengthy deployments. Probably 2 weeks up to 1 month at most. I think the shorter term deployments are things that most of our men and women in uniform have become pretty accustomed to. It is the long 4, 6-month deployments, the remote tours of 1 year, where families do not accompany their sponsors, that we really fracture the harmony and the cohesiveness of families.

I personally have lived with these short deployments. Many of them are simply categorized as necessary training to maintain either a unit or individual readiness. Senator, very honestly I believe that is a manageable challenge.

You are quite correct, the principal savings associated with a forward operating location as opposed to a base is the lack of a necessity to develop what we call a vertical infrastructure, schools, child development centers, commissaries, and PX's. But again, sir, given the short periods of deployments, I think these are very manageable challenges, and I think the services can cope with that.

Sir, I did also read with considerable interest the article that you referred to in Inside the Pentagon. That article was published before the results of the site activation task forces were made available to me. Quite frankly, I challenge off most of that article. I visited Manta last week. The conditions that are cited in that report are quite frankly significant exaggerations.

The local base commander, the Ecuadorean base commander has already corrected many of these shortfalls. In terms of foreign debris that was on the runways, the vegetation that had grown up around the runways has been cut back. Many of the deficiencies on lighting and other issues cited in the report have already been corrected, not by us but by the Ecuadoreans.

A squadron operations building has already been freed up by the Ecuadoreans for us. It has been repainted. I toured the space in its entirety. I visited the Oro Verde Hotel, toured the entire facility right down to the main air conditioning unit with the manager of the hotel.

In short, sir, I think that report was misleading, and I would note that a staff delegation went to Manta. I believe Senator Grahams' senior staffer was present, I think Ms. Hatheway, one of Senator DeWine's staffers were present. I believe the total delegation was about six to eight strong.

They came back to Miami and gave me a completely different debriefing of what they found. The Customs Service representative there indicated that the facility was in a far better state of repair than he had been led to believe, and they essentially took the same exceptions that I did with the article that appeared in the Inside the Pentagon. I do not regard that as a credible piece of journalism.

Mr. SLOCOMBE. Mr. Chairman, could I add one point?

Senator STEVENS. My time is up. It is Senator Inouye's time.

Senator INOUYE. Thank you very much.

FORWARD OPERATING LOCATIONS

Mr. Secretary, you have tried to describe to us the difference between the forward operating location and a base on the basis of cost. How long do we plan to operate out of these temporary locations?

Mr. SLOCOMBE. There is no reason that we could not continue to operate on this basis for an indefinite period of time. I am afraid we are going to have the drug problem for a long time. I think realistically we are going to have to operate from somewhere in that region for a considerable period.

Senator INOUYE. Then it would be appropriate for us to assume that it would be a long-term presence there, not 10 years, but more than that.

Mr. SLOCOMBE. Even 10 years is a relatively short time, given the scale and the persistence of this problem. I am afraid we are going to have to be concerned about the import of illegal drugs into the United States from Latin America for a long time.

One of the reasons why this is an attractive approach is that it means that at least the lower foreign cost of operating from the foreign bases in the long-term justifies the initial cost to bring the facilities up to standard.

Senator INOUYE. Whatever it is, if we are going to be there for several decades you will have to appropriate additional funds to maintain our presence there.

Mr. SLOCOMBE. There is no question we will have to appropriate funds both to conduct the operations and to maintain the facilities.

Senator INOUYE. In our negotiations with the host nations, have we set down specific time periods and, if so, what are they?

Mr. SLOCOMBE. The current arrangements run about 1 year, and will be renewed, and we look forward to having an agreement for a long-term presence and long-term use of the facilities. The precise duration has not been agreed yet.

I have to say, we found both in the case of the Ecuadorean and the Dutch Government, who have responsibility for Curacao and Aruba, that they understand the importance of the mission and have been supportive of the idea of our using the facilities.

Could I just make one point, going back to the issue—my understanding is that the crews for the aircraft that did the surveillance out of Howard often were not personal change of station (PCS). Their families were often not with them in all cases. Those are the people who will be going on a temporary basis to these airfields to operate. The people who are there on a permanent basis, the dozen or so may well take their families with them. That is an issue to be worked out.

Senator INOUYE. What is the so-called temporary assignment time period? How long can they expect to be there?

General WILHELM. Sir, that is a decision that is normally made by the services. As a practical matter, looking as Mr. Slocombe mentioned, it was truly the temporary duty (TDY) air crews that did most of the work out of Howard.

The normal deployments, based on my observations, were about 2 weeks to 6 weeks, but I would like to run the line on that, sir, and provide you a precise answer through the quadrennial defense review (QFR), sir. I will give you a good profile on exactly what our deployment time lines were for TDY people to Howard. I think I am probably fairly safe in saying that I think you would see it parallel at the forward operating locations. So, sir, if I might, I will get back to you on that.

Senator INOUYE. I thank you.

Mr. Secretary, in your statement you note the quality of life and the efficiency of our forces will "suffer drastically if Congress fails to approve your reprogramming request." Does this mean that if Congress denies this request DOD will still proceed with the establishment of the FOL's anyway?

Mr. SLOCOMBE. No. We will not do what we do not have the authority and money to do, but we will have to find some other way to execute the mission.

Senator INOUYE. Under what authority would you be operating these FOL's?

FOL CONCEPT

Mr. SLOCOMBE. We believe, and this actually goes back to a point about the reprogramming. The reprogramming is not for money for Milcon. It is for funds out of an operating, in effect a holding account for the counterdrug money to use for the operations at the FOL's.

We believe we have authority, and it has been the consistent practice that we can operate on the basis of using a facility and pay the operating costs out of operating funds. That is what we are doing now.

We believe that we can make a case and that we are confident that we will be able to carry forward on the FOL concept. Just how

we would manage if we were not able to do that, we would have to work with the committee and work with the Congress and work with the services and the command to figure out some other way to do it.

I think it would be more expensive in the long run, and it would almost certainly have a bigger impact on the people.

I am informed that the specific authority for the FOL's and for the operation is section 1004 of the National Defense Authorization Act for Fiscal Year 1991, but in general it is our authority to conduct these counterdrug operations.

I emphasize the point that the reprogramming has to do with operating money, and not with Milcon money.

Senator INOUYE. General Wilhelm, in your statement you stated that out of Howard there were 2,000 missions, and out of these new bases, how many do you anticipate, the same level of activity?

