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S. HRG. 110–394, PT. 2

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2009

HEARINGS

BEFORE THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

ON

S. 3001

TO AUTHORIZE APPROPRIATIONS FOR FISCAL YEAR 2009 FOR MILITARY ACTIVITIES OF THE DEPARTMENT OF DEFENSE, FOR MILITARY CONSTRUCTION, AND FOR DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY, TO PRESCRIBE PERSONNEL STRENGTHS FOR SUCH FISCAL YEAR, AND FOR OTHER PURPOSES

PART 2
SEAPOWER

MARCH 12 AND APRIL 8, 2008

Printed for the use of the Committee on Armed Services

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2009—Part 2 SEAPOWER

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CONTENTS

CHRONOLOGICAL LIST OF WITNESSES

STRATEGIC LIFT PROGRAMS

MARCH 12, 2008

	Page
Payton, Hon. Sue C., Assistant Secretary for Acquisition, Department of the Air Force	4
Schwartz, Gen. Norton A., USAF, Commander, United States Transportation Command	8

NAVY FORCE STRUCTURE REQUIREMENTS AND PROGRAMS TO MEET THOSE REQUIREMENTS

APRIL 8, 2008

Stiller, Allison F., Deputy Assistant Secretary of the Navy for Ships, Department of the Navy	53
McCullough, VADM Bernard J. "Barry," III, USN, Deputy Chief of Naval Operations for Integration of Capabilities and Resources, Department of the Navy	60
Amos, Lt. Gen. James F., USMC, Commander, Marine Corps Combat Development Command	61

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2009

WEDNESDAY, MARCH 12, 2008

U.S. SENATE,
SUBCOMMITTEE ON SEAPOWER,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

STRATEGIC LIFT PROGRAMS

The subcommittee met, pursuant to notice, at 2:18 p.m. in Room SR–222, Russell Senate Office Building, Senator Edward M. Kennedy (chairman of the subcommittee) presiding.

Committee members present: Senators Kennedy, Martinez, and Sessions.

Committee staff member present: Leah C. Brewer, nominations and hearings clerk.

Majority staff member present: Creighton Greene, professional staff member.

Minority staff members present: Michael V. Kostiw, Republican staff director; Gregory T. Kiley, professional staff member; and Sean J. Stackley, professional staff member.

Staff assistant present: Fletcher L. Cork.

Committee members' assistants present: Jay Maroney, assistant to Senator Kennedy; Frederick M. Downey, assistant to Senator Lieberman; Gordon I. Peterson, assistant to Senator Webb; Sandra Luff and Samuel Zega, assistants to Senator Warner; Mark J. Winter, assistant to Senator Collins; and Brian W. Walsh, assistant to Senator Martinez.

OPENING STATEMENT OF SENATOR EDWARD M. KENNEDY, CHAIRMAN

Senator KENNEDY. The subcommittee will come to order. I apologize to all of our wonderful witnesses and to our members here. I was necessarily tied up over on the floor for a few moments, but I am grateful for their patience.

We would like to welcome Senator Martinez to the committee, and to our subcommittee. This is a very important subcommittee of the Armed Services Committee dealing with force projection with all of its implications, and that is a matter of extraordinary importance and consequence at any time for our national security and particularly at this time.

We are very fortunate in this whole area of national security to have some of the most gifted, wonderful members of the Armed Forces who are involved in this undertaking and responsibility. Perhaps not always on the front page in terms of the news, but front page in terms of all of us who know the value of their service, extending to making sure that our men and women are going to get to the right place at the right time and making sure that those who have served so well and gallantly and courageously and have been wounded in the course of battle are going to be brought home with the kind of attention and respect that they deserve.

There is an extremely broad responsibility with the force projection in this subcommittee and we take it very seriously, and we are very grateful for those that serve on it.

So, Senator Martinez, we want to thank you, and we welcome you to it.

It is always a pleasure to be with my friend, Jeff Sessions, who is tireless in terms of his interest in the Armed Services Committee generally and also in terms of the workings of this subcommittee, and we are glad to have him aboard.

I had a good brief but informed and interesting few minutes with General Schwartz earlier today.

I have some questions to get to. We talked about a number of these items earlier. He will have an opportunity to talk about all of them this afternoon, and we will have a chance to talk and respond to these questions.

My statement is both a word of welcome and a discussion about all of the importance of this subcommittee. I will include it in the record in its entirety to save us some time.

[The prepared statement of Senator Kennedy follows:]

PREPARED STATEMENT BY SENATOR EDWARD M. KENNEDY

The subcommittee will come to order. I want to extend a welcome to our witnesses and thank each of you for appearing before the Seapower Subcommittee today.

The subcommittee will hear today from the Honorable Sue Payton, Assistant Secretary of the Air Force for Acquisition, and General Norton Schwartz, Commander of the Transportation Command. We welcome both of you and thank you for your service.

First, I always think it's important to note the heroism and professionalism of the coalition armed forces presently engaged in Iraq and Afghanistan. While we may have disagreements among policy officials about the war, let no one mistake that disagreement for a lack of support for the men and women who are serving their country in the Middle East right now. Our thoughts and prayers are with them and their families who are also called by their country to sacrifice in this war effort.

Now, turning to the subject of this hearing, I would note that strategic lift is an important and continuing interest of this subcommittee. Over many years, and with several different individuals holding the chairmanship of this subcommittee, we have devoted significant energies to the subject of strategic mobility.

Today's hearing continues the subcommittee's strong bipartisan interest in the broader strategic lift policy issues facing the Nation today. I want to take this opportunity to welcome Senator Martinez to the position of ranking member of the subcommittee. I have had the good fortune to work with a number of Senators in the leadership of this subcommittee, including Senators Warner, Cohen, Snowe, Sessions, Talent, and Thune. I believe that, in each of those cases, we have worked as a non-partisan team to see to the interests of the men and women of the Armed Forces whose programs fall within our jurisdiction. I look forward to continuing this approach with you, Senator Martinez, as we work toward a new National Defense Authorization Act.

I believe that the Defense Department's recent experience would indicate to me that the current strategic lift capability may need to be enhanced, despite what we have seen in the Mobility Capability Study and the Quadrennial Defense Review.

In fact, we adopted direction to the Department of Defense in the most recent Authorization Act to complete a new study of strategic mobility requirements. I want to thank Senator McCaskill for leading the effort to include this new study language.

We have heard of a number of current issues that the subcommittee should hear about today. One of those is the stress on our mobility personnel and their equipment. Another surrounds the best method to solve our longer-term requirements for strategic airlift. We have the question of continuing the production line for the C–17 aircraft program. We also have the C–5 reliability enhancement and re-engining program (RERP) efforts and the recent Nunn-McCurdy certification that the RERP upgrades for the C–5 needed to continue to meet national security requirements.

In the interests of time, I will conclude my comments to leave more time for questions.

Once again, welcome, Senator Martinez.

Senator KENNEDY. Senator Martinez.

STATEMENT OF SENATOR MEL MARTINEZ

Senator MARTINEZ. Thank you, Senator Kennedy. I really appreciate your welcome.

I am delighted to have an opportunity to serve on this subcommittee, and I am really looking forward to the work. I have endeavored to get up to speed, and there is a lot to learn, and I have learned a lot. I will likewise place my statement in the record.

I want to thank General Schwartz and Secretary Payton for their appearance here today and, most of all, for their service to our country at these critical times.

I appreciate very much your warm words of welcome. I look forward to working with you and the other members to ensure that we can do our part to assist a mission that is so critical at this time in our Nation's history. So thank you very much.

[The prepared statement of Senator Martinez follows:]

PREPARED STATEMENT BY SENATOR MEL MARTINEZ

Thank you, Mr. Chairman.

I'm pleased to join you in welcoming our witnesses for today's hearing. General Schwartz and Secretary Payton, thank you for your testimony today, and more importantly, thank you for your leadership and service to our country every day.

Whether supporting the global war on terror with the air bridge across the Atlantic, or medically evacuating critically wounded to receive lifesaving care in the States, or performing humanitarian relief operations in some distant corner of the globe, or simply transporting household goods for hundreds of thousands of service men and their families each year, U.S. Transportation Command's (TRANSCOM) ability to provide persistent lift of personnel and material anywhere in the world, virtually "on demand," is vital to our Nation's security.

We are deeply grateful and proud of the airmen, soldiers, sailors, and merchant marines who are conducting these lift operations every hour of every day. They've turned the remarkable into the routine.

I am very interested in hearing your assessment of current operations and the health of our mobility forces. TRANSCOM has been central to every phase of Operations Enduring Freedom and Iraqi Freedom—from the employment of prepositioning stocks and the first deployment of troops to the current sustainment of surge forces. It's important that we understand what you require in order to sustain your high operational tempo. Equally important, we need to employ the lessons learned from today's operations as we size and shape the future strategic lift force.

With that in mind, today's hearing should provide much-needed clarity regarding the plan for strategic lift aircraft. Last year's update to the Mobility Capabilities Study confirmed the requirement for "about 300" large airlifters, meaning the current program of 190 C–17 and 111 modernized C–5 aircraft. The more recent review of strategic airlift by the Department, triggered by the C–5 re-engining program Nunn-McCurdy cost breach, concluded that re-engining the C–5A model aircraft, 60 in total, would neither be necessary nor cost effective in meeting airlift require-

ments. It was also concluded that it was not affordable to buy additional C–17 aircraft. Your assessment of these findings will be helpful.

Meanwhile, the award of the KC–45 tanker is an important step toward recapitalizing the aging tanker fleet—TRANSCOM's top procurement priority. It is not the intent to review contract award details here, but it is important to gain your insights regarding how this tanker's capabilities promise to reshape your mission effectiveness. In particular, I am interested in understanding the operational value offered by the tanker's alternate role as an airlifter, and how this added cargo and passenger capacity would be employed in your most stressing scenario of supporting two near-simultaneous major combat operations.

As well, we welcome your insights regarding the role to be performed by the Civil Reserve Air Fleet (CRAF) in future force planning. We are interested in your assessment of the health and viability of your CRAF partners, and your recommendations regarding initiatives to strengthen the CRAF program to ensure the continued reliability of this critical lift component.

Finally, while much of our current focus is necessarily on matters of strategic airlift, we need to be looking ahead to future requirements to recapitalize our Sealift and Prepositioning Forces. I know that you are working with the Navy to define requirements for the Maritime Preposition Force (Future), and it will be valuable to gain your insights on this emerging program. As well, the age of our Fast Sealift Ships and the Ready Reserve Force dictate that we commit to a long-term recapitalization plan as we approach their replacement.

Much to Senator Kennedy's and Senator Warner's credit, this subcommittee has played a significant role in support of strategic mobility in the past. I look forward to joining their efforts and working with you and your staff as we move forward to provide the resources necessary to support your operations, while also helping to shape the future TRANSCOM.

Again, I thank you for joining us today, and look forward to your testimony.

Senator KENNEDY. Thank you very much.

Senator Sessions.

Senator SESSIONS. Thank you, Mr. Chairman. I have no statement.

Senator KENNEDY. Fine. Secretary Payton, a very special welcome to you.

Ms. PAYTON. Thank you, sir.

Senator KENNEDY. We are grateful for your presence, and we look forward to your presentation.

STATEMENT OF HON. SUE C. PAYTON, ASSISTANT SECRETARY FOR ACQUISITION, DEPARTMENT OF THE AIR FORCE

Ms. PAYTON. Thank you. Mr. Chairman, Senator Martinez, and members of the subcommittee, it is my distinct honor to appear before you today to testify on the state of several Air Force mobility programs.

I am further honored to be joined by General Norton Schwartz, Commander of U.S. Transportation Command (TRANSCOM), and the person I most consider to be our customer in acquisition for mobility. I look forward to discussing how the Air Force is committed to modernizing and recapitalizing our aging aircraft to protect our Nation and support our airmen, while providing the best value to the American taxpayers.

In the interest of time, I will limit my opening remarks to the KC–45A, the C–5 modernization program, C–130J production, and the C–27, also known as our Joint Cargo Aircraft (JCA).

The KC–45A is our number-one procurement priority. The KC–45A tankers will provide greater overall capability than the current inventory of 500 plus KC–135E and KC–135R tankers, which will take several decades to replace. While the average age of the fleet is over 47 years, when the last KC–135R is retired, it will be more

than 80 years old, and it is so absolutely critical for the Nation to move forward on this program now.

The Air Force spent an unprecedented amount of time and effort with the offerers, ensuring we had open communications and a completely transparent process. I am extremely proud of the KC–45A acquisition team, and I am certain that the Air Force selected the best overall value to the warfighter and the taxpayer based on the competition evaluation criteria.

With regards to our strategic air fleet, the modernization of the C–5 fleet remains an Air Force priority to meet combatant commanders' requirements. The last time I testified before a subcommittee of the Senate with General Schwartz, Secretary Wynne had just announced the C–5 Reliability Enhancement Re-engining Program (RERP) was in a critical Nunn-McCurdy breach.

I am very pleased to tell you that on February 14, 2008, the Under Secretary of Defense for Acquisition, Technology, and Logistics certified the restructure of the C–5 RERP. The certified production program consists of modernizing the remaining 47 C–5Bs and 2 C–5Cs.

A key component of intra-theater airlift modernization effort is our C–130J. As of February 2008, we have fielded 63 of the 87 funded C–130J aircraft. The current C–130J multi-year procurement contract ends in fiscal year 2008, and we will be using suboptimized additional procurements through annual contracts to procure future aircraft until a new multi-year procurement contract can be negotiated.

As a joint Army-Air Force program, the JCA is uniquely qualified to perform time-sensitive, mission-critical resupply. On February 29, the Office of the Secretary of Defense (OSD) sent the required six reports and certification required by the National Defense Authorization Act for Fiscal Year 2008. We are now prepared to move forward with this joint program.

The men and women in Air Force acquisition take great pride in delivering on our promise to deliver warfighter capabilities on time and on cost. I am honored to represent them in front of this subcommittee. I thank you again for the opportunity to be here. I look forward very much to your questions and comments.

[The prepared statement of Ms. Payton follows:]

PREPARED STATEMENT BY HON. SUE PAYTON

INTRODUCTION

Mr. Chairman and members of the subcommittee, it is my distinct honor to appear before the subcommittee today with General Norton Schwartz, Commander of U.S. Transportation Command. I look forward to discussing with you the state of several Air Force mobility programs.

I am proud to represent the finest acquisition workforce in the Department and I can honestly say we have the smartest and hardest working airmen developing the most advanced technology required by the joint warfighter. We are committed to acquiring the most capable weapon systems for the warfighter while being diligent stewards to the taxpayer and operating in an open and transparent environment "without fear or favor." We are living in interesting times as we constantly balance the near-term need to equip today's warfighter on today's front lines securing air, space, and cyberspace, while simultaneously modernizing the force to ensure tomorrow's warfighter is equipped for success and never surprised by our adversaries.

ACQUISITION LESSONS LEARNED

The Air Force is committed to improving its acquisition process performance. Success in this endeavor depends on setting achievable stable requirements, getting appropriate resources, using disciplined systems engineering, and managing effectively with a skilled workforce. Our challenge is to quickly and economically convert ideas, experiments and prototypes into battlefield effects. This entails more than creating new weapon systems; it means adopting an inherently agile and responsive acquisition culture. Such institutional agility will allow us to effectively and efficiently divest our legacy systems while fielding the capabilities needed to meet new global challenges.

There are several lessons that I have learned as the Air Force Acquisition Executive over the past 19 months. The first lesson is that acquisitions of complex, highly integrated, interoperable, survivable systems are difficult. The challenges for developing complex weapon systems are not well understood outside of the acquisition community. The second is that source selection protests are a way of life and they continue to challenge the Air Force's ability to develop and field desperately needed systems, on time and on cost. Protests are a valuable check and balance in the acquisition process, but frivolous protests only delay desperately needed combat capability to our warfighter and waste valuable taxpayer dollars. Another valuable lesson is that the workforce must be empowered to make decisions and we need to have the right people with the necessary training and expertise. Our negotiating teams and especially our contracting officers have been empowered to negotiate and close the deal with industry. Additionally, under Air Force Smart Operations for the 21st Century, a new initiative called Installation Acquisition Transformation (IAT) is underway. An objective of this new initiative is to strategically realign the installation contracting organization within the Continental United States and move away from a tactically focused approach. With today's fiscally constrained environment, IAT will allow for an agile operating structure where we can leverage and increase the technical competence of our workforce while realizing cost savings through proven strategic sourcing techniques consistent with Office of Management and Budget guidance. I have also learned that the Nunn-McCurdy process, while difficult, results in healthier, more executable programs. I inherited several under funded programs with cost growth challenges, because the cost, schedule and performance baselines were established well in advance of when we could reasonably project the technical and schedule issues that can drive costs out of control. The lessons I have learned in the first year and a half of my tenure have brought focus to many daily efforts. However, my commitment to integrity and transparency in all Air Force acquisitions remains firm and the bedrock of all our acquisition activities.

FLEET MODERNIZATION AND RECAPITALIZATION

I look forward to discussing with the committee the Air Force's top acquisition priority, the KC–45A, as well as the status of additional high-priority acquisition programs such as the C–5 modernization programs; continued production of the C–130J and introduction of the C–27 Joint Cargo Aircraft (JCA) ; as well as our efforts on alternative fuels certification for our aircraft inventory.