General WILHELM. Sir, assuming that we would get roughly the same commitment of resources, we would hope to achieve about the same level of activity. That was 2,000 missions out of Howard each year, and on a normal day we have 21 aircraft of various types, models, and series committed to the counterdrug mission.

Yes, sir, I would hope we could maintain a steady state for resource commitment and could roughly duplicate that tempo of operations from the forward operating locations.

Senator INOUYE. The question that the chairman asked on the cost difference related to a family accompanying and not, I hope you can provide that to us, what would be the difference if families were there.

General WILHELM. In terms of the cost factor, sir, if we had to recreate and build an entire base, I suspect the cost would be very large indeed.

Senator INOUYE. Can you provide that to us?

Mr. SLOCOMBE. We can try to provide an estimate, at least. Without doing a comprehensive survey it would be hard to tell what it would cost to build a full-up permanent base in one of these countries.

You and the chairman are right, the cost probably somewhere is paid because the schools, the housing, the support of the family, it will be paid somewhere, presumably, but it will be in the United States, but the operating cost will be substantially lower.

General WILHELM. Senator, there is no question about it, the recreation of a Howard Air Force Base like facility in Latin America would be an enormously expensive proposition, there is no question about it.

Mr. SLOCOMBE. And also, running Howard for 10 years would be an expensive proposition.

Senator INOUYE. Thank you.

Senator STEVENS. Senator Burns.

RETENTION

Senator BURNS. Senator Stevens and I had an opportunity to go on a trip to the Middle East. He mentioned retention, and as I visit our different military personnel and facilities around the world, I am increasingly concerned about our ability to build noncommissioned officers (NCO's) and to obtain skilled people.

We met with a group and Senator Inouye was there in Saudi Arabia where Air Force personnel, tech sergeants, staff sergeants, men and women who had been, say, in the Air Force for some 8 to 14 years were on their eleventh trip to the Middle East since 1991, and were leaving the Armed Services.

They were highly skilled people. They were AWACS, they were radar technicians on AWACS, and that continues to I think bother and concern our chairman whenever we start talking about the nuts and bolts of really operating an efficient military organization, and that is my concern.

ARUBA AND CURACAO OPERATIONS

General, you have recommended Aruba and Curacao. They are only 10 miles apart. What is the difference in their operations, and can that operation be combined?

General WILHELM. Sir, the operation cannot be combined, and the problem is the capacity of the two airfields. As you point out, the two islands are approximate to each other, but if you look at the ramp space to park aircraft, if you look at the capacity to make launches and recoveries, they are relatively small facilities.

You need both to get the full coverage that we require, and the breakout that we have done thus far in an operational context would primarily place customs assets at Aruba, principally their P–3's, where our Air Force assets would operate out of Curacao, but neither base on its own is sufficiently large to handle the numbers of aircraft that we need to conduct the mission, so that is the reason for the two.

CONSIDERATION OF ALTERNATE LOCATIONS

Senator BURNS. In the overall picture of this, did we consider Honduras, Puerto Rico, or Guantanamo? Were any of these facilities considered in the overall scheme of things?

General WILHELM. Senator, they certainly were. We took a close look at Honduras, but as you know we have had a continuous presence there since 1983, so we are pretty familiar with what that base will support, and what it will not support.

We really ran into a series of really three constraining factors there. First, there was some reluctance on the part of the Government of Honduras to open Soto Cano up for large-scale counterdrug operations.

Second, Senator, I really needed to find a home for the Army helicopters coming out of Panama, and we already had rotary wing aviation assets on the ground at Soto Cano, so it made good sense to marry those aircraft up with the ones that were already there. That way we did not have to duplicate maintenance supply and other structures at some other place.

Third, and probably most important, is geography. There are some high elevations in and around the airfield at Soto Cano that make it impossible for many of our aircraft to take off with a full fuel load, so they end up with constrained time on station and a lot of our counterdrug aircraft are not configured for aerial refueling, so that was really a hard constraint against wholesale use of Honduras.

As far as Puerto Rico is concerned and Guantanamo Bay, those facilities are being used. The Coast Guard, as I think you are aware, Senator, uses the Borinquen facility very heavily in Puerto Rico to conduct many of its counterdrug and other operations in what we refer to as the transit zone.

As we have come out of Panama I have identified airfields in Puerto Rico as the basing locations for our theater airlift assets, so we have put our C–130's in there to support our other regional engagement missions.

Sir, as you know, our facilities at Guantanamo are somewhat limited, and it is a tough runway to get in and out of with the air space restrictions. Again, the Coast Guard and the Navy use that probably just about up to the limits of its capacity, and it does support many of our operations in the transit zone, so sir, we really did look at just about every option we had in the region.

FOL'S

Senator BURNS. Mr. Slocombe, would you give the committee an update on negotiation with these countries for a permanent presence there, and I say that because we are going to make some capital expenditures, and I would like to know the status of the negotiations of the recommended FOL's.

Mr. SLOCOMBE. The short answer is, we are discussing with both the Netherlands, who as I say have responsibility for the Netherlands Antilles in this area, although they have to talk to the local Governments as well, and with Ecuador, for long-term arrangements which would provide the status of continued eligibility, I guess, continued agreement to our use of the facilities, and in particular continued, the equivalent of a status of forces agreement.

It is not formally a status of forces agreement, but it provides protection for our people against jurisdiction by the local courts for official acts, the kind of issue which is important if you are going to have people operating, even on a temporary basis, out of a location, and in practice we will not make investments, we will not do the construction until we have a long-term commitment. I do not necessarily mean a commitment forever, but a long-term commitment.

There is a meeting with the Netherlands tomorrow, the 15th, and a meeting with the Ecuadoreans within a couple of weeks, and the indications are that we will be able to work out our arrangements. The progress is going forward, and in any event we are confident on the point we will not spend the money.

Senator BURNS. Mr. Chairman, with your indulgence, I have one more question along those lines.

I understand a major issue remains as to whether or not U.S. forces have the authority to operate and bear arms at forward operational locations to protect our deployed assets. Give me an idea, or would you comment on that issue for the committee, and the status of those discussions with those host governments?

Mr. SLOCOMBE. My understanding is the host governments are agreeable to U.S. personnel having firearms for security purposes. They do now, and this should not be an issue as far as we understand.

Senator BURNS. Thank you, Mr. Chairman.

Senator STEVENS. I thank you.

Gentlemen, I am informed that our special operations forces deployed to 152 countries, foreign countries, foreign territories included, with 123 counterdrug missions in 22 countries last year.