KC–45A

The KC–45A is our highest procurement priority and it is critical to the entire joint and coalition military team's ability to project combat power around the world. It gives America and our Allies unparalleled rapid response to combat and humanitarian relief operations. KC–45A tankers will provide increased aircraft availability, more adaptable technology, more flexible employment options, and greater overall capability than the current inventory of KC–135E and KC–135R tankers. The KC–45A will be able to refuel receptacle and probe-equipped aircraft on every mission and itself be in-flight refuelable. Also, the KC–45A will have an additional role to carry cargo, aero-medical evacuation and passengers, and be equipped with defensive systems to enhance its utility to the warfighter.

The current fleet of Eisenhower-era KC–135s average 47 years old. The KC–45A program is based on a planned purchase of 179 aircraft and is the first of up to 3 recapitalization programs to replace the entire legacy fleet. The Air Force has budgeted approximately $3 billion per year for an annual production rate of 12–18 aircraft. But even with this level of investment, it will take several decades to replace the 500+ Eisenhower-era KC135s. It's absolutely critical for the Air Force to move forward now on this program.

As you are aware, the Air Force awarded the KC–X contract to Northrop Grumman, who met or exceeded the requirements of the Request for Proposal and pro-

vided the best overall value to the warfighter and the taxpayer based on the competition evaluation factors. The Air Force spent an unprecedented amount of time and effort with the offerors ensuring open communications and a completely transparent process. It is our Air Force goal to move forward with a program of smart, steady reinvestment to ensure future viability of this unique and vital U.S. national capability. I am extremely proud of the KC–45A Acquisition team on the recent award of the KC–45A tanker and the capability it will bring to the fight.

C–5 MODERNIZATION PROGRAMS

Modernization of the C–5 fleet remains an Air Force priority to meet combatant commanders' requirements for on-time delivery of oversized and outsized cargo. This effort will bring needed capability to the warfighter through 2040, getting our troops and equipment to the fight by increasing the mission availability of C–5s with their unmatched out sized and oversized, roll-on/roll-off capability.

The C–5 modernization effort is a combination of two programs. The Avionics Modernization Program (AMP) provides modernized avionics and allows the aircraft to efficiently access international airspace. The second program is the Reliability Enhancement Re-engining Program (RERP), which builds upon the C–5 AMP modification. C–5 RERP replaces the propulsion system and improves the reliability of over 70 systems and components.

On February 14, 2008, the Under Secretary of Defense for Acquisition, Technology, and Logistics certified the restructure of C–5 RERP production modernization to 47 C–5Bs and 2 C–5Cs. The C–5A aircraft are not included in the restructured program. However, they will undergo AMP modification to enable the aircraft to meet global Communications/Navigation/Surveillance and Air Traffic Management standards. We are working closely with Secretary Young and his staff to produce the best product for the warfighter and the taxpayer.

CONTINUED C–130J PRODUCTION

The C–130J is a key component of the intra-theater airlift modernization effort. Air Mobility Command identified a need for 127 combat delivery C–130Js to meet intra-theater airlift requirements. Through defense appropriation and global war on terrorism supplemental bills, Congress has funded 70 C–130Js, 10 WC–13OJs and 7EC–13OJs and as of February 2008, we have fielded 63 total C–13OJ aircraft. The current C–130J Multi-Year Procurement (MYP) contract ends in fiscal year 2008 and we will be using suboptimized additional procurements through annual contracts to procure future aircraft until a new MYP contract can be negotiated. Fiscal year 2009 C–130J procurement is dependent upon the Air Force Special Operations Command's HC/MC–130 recapitalization program and sales to the United States Marines Corps and coalition partners.

INTRODUCTION OF THE C–27 JCA

The C–27 is a joint Army and Air Force program to procure a small cargo aircraft capable of providing responsive, flexible and tailored airlift for combat, humanitarian and homeland defense missions. National Defense Authorization Act for Fiscal Year 2008 language prohibited obligation and expenditure of appropriated funds until the Secretary of Defense provides specified reports to the Congressional Defense Committees and certifies the requirement for the aircraft. In the interest of openness and transparency, the Office of the Secretary of Defense (OSD) took the extraordinary step of delivering the draft Joint Intra-Theater Airlift Fleet Mix Analysis report to the Congressional Defense Committees before completing the sufficiency review. On February 29, OSD sent the required six reports and certification and we are prepared to move forward with this joint program.

ALTERNATIVE FUELS CERTIFICATION

Following Presidential direction to reduce dependence on foreign oil, the Air Force is aggressively pursuing a broad range of energy alternatives. As the Department of Defense's leading consumer of jet fuel, we are currently engaged in evaluating alternative fuels and engine technologies leading to greater fuel efficiency. In 2007, we fully certified the B–52 to fly on a synthetic fuel blend and demonstrated C–17 operations. In 2008, we expect to certify both the C–17 and B–1B, demonstrate F–22 operations, and conduct ground testing on the engines that power the F–16 and F–15. The remainder of the U.S. Air Force aircraft fleet is expected to be tested and certified by early 2011. Other Air Force technology efforts continue to explore high-efficiency aerodynamic concepts, advanced gas turbines and variable cycle engines providing higher performance and greater fuel efficiency.

CONCLUSION

The dynamic and threatening environment in which the U.S. military operates requires an agile and responsive acquisition enterprise. To meet the requirements of our joint and coalition warfighters, we must continue to focus our efforts on modernizing and recapitalizing our aging weapon systems. The men and women in Air Force Acquisition take great pride in delivering on our promise and I am honored to represent them in front of this committee. Thank you again for the opportunity to be here today and I look forward to your comments and questions.

Senator KENNEDY. Thank you very much, Madam Secretary.

General Schwartz?

STATEMENT OF GEN. NORTON A. SCHWARTZ, USAF, COMMANDER, UNITED STATES TRANSPORTATION COMMAND

General SCHWARTZ. Chairman Kennedy, Senator Martinez, and Senator Sessions, it is my privilege to be with you today, representing the more than 155,000 men and women of TRANSCOM. We are a supporting command, and our number-one mission is to provide outstanding support to the warfighter and to the Nation by rapidly delivering combat power and sustainment to the Joint Force Commander, providing the utmost care in moving our wounded from the battlefield to world-class medical treatment facilities, and redeploying our folks home to their families.

As the Department's Distribution Process Owner, TRANSCOM also leads a collaborative effort within the defense logistics community to improve the Department of Defense (DOD) supply chain. We execute our global missions through our component commands—the Army Surface Deployment and Distribution Command, the Navy Military Sealift Command, and the Air Force Air Mobility Command.

Our effectiveness is the direct result of the hard work and dedication of these true professionals, and I am grateful to you, Mr. Chairman, and all of Congress for this needed support that you provide.

I could not be prouder of the TRANSCOM team or our national partners. Today, we are supporting the global war on terrorism and keeping our promises to the warfighters. The delivery of much-needed Mine-Resistant Ambush Protected (MRAP) vehicles to protect our troops continues to be a top priority.

To date, we have delivered more than 3,800 MRAPs to the U.S. Central Command (CENTCOM) theater, delivered almost exclusively by air in the early stages. As production rates have climbed, we have reached a balance between air and surface modes of transportation to optimize distribution.

We continue to advance normalized transportation operations throughout CENTCOM. In 2007, we initiated the first U.S.-flagged commercial cargo flights into Afghanistan and Iraq since combat operations began and increased the use of alternative air and seaport facilities in the region, thus broadening our capability to provide the best possible support to our warfighters.

We have also focused on improving quality of life for our people. Through the Families First program, we are improving household goods shipments, as this recurring event affects the lives of our servicemembers and certainly their families. We now protect household goods shipments with full replacement value. In addition, the Defense Personal Property Shipping System, the Web-based soft-

ware, which will better facilitate household moves, will be fully integrated into all shipping offices later this year.

We are also transforming the military deployment and distribution enterprise by incorporating commercial best practices where it makes sense. Much like the Fortune 500 companies, which realize savings through transportation management services, our Defense Transportation Coordination Initiative (DTCI), in partnership with the Defense Logistics Agency and the Services, will use a commercial transportation coordinator to help manage a significant portion of DOD routine freight movements.

Over the next few weeks, we will implement DTCI at three continental United States locations, and we are encouraged by the potential savings and improved support we can provide as DTCI expands to additional sites throughout the coming year.

It is through a combination of military and commercial capabilities that TRANSCOM fields a transportation and distribution system that is unmatched anywhere in the world. As we look to the future, rapid global mobility will continue to be a key enabler and ensuring the appropriate mix of lift assets is vitally important to this mission.

Mr. Chairman, my top airlift priority is recapitalization of the tanker fleet. I am encouraged that the KC–45 is now under contract, albeit under protest. The KC–45 with multi-point refueling, significant cargo and passenger carrying capability, and appropriate defensive systems will be a game-changing platform for the future of global mobility.

I am also encouraged by the Department's decision to certify the C–5 modernization program. The Nation needs the outsized and oversized lift capability provided by a reliable C–5 to complement the C–17. We are optimistic that the newly certified program will deliver the needed reliability and performance to make the C–5 a more productive platform.

Despite our very substantial military force structure, TRANSCOM will always depend on a mix of Government and commercial assets. We should guard against overbuilding the organic airlift and sealift fleets, which could place our long-standing commercial partnerships at risk. A critical national capability for projecting military power and sustaining forces is a viable Civil Reserve Air Fleet (CRAF). The continued success of the CRAF relies upon the strengths of our U.S.-flagged airlines.

We are beginning to look toward a post-Operation Iraqi Freedom timeframe, when lift requirements will subside. Given that eventual reality, we are looking at innovative ways to encourage continued participation, thus ensuring the long-term health of the CRAF program.

I am grateful to you, sir, and to the subcommittee for allowing me to appear before you today to discuss these and other important issues. I thank you for the essential support you provide in enabling our capabilities. I look forward, sir, to your questions.

Thank you, sir.

[The prepared statement of General Schwartz follows:]

PREPARED STATEMENT OF GEN. NORTON A. SCHWARTZ, USAF

INTRODUCING THE UNITED STATES TRANSPORTATION COMMAND (USTRANSCOM) 2008

Mission/Organization

USTRANSCOM, a unified combatant command (COCOM), serves as the "quarterback" of the Joint Deployment and Distribution Enterprise (JDDE) whose purpose is to project national security capabilities, provide end-to-end visibility of forces and sustainment in transit, and rapidly respond to support joint logistics requirements. Through our component commands, the Army's Surface Deployment and Distribution Command (SDDC), the Navy's Military Sealift Command (MSC), the Air Force's Air Mobility Command (AMC) and our national and commercial partners, we execute military and commercial transportation, terminal management, aerial refueling and global patient movement through the Defense Transportation System (DTS). As designated in 2003, re-designated in 2006, codified in the 2006 Unified Command Plan, and now institutionalized in Department of Defense (DOD) instructions, USTRANSCOM is the DOD's Distribution Process Owner (DPO) and is leading a collaborative effort with JDDE partners across the defense logistics community to increase the precision, reliability and efficiency of the DOD supply chain. By increasing collaboration, employing expeditionary tools and streamlined systems, adapting our business models and ensuring an appropriate mix of lift assets, we keep our promises to our warfighters and the Nation, today and tomorrow.

KEEPING PROMISES TO THE NATION IN 2007

Global War on Terrorism Update

In 2007, USTRANSCOM overcame many challenges to meet the warfighter's requirements for the global war on terrorism, including Operations Iraqi Freedom (OIF), Enduring Freedom (OEF) and Noble Eagle (ONE). AMC, in collaboration with our commercial partners, moved 1,475,427 passengers on deployment, redeployment, sustainment, and rest and recuperation missions. This indispensable relationship with commercial industry freed our organic aircraft to airlift 167,396 short tons of vital cargo into the U.S. Central Command (USCENTCOM) theater. Additionally, we airdropped 3,350 short tons of critical supplies for coalition forces in Afghanistan.

Our aging AMC tankers also delivered 168 million gallons of fuel to U.S. and coalition aircraft in support of OEF/OIF and helped secure our skies in support of ONE by flying more than 333 sorties and offloading 2.3 million gallons of fuel to combat air patrol fighters and support aircraft.

MSC and SDDC's contributions in OIF and OEF were equally impressive, delivering 916,000 short tons/17,850,000 square feet of cargo. MSC's point-to-point tankers also delivered over 1.79 billion gallons of fuel supporting worldwide DOD requirements.

Support to other Combatant Commanders

Operations in the USCENTCOM area of responsibility (AOR) were our primary focus this past year. USTRANSCOM rapidly deployed five additional U.S. Army Brigade Combat Teams (BCT) to help stabilize Iraq, while simultaneously supporting on-time force rotations. Working in concert with our JDDE partners, we deployed 19 and redeployed 14 BCTs, and rotated 2 Air Expeditionary Forces and 3 Marine Air-Ground Task Forces.

Delivering Mine-Resistant Ambush Protected (MRAP) vehicles was also a high priority. We rapidly delivered over 1,657 lifesaving MRAPs both by air and sea while simultaneously maintaining high levels of force deployment and redeployment operations. Concurrently, we moved over 25,000 improved armor kits for U.S. High Mobility Multipurpose Wheeled Vehicles, ensuring our warfighters received the latest advances in vehicle protection.

Turkey is a key ally in the global war on terrorism, and our operations through Incirlik Air Base are vital to our efficient intermodal distribution into Iraq. This year we delivered over 66,000 short tons of cargo via aircraft flying out of Incirlik, 10,000 short tons and 144 cargo aircraft sorties more than in 2006.

We continue to advance and normalize transportation operations throughout USCENTCOM. In 2007, we initiated the first U.S.-flagged commercial cargo flights into Afghanistan and Iraq since combat operations began and increased the use of alternative air and seaport facilities to augment the redeployment flow of containers that would otherwise go through Kuwait. These operations broaden our capability to provide the best possible support to the COCOMs.

The availability of direct commercial cargo capacity presents opportunities for cost savings and efficiencies. Through our air cargo tender program, we moved more

than 126,000 short tons of intra-theater cargo via commercial air carriers vice military aircraft or ground convoys. This capability saved $258 million and freed 14,168 C–130 missions for other requirements. More importantly, the 67,500 pallets moved by commercial air resulted in fewer ground convoys, mitigating the risk to U.S. forces. Additionally, we contracted with commercial shipping companies to deliver increasing amounts of containerized cargo directly to Iraq, through the port of Umm Qasr, reducing the need for overland transportation from outlying regional ports. This created new jobs for Iraqi truckers and port workers, helping to accelerate the economic revitalization and stabilization process in the region.

Our quick response capability proved vital in supporting Lebanon in its recent battle against internal insurgents. USTRANSCOM rapidly airlifted over 480 short tons of ammunition from the U.S., sealifted over 5,600 coalition-supplied artillery shells and moved 130 vehicles plus support equipment from Europe to Lebanon. This rapid support was instrumental in Lebanon's ability to defeat Fatah al-Islam and maintain its sovereignty.

While operations in USCENTCOM remain a primary focus, we are mindful of our global commitments. In the U.S. European Command AOR, USTRANSCOM rotated 7,752 peacekeepers into the Darfur region to support the African Union Mission in Sudan as it executed its transition of authority to the United Nations Mission in Sudan.

In U.S. Southern Command (USSOUTHCOM), USTRANSCOM conducted 10 detainee movement operations from Guantanamo Bay, Cuba, repatriating 70 detainees to various points around the globe. We also airlifted over 1,400 passengers and 1,500 short tons of cargo to support Presidential visits to Brazil, Uruguay, Colombia and Guatemala, strengthening key regional partnerships.

In the U.S. Pacific Command (USPACOM) AOR, in addition to providing forces and sustainment for OEF–P (Philippines), we set records in Operation Deep Freeze, airlifting over 1,900 short tons of cargo and 5,000 passengers, and sealifting 11.9 million gallons of fuel and 12 million pounds of cargo into McMurdo Station, Antarctica, in support of the National Science Foundation. In a successful proof of concept, a C–17 conducted the first-ever airdrop at the South Pole, delivering 35.5 short tons of cargo.

At home, USTRANSCOM maintains strong partnerships with U.S. Northern Command (USNORTHCOM) and non-DOD organizations such as the Federal Emergency Management Agency (FEMA). We have synchronized plans to support civil authorities during catastrophic events like hurricanes and the devastating wildfires that swept across parts of California. Working closely with these partners, USTRANSCOM moved over 250 passengers and 360 short tons of cargo and provided urgently needed command and control, aerial firefighting and aero-medical evacuation elements to reduce the loss of life and property.

We also support the geographic COCOMs through exercises, which provide critical training and serve as a venue to refine business and deployment and distribution processes. For example, the Republic of Korea Reception, Staging, Onward Movement and Integration and Ulchi Focus Lens exercises in the USPACOM AOR allowed us to integrate new command and control processes and capabilities to better support the joint warfighter. USSOUTHCOM's Panamax, the largest 2007 multinational exercise involving more than 30 ships, 12 aircraft, and 7,500 personnel from 19 nations, also gave us ample refinement opportunities. Additionally, we tested our Containerized Ammunition Distribution System (CADS). During Exercise Turbo CADS 2007, we shipped 1,133 container loads of munitions to five ports using an MSC–chartered commercial container ship, which substantially increased USPACOM's wartime munitions readiness and prepared commercial ports to augment typical host nation ports used for ammunition shipments. Finally, during USNORTHCOM's Ardent Sentry 2007, an exercise centered on deployment and employment of Homeland Defense Quick Reaction Force and Joint Task Force—Civil Support elements, we successfully exercised our new Theater Distribution Management Portable Deployment Kit, a manportable suite equipped with Radio Frequency Identification, satellite communication and other technologies to provide in-transit visibility for unit deployments and cargo movements. The future kit will provide Global Positioning System-based, passenger manifesting and cargo accountability capability.