We have got people in Haiti and in Kuwait and Saudi Arabia. We have got people in Iceland. We have got people in Bosnia. We have got people in South Korea. Two of those are accompanied, all the rest are not.

Now, when you look at this, we travel a lot, probably too much, and we ask too many questions. I remember two pilots that visited me in Britain, I think it is 18 months or 2 years ago, roughly. They had been with their families 3 months out of the last 3 years, each year. They had been deployed to Kuwait, and then redeployed to Bosnia, they had been deployed elsewhere, and they were getting out.

Now, that is what I see is what is happening here now. We are going from an accompanied tour to an unaccompanied tour status in the war on drugs, which we support, but it does not seem to me to have been thought through very well about personnel.

What about security, General? This is probably one of the most violent places in the world today because of the drug activities. We are going to have 15 to 20 people in, what, three different, four different locations. Are you going to have an extra marine detachment there to protect them? Who is going to protect them?

FORCE PROTECTION

General WILHELM. Sir, the issue of force protection I will tell you right up front is job one for the United States Southern Command. That is the first thing we look at before we deploy any force for any period of time to any location.

The security of the force, as you would expect, normally comes from one of two sources. Either the host nation provides security forces, or we provide augmenting security forces.

Senator, that is really one of the foremost tasks that I levy against my intelligence organization, and that is to stay dead on top of the security situation at every location where we have troops deployed in Latin America and the Caribbean.

I have told them, I do not want information day to day, I want it from minute to minute about the security conditions there. For example, we received a report that one of the young men, one of our first deployers to Ecuador, had been accosted outside of his hotel room in Manta. He had been confronted by two knife-wielding assailants. They took his billfold with $20 and a hand-held radio. We are working on that right now with the Ecuadorean authorities.

We are very conscious of the fact that we need a buddy system when people on liberty, or are at and around town. We are working with the Ecuadoreans to get better security around our billeting locations. This was a criminal act, sir. I only bring that up anecdotally to let you know how much importance I place on that. Sir, we will never blink our eyes where force security is concerned.

Senator STEVENS. Do you think these four bases are secure without an occupational security force?

General WILHELM. Sir, I believe these are secure locations. Yes, sir, I do.

AWACS/RETRACTABLE OVER THE HORIZON RADAR

Senator STEVENS. Apparently AWACS are part of the key to this. What happened to that over-the-horizon radar we took from Manchikta and put in Puerto Rico for this purpose? Are you using it?

General WILHELM. Yes, sir. Not the Puerto Rican radar quite yet. Senator, as I think you know, the initial operational capability for the relocatable over-the-horizon radar in Vieques, Puerto Rico, is in fiscal year 2000.

The two radars that we have right now that give us the deep look and broad area coverage are the ROTHR's in Virginia and Texas. When we stand up the third radar in Puerto Rico it will improve our coverage particularly of the deep source zone. The issue here, sir, is that the radars do different jobs.

Senator STEVENS. I understand that, but are they going to take some of the pressure off the AWACS? You need three AWACS now, rather than one.

General WILHELM. Sir, we actually use two AWACS. That is the asset level that is assigned to us by the Joint Chief of Staff (JCS). We have not had two.

Senator STEVENS. You had three circles?

General WILHELM. No, sir. Those were the operating radius out of the three FOL's. We would not necessarily have an AWACS at each one of those. In fact, we would probably have no more than two at any given time, because that is the asset ceiling that has been assigned by JCS. Those circles simply depicted the operational coverage that we could achieve from each of the three FOL's.

Again, it is our duty to make clear that the ROTHR's provide us with the initial tipper. They let us know that an aircraft has taken off. The locating data is not precise. Ten to 20 miles is about as close as we get.

We do not get altitude. That is when the AWACS, when the P–3 domes come in. They add more precision to the locating data on the contact, its direction of flight, its altitude, and that is how we start to build a case toward a track of interest. But all of the radars have to work together to make this happen.

Senator, I am sorry if the chart created confusion. We actually rate only two AWACS assigned Southern Command for this mission, and since the crisis in Kosovo we have only had one.

Senator STEVENS. I went down and rode the P–3 out of Key West into this area, and was briefed on what they were doing to support the counterdrug activities. Why is it we cannot use some portion of these forces out of Key West, from our own soil?

General WILHELM. Sir, we do fly some missions out of Key West.

Senator STEVENS. I know, I flew in them, but why don't you use that location rather than these?

General WILHELM. Sir, the operational reach from Key West would not get into either the southern source zone nor—our southern transit zone, excuse me, nor would it even touch the source zone. It is simply too far away. We would end up covering only really the northern and central regions of the Caribbean. We could

not cover Central America from there, and we would get no coverage of the Pacific movement vectors.

Senator STEVENS. Mr. Slocombe, would you give the committee the estimate of the total numbers of military personnel deployed overseas in fiscal years 1998, 1999, and projected for 2000, please?

Mr. SLOCOMBE. I have the numbers, if you will bear with me for a second.

Senator STEVENS. You can give those for the record, if you like.

Mr. SLOCOMBE. Let me give them for the record.

[The information follows:]

EXCERPT FROM JOINT STAFF INFORMATION PAPER

Subject: Under Secretary of Defense for Policy Testimony Regarding Overseas and Long Term Contingency Deployments

Purpose.—To respond to a Deputy Assistant Secretary of Defense for Drug Enforcement Policy and Support request for information.

Total number of military personnel deployed overseas.—This number is best presented by the average number of active duty U.S. military personnel deployed, not stationed, on any given week overseas in support of contingency operations. This number does not include those deployed in a temporary duty status or those deployed for exercises.

[Deleted.]

Fiscal year 2000—Estimate not available.

Senator STEVENS. I sort of am going back where Senator Burns was. It does seem to us that the two, Aruba and Curacao, are so close together in terms of the availability of the other two sites, that the necessity of having four sites in this area is stretching our capability more than we should stretch it. I would urge you to take a look again as to whether we should spend defense funds for the infrastructure and base operations on a site that is for the Customs Service.

I have been trying to get people to do that in California and in Arizona and New Mexico for years, but we will not do it, but here we are spending money outside of our country for the same operations to protect South American countries. I think we need to develop a real definite United States policy of what we are going to do with military assets in terms of the war on drugs, but we are not currently using them to protect our own borders.

When we were down on the Arizona border 2 weeks ago, there were almost as many people coming into Arizona daily as there are going into Albania from Kosovo, straining a whole operation down there as far as immigration, customs, and border patrol.