Improving DOD Supply Chain Management

In our role as the DPO, USTRANSCOM declared 2007 the "Year of Metrics" and made great strides to develop the JDDE Performance Measure Framework. This framework allows us to better evaluate supply chain performance, reliability and cost, gain insight into system behavior and identify ways to drive tangible improvements. Using "Voice of the Warfighter" surveys, we conducted 200 face-to-face inter-

views with logisticians across 4 COCOMs to validate the key performance indicators that will both measure and drive supply chain performance to meet COCOM and warfighter expectations. Representative outcomes include substantial improvement in delivery times and better alignment of shared business processes across supply, transport, and end user segments of the DOD supply chain to improve support to the warfighter.

Another significant improvement in supply chain management will be the Joint Shipment Manager construct, a collaborative effort between USTRANSCOM, Defense Logistics Agency and USPACOM operations analysts and local commercial transportation experts. This construct will place a distribution hub near Defense Distribution Center Pearl Harbor to maximize transportation efficiencies between the Oahu ports and the distribution center. The arrangement will offer customer service and delivery time improvements across more than 150 transportation lanes with the potential for a 12 percent net reduction in annual operating costs.

Supporting the Warfighter

Our support for the warfighter includes improving quality of life. Through the Families First program we are improving household goods shipments, as this recurring event directly affects the lives of our servicemembers and their families. In 2007, SDDC and its partners moved 1.63 billion pounds in household goods. Families First will benefit the large portion of DOD that moves each year by allowing personnel to rate transportation service providers online, obtain counseling via the web and file personal property claims directly with the provider. The Defense Personnel Property System (DPS), which will provide these web-based capabilities and help manage the 680,000 annual shipments of household goods, reached initial operational capability in November 2007 and will be fully integrated into all 136 shipping offices by September 2008. We also began implementing Full Replacement Value protection for household goods shipments. This enhancement was made possible by the John Warner National Defense Authorization Act for Fiscal Year 2007 and will be fully implemented for all shipments by March 1, 2008.

Perhaps the most important of all our missions is the movement of injured warfighters from the battlefield to world-class medical treatment facilities. This is a complex, time-sensitive process requiring close collaboration with doctors, military hospitals and our aero-medical evacuation crews to move injured personnel at exactly the correct time to the correct place. In 2007, we transported over 9,900 patients from the USCENTCOM AOR and over 16,000 patients globally. We continue to improve an already superb process by chartering the Global Patient Movement Joint Advisory Board to develop a joint critical care transport capability, standardize the theater Patient Movement Requirements Centers and implement joint electronic medical records.

Should the worst occur and a warfighter perish in the defense of our Nation, USTRANSCOM ensures the most dignified transport from the battlefield to final destination. This year, we transported 837 of our fallen heroes aboard military or military-contracted aircraft to the airfield nearest the interment.

LEADING THE JOINT DEPLOYMENT AND DISTRIBUTION ENTERPRISE TRANSFORMATION

Process and Systems Transformations

As DOD's DPO, we are leading transformation of the JDDE to meet the changing environment of current operations and to improve performance to meet the needs of the future force. A key enabler of this transformation is our initiative to implement a single transportation tracking number. Much like commercial industry, this will allow decisionmakers to more easily track warfighting capability in the DOD pipeline.

As DOD's functional proponent for Radio Frequency Identification (RFID) and related Automated Identification Technology (AIT), we are taking a corporate approach to synchronize the myriads of ongoing AIT efforts with the Services, DLA and other partners. We published a concept of operations and developed an implementation plan to transform the current AIT environment and improve asset visibility. We implemented active RFID technology at our strategic ports to provide detailed cargo movement information. Through the Alaska RFID Implementation project and Joint Regional Inventory Material Management initiative, we have installed passive RFID technology at selected military installations in Alaska, California, and Hawaii.

Another major initiative, Theater Enterprise Deployment and Distribution, takes an enterprise view of the JDDE to identify performance gaps or shortfalls and provides the foundation for instituting common joint processes, establishing intra-the-

ater organizational relationships and applying common Information Technology (IT) support. This effort is yielding positive results.

Our transformation includes moving toward private industry arrangements geared toward performance and integrated customer-focused solutions, such as our Defense Transportation Coordination Initiative (DTCI). DTCI has quickly evolved from a concept to a fully-integrated and operationally-focused program office. In August 2007 we partnered with the Defense Logistics Agency (DLA) and the Services to contract a commercial transportation services coordinator to help manage DOD continental United States (CONUS) freight. This partnership will provide visibility of CONUS freight movements, enabling load consolidation, increased use of cost effective intermodal solutions and intelligent scheduling. Today, many Fortune 500 companies using transportation management services witness cost savings of 7–15 percent. Our comprehensive analysis shows incorporating such commercial best practices could yield cost savings of up to 15 percent annually over the 7-year contract.

Managing the portfolio of IT systems is key to meeting the ever increasing need for information. Historically, IT resources have been managed and acquired as stand-alone systems rather than integral parts of a net-centric capability. This often results in duplicative investment in the same or similar systems, limiting the ability to share information and fully incorporate doctrine, organization, training, materiel, leadership and education factors. As the Distribution Portfolio Manager, we are aligning IT with warfighter needs through enterprise level planning, integrated architectures and warfighter preferred performance measures.

An example of our alignment efforts is the convergence of DLA's Integrated Data Environment (IDE) logistics system and USTRANSCOM's Global Transportation Network (GTN). The creation of an IT backbone through the IDE/GTN Convergence (IGC) allows us to more closely operate with DLA, provides a common data environment for the DOD supply/transportation enterprise and facilitates development of new applications riding on that backbone. For instance, in June 2007 we fielded a Motor Carrier Compliance capability, which allows us to determine carriers' compliance with contractual requirements for electronic status of movement and Government bills of lading. IGC will also make possible the spring 2008 fielding of World Wide Express/International Heavyweight Express air carrier shipment status compliance.

The migration of surface port information from the Worldwide Port System into the Global Air Transportation Execution System (GATES) is a similar effort, providing a single web-based port processing and manifesting system for DOD. GATES will also link to external systems, thus enhancing information sharing across DOD and in-transit visibility for the warfighter. Other transformation initiatives include Common Operational Picture for Distribution and Deployment, which fuses information from multiple systems to present one distribution and deployment picture to the user; and the Single Load Planning concept, which combines features of the Automated Air Load Planning System and the Integrated Computerized Deployment System to allow air and surface load planning on a single web-based application.

Business process reengineering and continuous process improvements are at the heart of USTRANSCOM's ongoing transformation. Agile Transportation for the 21st Century (AT21) is an effort to implement distribution industry best practices using commercial off-the-shelf tools and then transition to commercial optimization and scheduling technologies. This transition will improve transportation planning, improve forecast accuracy and increase on-time delivery of forces and supplies to combatant commanders at a lower cost to the Services. When fully operational, AT21 will provide the warfighter full distribution pipeline visibility and enable throughput management at critical ports and waypoints around the world.

In collaboration with the Air Force and Defense Finance and Accounting Service, we are replacing outdated, unreliable billing and accounting processes and systems. The Defense Enterprise Accounting and Management System (DEAMS) will transform the financial management of our $10 billion enterprise. When fully fielded, DEAMS will set a new standard for effective and efficient stewardship of Defense Working Capital Fund resources.

AMC is transforming its relationships with the air components of the COCOMs at the Air Operations Centers. By summer of 2008, AMC will integrate strategic and theater mobility missions planning and execution information across coalition, Joint, and Air Force systems. Globally, AMC will have unprecedented ability to plan and report aircraft movements into, around, and out of COCOM AORs and provide USTRANSCOM visibility of in-theater air assets for air refueling, airlift and air medical evacuation missions.

Finally, in the area of patient movement we are continuing development of the TRANSCOM Regulating and Command & Control Evacuation System (TRAC2ES).

TRAC2ES will reach full operational capability in 2010 and provide access to information on available transportation assets, retrospective trend analysis, improved in-transit visibility, automated data sharing and global web-based user training.

Organizational Realignment/Personnel Issues

Although vital to what we do, the JDDE is more than just processes and systems. We are focused on initiatives that provide for the needs of the warfighter. First, we are developing organizational structures, both in the distribution network and at USTRANSCOM, to enhance JDDE responsiveness.

Joint Deployment Distribution Operations Centers (JDDOC), resident in each geographic AOR, continue to aid COCOMs in improving integration of strategic and theater distribution. As each COCOM tailors the JDDOC to best meet theater needs, USTRANSCOM assists with the development of performance-based metric framework as part of the organization.

A good example of the JDDOC's value is our previously mentioned support of Lebanese Armed Forces (LAF). USEUCOM and USCENTCOM's JDDOCs facilitated movement of donated munitions to the LAF by tapping into regional expertise, as well as by reaching back to national partners in the U.S. to maximize intra-theater and inter-theater lift. This unique mission was possible because of the established collaboration across our JDDOCs.

Another emerging capability is Joint Task Force-Port Opening (JTF–PO), an on-call, jointly trained, world-wide deployable team which enables the rapid opening of ports. JTF–PO was designed with the command and control capability and in-transit visibility technology to support geographic COCOMs and sustain domestic first responders. It has been endorsed by the COCOMs and demonstrated in national level, Joint Chiefs of Staff and multi-national exercises.

The JTF–PO Aerial Port of Debarkation (APOD) combines Air Force and Army units to open an airport and prepare it for logistics operations in as little as 24 hours. A JTF–PO APOD was fully operational during Ardent Sentry 07, responding to 23 military and 9 commercial airlift missions, handling over 1,400 short tons and processing nearly 900 passengers. We are currently fielding the Seaport of Debarkation capability to open a seaport in a comparable fashion.

The Base Realignment and Closure (BRAC) process has presented a unique opportunity to establish a modern command and control structure. Our BRAC initiatives are estimated to save the taxpayer $1.2 billion over the next 20 years as we realize efficiencies resulting from consolidation. SDDC's move to Scott Air Force Base in 2007 is the most visible of our comprehensive consolidation efforts. This organizational realignment along with the new USTRANSCOM facility housing SDDC and other critical functions has facilitated consolidation activities.

One such consolidation is our new "Fusion Center", which co-locates SDDC, MSC, and AMC planners with our command staff, allowing air, surface and sea transportation teams of experts to approach movement requirements planning from an integrated, intermodal perspective. This includes combining SDDC, AMC, and USTRANSCOM networks and moving to joint certification and accreditation by USTRANSCOM of all transportation working capital fund-resourced systems.

A second consolidation of SDDC, MSC and AMC analysts made our vision for a Joint Distribution Process Analysis Center (JDPAC) a reality. While not fully operational until 2010, the JDPAC is primed to co-lead the Mobility Capabilities and Requirements Study (MCRS) with OSD and already contributes to the Joint Staff Operational Availability studies and the OSD Analytical Agenda. The JPDAC is also building the foundation to conduct a bi-annual Future Mobility Assessment. JDPAC supports the geographic COCOMs through several ongoing or planned projects to include Guam infrastructure and shared logistics studies for USPACOM; infrastructure, theater airlift and throughput studies for USCENTCOM; and airlift and distribution studies for U.S. Africa Command (USAFRICOM). We expect significant expansion of our analytical capabilities this year with initial delivery of programmatic and distribution modeling and simulation tools, and in time, JDPAC will bring unprecedented distribution modeling and simulation capability, research techniques and sophisticated engineering tools to bear on complex distribution problems.

Finally, the Acquisition Center of Excellence (ACE) combines common carrier acquisitions and contract functions under one authority. ACE produces synergies and efficiencies in securing national transportation and distribution service contracts by centralized procurement of air, surface and ocean transportation.

In parallel with BRAC transformation, our Joint Intelligence Operations Center-Transportation (JIOC–TRANS) reached initial operational capability in 2007. JIOC–TRANS enhances our ability to anticipate emerging global events and warn transportation and distribution decisionmakers by collaborating with the National Intelligence Community and intelligence components of the other COCOMs.

In concert with the Defense Finance and Accounting Service, we established a Billing Center at Scott Air Force Base. Typically, cargo movement within the DTS requires the billing of segmented transportation events by mode. When changing transportation modes, bills may be generated for each mode used. In addition, cargo movement via ship may generate three separate bills for loading the ship at the Port of Embarkation, for the actual sealift and for unloading at the Port of Debarkation. As it matures, the Billing Center will generate a single consolidated bill for each customer that includes all transportation modes and billable events.

USTRANSCOM is also examining ways to achieve efficiencies in container management. Preliminary analyses indicate opportunities to clarify responsibilities and command relationships by consolidating authority, strategiC–level planning and funding in a DOD-level Executive Agent organization.

We are developing military and civilian personnel to manage deployment and distribution for warfighters in joint, interagency, and multinational environments. These joint logisticians will ensure the viability and vitality of the JDDE. We developed a competency model for Defense deployment and distribution. The Joint Staff has validated and is planning to use it as a starting point to develop a broader competency model for joint logistics. We have also teamed with the Industrial College of the Armed Forces to enhance joint logistician training in the classroom. In its third year, the Supply Chain Management program has 43 graduates with 27 enrolled for 2008.

Maintaining Airlift Readiness for Mission Execution

Rapid global mobility is a key enabler to the effectiveness of the joint force. As response times shrink from weeks to hours, our ability to rapidly aggregate and move operational capabilities forward depends on versatile, ready, and effective mobility forces.

However, much of our mobility force structure requires modernization. My top air mobility priority is the recapitalization of our aging tankers from a fleet of Eisenhower—era KC–135s and Reagan—era KC–10s to the more capable KC–45, having multi-point refueling, significant cargo and passenger carrying and defensive system capabilities. The KC–45 will fulfill its primary refueling role, and have the flexibility to contribute to an array of enhanced mobility solutions, mitigating some short-term risk and/or mission load in other areas. The Air Force must recapitalize this fleet and retire those remaining KC–135s that are no longer safe to fly or that are no longer mission effective.

The KC–10 fleet must also be modified to operate in the global airspace environment to remain viable through approximately 2040. AMC is examining ways to modernize the KC–10 to comply with international airspace requirements, address obsolescence and provide a path for future avionics upgrades.

Our National Defense Strategy requires a viable fleet of strategic airlift aircraft. The C–17 is, and will continue to be, a key mobility asset. We are approaching the end of the procurement program of C–17s, with the fiscal year 2007 supplemental extending the fleet to 190 aircraft. Should C–5 modernization falter, we will need to sustain C–17 production.

The outsized and oversized, roll-on/roll-off capability provided by the C–5 is essential to meet global mobility requirements. However, this year the C–5 had the lowest departure reliability and mission capable rates among the airlift fleet. Modernizing the C–5s with avionics upgrades, new engines and other reliability enhancements is necessary to increase aircraft availability, enable access to international airspace and foreign airfields, reduce fuel consumption and extend the useful life of this unique asset through 2040. AMC must modernize the C–5 fleet while closely managing the costs of the program, for which Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)) certification is pending.

Intra-theater airlift is a key component of our global mobility force. We currently have grounded three and restricted 24 Air Force C–130s due to center wing box (CWB) problems, and another 40 aircraft have been temporarily repaired. The Air Force's C–130 CWB replacement program for combat delivery C–130H1s is funded thru fiscal year 2013. Funding stability for CWB is critical to maintaining intra-theater airlift operational effectiveness. Additionally, C–130 variants have faced challenges of noncompliance with global air traffic requirements, aircraft avionics equipage and sustainment. The Avionics Modernization Program will modify 222 combat delivery C–130H2/2.5/3s. USD(AT&L) directed the Air Force to develop an investment strategy for satisfying the capability of the remaining 166 C–130 aircraft, which includes 47 C–130H1s and 10 LC–130s.

While the C–130 remains a workhorse for intra-theater lift, the C–27 will fulfill the joint force need to support dispersed tactical elements and go the "last tactical mile". Acquisition of the C–27, coupled with the repair and replacement of the CWB

on select C–130s, and additional C–130J procurement will provide the right mix of aircraft to meet COCOM requirements.

A modern tool in our tactical airlift arsenal is the Joint Precision Airdrop System (JPADS). JPADS provides precision airdrop from higher altitudes with a four-fold increase in accuracy over previous ballistic airdrop systems and the ability to deliver to multiple drop zones on a single pass. Today, over 250 JPADS systems are supporting operations in OIF/OEF. An additional advantage of the JPADS technology is the ability to apply the JPADS Mission Planning System to conventional airdrop delivery methods. These drops, termed Improved Container Delivery System (ICDS), produce a refined release point enhancing ballistic load accuracy by 60 percent while allowing deployment from higher and less vulnerable operating altitudes. On average, JPADS/ICDS delivers more than 400,000 pounds of cargo each month. Since being deployed to OIF/OEF in July 2006, JPADS/ICDS has eliminated the need for many ground convoy supply missions, thus removing countless personnel from dangerous roadways.

The ability to rapidly offload cargo with our Tunner and Halvorsen loaders cannot be overlooked. The Air Force has funded the full complement of 318 Tunners, but only 392 of 538 Halvorsens. We strongly support Air Force acquisition of the remaining assets to properly outfit our global mobility force.