In this area that you are operating in, the military takes the full brunt of the whole operation, but you will not take any in the United States. I really see the development of some very inconsistent policies in terms of the use of military force to support the war on drugs, and I hope to have that reviewed by another committee.

Senator, do you have any further questions?

Senator INOUYE. No, thank you.

Senator STEVENS. Senator Burns.

Senator BURNS. I guess I am concerned about our expenditure further out than just, here we are, we have got a request now for a reprogram of funds, and how we are going to move some of those dollars around, and we have yet to figure out how we are going to

do that, General. We are supportive of the drug intervention program down there, let there be no doubt about that.

There will always be drug flow into this country for the simple reason this country has got the money to buy them, and that is it. You are never going to stop drugs coming into this country until we run out of money, and that is just a fact, and of course you have a terrific mission ahead of you.

But you know, I think the stabilization, the security of the area also has far-reaching yields in the best interests of this country. I am just wondering, have you given any thought what we are going to need, say, past this initial investment in capital expenditures, what it is going to take in the next 5 years?

I guess I am an old county commissioner. We really did not get the efficiency of our county down until we did a 5-year budget, and what we did this year affected what we could do 5 years down the road. I would kind of like to get ahead of the hounds a little bit. Have we had any kind of a projection or demand on our funds in that respect?

FIVE-YEAR PROJECTION

General WILHELM. Senator Burns, that is a wide-ranging question, of course, and I will take it on in that context, if I might.

Senator BURNS. You might just give a thumbnail, because I know you cannot be too precise. I understand that.

General WILHELM. I think probably one of the most often-used statements when we talk about the drug struggle is that there is no silver bullet, and that is quite correct. I think that we can have a very powerful impact on this problem, but we are going to have to do it in a variety of ways, and I will just work from south to north, and I will do this very quickly.

I encounter a lot of frustration, and sometimes the feeling that this is mission impossible. I do not agree. There are three countries, really, that produce drugs. They are Peru, Colombia, and Bolivia, and we are winning the war in two of those countries today. Cultivation was down 26 percent in Peru last year, 17 percent in Bolivia, and their production of base was down 25 percent in both countries.

The problem was the 28 percent increase in Colombia, but we are doing some pretty vigorous things right now with Colombia to help them more effectively counter the drug threat in their country. It is going to take some time, but I am one of those that is cautiously optimistic—not many of us, but I am cautiously optimistic about Colombia, its national resilience, and its ability to overcome its problems.

So two out of three is the way I look at it in the source zone, and I think we have got some pretty good programs to do that.

We knocked off 147 metric tons of dope in route to the United States last year. That is not too bad. I would like to get 200 metric tons this year.

In his national drug control strategy, General Barry McCaffrey has created some hard goals for us to achieve, 10 percent reduction by 2002, and about a 20-percent reduction by 2007. We are going to work hard to make that happen and, of course, that is nipping the stuff before it gets to the frontiers of the United States.

Again, Senator, things like the forward operating locations are absolutely indispensable if we want to do this. I am an infantryman. I always want——

Senator BURNS. Primarily you are a rifleman first and then everything else comes later.

General WILHELM. Absolutely, sir, and you always want to defeat the enemy as far forward from your main battle position as you possibly can. I would like to win as much of this war as we can in the source zone, pick up the bleeders in the transit zone, and then, as Senator Stevens and Senator Inouye suggested, we probably need to buttress the defenses right along our own borders, right in the wire, so to speak.

But I view my job as fighting the deep fight, going down and bloodying their nose in the source zone, try to give them two black eyes in the transit zone, and make them weak before they get to the arrival zone.

If we do all these things, eradication, interdiction, alternative development, the things that State and the rest of the interagency do, sir, we can win this thing.

Senator BURNS. Mr. Chairman, I know most that my Ranking Member, Senator Murray of Washington, would probably have some questions this morning. She is involved in other issues, and if she has questions of either of you, I would appreciate if you would respond both to the committee and to Senator Murray out of respect, and I appreciate you having this hearing this morning.

Senator STEVENS. Yes. She is on the floor. May I ask, Senator, have you received the supplemental for the $122.5 million for Milcon?

Senator BURNS. We have not.

Senator STEVENS. We have seen an outline of it. When are we going to receive it?

General WILHELM. Senator, I know that—I think the document is called a 1391. I am looking at Steve Cortese. He knows these kinds of things. I know that those documents were cut for the $122.5 million, sir. I do not know where they are, but I am sure between Mr. Slocombe and I we can find them.

Senator STEVENS. We have not seen the projection. As Senator Burns mentioned, we normally do get a 5-year projection. We got the $45 million reprogramming, and then we understood there is another sum coming for the year 2000, $122.5 million, and we do not know, and that was for augmenting facilities at the existing sites, and we were told that there would be further funds for the increases in operational maintenance and personnel cost, and we have not seen those. I think it would be helpful if we could see those.

Are you operating planes out of these four bases now?

FOL FUNDING CONCERNS

General WILHELM. Sir, we are, out of all of them, out of Curacao, out of Aruba, and out of Manta, that is correct.

Senator STEVENS. You have made some changes, I assume, out of your operating accounts for that.

General WILHELM. Yes. Well, this was money that was previously in the accounts to conduct counterdrug operations, and as

I mentioned in response to a previous question, we have done the things that we could do on the ground at Manta to correct the deficiencies that were there, and we have gotten a thumbs up from the Customs Service and from Navy, who have operated the P–3's, that it is an acceptable base from an operational and safety standpoint.

Sir, if I could clarify one point, the Milcon requirements are for $42.8 million in 2000 with the balance in 2001, so it is not all in fiscal year 2000.

And if I might return to one point for just a second, because I am confused right now about the reprogramming action. That reprogramming action was for fiscal year 1999. That was $45 million, and all of that was in the O&M accounts, and Senator, only $6.1 million of that was related to the forward operating locations. The majority of those reprogramming funds were to support other consolidations, and movements that were associated with the closure of our bases in Panama.

I do not quite know what happened here.

Senator STEVENS. We did not approve it. The main reason was, it seemed to me, and I consulted with Senator Inouye, it looked like we were going to implicitly approve the creation of four new bases overseas without any congressional hearings at all, and after our experience in Haiti and in King Sultan and Kuwait, it was just not the thing to do in our opinion. We think the public should have knowledge if we are going to start a new series of bases overseas, they are going to be ongoing for a period of time, and Mr. Slocombe was correct when he says that 10 years it is going to be a short time on this.

Now, if this is a new policy to replace Howard and replace it with four bases instead of one, the public ought to know. That is one of the costs of the Panama Canal agreement, but it is also one of the costs of the war on drugs, and this time it is coming all out of defense. It is the first time I have seen it come all out of defense, General.

In the past, with the Coast Guard, we transferred some money to the Coast Guard, and the counterdrug funds were transferred to the Coast Guard, and the P–3 I flew on was reimbursed by the Coast Guard, or by the drug operations to the Coast Guard. This, you are not seeking any reimbursement from the other funds. This is using defense funds now for counterdrug activity straight up, and I think there should be a record on that, and we should understand what you are doing.

I am not dissatisfied with your explanation. I am not too happy about it, but I think you have answered our questions, and we will consult with the committee to see what we will do about the reprogramming, but it just did not seem to us that we ought to approve a reprogramming of operation and maintenance (O&M) funds for the counterdrug activities in a fashion that you could implicitly assume that we had approved the concept of replacing Howard with four different bases.

General WILHELM. Senator, I can completely appreciate your concerns. The reason I wanted to mention it, sir, was I read your letter of, I believe June 28, and the issues that are addressed in there I had a hard time correlating with the real purpose for the $45 million reprogramming action.

Senator STEVENS. We did not get the breakdown of how you were going to spend the $45 million until after I sent the letter. Then we were told the specifics.

The reprogramming request was not specific. It was just for use in four locations overseas of O&M money for the drug operations, and we just wanted to have a record on it, and now that we have it, as I said, I am not too happy about what I see, because I see further stress on the forces from unaccompanied tours for a period of time ahead of us that is going to lead to worse statistics as far as reenlistment is concerned.

I do not know the answer to it. I am sure you do not know, either, but I am getting to the point where every time I talk to these young pilots—it is particularly pilots that we have a real shortage of now. Do you have any knowledge of what the shortage of the AWACS pilots is now?

General WILHELM. Sir, I do not know.

Senator STEVENS. We will have to track that down.

Senator BURNS. Well, Mr. Chairman, I just want to make a point. We sat there, all three of us sat there and listened to those young folks, among NCO's. I mean, these are the skilled people that I think are the nuts and bolts of making this thing operate, and that was very enlightening, that day we spent, and we threw everybody out of there and just had a very frank conversation with those folks, so that is a concern.

I thank the chairman.

ADDITIONAL COMMITTEE QUESTIONS

Senator STEVENS. We did that in Kuwait, at King Sultan.

Thank you very much, gentlemen. We appreciate it.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR CONRAD BURNS

DOD FORWARD OPERATING LOCATIONS FOR COUNTER DRUG OPERATIONS

Question. Why did the Department not request military construction funding for these forward operating locations as is the normal practice for constructing military facilities overseas?

Answer. The request was based on what was believed to be the established precedent concerning MILCON and the DOD's Counterdrug Central Transfer Account (CTA). The precedence was the Department's fiscal year 1995 CTA request, which included $10,000,000 in MILCON funding for the construction of a Relocatable Over-the-Horizon Radar (ROTHR) in Puerto Rico. The Congress appropriated this MILCON amount as a part of the CTA in Public Law 103–335.

Question. It appears that there are additional funding requirements for these bases over the next several years. Will the military construction budget for fiscal year 2001 include these additional projects?

Answer. Yes, the military construction funding for the remaining requirements at the FOLs will be forwarded as a part of the fiscal year 2001 MILCON budget.

Question. What will be the legal basis for U.S. deployed or stationed personnel in both the Netherland Antilles and Ecuador?

Answer. All personnel will be at the Forward Operating Locations pursuant to bilateral access agreements with the respective countries. They will be deployed to fulfill our 10 U.S.C. 124 detection and monitoring mission.

FOL NEGOTIATION STATUS

Question. What is the status of negotiations with these countries on securing a more permanent agreement to base our forces?

Answer. The status of FOL negotiations are fluid. Ambassador Brown is doing a superb job in securing these agreements and is in the best position to provide you a current status of the negotiations. I am confident that these agreements will be secured in the near future.

CONCEPT OF OPERATIONS

Question. Could you begin by describing how you envision the concept of operations for each of the three bases in Aruba, Curacao, and Ecuador?

Answer. These sites will replace the capabilities lost with our departure from Panama but without the overhead costs of building a base. This is achieved through forward operating location (FOL) agreements.

FOL agreements with host nations enable us to use their existing facilities, upgraded to U.S. standards, for the conduct of counterdrug operations throughout the source zone and to do so at considerably less expense than our operations from Howard Air Force Base.

The Caribbean sites of Curacao and Aruba are to focus on the transit zone and the northern portion of the source zone. Light and medium aircraft (C–550, C–130, F–16 and P–3) will fly from these sites in support of our detection and monitoring mission. Curacao will also be capable of hosting heavy aircraft (E–3 AWACS and KC–135).

Manta, Ecuador, will be capable of hosting all three weight classes of aircraft and is the most critical of the three sites. Manta provides the flexibility to conduct intelligence-cued operations throughout the deep source zone with little or no warning to narco-traffickers. The necessity to maximize the use of limited assets, like the AWACS, makes Manta the right place. No other FOL provides the flexibility to direct this strategic asset against the shifting patterns of the narco-traffickers in Colombia, Peru, and Bolivia.

FACILITIES

Question. What is the current state of facilities and infrastructure at each of these locations?

Answer. Facilities and infrastructure at the Forward Operating Locations (FOLs) is generally good but will require approximately $122.5 million in upgrades to meet U.S. operational and safety standards. To reduce costs, we will use host-nation facilities to the maximum extent consistent with U.S. operational, safety, and quality of life considerations. The Aruba Airport Authority currently provides adequate office space inside the airport terminal and sufficient ramp space adjacent to the main commercial ramp. Renovation on the Aruba airport terminal, scheduled to begin on 1 November 1999, will require construction of temporary office facilities. In Curacao, the host-nation government and the Dutch military allocated sufficient aircraft ramp space and assigned temporary office facilities. In Manta, host-nation military facilities are supporting limited operations. Local civilian establishments are providing billeting and messing support at all three locations.

Question. Describe the type of facilities that Southern Command and the Air Force agree are needed for each of the locations?

Answer. To meet U.S. operational and safety standards, all three Forward Operating Locations (FOLs) require additional aircraft ramp space, adequate aircraft maintenance facilities, and permanently assigned office spaces. To reduce costs, we will use expeditionary facilities at each location where possible. Manta Air Base (AB) requires more upgrades to meet U.S. operational and safety standards than Curacao and Aruba international airfields. Manta requires moderate upgrades to crash/fire/rescue capability, bulk fuel storage capacity, and billeting/messing facilities. We estimate the total construction cost for all three FOLs to be $122.5 million.