Distinguished Visitor (DV) airlift is a key component of the global mobility force. Our senior leaders often require immediate and sometimes simultaneous airlift to carry out diplomatic and other missions in an ever-changing strategic environment. In partnership with the Joint Staff and Services, we are facilitating collaborative scheduling processes, policy and technology initiatives as well as working to modernize our DV fleet with the Senior Leadership Command, Control, and Communications System-Airborne (SLC3S–A) package. SLC3S–A offers our senior government officials communications and information management capabilities comparable to those available in their permanent government office environments, while they travel globally aboard U.S. Government aircraft.

Maintaining Sealift Readiness

On the sealift side, our efforts focus on targeted investments in readiness, leveraging commercial capabilities and improvements in maintaining our organic fleet. In previous years, we "right-sized" the strategic sealift fleet by transferring older, lower utility ships out of the Ready Reserve Force (RRF). The RRF, which is owned and operated by the Maritime Administration, now consists of 44 ships, down from 102 in 1994. We used the savings generated from retiring the vessels to extend the service life of the remaining vessels, fund efficiency and safety enhancements and leverage our commercial partners to recapitalize lost capacity.

We are also working with MSC to recapitalize aging tankers and extend the service life of our Fast Sealift Ships (FSS). International regulations and commercial refinery standards limit tankers loading and discharging at most worldwide oil terminals to a maximum age of 25 years. This will place MSC's tankers beyond their useful life in 2010. As such, MSC contracted for new tankers, which will be built in a U.S. shipyard. Additionally, MSC completed an Outyear Engineering Requirements Assessment for the FSSs that determined the FSS platforms could safely and economically operate through 2033. This extends their military useful service life to approximately 60 years vice the originally planned 50 years.

In 2007, MSC conducted a successful test activation of a small T1 size tanker under a unique contingency contract supporting our strategic capabilities in the Far East. We also replaced our 40-year-old Offshore Petroleum Discharge System (OPDS). This year MSC chartered a new U.S.-built, U.S.-flagged and U.S.-crewed vessel for this mission. Replacing our OPDS vessel with a modern technology ship greatly enhances our capability to support the warfighter with fuel over the shore when access to prepared ports is denied.

To further shore up our strategic sealift capability, we fully support the Navy's effort to exercise purchase options on U.S.-manufactured ships employed in the Maritime Prepositioning Ships program. Apart from the support they provide for the Marine Corps' prepositioning requirements, these ships have a dual use of providing transportation capacity for surge and sustainment missions.

Maintaining Infrastructure Readiness

Infrastructure is the cornerstone of our ability to project national power. We continue our close coordination with the Department of Transportation (DOT), the Federal Highway Administration and the States to balance peacetime and wartime surface movement requirements on the U.S. highway system. In advance of the reauthorization of surface transportation legislation, we are updating the Strategic Highway Network as part of our Highways for National Defense Program, focusing on

congestion, condition and capacity issues along our intermodal deployment routes. We urge Congress to address national defense public highway needs in future national highway programs.

With many of our strategic seaports operating at or near capacity, we are also examining our infrastructure to ensure it is capable of meeting national security requirements. SDDC has initiated Port Look 2008 to examine ways to optimize the use of U.S. strategic commercial and military seaports.

We are also looking to expand our reach into regions of increasing national interest and potential instability, most notably Africa, Southeast Asia, and South America. USTRANSCOM personnel visited all the geographic COCOMs to better understand emerging contingency plans and to champion the need for mobility-capable cooperative security locations. Additionally, we led Global En-Route Infrastructure Steering Committee meetings to prioritize joint military construction projects to expand key global mobility capabilities while ensuring current mobility infrastructure remains viable.

Protecting our Forces

Protecting our forces is key to accomplishing our global mission. Our Critical Infrastructure Program (CIP) is fostering information sharing among DOD, DOT, U.S. Coast Guard, Transportation Security Administration (TSA) and the COCOMs. The CIP mitigates identified risks to our critical worldwide physical and cyber transportation infrastructures.

Our components are improving threat protection in their mission areas. SDDC implemented waterside barriers, improved security equipment and optimized guard positions at our seaports. AMC continues to field the Large Aircraft Infrared Countermeasures system to protect mobility aircraft from advanced manportable missiles. MSC is integrating Navy Embarked Security Teams to secure our sealift assets. Finally, we are working with the Joint Staff on individual protective equipment and technological improvements in Chemical, Biological, and Radiological warfare defense capabilities.

We support all initiatives to authenticate drivers and workers in the distribution supply chain. This year, we improved interoperability between the Defense Biometric Identification System and TSA's Transportation Worker Identification Credential (TWIC) programs. SDDC began issuing biometric credentials to our commercial truck drivers holding security clearances who haul arms, ammunition, explosives and classified items. We are also seeking TSA's approval to accept DOD credentials in lieu of TWIC.

Improving supply chain security includes protecting our Military Ocean Terminals. We must provide a trained and capable security force at adequate levels to protect critical infrastructure. We continue to work on improvements using both technical and personnel solutions. In partnership with the Joint Non-Lethal Weapons Directorate, we tested several promising pieces of equipment that would enhance waterway control. We are also conducting manpower surveys to adequately address the workload concerns of our anti-terrorism and force protection personnel.

Fiscal Stewardship

While we are focused on effectiveness in our supporting role, we are decidedly mindful of costs and constantly look to find efficiencies due to our stewardship of a significant portion of the Nation's treasure. Since 2003, we avoided over $1.6 billion in costs. We achieved the majority of these savings by shifting to less costly transportation modes attributable to forward stocking initiatives at Defense Distribution Center, Kuwait. We realized additional savings by incorporating challenge protocols to validate requests for high-cost transportation options and negotiating least-cost transportation solutions. As a large consumer of hydrocarbons, we began using alternative fuels. Twenty-five percent of our diesel fuel consumption this year was bio-diesel and 11 of 12 AMC bases are now equipped to handle and issue biodiesel fuel. Similarly, 6 percent of our unleaded fuel was issued as E–85, and 4 of 12 bases are equipped to manage E–85.

Maintaining Partnerships

Mutually supporting relationships are essential to the success of any enterprise and ours is no different. The Civil Reserve Air Fleet (CRAF) is a critical partner in our Nation's ability to project and sustain forces. Our legislative initiative is aimed at preserving CRAF viability by providing a prudent amount of assured business to our commercial airline partners, thus incentivizing them to maintain sufficient aircraft availability to meet future DOD needs.

In addition to CRAF, the Maritime Security Program (MSP) and the Voluntary Sealift Agreement (VISA) U.S.-flag commercial sealift carriers remain a critical partner in our Nation's ability to project and sustain forces by providing the Depart-

ment of Defense with assured access to commercial U.S.-flag ships as well as U.S. mariners to support national security requirements during war or national emergency.

Our commercial sealift partners accessed through the Universal Services Contract (USC) are also vital to our mission. USC provides worldwide intermodal transportation services through the DTS, and is a cost-effective means to transport less than shipload lots of equipment and supplies by leveraging commercial trade routes and existing commercial capacity. Although traditionally focused on port-to-port transportation services, efforts are underway to improve the USC by asking our commercial sealift partners to expand service to cover the entire end-to-end distribution process, include provisions for prime vendor direct booking and improve claims resolution mechanisms.

In an increasingly global environment, we continue to work with our allies to ensure smooth distribution operations. Strategic airlift capability is increasing as Australia, Canada and the United Kingdom now have C–17s, and a consortium of NATO and Partnership for Peace nations is planning to procure C–17 aircraft as well. The imminent acquisition of new air refueling aircraft by a number of allies and ongoing discussions with other countries on how to best assist in providing and acquiring air refueling, airlift and sealift support, on a reciprocal, reimbursable basis, bodes well for our global distribution operations. Over the past year we have made excellent use of international agreements by using the acquisition and cross-servicing authorities provided by law to offer and obtain reimbursable logistic support in more than 20 countries.

In addition, we are working to develop closer ties with other government agencies by making them aware of the unique capabilities and expertise we can provide through the Joint Interagency Coordination Group (JIACG). The JIACG, now resident at each COCOM, is reaping benefits today via close partnering with USAID, FEMA, the Department of State and others to bring all elements of national power to bear and incorporate lessons learned from recent events into current planning.

Looking Ahead

As the Services evolve to meet future challenges, we must work in concert with them, anticipating their need for innovative mobility and distribution strategies. We are continuously exploring new ways to support future force requirements. Through our Deployment and Distribution Enterprise Technology research and development program we leverage emerging technologies to deliver enhanced joint warfighting capabilities. Program successes include the JPADS-Mission Planner, which improved airdrop delivery accuracy to isolated areas; and the Joint Modular Intermodal Container, which enhanced unit deployment and theater distribution. Leveraging successful prototype testing, we have transitioned the Wireless Gate Release System to the Air Force. This system significantly decreases the cost of airdrop operations by doubling C–130 JPADS delivery capacity and reducing damage to airdropped cargo bundles. This year we will provide improved distribution modeling tools for the JDPAC, deliver a web-based application to optimize the execution of worldwide Operational Support Airlift, and begin development of a Lightweight Trauma Module to improve the already superb en route care of injured personnel. Next year we will partner with the services to pursue mesh network, tags, and tracking technologies to enhance asset visibility and develop a collaborative Single Load Planning Capability. We ask Congress to fully fund DOD's modest Deployment and Distribution Enterprise Technology program.

We continue to participate in the capabilities-based assessment of Sea Basing, spanning the range of military operations in the 2015–2025 timeframe. The success of Sea Basing relies heavily on advances in cargo handling, ship-to-ship cargo transfers, high-speed connectors and sea state mitigation through sea state four.

AMC produced the Global Mobility Concept of Operations and the 2008 Air Mobility Master Plan outlining future mobility force operations to 2025. The framework centers on five operational capabilities: airlift, air refueling, expeditionary air mobility operations, space lift and Special Operations Forces mobility.

One of our greatest challenges lies in supporting the recently activated USAFRICOM. With Africa significantly lacking infrastructure to support air, land and sea transportation, we will undoubtedly advocate for targeted infrastructure improvements. In doing so, we must remain flexible to rapidly changing requirements while being sensitive to the often fragile geopolitical climate that exists in many parts of Africa.

To make sure we judiciously meet these challenges, we have initiated a Global Access and Infrastructure Assessment (GAIA) to examine current global access and infrastructure capabilities on a region-by-region basis. GAIA will highlight gaps in coverage to ensure sufficient infrastructure exists to fully support future mobility

operations. GAIA will also provide the infrastructure baseline assessment for the next MCRS.

All these challenges require a flexible, dynamic Command Corporate Services environment to improve the precision, reliability, and efficiency of the entire DOD Supply Chain.

FINAL THOUGHTS

We have been entrusted with the authority to lead and transform the DOD Distribution System and the awesome responsibility of serving the geographic combatant commanders as they execute our Nation's most demanding military missions. Of the future, we know only that major conflicts will be joint and combined, involving all services and national and international partners acting in an interdependent manner. In this environment, we are challenged to be forward-leaning and forward-thinking and to anticipate and meet the needs of our warfighters across the globe. I am extremely proud of the USTRANSCOM team and our national partners. Today, we are supporting the global war on terrorism while providing consistent precision and velocity to deliver combat forces and humanitarian relief in support of national objectives. We are also good stewards of our national resources, and in our role as the DOD DPO, we will continue to look to the future, constantly reexamining our capabilities, forces and processes while implementing enterprise-wide changes ever mindful of cost, value and efficiency. With all that the Nation has placed in our trust, a promise given by us will be a promise kept.

Senator KENNEDY. Thank you. Thank you very much for your testimony and also for your dedication to the service of our country.

We will do 10-minute rounds, and I ask that the clerk let me know when I have about a minute and a half left.

Secretary Payton, there has been a lot of interest in Congress over the Air Force's February 29 decision to award the tanker to Northrop Grumman. I understand that Boeing filed a protest of the award yesterday. So, according to the bid protest rules, the Government Accountability Office (GAO) has 100 days to issue the decision. That means we might not have a GAO decision of the protest until sometime in June.

The tanker program does not fall within the jurisdiction of this subcommittee, but I thought I would offer you an opportunity to say anything that you are able about the award, the process leading up to the award, or about the protest. Then I would ask General Schwartz to do the same.

As I say, it is not directly in the jurisdiction of this subcommittee, but there is a lot of interest in it. Perhaps you want to? We had a briefing on this yesterday.

Ms. PAYTON. Yes.

Senator KENNEDY. I think it is an issue that is topical.

Ms. PAYTON. Yes, sir. Thank you very much for the opportunity to explain the process that was followed for the tanker competition. The process that was followed was an effort to make sure that all the offerers understood every single detail about the requirements and the capabilities desired by the Air Force and by our customer, Air Mobility Command (AMC), who defined the requirements.

The requirements were approved by the Joint Requirements Oversight Council (JROC) in November 2006. We had several draft Requests for Proposals (RFPs) that we coordinated with the offerers so that we could get a thorough understanding that they knew what was being requested in the competition. We did put the final RFP out, after a lot of meetings, on January 30, 2007.

We continuously encouraged questions and answered every question that came into us. We had well over 500 evaluation notices that are well-documented because we wanted to make sure that

people really knew what we wanted, and we didn't want a confusion at a debrief, where someone might stand up and say, "I had no idea that this was a requirement." To put it very succinctly, we did an awful lot more in this particular source selection than in any other source selection to be open, transparent, and fair to the offerers.

We also had a DOD Inspector General investigation in the middle of source selection, which is very rare. The DOD came in to make sure that we had traced all those requirements from the JROC into the system requirements document that was part of the RFP to make sure we hadn't dropped any requirements or added any requirements. They did a very thorough review and found that everything was totally in accordance with good practices.

We had the GAO come in in the middle of source selection to take a look at our acquisition strategy. As well, they determined that we were following all the regulations of the Federal Acquisition Regulations and that we had a solid process.

We had OSD send in an independent review team that thoroughly looked at everything that was going on. Were the people in the source selection evaluation team, as they debriefed the people in the source selection advisory council, were all of those factors flowing into the advisory council? Were all of the factors that the advisory council were aware of flowing into the SSA?

They looked at were the offerers being treated fairly as well, and were we following all the rules and regulations and documenting all of the findings that we had? They, too, said that this was probably the best, most unprecedented coordination that has ever been done, to their knowledge. The group included the director of all defense procurement——

Senator KENNEDY. This is enormously important, and I just limited myself to 10 minutes at the start of it. So maybe you could wrap up a little bit here?

Ms. PAYTON. I was just about to conclude. Yes, sir.

Senator KENNEDY. Then I think I will come back to the topic because I have some technical questions on the subject matter which we are going to get into. But this is very interesting and very valuable, so I don't want to suggest that it isn't.

Ms. PAYTON. Yes, and that was the last thing, yes, sir, that happened. We had the DOD team that included an Army expert, an acquisition and Navy expert, lawyers, and the person that is the director of the defense procurement group within OSD.

We feel very confident that sound processes were followed, that our motives were pure throughout the entire process, and that we had no fear and no favor from anyone in this process. We did what was right for providing best value to our warfighter and the taxpayer. Thank you.

Senator KENNEDY. Good. Let me go on, General Schwartz, to some of the important matters that I think we hopefully will be able to address. One, last November, you responded to a letter from Chairman Levin asking your personal and professional opinion about how many C–17 aircraft to buy, if any, beyond the 190 aircraft that were planned.

If I can paraphrase your response, you said that given the uncertainty about the C–5A modernization program, you couldn't rec-

ommend terminating the C–17 production at this time. You went on to say that you thought 205 C–17 and 111 C–5s is the correct fleet mix for the future.

Without objection, the two letters will be made part of the record.

[The information referred to follows:]

CARL LEVIN, MICHIGAN, CHAIRMAN

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United States Senate
COMMITTEE ON ARMED SERVICES
WASHINGTON, DC 20510–6050

November 6, 2007

VIA FACSIMILE ONLY

General Norton A. Schwartz, USAF
Commander
United States Transportation Command
508 Scott Drive
TCPA
Scott AFB, IL 62225-5357

Dear General Schwartz:

The conferees on the National Defense Authorization Act for Fiscal Year 2008 are meeting now to reach agreement on the contents of this bill. One of the issues before the conferees is the question of buying more C-17 aircraft as recommended in the House-passed bill.

Before we come to a conclusion on the best way to proceed, we need to hear your personal and professional opinion on two issues:(1) what is your requirement, if any, for C-17 aircraft beyond the 190 C-17 aircraft that the Air Force has already bought; and (2) what is the basis of your requirement, if any, for aircraft beyond the 190 C-17 aircraft that the Air Force has already bought.

Due to the urgency of completing our conference, we appreciate receiving your response to these questions no later than 5:00 p.m., Tuesday, November 6, 2007.

Sincerely,

Carl Levin

Carl Levin
Chairman

UNITED STATES TRANSPORTATION COMMAND
508 SCOTT DRIVE
SCOTT AIR FORCE BASE, ILLINOIS 62225-5357

6 November 2007

The Honorable Carl Levin
United States Senate
269 Russell Senate Office Building
Washington DC 20510-2202

Dear Senator Levin

Sir,

Thank you for the opportunity to respond to your questions concerning the strategic airlift fleet. I support the programmed strategic airlift fleet of 180 C-17s, extended by the Fiscal Year 2007 Bridge Supplemental to 190 aircraft, combined with 111 modernized and reliability improved C-5s. This fleet mix, augmented with the capability of the Civil Reserve Airlift Fleet (CRAF), provides sufficient airlift capacity to meet strategic and operational objectives during large-scale deployments, while supporting other high priority operations and forward deployed forces.