MILITARY CONSTRUCTION ESTIMATES

Question. Finally, what are our military construction estimates for each of the bases in Aruba, Curacao and Ecuador?

Answer. For the sake of clarity, Forward Operating Locations (FOL) are not bases. FOLs are host nation facilities where the U.S. is granted use and access for the purpose of conducting counterdrug operations. Military construction is limited to those areas necessary to support U.S. counterdrug operations.

For fiscal year 2000 we must receive $42.8 million of which $10.8 million will be used for consolidated planning and design of all three FOLs, with the remainder being used for airfield pavement/site improvements at Manta, Ecuador. Manta will require the bulk of the expenditure to enhance the parking ramp, runway and taxiways. The upgrades will allow us to accommodate four large aircraft (E–3,

AWACS and KC–135) and four medium (E–2, P–3, C–550, C–130, and ARL) aircraft.

In the following fiscal year the remaining $79.7 million is needed to complete upgrades in all three sites ensuring adequate, safe and mission essential facilities from which to operate.

CONSTRUCTION OF TEMPORARY FACILITIES

Question. It appears that we plan to construct permanent facilities at each of these forward operating locations. Why not use more temporary facilities?

Answer. We are using host nation facilities to the maximum extent possible at each of the locations. We will only build essential facilities that we cannot obtain from the host nation. In the initial stages of developing the forward operating locations, temporary facilities were used, and where temporary facilities can support the operation, we will retain those temporary facilities.

Temporary facilities, however, like the Air Force's "Harvest Bare" camps, are currently being used for interim facilities which will continue until more permanent facilities can be completed. These types of facilities (tents and prefabricated structures) are effective, but have a limited useful life. After 18–24 months they require replacement or significant maintenance.

Permanent support facilities will be constructed using materials and methods which will result in the least cost, both in terms of initial construction and routine operations and maintenance. "Expeditionary" type facilities (pre-engineered buildings, K-spans, etc.) will be considered where practical.

OPERATIONAL REQUIREMENTS

Question. What are the operational requirements for Aruba and Curacao installations?

Answer. The operational requirements for Forward Operating Locations in Aruba and Curacao are:

—An operational capability of twenty-four hours per day, seven days per week.
—Night and all weather landing/takeoff capability with manned air traffic control facilities.
—Runway length of at least 8,000 feet, with a load bearing capacity for AWACS and C–141 aircraft.
—Refueling/Defueling capability.
—Crash, Fire and Rescue services.
—Ramp, Hangar, Office and Storage space.
—Communications capability to support aircraft maintenance requirements, and connectivity with command and control organizations such as Joint Interagency Task Force East (JIATF-E).

ALTERNATIVE FORWARD OPERATING LOCATIONS

Question. Did the department consider our facilities in Honduras, Puerto Rico and in Guantanamo Bay to conduct these operations? Please explain why these are not being used rather than new locations?

Answer. Yes, and all three locations continue to support counterdrug operations just as they did prior to the closure of Howard Air Force Base.

Soto Cano Air Base, Honduras, is the home for a majority of Army aviation assets in theater. These assets support counterdrug operations such as CENTRAL SKIES as well as many non-counterdrug missions. Although the topography of the region limits Soto Cano's use as a Forward Operating Location, it can be used to support surge operations in the Eastern Pacific and in Central America.

The geographic location of Guantanamo Bay, Cuba, and Naval Station Roosevelt Roads, Puerto Rico, allow Department of Defense, Coast Guard, and Customs Service detection, monitoring and tracking assets to continue supporting counterdrug operations in the Caribbean transit zone. These locations, however, do not provide the required operational reach into the South American source zone and large portions of the Eastern Pacific.

CONSTRUCTION OF TEMPORARY FACILITIES

Question. How long is it anticipated that our forces will remain at these forward operating locations?

Answer. We anticipate a network of interlocking Forward Operating Locations (FOLs) will be necessary until we have achieved the targets and goals directed in Presidential Decision Directive 14 and the National Drug Control Strategy. Ongoing

negotiations are for an agreement that allows U.S. access to FOLs for 10 years with an option for an additional 5 years.

HOST NATION SUPPORT

Question. General Wilhelm, what if any contributions are the host nations providing for the construction of these forward operating locations?

Answer. The host nations of Ecuador and the Netherlands are contributing significantly to our efforts to establish forward operating locations.

At all three locations, the host nations have provided temporary ramp space at no charge. The same holds true of office space, maintenance facilities, and hangar space provided on a temporary basis within their capability. In Curacao, the Royal Netherlands Navy will provide, on a permanent basis, sufficient ramp space for two P–3 and one E–2 aircraft along with co-use of their maintenance hangar. In Manta, the Ecuadorian Air Force has provided several buildings for use on a permanent basis. The Ecuadorian Air Force also conducted extensive excavation of brush and existing obstructions around the runway environment so counterdrug operations could commence in June. This action was performed to meet U.S. air safety standards—the Ecuadorian fighter wing at Manta did not require this safety enhancement.

These gratuitous actions, along with the host nations' contributions to overcoming day-to-day obstacles, have convinced me of their sincere desire to participate in our collective counterdrug mission.

MILITARY CONSTRUCTION FUNDING

Question. The Department requested $42.8 million in fiscal year 2000 Southern Command military construction funding for the forward operating locations. The total program requirements are $122.37 million. What are the priority projects for fiscal year 2000?

Answer. Fiscal year 2000 military construction program funding of $42.8 million for Forward Operating Locations (FOLs) will provide $10.8 million for consolidated FOL planning and design and the remainder will be used for parking ramp enhancements and runway/taxiway repair to accommodate four large aircraft (E–3, AWACS and KC–135) and four medium (E–2, P–3, C–550, C–130 ARL) aircraft in Manta, Ecuador. These funds will also provide the means to repair an existing ramp for three medium aircraft.

SUPPORTING AIRCRAFT

Question. General, the Congress had earlier been briefed on the forward operating locations that these facilities were to support transit aircraft on a mission required basis. However, the documentation that the committee has received indicates that the F–15s or F–16s will be the only aircraft permanently assigned to Curacao. Is this a change to the initial intent of the program and what is the justification for the permanent assignment of these aircraft?

Answer. There has been no change in our original concept of operations at the Curacao, Aruba or Manta Forward Operating Locations (FOLs). Air National Guard units, from throughout the United States, rotate every six weeks and crews rotate at 15-day intervals. As a new unit arrives, the previous unit departs. This rotation achieves near-continuous presence with temporarily deployed personnel and equipment.

QUESTIONS SUBMITTED BY SENATOR PATTY MURRAY

FORWARD OPERATING LOCATIONS (FOLS)

Question. Mr. Chairman, I would like to preface my question by commending General Wilhelm for his leadership and dedication to the Defense Department's counter narcotics mission. As the head of the U.S. Southern Command, he has mounted a determined and aggressive campaign to stem the flow of illegal drugs from the Caribbean and Central America and to promote stability and democracy in the region. His is an enormous task, and a vitally important one. We are all well aware that it is crucial that he succeeds.

On that note, I cannot help but think that a coordinated battle plan is a necessary ingredient of success, but what this Committee is being presented appears to be more of a scattershot, almost piecemeal approach. One day, we receive a relatively vague reprogramming request for $45 million for Forward Operating Locations. Another day, we are asked to shift $42.8 million into military construction for the

FOL's. Later, we are told that a total of $122 million will be needed for construction at these locations in fiscal years 2000 and 2001. At the same time, Southern Command is significantly increasing its presence in Puerto Rico, and Congress is being urged to acquire the headquarters site that SOUTHCOM currently leases in Miami. I understand that all of these actions were precipitated by the closing of Howard Air Force Base in Panama, but I am concerned that in the haste to relocate the missions that had been based at Howard, we may be so focused on short term fixes that we lose sight of our long term goals.

I understand that SOUTHCOM is currently operating some missions out of the proposed Forward Operating Locations, so my first question, for both General Wilhelm and Mr. Slocomb, is this: what would the impact on the counter narcotics mission be if SOUTHCOM were to complete a long-range master plan, as the Senate Subcommittee on Military Construction has directed, before investing $122 million in overseas military construction projects? How quickly could you complete such a plan and submit it to Congress.

Answer. The Department of Defense long-range plan for Forward Operating Locations has been developed and was briefed to the Senate Subcommittee for Military Construction in August. Because of the many variables that have an impact on these plans, they are always being updated and adapted in order to have the greatest impact on our mission. The Department of Defense and U.S. Southern Command stand ready to provide updates or answer your questions at any time.

DEPLOYMENTS TO FORWARD OPERATING LOCATIONS (FOLS)

Question. General Wilhelm, you have indicated that the majority of deployments to the FOLs would be short term—a period of weeks as opposed to months. In responding to the Committee on the specific lengths of tours, would you also indicate for the record how frequently a service member would be rotated into this duty. In other words, how many times a year could a service member expect to be assigned to this duty, and what would be the total amount of time during the year that he or she would have to spend away from their families?

Answer. Each Service establishes deployment timelines consistent with their overarching personnel tempo (PERSTEMPO) criteria. All our Forward Operating Location (FOL) deployments will be short duration temporary duty (TDY) assignments. FOLs provide Services the flexibility to tailor their PERSTEMPO criteria to support our mission requirements. The frequency with which individual Service members would be assigned to these missions is a Service determination.

QUALITY OF LIFE

Question. In your opinion, how will these assignments affect the quality of life and operating tempo concerns that are having such a severe impact on Air Force retention levels? What steps are you taking to mitigate the impact of any quality of life concerns caused by this duty on the service members and their families?

Answer. Forward Operating Location (FOL) deployments have a positive impact on morale and retention. Counterdrug operations are actual missions against actual targets. Aircrews respond favorably to these challenges and gain a sense of accomplishment from performing these missions. Guard personnel support many of the Air Force deployments, easing the operating tempo on the active force. For example, Guard F–15s/F–16s fly Coronet Nighthawk deployments, typically deploying from various home units to Curacao every six weeks and rotating crews at 15-day intervals.

Service personnel tempo (PERSTEMPO) is further reduced by contracting as much base operating support as possible. We selected, from available sites, those airfields that best meet U.S. operational requirements, safety standards, and adequate personnel support facilities. We will upgrade these facilities to U.S. standards during the next two fiscal years. The quality of life needs of military personnel and their families will be provided by the Services.

HOME BASES OF DEPLOYED PERSONNEL

Question. General Wilhelm, would you provide for the record the home bases from which the personnel would be deployed to the Forward Operating Location missions.

Answer. The designation of units and personnel to support counterdrug requirements at the Forward Operating Locations is Service responsibility. I defer to the Services to answer this question.

SECURITY ARRANGEMENTS

Question. General Wilhelm, you indicated that, in your opinion, the proposed FOLs are secure locations. Would you elaborate for the record on the specific security arrangements that will be made for U.S. personnel assigned either permanently or temporarily to these sites, who will provide the security on and off base, and what the security arrangements will cost the U.S.

Answer. The assessed terrorism threat levels at Forward Operating Locations (FOLs) are NEGLIGIBLE for Curacao and Aruba and LOW for Ecuador. The assessed threat levels for crime is MEDIUM for Curacao and Aruba and HIGH for Ecuador. Threat level assessments are updated on a daily basis. Host nations provide security at the FOLs, to counter the assessed terrorism and criminal threat levels.

As our executive agent for FOLs, U.S. Air Forces South (USSOUTHAF) is responsible for the security of permanent and temporary duty (TDY) Department of Defense (DOD) and U.S. Customs Service personnel located at the FOLs. Where necessary, USSOUTHAF augments host nation security forces.

In addition, all U.S. personnel deploying to the U.S. Southern Command area of responsibility are required to receive pre-deployment anti-terrorism (AT) awareness training. FOL Detachment Commanders are also required to conduct security inbriefs for personnel arriving at FOLs.

Security costs are negligible because of host nation support and existing security provisions at FOL facilities. Physical security requirements will be integrated into plans for U.S. FOL infrastructure improvements.

HOUSING

Question. I note that the $122 million military construction cost estimate includes funding for visiting enlisted and officers quarters at Manta. What, if any, type of housing is being provided for visiting military personnel at the sites in Aruba and Curacao? What is the cost estimate? What type of housing (on base, off base; leased; single or multi family etc.) will be provided for the permanent U.S. personnel stationed at these sites? What is the cost estimate?

Answer. Visiting military and interagency personnel to Aruba and Curacao are billeted in U.S. Air Force contracted hotels, most of which are within 15 minutes of their assigned airfields. The fiscal year 2000 budget for housing temporary duty personnel is $2,700,000. Furthermore, a small number of permanent personnel will be assigned housing within the local community. Their housing costs are projected to be within the current housing allowance.