However, the outcome of the C-5 modernization program will have a direct impact on the capacity the C-17 will shoulder. Therefore, given the uncertainty surrounding the C-5 modernization program, I cannot recommend terminating C-17 production at this time.

Since you asked for my personal and professional opinion, I believe 205 C-17s and 111 C-5s is the correct fleet mix for the future. I reach this opinion by combining the analysis of available million-ton-miles per day (MTM/D) capability, fleet mission capable rates, the annual flying hour program, average cost per flying hour, total number of organic aircraft tails, available pallet capacity, and average age of the fleet. Taking these factors together, I personally conclude 205/111 is the sweet spot.

My top airlift priority, however, remains the recapitalization of our aging tanker fleet. The KC-X will not only fulfill its primary refueling role, but will multiply our transportation options. The strategic airlift fleet mix should be calibrated as necessary to account for this strategic necessity and to ensure we don't over-build overall organic capacity to the detriment of our commercial partners.

Thank you for considering my input on these very important issues. And as always, thank you for the outstanding leadership you provide our country and for the excellent support you provide the Armed Forces of the United States.

Sincerely

NORTON A. SCHWARTZ
General, USAF
Commander

cc: SecDef
DepSecDef
CJCS
CSAF
AMC/CC
OSD/LA
OCJCS/LA

Senator KENNEDY. So, General Schwartz, now the Under Secretary has certified the C–5 RERP to continue, at least for the C–5B. Does the mix now of 205 C–17s and 111 C–5As still represent your personal and professional view of the fleet needed to meet your requirements?

General SCHWARTZ. Mr. Chairman, it does.

Senator KENNEDY. General Schwartz, Secretary Young's Nunn-McCurdy certification of the C–5 RERP upgrade indicated several actions that were planned, including providing the Avionics Modernization Program (AMP) upgrading for all 111 C–5s and requiring the Air Force institute performance-based logistics and lean Six Sigma process improvements to the maintenance activity for all 111 C–5 aircraft be improved capability and lower operating cost.

Is there funding in the budget and the Future Years Defense Program to complete the AMP and improve logistics for the C–5s?

General SCHWARTZ. Mr. Chairman, I understand that is the case. Ms. Payton can confirm that. But of course, it is important to perform the avionics modernization on the airplanes that do not receive the full-up reliability improvement in order to assure that the aircraft can access controlled airspace of the future. That is essential and is also required for safety of flight reasons.

But as I understand it, sir, both programs now are properly funded.

Senator KENNEDY. How will the AMC respond to these directions for improving logistic support for the C–5?

General SCHWARTZ. Sir, there is an effort underway in the AMC. It is consistent with a larger Air Force program called AFSO21, which is essentially lean in the Air Force. It is clear that there is a place for improvement, probably in maintenance of all of our airplanes, but certainly true in the C–5 and in the spare parts inventory and so on.

But I remain convinced, Mr. Chairman, that the C–5 reliability improvement program will make a very substantial difference, in the reliability of the airplane—for example, we currently schedule two airplanes to make one. That is just the reality. That will be less the case in the future. Importantly, the improved airplane will also perform much better, carry more, fly higher, use less gas, exactly the kinds of things operators treasure.

Senator KENNEDY. I am going to include John Young's letter for the record.

[The information referred to follows:]

THE UNDER SECRETARY OF DEFENSE
3010 DEFENSE PENTAGON
WASHINGTON DC 20301-3010

ACQUISITION,
TECHNOLOGY
AND LOGISTICS

FEB 14 '08

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Pursuant to title 10, United States Code, section 2433 ("Unit costs reports"), I have conducted a review of the C-5 Reliability Enhancement and Re-engining Program (RERP). I certify with respect to the restructured C-5 RERP program that:

a. such acquisition program is essential to the national security;
b. there are no alternatives to such acquisition program which will provide equal or greater military capability at less cost;
c. the new estimates of the program acquisition unit cost or procurement unit cost for such program are reasonable; and
d. the management structure for such acquisition program is adequate to manage and control program acquisition unit cost or procurement unit cost.

This certification is based on the Department's review of the program reflected in the Selected Acquisition Report (SAR) for the quarter ending September 30, 2007, and on revised production profiles and cost estimates.

The cost growth in this program was the result of four major factors. The cost of material to the prime contractor in the May 2007 production proposal was significantly greater than that estimated at Milestone B. Two elements of program content were significantly underestimated at Milestone B: spares to support initial deployment; and other government costs, especially government furnished equipment and mission support. Labor cost growth follows from two factors: increased hours to perform installation of prime mission equipment and "over & above" repairs; and a significant increase in labor rates reflected in the prime contractor's latest Forward Pricing Rate Agreement. Further, the annual procurement quantities for the baseline program increase to an economic order quantity of 12 aircraft per year at a slower rate than originally planned at Milestone B. Cost growth resulted from the reduced production rate following several years of budget cuts and a one-year extension of the development program.

The Department's strategic airlift requirements are based on the need to rapidly move bulk as well as oversized and outsized cargo in support of U.S. strategic objectives. U.S. Transportation Command supports a mixed fleet of 205 C-17s with 49 RERP'd C-5 production

aircraft, and 59 C-5A aircraft and concurs that no other alternative provides greater military capability at less cost. During the C-5 RERP Nunn-McCurdy certification process, the Department reviewed several options for procuring additional C-17 aircraft and rejected those options as not meeting requirements and more costly to the taxpayer. Further, the higher costs of options procuring additional C-17's are unaffordable in the Future Years Defense Program.

The restructured C-5 RERP production program will modify the 47 C-5B and 2 C-5C aircraft only to a C-5M configuration. Re-engining of the 59 older C-5A aircraft is not necessary to meet projected airlift requirements, and C-5A aircraft are not included in the restructured program. However, retention and operation of C-5A aircraft are required, and the Avionics Modernization Program must be completed to enable the C-5 fleet to meet Communication/Navigation/Surveillance and Air Traffic Management (CNS/ATM) requirements. The restructured C-5 RERP program essentially provides insurance for the DoD's ability to meet current projections of airlift requirements. Indeed, there are certain outsized cargo load requirements which can only be met by the C-5 aircraft. It is essential that a portion of this fleet have a high probability of meeting reliability and mission capability requirements.

While the unit cost of the C-5 RERP aircraft increases, this certification decision reduces the total cost of the restructured C-5 RERP program by $9.8 billion (TY $). I will oversee the restructured C-5 RERP program as the Milestone Decision Authority to ensure that the anticipated cost, schedule, and performance objectives are achieved. I have directed the Air Force to pursue Performance Based Logistics and Lean Six Sigma initiatives on both C-5A and C-5B/C maintenance processes in order to yield greater mission capability and to lower operating costs. These initiatives will further lower the net present value cost of maintaining the C-5A fleet without re-engining.

I have enclosed supporting information summarizing the facts, rationale and evaluations that I considered in making this certification.

Similar letters have been sent to the President of the Senate, Speaker of the House, and the congressional defense committees.

Sincerely,

John J. Young, Jr.

Enclosures:
As stated

cc:
The Honorable John McCain
Ranking Member

C-5 Reliability Enhancement and Re-engining Program
Nunn-McCurdy Certification
Supporting Explanation
"Such acquisition program is essential to the national security"

The Joint Requirements Oversight Council (JROC)[1] conducted an assessment of the C-5 Reliability Enhancement and Re-engining Program (RERP) to determine its essentiality to national security. The JROC found that attributes of the planned C-5 RERP program contains critical elements associated with capacity, reliability, and performance that are required to achieve the capabilities stated in the 2005 Mobility Capabilities Study (MCS-05). The JROC determined these attributes, including a minimum organic strategic airlift capacity of 33.95 million-ton-miles per day (MTM/D), are essential to national security.

MCS-05 is the most current mobility study and was the foundation of the JROC assessment. MCS-05 included a comprehensive analysis of major airlift missions required to support the National Military Strategy and comprised detailed analysis of lift requirements needed to support both large scale deployment, and rapid delivery of high priority oversized and outsized cargo in support of a full range of operations.

The JROC stated that any reduction in projected strategic airlift capacity, reliability, and performance would increase risk to unacceptable levels and jeopardize the department's ability to adequately support the Combatant Commands.

Finally, the Department determined that modernizing 47 C-5B aircraft and 2 C-5C aircraft best meets the essentiality criteria set forth by the JROC.

[1] JROC Memorandum 004-08, 9 January 2008

C-5 Reliability Enhancement and Re-engining Program
Nunn-McCurdy Certification
Supporting Explanation
"There are no alternatives to such acquisition program which will provide equal or greater military capability at less cost"

Fourteen alternatives were identified and assessed as part of the Nunn-McCurdy certification process. Each alternative was evaluated on its ability to enable the organic strategic airlift fleet to meet the 33.95 million ton mile per day (MTM/D) capacity the JROC determined as essential to national security, while also meeting the delivery timelines needed to achieve strategic objectives and movement of oversized and outsized equipment identified in the 2005 Mobility Capabilities Study (MCS).

Alternatives that met the established capability thresholds were then evaluated based on the net present value of life cycle costs over the period FY 2008-2040, total program acquisition costs, and affordability in the FYDP.

No other alternative provides greater or equal military capability at less cost than a restructured RERP program which modernizes 47 C-5Bs and two C-5Cs.

C-5 Reliability Enhancement and Re-engining Program
Nunn-McCurdy Certification
Supporting Explanation
"The new estimates of the program acquisition unit cost or procurement unit cost for such program are reasonable."

The Office of Secretary of Defense Cost Analysis Improvement Group (CAIG) completed an evaluation of the restructured C-5 RERP and developed an independent estimate of the Research, Development, Test, and Evaluation (RDT&E) and procurement costs, as well as the Future Years Defense Program (FYDP) resource requirements to support the Nunn-McCurdy certification process. The CAIG estimate of the acquisition costs for the restructured C-5 RERP is $7,694 million (Then Year Dollars (TY$)), significantly less than the $17,506 million estimate reported in the quarterly Selected Acquisition Report (SAR) dated September 30, 2007. The CAIG estimate is based on a reduced procurement quantity (49) of aircraft modernized within the RERP program, from the (108) quantity reported in the SAR. Based on the CAIG independent cost estimate for the restructured C-5 RERP, the Program Acquisition Unit Cost (PAUC) and the Average Procurement Unit Cost (APUC) figures below are reasonable:

CAIG Estimate of the Acquisition Costs for the Restructured C-5 RERP Program

[illegible]	[illegible]	[illegible]
PAUC (Program Acquisition Unit Cost)		
Cost ($M)	$ 6,082.1	$ 7,694.1
Quantity	52	52
Unit Cost ($M)	$ 117.0	$ 148.0
APUC (Average Procurement Unit Cost)		
Cost ($M)	$ 4,607.6	$ 6,042.1
Quantity	49	49
Unit Cost ($M)	$ 94.0	$ 123.3

Overall, $294 million in additional resources are required within the FY 2009-13 FYDP for the C-5 RERP program. Resource adjustments necessary to properly fund the RERP program to the annual resource requirements for the restructured program will be accomplished in the development of the FY 2010-15 FYDP.

C-5 Reliability Enhancement and Re-Engining Program (RERP)
Nunn-McCurdy Certification
Supporting Explanation
"The management structure for such acquisition program is adequate to manage and control program acquisition unit cost or procurement unit cost"

The management structure evaluation was conducted in four areas to facilitate evaluation and development of recommendations:

a. Program Execution;
b. Requirements/Contracts/Funding/Acquisition Strategy/Resources;
c. Systems Engineering/Risk Management; and
d. Sustainment/Materiel Readiness.

The evaluation included a review of detailed documentation provided by the Program Management Office and by the prime contractor in response to queries for each of the four evaluation areas. The evaluation included a review of both government management structure and staffing and contractor management structure and staffing. It also included additional documentation reviews, on-site reviews, and interviews.

Based on the team's evaluation, the management structure for the C-5 RERP acquisition program is adequate to manage and control program acquisition unit cost or procurement unit cost, subject to implementation of the following recommendations:

a. The Air Force will conduct an Integrated Baseline Review within thirty (30) days after contract award. An Earned Value Management System (EVMS) compliance review will be conducted in accordance with the contractor's Corrective Action Plan (CAP), and the EVMS Compliance CAP will require approval by the Defense Contract Management Agency.

b. The Air Force shall ensure that the contractor establishes and measures contract performance against a realistic and executable performance measurement baseline and complies with reporting requirements prescribed by DoD current Earned Value Management (EVM) policy. The Air Force shall use full EVM Cost Reporting and an Integrated Master Schedule. The Air Force shall develop an integrated plan for C-5 upgrades to identify how separate C-5 configurations will be managed in the future.

c. The Air Force shall commit to personnel stability in key Program Office C-5 RERP positions and increase staffing in key functional areas, such as contracting and financial management.

d. The restructured C-5 RERP is designated an Acquisition Category ID program.

I have signed out an Acquisition Decision Memorandum that directs the above changes be accomplished for the restructured C-5 RERP program.

C-5 Reliability Enhancement and Re-engining Program
Nunn-McCurdy Certification
Supporting Explanation
"Contributing Factors"

The C-5 Reliability Enhancement and Re-engining Program (RERP) experienced critical Average Procurement Unit Cost (APUC) growth of 75.9% from the November 2001 Acquisition Program Baseline (APB) estimate of $60.5 million (Base Year 2000 Dollars (BY00$)) to the September 2007 Selected Acquisition Report (SAR) estimate of $106.4 million (BY00$). During the Nunn-McCurdy certification process, the Office of Secretary of Defense Cost Analysis Improvement Group (CAIG) completed an evaluation of the baseline C-5 RERP program and developed an independent estimate of the Research, Development, Test, and Evaluation (RDT&E) and procurement costs, resulting in a lower yet still critical APUC growth of 52.7% to $92.4 million (BY00$). The CAIG determined four major factors account for the APUC growth:

1. Material Cost Growth. The cost of material to the prime contractor in the May 2007 production proposal is significantly greater than that estimated at Milestone B on the basis of the development proposal. The higher material cost reflects price escalation for certain raw materials, especially strategic or specialty metals, at higher than expected levels projected at Milestone B. Material cost growth accounts for $11.0 million (BY00$), or 18.2%, growth to the original APUC.

2. Estimation. Two elements of program content were significantly underestimated at Milestone B: (1) spares to support initial deployment, and (2) other government costs, especially government furnished equipment and mission support. Increases in the program cost for elements underestimated at Milestone B accounts for $10.0 million (BY00$), or 16.5%, growth to the original APUC.

3. Labor Cost Growth. Labor cost growth follows from two factors: (1) increased hours to perform installation of prime mission equipment and "over & above" repairs based on experience to modernize three aircraft in the development program, and (2) a significant increase in labor rates reflected in the prime contractor's latest Forward Pricing Rate Agreement. Labor cost growth accounts for $7.5 million (BY00$), or 12.3%, growth to the original APUC.

4. Production Rate. The annual procurement quantities for the baseline program increases to an economic order quantity of 12 aircraft per year at a slower rate than originally planned at Milestone B. The reduced production rate follows several years of budget cuts and the one-year extension to the development program. Cost growth as a result of the reduced production rate accounts for $3.4 million (BY00$), or 5.7%, growth to the original APUC.

Senator KENNEDY. On page 2 of that, he goes into talking about the importance of retention and operation, C–5A are required, the AMPs, and the next paragraph, the logistical aspects, which you have referred to.

Secretary Payton, the DOD-approved cost estimate of the C–5 RERP has shown that there was, indeed, a breach of the Nunn-

McCurdy threshold for the C–5 RERP modernization. The Cost Analysis Improvement Group (CAIG), which produced that approved estimate derived a constant-dollar cost estimate of acquisition, unit cost of $92 million, $92.4 million versus $60.5 million originally estimated.

While this increase was unfortunate, the estimate only reflects half the increase that the Air Force derived, as the service cost position reporting the Nunn-McCurdy violation in the first place. Can you explain why the Air Force estimate was so much higher than the CAIG?

Ms. PAYTON. Yes, sir. In trying to get affordability and cost growth under control and inheriting many programs that were costed at a 50 or 40 or 30 percent confidence level to begin with, I have set the stage so that the person who inherits the job after me will get programs that are costed at a higher level of confidence.

If 10 things can go wrong on a program and you only have enough money to fix 4 of them, i.e., you would be at a 40 percent confidence level in your amount of money allocated, that puts our acquisition workforce in a terrible situation. So I have indicated that an 80 percent to 90 percent confidence level should be the funding level for our program, so that our acquisition people do have enough money in order to pay for things when things go wrong that you weren't counting on.

So the reason our Air Force cost estimate was higher is because they calculated it at an 80 percent confidence level, having a few more engineers, having a little bit more time in the schedule in case things go wrong, rather than at a 50 percent confidence level, which is what the OSD CAIG calculates cost at.

Senator KENNEDY. That is an interesting concept and one which I can see has value if it is constantly used. Of course, there was at least an argument made that the estimate by the Air Force was so prohibitively high that it is sure to terminate the whole program. Therefore, when they came back in at the lower cost, which is the real cost, they found that it made sense in terms of the value of the program.

So I think we want to find out it is important in terms of accounting, but also what the impact is going to be, just as we want to make sure that we are going to have truth in accounting in terms of it and consistency in the accounting. When I heard those figures that are going out and said that is the end of the program, and most other people thought it was the end of the program, and then we heard there were some in the Air Force who wanted the end of the program, this is a pretty easy way to end it.

Then we found out that the costs were not really related, were double what were the real costs on it. So it raised some serious questions, and I think you have given us an explanation.

Ms. PAYTON. Yes, sir. I have had other programs that have come before me, and I have insisted on an 80 percent confidence level so that acquisition doesn't get cost overruns. We estimate them so low, and all of a sudden, they are 30 percent overrun when, in fact, they were not funded properly to begin with.

So I am trying to set the stage for my successors for all programs.

Senator KENNEDY. This is for all programs, right?

Ms. PAYTON. For all programs, sir. For all programs I have a memo and guidance out that we will no longer lowball these programs. They must be funded properly so our acquisition workforce has a fighting chance to maintain its integrity and to deliver on time and on cost.

Senator KENNEDY. My time is up, but I would be interested what the results are. At 80 percent, do you have a consistent fact that you are missing the target because you are using at 80 percent versus if you had used, what, the 50 percent? I am not an accountant, and I don't know.

Ms. PAYTON. I would be glad to follow up with you.

[The information referred to follows:]

Of the 35 acquisition category 1, non-space programs, 9 are funded in the 80–90 percent confidence level. The remaining programs either do not have a specific confidence level assigned to the cost estimate, are funded at the 50 percent confidence level per the Office of the Secretary of Defense Cost Analysis Improvement Group, or were baselined before the SAF/AQ guidance.

Senator KENNEDY. But with that, there is going to be some issues in terms of the merits of a particular kind of system. It would be interesting for us to know, using the higher figure, the accuracy of that.

Ms. PAYTON. Yes, sir. The C–5 program, to begin with, was under estimated. We baselined it way, way too early before we had any data. We do this in a very poor manner, and so we came up with a number, "I think it will be about this." We breached Nunn-McCurdy because I think we baselined it way too low to begin with.

So I am trying to put some discipline in the process. We have great cost estimators, but we always pick the low number. We should start picking a higher number so that we can give our acquisition people a fighting chance to be successful.

Senator KENNEDY. Thank you.

Senator Martinez.

Senator MARTINEZ. Thank you, Mr. Chairman.

You spoke eloquently, I think, about the process on the KC–45A, and I had the benefit of also, Secretary Payton, hearing you yesterday. I want to just commend you for the very even-handed way that you have made your presentation in both instances.

Ms. PAYTON. Thank you.

Senator MARTINEZ. As someone who does not have a direct stake in the outcome, I must say that it sounds like a process that, well, obviously, the protest is undergoing. So I shouldn't comment on it. But it just does seem like you are providing the kind of information that is helpful to us.

General Schwartz, on that same subject, if I could ask, could you describe for us, you had determined this to be the top priority of your command, the tanker fleet. They currently fly out of MacDill Air Force Base in my backyard in Tampa. I was just wondering if you could speak to us about the importance of the KC–45's passenger and cargo capability and what it will do for your airlift mission? Also, does this capability add to your ability to operate at greater capacity and greater efficiency?

General SCHWARTZ. Certainly, sir. I think it is important to recognize that while other countries have modest capabilities in this

area now—France, Italy, Japan, the U.K., so on—we have a unique capability to project American military power that the tankers give us.

It allows us to establish the air bridge through which we move airlift aircraft, pack passengers, and cargo. It allows us to put fighter aircraft and bomber aircraft into an area of responsibility (AOR) to perform missions as required. Likewise, it supports the intelligence, surveillance, and reconnaissance capability of the Armed Forces with air-breathing sensors. It is a fundamental and almost a uniquely American capability.

The dilemma is, is that 500 of our 550 or so airplanes are aging. They were manufactured not long after I was born. While we have modified and improved the KC–135 over the years, we need a successor platform. We made the case, which was validated by the JROC, that in today's environment what we needed was an airplane that certainly could do the refueling mission, but needed to offer more versatility than just to do refueling.

Throughout the Armed Forces, sir, single-point platforms, single-mission platforms, are not necessarily the best solution. You want to have versatility. Doors, floors, and defensive systems in a tanker-type airplane provide that type of versatility so that you can carry passengers. You can carry cargo. You can air refuel on the same sortie, and you can position the airplane in threat airspace that at the moment we very carefully manage with regard to the KC–135 and the KC–10.

The bottom line is, sir, we need an airplane of the 2000s, not of the 1950s. That is exactly, it appears to me, what the Air Force has selected.

Senator MARTINEZ. Tell me, General Schwartz, about this very sensitive mission that you spoke of, which is transferring of injured service men and women from the theater to critical care facilities, which I know you place a great deal of importance on that. Can you tell us and give us an update regarding your continued efforts to improve this vital mission, and let us know also of any further support that Congress might provide you in this vital area?

General SCHWARTZ. This is a mission which is a moral imperative. We have a contract, Senator, with our kids, and that is if they get banged up on the battlefield that we will leave no stone unturned to return them to the best medical care on the planet.

I honestly believe that we and part of what we do underwrites the All-Volunteer Force because if the kids stop believing that, they will stop volunteering. So, our capacity to do this has just multiplied because of modern aircraft.

In the old days, when we had C–141s and KC–135s and so on, these were adequate. But they were not designed with good power, good lighting, or good environmentals—temperature control, pressurization, and so on. Modern airplanes do that, like the C–17, to a T. So if we put a superb medical crew in the back, they actually have an intensive care unit that is as good as anything on terra firma. We have fortunately in the last 2½ years only lost one troop that passed away while returning from the CENTCOM AOR, returning to the United States.

It is a tribute, sir, to both the aircrews in the airplanes, the equipment on the birds, and, most importantly, the medical teams

that provide that care. That capability is embedded in the KC–45 requirement. There is no doubt in my mind that we will use that airplane to perform that function, and it will do it exceedingly well. Profoundly important mission.

Senator MARTINEZ. Let me ask both of you if you could comment on the working relationship with our commercial transportation partners and supporting labor organizations that allows you to do your mission and to supplement your mission. I am speaking of CRAF specifically.

General SCHWARTZ. Yes, sir. If I may, Madam Secretary?

Ms. PAYTON. Please.

General SCHWARTZ. The United States Government, sir, can never own all of the assets it would need in a major surge. Our secret weapon, frankly, at the TRANSCOM is this capacity to blend both organic U.S. Government-owned resources and commercial resources to best effect. This happens both in the airlift and the sealift communities.

Let me start with the sealift first. It is important to recognize, sir, that all of our sealift assets, even those that are owned by the Navy and those that are owned by the Maritime Administration, are operated by U.S. Merchant Mariners, civilian U.S. Merchant Mariners. In my opinion, that is the fifth Service. They are dedicated, patriotic Americans, and they do a terrific job.

The same thing is true on the airlift side, where roughly 95 percent of the passengers that we move—and we move a lot—we have moved 5 million passengers since September 11—moves on commercial platforms. Roughly 40 percent of the cargo that we move moves on commercial platforms, and so that is very important. The way we get access to these platforms is through the CRAF. Once again, those are crewed by American civilian aviators.

So, it is vitally important, sir, preserving those two capabilities and structuring the incentives that allow American industry to support the Government when we need to surge is something that I think is very important for the future.

I just would close, sir, by commenting that one of the things that you hold me accountable for is maintaining the balance between the organic fleet and the commercial capability. As I mentioned in my opening remarks, I caution about overbuilding the organic fleet because if that occurs, it competes in peacetime with that preference cargo, the incentives that we offer our commercial partners. So that is one of the reasons that I believe 205 is the right number of C–17s.

Thank you, sir.

Senator MARTINEZ. While you are on that subject, would you also comment on the recapitalization needs that you might be seeing in terms of our seagoing lift assets?

General SCHWARTZ. Yes, sir. We are in a period at the moment where there is not a need to initiate a new sealift program. You may recall, sir, that both in the immediate aftermath to the first Gulf War, there was a considerable investment made by Congress in sealift capability. Those platforms will remain viable through about 2020.

So we won't have to seriously consider successor platforms until program year 2012, the 2012 program. We are a couple of years out

from that. But at that point, 2 years from now, it will be time for us to think about the recapitalization of the fast sealift ships.

You may recall those were the old SEALAND ships, the high-speed SL–7s that DOD bought and converted, and they will go out to about 60 years. At that point, it will be time to replace them.

Senator MARTINEZ. My time has expired. Thank you both very much.

General SCHWARTZ. Thank you, sir.

Senator KENNEDY. Senator Sessions.

Senator SESSIONS. Thank you, Mr. Chairman.

The Navy recently awarded contracts for the joint high-speed vessel. What role do you expect them to play, when will a lead contractor be decided, when do you expect them to enter into the fleet, and how many?

General SCHWARTZ. Sir, I will have to do this for the record in terms of when they will be delivered. I don't have that off the top of my head. However, the last program summary I saw was that there were going to be three Navy and five Army platforms. This is an important capability, and the reason is, is because not everything has to fly.

If you can move units, coherent units on a surface platform, which is what the high-speed vessel will allow us to do is to move a Marine company, for example, very effectively over, say, distances from in the western Pacific from Okinawa to Korea, or similar arrangements in the Gulf. These are excellent platforms, again, for moving coherent units where you have port capability.

It is an important initiative. It is one which the regional commanders who I support certainly endorse—U.S. Pacific Command and CENTCOM, in particular. The first increment of that, I am quite certain, will be eight platforms. I will give you the delivery schedule for the record.

[The information referred to follows:]

[Deleted.]

Senator SESSIONS. All right. Secretary Payton, with regard to the tanker and the procedures that were utilized, there were lease arrangements which fell apart and much embarrassment over that. Congress, as part of our response and mandate to DOD, required that this contract be bid, did it not?

Ms. PAYTON. Yes, sir.

Senator SESSIONS. When Congress required that, issues such as components, labor requirements, or other issues in existence at the time that Congress had originally passed, were the standards that you had to follow when you executed the contract.

Ms. PAYTON. Yes, sir.

Senator SESSIONS. So some Members of Congress that are complaining to you about how you conducted the process forget we set up the process of how bids should be conducted, and then we directed the Air Force to bid this contract, and do you feel like you followed those requirements?

Ms. PAYTON. Absolutely.

Senator SESSIONS. Are you satisfied that the aircraft chosen will be a superior product for the military personnel who will use them?

Ms. PAYTON. No doubt. Yes, sir.

Senator SESSIONS. General Schwartz, would you comment on that?

General SCHWARTZ. Sir, I am content with the selection process.

Senator SESSIONS. Will the aircraft today, General Schwartz, the aircraft that has been selected, how does it compare to the existing aircraft? Do you get savings and benefits from having this more modern aircraft in addition to just eliminating a fleet that is getting more and more costly?

General SCHWARTZ. Senator Sessions, I think the short answer is this: the 707 was a magnificent machine in its day, and it was designed to fly once every 3 days. Airplanes today, particularly commercial variants, are designed to fly three times a day. That kind of utility, that kind of productivity, will change the way we do business.

That is really the thing that is exciting. The versatility that is inherent in the airframe to both refuel and to lift and to do it with a modicum of self-protection is a game changer, in my view.

Senator SESSIONS. With regard to your comments about lift and the commercial sector, the Army Reserve unit I used to be a member of for 10 years—I was a part of the Military Sealift Command, and we contemplated and had leases with ships, and in a crisis, we didn't expect that we would have enough military ships to lift everything that we needed, but we had a priority lease with regard to those shipping companies that they would immediately bring their ships to the service of the country for whatever needs we might have, along with their crews.

First of all, is that essentially what you are doing with the Air Force, and is that a big cost saver?

General SCHWARTZ. That is essentially the process that we have both on the airlift and the sealift side. Clearly, if the U.S. Government owned the assets and the networks that we take the commercial networks out there that we take advantage of, some have estimated that the cost of it would be $50 billion.

Senator SESSIONS. In extra cost if you tried to maintain that as a force?

General SCHWARTZ. Exactly. Exactly. The truth, this is a particularly advantageous arrangement where, for a relatively modest incentive, we are assured that both our airline partners and our sealift partners will present their vessels or their aircraft typically within 48 hours, a little bit longer for the sealift folks depending on where their ships are, and support America's business.

Senator SESSIONS. I think striking that right balance, people might disagree where it is. But I absolutely agree it is just not feasible for us to maintain all these ships sitting with no real mission, and then for a certain number of months, they might all be used. It makes more sense to have the kind of contracts in place that allows you to call up commercial aircraft that are well-maintained and can be utilized immediately.

With regard to I think you mentioned, there is considerably more cargo and considerably more personnel lift capability in these new tanker aircraft. Mr. Chairman, the fuel—you probably know, but I didn't until some time ago—is just in the wings. The main cargo area is open for personnel and any cargo. So you get a considerably amount more of cargo and personnel lift capability with this?

General SCHWARTZ. We certainly do, and that is not a trivial matter.

Senator SESSIONS. Secretary Payton, do you know the details of the numbers on that offhand?

Ms. PAYTON. Yes, sir, I do. I think relative to the winner—the successful offer and the unsuccessful offer, I can't really give those particular numbers out at this time.

This was a tanker first. It has incredible offload capacity at 1,000 nautical miles and 2,000 nautical miles. So from a tanker perspective, it will take many less tankers to refuel many more receivers and to stay in the air for a much longer time.

Relative to passengers, hundreds of more passengers can be carried. Aeromedical evacuation as well is hugely improved with either one of these tankers. So it is a great multi-mission aircraft, but tanking is job one.

Senator SESSIONS. Thank you, and I know it remains the Air Force's number-one priority for recapitalization. You mentioned multi-point refueling. What does that mean, Secretary Payton or General Schwartz?

Ms. PAYTON. Do you want to take that?

General SCHWARTZ. I would be happy to. In other words, this airplane will be able to refuel both from the boom for those typically Air Force aircraft that have a boom and receptacle sort of refueling arrangement. Or at the same time, there will be wing pods, which allow refueling what we call probe and basket. Typically, the United States Navy uses that. So the baskets come back out of the pods and the Navy aircraft can refuel.

So you can refuel both off the pods and the boom simultaneously.

Ms. PAYTON. As well with our coalition partners who typically use the drogue or the basket side of it, yes.

General SCHWARTZ. Right.

Senator SESSIONS. Thank you very much.

Senator KENNEDY. Thank you very much. I have just a final couple of questions.

Secretary Payton, what is the status of those negotiations for buying any C–17 beyond the 180 aircraft in the original Air Force program?

Ms. PAYTON. From an acquisition point of view, we have no requirements to procure any additional C–17s. I do understand that some have been put in the supplemental. So a request went in in the supplemental.

The requirement side of the world is handled by the uniform service relative to operations and readiness, and once those requirements are approved and funded, then the acquisition workforce kicks into work. But at this point, relative to acquisition, I have no new requirements to procure any more C–17s.

Senator KENNEDY. If there are, are you including negotiation of options for buying some number of C–17 with the final appropriations in 2008?

Ms. PAYTON. No.

Senator KENNEDY. If not, would you be conducting all new negotiations for any 2008 aircraft?

Ms. PAYTON. No, sir. We don't have any negotiations in work for C–17s. As a matter of fact, a primary concern right now is that fac-

tory and the amount of money it costs to close it down. So if we are not going to buy more, then we need to figure out how to fund the closedown of it. If we are, then we won't know that until the supplemental is approved later this year, I understand.

Senator KENNEDY. The point I am getting to is whether you consider any of these options in terms of negotiating for expansion of C–17s?

Ms. PAYTON. I believe we have been provided unsolicited proposals. But at this time, we are not looking at those because we have no money, and it would violate the law to try to do something without any money.

Senator KENNEDY. Let me ask you, General Schwartz, just to conceptually and just briefly with the looking down the road in terms of national security and defense and where we are, where we are going to be, how do you see the expansion of the Services, which are being looked at, all the different types and changes, how do you consider those potential changes as you are planning now in terms of the future?

General SCHWARTZ. There are a number of matters out there that do need to be factored into what is the right fleet size and mix. Some of those factors include, at the moment, changes related to the size in the ground forces, both the Marine Corps and the Army. Some of that relates to the equipment, which needs to be transported. This tends to grow over time. It rarely gets smaller.

Likewise, the plans that the combatant commanders have to employ the force influence how quickly one must close the force. Every several years, we do what we call a mobility study, sometimes called a capability study, sometimes called a requirements study. This time, upcoming, sir, it will be both.

The so-called mobility, capability, and requirement study (MCRS) 2008 will look at all of these factors to offer the best assessment on what is the right size of the force and what is the best fleet mix. Now, there is another study underway as well, directed by Congress, known at least in our lingo as McCaskill-Tauscher, which is due in January 2009. The Institute for Defense Analyses is going to do that one.

The DOD study, which we are a full partner in, MCRS, will be due later in 2009. We are working hard to synchronize those two efforts so that they don't get disconnected.

One final comment, sir. You asked me earlier about 205 C17s. A key factor in 205 is this question about the growth in the ground forces. I believe that the growth in the ground forces is not to provide the country with a capability to surge more brigades in a short period of time. In other words, say, for the sake of argument, our current plan is 20 brigades, that the additional brigade equivalents that will come onboard are not there to take it to 25, but rather to reduce the tempo on the ground forces that, in some cases, are pulling 15-month tours now or longer, or 7 months for the Marine Corps or maybe a little longer—to reduce that tempo.

I think that is the case. The studies will reconfirm that is, in fact, what the Department intends. But that is certainly my understanding of where we are at and is why I remain confident that 205 is the right number.

Senator KENNEDY. I want to thank you very much. We might have some questions for the record from the other members who weren't here.

General SCHWARTZ. Understood, sir.

Senator KENNEDY. We're very grateful, and we appreciate and we applaud you. We weren't always in this kind of circumstance in terms of airlift in recent years.