REGIONAL ASSISTANCE

Question. General Wilhelm, you note in your prepared remarks that the nations of the Caribbean and Latin America recognize that fighting the illegal drug trade in the region is a shared responsibility. Certainly, Southern Command's counter narcotics operations benefit not only the United States but also our neighbors in the Caribbean. Other than allowing the U.S. military to use existing facilities on Aruba, Curacao, and Ecuador, what types of assistance are we receiving from these nations to fight illegal drugs?

Answer. Together with the Latin American, Caribbean, and European nations, we are pursuing a regional approach to combat illicit drug production, transportation, and the associated problems inherent with the narcotics trade.

In addition to the Forward Operating Location agreements, the Dutch, British, and French contribute surface and air assets to regional counterdrug operations in the Caribbean. This multinational support provides greater operational flexibility and complements U.S. and Participating Nation military and law enforcement assets on a continuing basis with maritime air detection and monitoring, at sea refueling, and maritime patrol aircraft.

The nations of the Caribbean and Latin America support the regional counterdrug effort by conducting both military and law enforcement counterdrug operations within their borders. They own and operate numerous ground based radars to conduct detection and tracking and they provide the military and law enforcement personnel who are interdicting drugs, eradicating illicit crops, and arresting drug traffickers inside their respective countries. In 1998, nations of the source and transit zone were responsible for 85 percent of worldwide cocaine seizures and the destruction of 3.1 million marijuana plants and over 38,500 hectares of coca. Additionally, 18 nations in the hemisphere have entered into bilateral maritime agreements with the U.S. to help each nation plan and conduct multinational air and maritime counterdrug operations regardless of territorial seas or airspace.

QUESTIONS SUBMITTED BY SENATOR RICHARD J. DURBIN

COLOMBIAN REVOLUTIONARY ARMED FORCES (FARC)

Question. Are Colombian drug-related guerrillas of the Colombian revolutionary Armed Forces (FARC) still operating in the jungle province of Darien in Panama and are you concerned that this group may threaten the operation of the Panama Canal?

Answer. The FARC is reported to frequently cross the Colombian-Panamanian border into the Darien province. Although the Panamanian Public Forces (PPF) are neither manned, trained, nor equipped to combat them, I do not believe the FARC, or any other paramilitary group, presents a threat to the safe and efficient operation of the Canal at this time.

PANAMA UNEXPLODED ORDNANCE

Question. Under Article IV of the Panama Canal Treaty the United States promised to clean up unexploded ordnance in former U.S. military installations. However, I have heard press reports that we are instead planning to close certain areas rather than clearing the ordnance. Why can't the ordnance be cleared?

Answer. There are former range areas, characterized by steep cliffs and triple canopy jungles, which are virtually impassable. Ordnance detection and clearing in these areas is not possible without subjecting personnel to extreme risk or resulting in significant environmental damage.

We used the same techniques and technology to clear our ranges in Panama that we used to clear transferring rangelands in the United States. More aggressive clearing methods such as clear cutting and excavation have been rejected for the devastating effect they would have on the forests and the plant and animal species harbored in these canal watershed areas. The areas that cannot be cleared represent two percent of the total acreage returned to the Government of Panama under the Panama Canal Treaty.

The framers of the treaty realized the range areas could not be completely cleared of all unexploded ordnance, which is why all parties agreed to include the "practicability" clause in the document. We have complied with our treaty obligations consistent with terrain accessibility, technology limitations, and environmental concerns.

DOD FORWARD OPERATING LOCATIONS FOR COUNTERDRUG OPERATIONS

Question. I understand that the United States funds the Regional Counterdrug Training Academy. I would like to know more about this academy. Where is it located/Does it do the same type of training as the Army School of the Americas, at Fort Benning, Georgia? Is it training military or law enforcement officials? Does the Academy include human rights training? Does the Academy provide Counter-insurgency training? (Note: The remainder of this question will be addressed by SOUTHCOM) The Washington Post reported in May 1998 that U.S. special operations forces were training Colombian military units under the Joint Combined Exchange training program. It seems very difficult to conduct counter-insurgency operations when guerrillas and drug traffickers are located in and around civilian populations. Are the special forces providing counter-insurgency training? How is human rights training integrated? Does this training conform with the Leahy Amendment, which prohibits training to units that engage in human rights violations?

Answer. The Regional Counterdrug Training Academy (RCTA) is located at Naval Air Station, Meridian, Mississippi. The RCTA was established in 1992 and its mission is to provide no cost, "street level" case-making, counterdrug skills to domestic law enforcement officials. The RCTA is congressionally directed and is funded through the Department of Defense. The Mississippi National Guard is responsible for management of the academy and the courses are taught by guest subject matter experts, with a "cops training cops" environment. The RCTA does not do the same type of training as the Army School of the Americas, at Fort Benning, Georgia. The academy's mission is to train domestic local law enforcement officials in counterdrug operations, versus the School of the America's mission to train foreign military forces in military operations. The RCTA curriculum includes some of the following general areas: Undercover Investigations, K–9 Training, Drug Labs, Operational Skills and Raid Planning. The academy has more than 35 courses, all oriented toward domestic local law enforcement counterdrug operations. The curriculum for the academy is oriented toward domestic law enforcement officials and specifically does not cover training in human rights or counter-insurgency operations.

One last point, the academy's original charter was limited to law enforcement officials in the states of Alabama, Louisiana, and Mississippi, but in 1996 was modified

to include Georgia. The RCTA is now authorized to train domestic law enforcement officials outside the four-state region, as well as National Guard personnel involved in counterdrug support operations.

Question. Is a forward operating location agreement still a possibility in Panama? If not, what additional location is Central America is DOD seeking?

Answer. At this time, there are no plans to re-engage the Government of Panama on the topic of U.S. military access. DOD will comply fully with the provisions of the 1977 Panama Canal Treaty and will withdraw all military forces and turnover facilities in Panama by December 31, 1999. DOD and the State Department are coordinating efforts to identify a location for a FOL in Central America however no site has yet to be identified.

CONCLUSION OF HEARINGS

Senator STEVENS. If there is nothing further, this will conclude the hearings for both the Defense Subcommittee and the Military Construction Subcommittee.

[Whereupon, at 11:25 a.m., Wednesday, July 14, the hearings were concluded, and the subcommittees were recessed, to reconvene subject to the call of the Chair.]

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