General SCHWARTZ. Right.

Senator KENNEDY. So you deserve very considerable credit to get us up to the shape that we are in, and we are very impressed with it. Thank you very much.

General SCHWARTZ. To you, sir, and Congress, who enabled us to do it.

Ms. PAYTON. Yes, sir.

Senator KENNEDY. Thank you. The subcommittee stands adjourned.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR EDWARD M. KENNEDY

C–5A AIRCRAFT READINESS

1. Senator KENNEDY. General Schwartz, Secretary Young's Nunn-McCurdy certification of the C–5 Reliability Enhancement and Re-engining Program (RERP) upgrade indicated several actions that were planned, including providing the Avionics Modernization Program (AMP), upgrade to all 111 C–5s, and requiring that the Air Force institute performance-based logistics and Lean Six Sigma process improvements to the maintenance activities for all 111 C–5 aircraft to improve capability and lower operating costs. Is there funding in the budget and the Future Years Defense Program to complete the AMP and improve logistics support for the C–5 fleet?

General SCHWARTZ. The current budget funds the AMP modification for the remaining fleet. Additionally, reliability will be improved through the RERP effort on the B models and through a change in the logistics philosophy used on the entire fleet. The C–5 is moving from a "fly-to-fail" system to a scheduled inspection and maintenance program, similar to the commercial world. These programs are also funded in the current budget.

2. Senator KENNEDY. General Schwartz, how will the Air Mobility Command respond to these directions for improving logistics support for the C–5 fleet?

General SCHWARTZ. The Air Mobility Command efforts to improve logistics support for the C–5 fleet include Aircraft Availability Improvement Programs such as Maintenance Steering Group (MSG–3) and the C–5 Regionalized Isochronal Inspection program (C–5 RISO). MSG–3 is an inspection philosophy that alters the traditional fly-to-fail approach to maintenance. At the same time, it moves the C–5 community to a more proactive condition-based approach to aircraft maintenance. The RISO reduces the number of inspection facilities across the country and the subsequent manpower associated with these facilities. Additionally, it minimizes simultaneous inspections and maximizes inspection proficiency. Together, these programs will improve overall reliability and make additional aircraft available to the warfighter.

STATUS OF THE C–17A PRODUCTION

3. Senator KENNEDY. Secretary Payton, Congress added 10 aircraft to the budget request in fiscal year 2007 and has authorized 8 aircraft in fiscal year 2008. Congress has not yet acted on the final Department of Defense (DOD) supplemental appropriations for 2008. What is the status of the negotiations for buying any C–17 aircraft with the fiscal year 2007 funds?

Ms. PAYTON. An Undefinitized Contractual Action was issued December 18, 2006, for the 10 additional aircraft so the contractor could begin work. The first aircraft is scheduled to deliver in November 2008 and the last will deliver in July 2009. The Air Force is in preliminary stages of negotiations, with contract definitization anticipated in July 2008.

4. Senator KENNEDY. Secretary Payton, are you including negotiation of options for buying some number of C–17 aircraft with the final appropriations for 2008? If not, would you be conducting all new negotiations for any 2008 aircraft?

Ms. PAYTON. We have not included any options for C–17 aircraft identified in the fiscal year 2008 appropriations. Boeing would be required to submit a new certified proposal for 2008 aircraft.

C–5 RERP COST ESTIMATING

5. Senator KENNEDY. Secretary Payton, the DOD-approved cost estimate of the C–5 RERP showed that there was indeed a breach of the Nunn-McCurdy thresholds for the C–5 RERP modernization. The Cost Analysis Improvement Group (CAIG), which produced that approved estimate, derived a constant dollar cost estimate of acquisition unit cost of $92.4 million, versus the $60.5 million originally estimated. While this increase was unfortunate, this estimate only reflects half the increase that the Air Force derived as the service cost position in reporting the Nunn-McCurdy violation in the first place. During the hearing, you said that the primary reason for this was that you were funding the program to the 80–90 percent confidence level, and that this is now standard practice for major Air Force acquisition programs. Could you provide the committee a list of all Air Force major acquisition programs and identify the confidence level assumed in building the cost estimates for the current program?

Ms. PAYTON. Of the 33 acquisition category 1, non-space programs, 9 are funded in the 80–90 percent confidence level. The remaining programs either do not have a specific confidence level assigned to the cost estimate, are funded at the 50 percent confidence level per the Office of the Secretary of Defense CAIG, or were baselined before the SAF/AQ guidance.

Program	Confidence Level Assumed
CSAR-X	50-80%, High
C-130 AMP	50% - post-NM OSD CAIG cost estimate
C-5 RERP	USAF SCP - 50% Production / 80% SDD; OSD CAIG does not apply
JPATS	80%
C-130J	No Confidence Level Assigned to Cost Estimate
LAIRCM	No Confidence Level Assigned to Cost Estimate
C-17	90%
C-5 AMP	No Confidence Level Assigned to Cost Estimate
F-22	90%
F-35	No Confidence Level Assigned to Cost Estimate
B-2 EHF SATCOM	90%
JDAM	100%
SDB I	100%
SDB II	65% - currently in Risk Reduction and MS B planned in FY09
Global Hawk	No cost estimate confidence level assigned, funded to OSD CAIG cost estimate
Mission Planning System	60% - cost estimate confidence level assigned prior to SAF/AQ guidance
B-2 RMP	50% - cost estimate confidence level assigned prior to SAF/AQ guidance
ISPAN	50% - cost estimate confidence level assigned prior to SAF/AQ guidance
JASSM	65% - post-NM confidence level
AMRAAM	65% - currently in late production phase of 120-D
AOC WS	pre-Milestone B, no approved cost baseline exists
CV-22	No Confidence Level Assigned to Cost Estimate
ECSS	pre-Milestone B, no approved cost baseline exists
JCA	Army & AF funded to the OSD CAIG cost estimate (no confidence level assigned)
BCS-F	50% - cost estimate confidence level assigned prior to SAF/AQ guidance
BCS-M	50% - cost estimate confidence level assigned prior to SAF/AQ guidance
CCIC2S	53% - cost estimate confidence level assigned prior to SAF/AQ guidance
CITS	No Confidence Level Assigned to Cost Estimate - program is in Operations & Support phase
DEAMS	pre-Milestone B, no approved cost baseline exists
JPALS	50% - pre-Milestone B
MP-RTIP	50% - cost estimate confidence level assigned prior to SAF/AQ guidance
NAS	50% - program is in late deployment phase
TDC	High Confidence - No confidence level assigned

QUESTIONS SUBMITTED BY SENATOR MEL MARTINEZ

ONGOING MOBILITY OPERATIONS

6. Senator MARTINEZ. General Schwartz, U.S. Transportation Command (TRANSCOM) has been central to virtually every major U.S. global operation, providing persistent support to the regional commanders. Mission requirements have been highly varied—supporting forces in Iraq and Afghanistan, providing humanitarian relief, moving patients worldwide to provide critical care; all while supporting steady state global operations. How would you assess the current readiness of the mobility fleet of aircraft and ships, and that of the men and women operating this fleet, given the operational tempo of these ongoing operations?

General SCHWARTZ. [Deleted.]

7. Senator MARTINEZ. General Schwartz, how does your strategic airlift requirement address and account for the stand-up of U.S. Africa Command (AFRICOM) and the Grow the Force initiative?

General SCHWARTZ. The strategic airlift requirement is based upon comprehensive analysis of all the major airlift missions required to support the National Military Strategy. The 2005 Mobility Capability Study provides the most recent analysis but did not include the recent stand-up of the U.S. AFRICOM and the Grow the Force initiative. The congressionally-directed Airlift Fleet Mix Analysis and the Depart-

ment of Defense Mobility Capabilities and Requirements Study, to be completed in January and May 2009 respectively, will consider a number of emerging operational issues, to include future AFRICOM needs and the Grow the Force initiative requirements.

UNITED STATES TRANSPORTATION COMMAND PROGRAM PRIORITIES

8. Senator MARTINEZ. General Schwartz, there are a number of major programs—ongoing and future—which comprise TRANSCOM's end-to-end lift capability. C–17 production, C–5 modernization, tanker fleet recapitalization, C–130 modernization, and Joint Cargo Aircraft are primary examples. To some extent, the capabilities provided by these programs overlap. Strategic lift aircraft, for example, are performing tactical lift. Likewise, the future Joint Cargo Aircraft may take pressure off of tactical airlift requirements. Meanwhile, you've expressed the importance that the future tanker be capable of cargo and passenger lift. While this reflects smart management of limited resources, these programs are also competing with each other for procurement funding. Could you please outline your program priorities as they pertain to ensuring balanced capability across the full spectrum of lift requirements?

General SCHWARTZ. Rapid global mobility is essential to the effectiveness of the future force and I am comfortable that the current funding levels in the President's budget adequately address these mobility priorities with manageable risk.

With that in mind, my top mobility priority of recapitalization of our aging tanker fleet is funded at the Program of Record. Continued funding support and minimizing delays in the KC–X program is critical to the TRANSCOM mission. Additionally, legacy mobility platforms must remain funded at the requested levels in the President's budget. Any reductions in programmed funding for the C–5 AMP and RERP or C–130 AMP and center wing box translate into additional risk. While I support the programmed fleet of 190 C–17s, in conjunction with the modernization of a portion of the C–5 fleet, I would favor a modest increase in the C–17 programmed fleet from 190 to 205 aircraft. Finally, LAIRCM installation on the C–37/C–40 fleet must remain fully funded as requested in the President's budget. LAIRCM equipped C–37/C–40s will free up C–130s and C–17s currently tied to missions requiring defensive systems.

9. Senator MARTINEZ. General Schwartz, recognizing that we are always bound by fiscal constraints, are you satisfied that this year's budget request adequately addresses these priorities?

General SCHWARTZ. Rapid global mobility is essential to the effectiveness of the future force and I am comfortable that the current funding levels in the President's budget adequately address these mobility priorities with manageable risk.

With that in mind, my top mobility priority of recapitalization of our aging tanker fleet is funded at the Program of Record. Continued funding support and minimizing delays in the KC–X program is critical to the TRANSCOM mission. Additionally, legacy mobility platforms must remain funded at the requested levels in the President's budget. Any reductions in programmed funding for the C–5 AMP and RERP or C–130 AMP and center wing box translate into additional risk. While I support the programmed fleet of 190 C–17s, in conjunction with the modernization of a portion of the C–5 fleet, I would favor a modest increase in the C–17 programmed fleet from 190 to 205 aircraft. Finally, LAIRCM installation on the C-37/C–40 fleet must remain fully funded as requested in the President's budget. LAIRCM equipped C–37/C–40s will free up C–130s and C–17s currently tied to missions requiring defensive systems.

C–5 RELIABILITY ENHANCEMENT RE-ENGINING PROGRAM

10. Senator MARTINEZ. Secretary Payton and General Schwartz, the Under Secretary of Defense recently completed his review of the C–5 RERP in conjunction with the program's Nunn-McCurdy cost breach; and he certified that the most cost-effective way to meet your strategic airlift requirements is to re-engine the 51 C–5B and C–5C aircraft, only. He also reviewed options for procuring additional C–17 aircraft and rejected those options as not meeting requirements and more costly to the taxpayer; ultimately concluding that procurement of additional C–17 aircraft was not affordable. Do you agree with the course the Under Secretary has set for strategic airlift programs, particularly in view of the priority placed on the tanker program within the TRANSCOM portfolio?

Ms. PAYTON. I support the Department's decision as outlined in the C–5 Nunn-McCurdy certification.

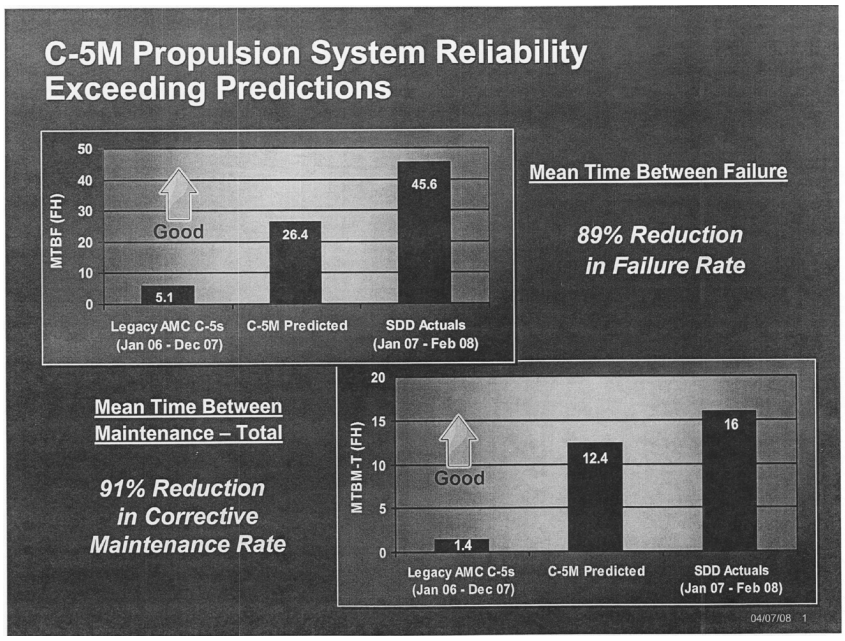
General SCHWARTZ. Based on current analysis, the Under Secretary is pursuing a prudent acquisition approach in accordance with the President's budget. As always, we must reassess our strategy if and when future studies indicate a need for change.

11. Senator MARTINEZ. General Schwartz, in response to questions regarding C–17 aircraft on the Unfunded Priority List, the Air Force has indicated that the C–17 acquisition objective has been increased to 248 aircraft—an increase of 58 above current program and 43 above your sweet spot. What impact would this increase to your C–17 fleet have on your ability to manage a balanced airlift force, including your Civil Reserve Air Fleet (CRAF) partners, in a cost effective manner?

General SCHWARTZ. A fleet of 248 C–17s assumes the retirement of all 59 C–5As and one-for-one replacement by C–17s to the C–5A units. All C–5A units are assigned to the Guard or Reserve. The C–17s would fly the same number of hours as the C–5s they replace. As a result, expanding the C–17 fleet to 248 and retiring the C–5As would have no effect on our CRAF partners.

12. Senator MARTINEZ. Secretary Payton, I understand that three re-engined C–5 aircraft are currently conducting flight testing. Could you provide your assessment of the performance of these re-engined aircraft in meeting their reliability objectives?

Ms. PAYTON. As of April 7, 2008, the three SDD aircraft have successfully completed a total of 276 flights while accumulating approximately 840 hours flight time. Overall, the flight test program has executed over 76 percent of ground and flight specification test points. Both Lockheed Martin Aeronautics Company and Air Force Developmental Test Organization reliability performance tracking efforts indicate the three modified C–5M aircraft are meeting reliability requirements and are, in fact, exceeding requirements in several areas. Our assessment of the most recent data, as reported by the Air Force Developmental Test Organization, indicates that reliability and maintainability specifications will be met. The C–5M propulsion system, the cornerstone of C–5 RERP accounting for 54 percent of the expected Mission Capable Rate (MCR) improvement, is exhibiting exceptional reliability performance during flight testing as shown on the attached chart.



13. Senator MARTINEZ. Secretary Payton, if the three re-engined C–5 aircraft that are currently undergoing flight testing are not meeting their objectives, what would you attribute the cause for this shortfall and what actions are underway to correct it?

Ms. PAYTON. Our assessment of the most recent data, as reported by the Air Force Developmental Test Organization, indicates that reliability and maintainability requirements will be met.

14. Senator MARTINEZ. Secretary Payton, the prime contractor for the C–5 aircraft proposed to mitigate cost growth through long-term purchase agreements with his vendors and not-to-exceed (NTE) pricing with the Air Force. Could you provide an update on your current acquisition strategy for this program, and your progress in completing negotiations for the contract?

Ms. PAYTON. Our contract now establishes NTE prices for the 49 aircraft to be modified to the RERP configuration over 7 lots. We have negotiated fixed prices for Lots 1 through 3 and expect to be on contract by 30 April with these prices. The prices will be subject to economic price adjustment for unusual economic impacts on only the propulsion system and the pylons.

Prices for Lots 4 through 7 will be negotiated as fixed prices prior to funding of each option. We continue to pursue cost-reduction initiatives for all lots.

The fixed prices and the NTE prices are based on a buy profile of 1 in fiscal year 2008, 3 in fiscal year 2009, 5 in fiscal year 2010, 7 in fiscal year 2011, 11 in fiscal year 2012, 11 in fiscal year 2013, and 11 in fiscal year 2014. The Air Force is committed to funding for this buy profile.

15. Senator MARTINEZ. Secretary Payton, what structure and incentives are you incorporating to improve upon the C–5 aircraft program cost estimates?

Ms. PAYTON. Fixed prices, subject to adjustment for unusual economic fluctuation, have been negotiated for Lots 1 through 3. Fixed-price arrangements provide maximum incentive on a contractor to reduce costs in order to maximize profit within the negotiated price.

Our contract also establishes NTE prices for Lots 4 through 7. These prices will be negotiated prior to award/funding of the options for each lot. The contractor is encouraged within this NTE structure to reduce costs; future profit negotiations will consider whether the Air Force significantly benefits from the contractor's efforts to reduce cost or improve schedule or performance.

We will work with the contractor and with the Defense Contract Management Agency (DCMA) to closely track actual costs during production. For example, we are requiring Earned Value Management reporting. We are also working with DCMA and the contractor to improve the company's estimating system. All of this information will facilitate negotiation of fair and reasonable prices for Lots 4 through 7.

16. Senator MARTINEZ. Secretary Payton, understanding that a significant percentage of the C–5 aircraft program's cost growth is associated with government costs, what specific measures are you taking to curb this cost growth on the program, and how would you judge the likely effectiveness of these measures?

Ms. PAYTON. Two factors caused C–5 RERP production cost growth associated with Other Government Costs (OGC): (1) underestimation at Milestone B of required Government Furnished Equipment (GFE); and (2) growth in Engineering Change Orders (ECO) and Mission Support costs, which were calculated by applying a factor to the increased total contract cost.

Completion of the C–5 RERP modification on the three SDD aircraft enabled a more complete understanding of the GFE required for Production, both in terms or actual items required and cost. Using this actual data, which was lacking at Milestone B, is a more effective way to develop program cost.

KC–45 TANKER AIR LIFT CAPABILITY

17. Senator MARTINEZ. General Schwartz, a discriminating requirement for the KC–45 tanker is the ability of the aircraft to be alternatively employed as an airlifter for passenger and cargo transport. The KC–45 lift capability was not included in the analysis for the Mobility Capabilities Study. However, this capability should significantly reduce your risk in meeting requirements in support of major combat operations. Are you able to quantify the magnitude of this lift contribution in terms of either million ton miles per day or C–17 equivalents?

General SCHWARTZ. During the first weeks of wartime surge operations (periods of peak demand for both airlift and aerial refueling), the KC–45 is dedicated for use

in its primary role as a tanker supporting deployment and employment operations. Million Ton-Miles per Day (MTM/D) is a wartime surge metric. The AMC does not plan to credit any MTM/D contributions from the KC–45 to the wartime surge equation; a policy consistent with the way we evaluate KC–10 performance today. However, AMC will use the KC–45s to meet airlift demands for CRAF transload of passengers and bulk cargo when the CRAF cannot operate in threatened environments. During periods of reduced aerial refueling demand, the KC–45 can also contribute effectively to organic delivery of passengers and cargo to locations and environments not served by commercial industry. The KC–45 lift capacity was not included in analysis for the MCS nor will it be included in our current MCRS analysis since those studies are in the 2012 to 2017 timeframe and the KC–45 will not reach FOC. Finally, it is inappropriate to equate KC–45 with C–17 capability. The KC–45 is not designed to carry the oversize and outsize equipment delivered by C–17s or access the austere environments visited by C–17s.

CIVIL RESERVE AIR FLEET

18. Senator MARTINEZ. Secretary Payton and General Schwartz, the DOD has submitted a legislative proposal to guarantee that a proper amount of assured business for CRAF partners will be available in the future. Would you please explain the importance of having U.S.-flagged commercial airline capability to carry outsize cargo within the CRAF program, and then, the importance of your proposed assured business model to the health of the CRAF program?

Ms. PAYTON. I defer this question to General Schwartz because U.S. TRANSCOM manages the CRAF contract with commercial air carriers.

General SCHWARTZ. A U.S-flag commercial airline outsize cargo capability is not something we currently require in the CRAF as this need is met by our C–5 and C–17 fleet.

We believe the assured business proposal is an integral part of the strategy to ensure the continuing viability of the CRAF program when DOD movement requirements return to pre-September 11 levels. The Department has a study underway to determine what other incentives or alternative organizing principles are needed to assure the CRAF program remains attractive to U.S. air carriers. I do, however, believe that the assured business concept will be a key part of the Department's business relationships with our CRAF partners.

19. Senator MARTINEZ. Secretary Payton and General Schwartz, has there been a trend away from medium-sized air cargo carriers that would jeopardize these partners' participation in CRAF?

Ms. PAYTON. I defer this question to General Schwartz because U.S. TRANSCOM manages the CRAF contract with commercial air carriers.

General SCHWARTZ. There is no trend by the TRANSCOM to move away from medium-sized air cargo carriers. Both large- and medium-sized cargo carriers make essential contributions to the Defense Transportation System (DTS).

20. Senator MARTINEZ. Secretary Payton and General Schwartz, as the global defense landscape changes and we bring units back from overseas to the United States, how does that affect the business relationship with our CRAF partners?

Ms. PAYTON. I defer this question to General Schwartz because U.S. TRANSCOM manages the CRAF contract with commercial air carriers.

General SCHWARTZ. Current Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) requirements sustain Civil Reserve Air Fleet (CRAF) carriers with wartime airlift business that will be greatly reduced post OIF/OEF. Current CRAF business is approximately $2.5 billion a year. Historically, the total pre-September 11 annual CRAF business was approximately $500–600 million per year. The tenuous state of the airline industry raises additional and significant concerns over CRAF viability post OIF/OEF-especially for the smaller CRAF charter carriers, both cargo and passenger. Careful consideration of legislative proposals, such as the CRAF Assured Business proposal currently before Congress, together with other possible incentives will be required to help assure a viable CRAF with adequate participation/capability in the future. As directed by Congress, DOD has contracted with Institute for Defense Analyses (IDA), a Federally Funded Research and Development Center, to study the future of CRAF to include potential impacts of a drawdown on our industry partners. That report is scheduled to be provided by the Secretary to Congress no later than September 30, 2008.

21. Senator MARTINEZ. Secretary Payton and General Schwartz, to what extent are your maritime partners, through the Maritime Security Program and Voluntary Intermodal Security Agreement Program, similarly affected by DOD business volatility?

Ms. PAYTON. I defer this question to General Schwartz because U.S. TRANSCOM manages the CRAF contract with commercial air carriers.

General SCHWARTZ. Each of our strategic sealift partners enrolled in the Maritime Security Program and the Voluntary Intermodal Sealift Agreement will be affected differently depending on the percentage of their business model that is predicated on DOD business. In the global war on terrorism, DOD business for some carriers may be as little as 1 percent while others could be as much as 60–70 percent. One of the TRANSCOM's highest priority initiatives for 2008 is to assess the expansion of the DTS business base in order to bring other Federal departments and agencies ship movements under the DOD distribution umbrella, increasing the amount of DOD cargo and lessening the effect of the loss of DOD specific cargo.

MILITARY SEALIFT

22. Senator MARTINEZ. General Schwartz, the Navy is formulating a program to procure Maritime Prepositioning Force (Future) (MPF(F)) ships, which, in addition to providing prepositioning of equipment for operational forces, would be available for routine tasking by the combatant commanders. How does the Navy's employment plan for this future MPF capability integrate with your vision for meeting prepositioning mission requirements?

General SCHWARTZ. The Navy's MPF(F) will constitute a component of our Nation's Global Prepositioning Materiel Capabilities and support a wide spectrum of Joint forces operations. MPF(F) will significantly improve the way we project cargo into an objective area; decreasing reliance on access to secure ports and airfields, and speeding the closure time of critical materiel.

Doctrine to integrate MPF(F) with other naval forces and ensure it complements the DTS is still being developed. TRANSCOM will remain engaged in this process and duly consider the future capabilities of MPF(F) vessels in the development of overall strategic sealift requirements.

23. Senator MARTINEZ. General Schwartz, Operation Iraqi Freedom placed heavy demands on prepositioned equipment. How would you assess progress to restore the readiness of the preposition force for future contingencies?

General SCHWARTZ. Each of the Services has a sound strategy for reconstituting and revitalizing their preposition force. It will take a few years to reach the intended end-state but the reconstituted force, by incorporating a combination of recent lessons learned and modernization initiatives, will be better suited to support the combatant commanders future contingencies. Current operations influence timelines in the case of both the Army and Marine Corps. One of the Army's Large Medium-Speed Roll-on/Roll-off (LMSR) vessels is in full operating status and reconstituted with prepositioned stock; five more LMSRs will reset with Army Prepositioned Stock–3 cargo between 2010 and 2013 in accordance with Army Prepositioning Strategy 2015. Full reconstitution of the Marines' MPF is expected by 2012. Two former Army LMSRs are scheduled for transfer to the MPF (one in April 2008 and one in April 2009). Additional acquisitions and alternatives to accommodate MPF growth are being considered.

[Whereupon, at 3:15 p.m., the subcommittee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2009

TUESDAY, APRIL 8, 2008

U.S. SENATE,
SUBCOMMITTEE ON SEAPOWER,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

NAVY FORCE STRUCTURE REQUIREMENTS AND PROGRAMS TO MEET THOSE REQUIREMENTS

The subcommittee met, pursuant to notice, at 2:41 p.m. in room SR–222, Russell Senate Office Building, Senator Edward M. Kennedy (chairman of the subcommittee) presiding.

Committee members present: Senators Kennedy, Sessions, Collins, and Martinez.

Majority staff member present: Creighton Greene, professional staff member.

Minority staff members present: David M. Morriss, minority counsel; and Sean J. Stackley, professional staff member.

Staff assistants present: Jessica L. Kingston and Benjamin L. Rubin.

Committee members' assistants present: Jay Maroney, assistant to Senator Kennedy; Gordon I. Peterson, assistant to Senator Webb; Sandra Luff, assistant to Senator Warner; Todd Stiefler, assistant to Senator Sessions; Mark J. Winter, assistant to Senator Collins; and Brian W. Walsh, assistant to Senator Martinez.

OPENING STATEMENT OF SENATOR EDWARD M. KENNEDY, CHAIRMAN

Senator KENNEDY. Good afternoon. The hearing will come to order. We welcome Deputy Assistant Secretary of the Navy for Ships, Allison Stiller. We want to thank you for a long period of service for the Navy, and not without its challenges.

We thank you very much for your dedication.

Ms. STILLER. Thank you very much.

Senator KENNEDY. We also welcome Barry McCullough, who's Deputy Chief of Naval Operations for Integration of Capabilities and Resources. We thank you very much for being here, Admiral. General Amos, Commander, Marine Corps Combat Development Command, we thank you very much. We know you've had recent service over in Iraq and we thank you. We thank all of our panel for their important public service and service to our country.

We are faced, all of us and the Services, with a number of critical issues that confront the Department of the Navy in balancing modernization needs against the costs of supporting ongoing operations in Iraq and Afghanistan. Within that general area there are several specific concerns for the subcommittee today.

One of these is in the prospects for meeting future force structure requirements. We're facing the prospect that the current Department of the Navy program will lead to potentially large gaps between the forces that the Chief of Naval Operations (CNO) and the Commandant of the Marine Corps have said they need and the forces that will be available to their successors.

In one case, the CNO has said that the Navy needs to have 48 attack submarines to meet the combat commanders' requirements. We're faced with the risk of falling well short of that goal for more than 10 years starting during the next decade.

In another case, the Navy now predicts the Navy and Marine Corps tactical aircraft forces are facing a shortfall of at least 125 tactical fighters needed to outfit our active air wings, 10 aircraft carrier air wings, and 3 Marine Corps air wings. With shortfalls that large, we could be faced with drastically reducing the number of aircraft available on short notice to the combatant commanders, either because we have deployed understrength air wings or because we did not deploy the carrier at all because of these aircraft shortages.

I mention the aviation situation not because we will deal with it in detail this afternoon, but to illustrate that we will not be able to look to Navy aviation to be a bill-player for the problems of the shipbuilding portfolio.

Other challenges face the Navy centering on acquisition programs. We have had special concern about the Littoral Combat Ship (LCS). This was intended to be a ship that the Navy could acquire relatively inexpensively and relatively quickly. As it turns out, the LCS program will be neither. Once again, we are presented with a program with significant cost growth, which at least in part was driven by the Service changing requirements after the design and construction was signed and making poor original cost estimates.

The LCS situation raises significant questions about acquisition management within the Navy. For example, why weren't the Navy and contract teams better able to see the problems sooner? At the time we marked up the National Defense Authorization Bill for Fiscal Year 2008, the subcommittee believed that the second LCS team, led by General Dynamics, was likely to experience the very same difficulty as the Lockheed Martin team. You'll recall the Navy had terminated the contract on the second Lockheed Martin LCS, the LCS–3, earlier last year.

During the middle of the markup, the committee heard from Secretary Winter and Admiral Mullen, who both claimed that things were not as bad with General Dynamics' part of the program as they had proven to be on the Lockheed Martin ships. They made these assertions despite the Navy's own internal estimates to the contrary.

Late in 2007, the Navy finally realized it was facing the same situation with General Dynamics as it faced with Lockheed Martin

and tried to get General Dynamics to sign up to a fixed-price contract for the two ships or face outright cancellation on the second ship, just as the Navy had done with Lockheed Martin. The Navy and General Dynamics could not reach an agreement, so the Navy terminated the contract for the second vessel, the LCS–4, for the convenience of the government.

In summary, the Navy was still viewing the LCS program too optimistically as late as May last year, again just months away from having to terminate the contract for LCS–4. I would be interested in hearing from Secretary Stiller about what actions the Department has taken to strengthen the acquisition oversight and restore confidence in the Navy's ability to manage major acquisition programs.

We have also been waiting too long for better definitions of requirements in a couple of areas. First, the Navy was supposed to already have reached some better definition of requirements for the next generation cruiser, called the CG(X). The longer these definitions wait, the less likely it is the Navy will be able to maintain the intended schedule of awarding the first ship of that class in 2011.

We also are waiting for indications from the Navy about whether they will comply with the requirements that this new ship be nuclear powered or whether they will be seeking a waiver from that requirement from the Secretary of Defense. If that ship is to be nuclear powered, work would have to begin immediately on the design of such a ship to have a chance of starting construction any time before the middle of the next decade.

Another area where the Navy has had trouble defining the requirements that has been a problem is the Maritime Prepositioning Force-Future (MPF–F) program. While the subcommittee has heard for several years about the contributions that such a force could make to Marine Corps and Navy operations, we have seen that the procurement of certain ships within that objective has been delayed each year as resolution of questions about the requirements and capabilities keep being deferred.

There are other concerns, but in the interest of time I'll conclude with the following note. The subject of Navy force structure and acquisition is not a new one for the subcommittee. Over many years and with several different individuals holding the chairmanship of this subcommittee, we have devoted significant energies to these subjects. Today's hearing continues the subcommittee's strong bipartisan interest in the broader naval force structure issues facing the Nation today. It is in that bipartisan spirit that I again welcome Senator Martinez to the Seapower Subcommittee for the first year as serving as the ranking member of the subcommittee. I look forward to all of your testimony this afternoon and other issues facing the Department of the Navy, and we'll ask Senator Martinez for any comments he'd like to make.

[The prepared statement of Senator Kennedy follows:]

PREPARED STATEMENT BY SENATOR EDWARD M. KENNEDY

The subcommittee will come to order. I want to welcome Secretary Stiller, Admiral McCullough, and General Amos to the subcommittee this afternoon. We are grateful to you for your service to the Nation and to the valorous and truly professional men and women in the whole Navy and Marine Corps team.

You are faced with a number of critical issues that confront the Department of the Navy in balancing your modernization needs against the costs of supporting ongoing operations in Iraq and Afghanistan.

Within that general area, there are also several specific concerns for the subcommittee today. One of these is in the prospects for meeting future force structure requirements. We are facing the prospect that the current Navy program will lead to potentially large gaps between the forces that the Chief of Naval Operations (CNO) and the Commandant of the Marine Corps have said they need and the forces that will be available to their successors.

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Other challenges face the Navy, centering on acquisition programs. We have had special concerns about the Littoral Combat Ship (LCS) program. This was intended to be a ship that the Navy could acquire relatively inexpensively and relatively quickly. As it turns out, the LCS program will be neither. Once again we are presented with a program with significant cost growth which, at least in part, was driven by the Service changing requirements after the design and construction contract was signed and making poor original cost estimates.

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During the middle of markup, the Committee heard from Secretary Winter and Admiral Mullen (then CNO) who both claimed that things were not as bad with the General Dynamics part of the program as they had proven to be on the Lockheed Martin ships. They made these assertions despite the Navy's own internal estimates to the contrary.

Late in 2007, the Navy finally realized that it was facing the same situation with General Dynamics as it had faced with Lockheed Martin, and tried to get General Dynamics to sign up to a fixed-price contract on the two ships or face outright cancellation on the second ship (just as the Navy had done with Lockheed Martin).

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Today's hearing continues the subcommittee's strong bipartisan interest in the broader naval force structure issues facing the Nation today. It is in that bipartisan spirit that I again welcome Senator Martinez to the Seapower Subcommittee for his first year of serving as ranking member on the subcommittee.

I look forward hearing your testimony this afternoon on these and other issues facing the Department of the Navy.

STATEMENT OF SENATOR MEL MARTINEZ

Senator MARTINEZ. Thank you, Mr. Chairman. I very much appreciate your kind words of welcome and I look forward to continuing to work in the bipartisan fashion that this subcommittee needs to have in order to accomplish our common goals.

I also am pleased to welcome the witnesses, Secretary Stiller, Admiral McCullough, and General Amos. We thank you for your service to our Nation and thank you for joining us today.

This morning the Armed Services Committee received testimony on operations in Iraq and I know the more than 24,000 marines assigned to the Multi-National Force have performed remarkably, particularly in Al Anbar Province. Likewise, the Navy has made vital contributions in the theater. Over 10,000 sailors are augmenting ground forces in a variety of roles.

Without question, marines, sailors, soldiers, and airmen in combat are our number one priority. However, while the committee focuses on meeting the demands of these current operations, we must also take a longer view to ensure the readiness of our fleet and fleet marine force for future conflict.

The Navy reports as much as half of our ships are under way on any given day supporting the global war on terror and performing vigilance, peacekeeping, and humanitarian relief missions around the world. We're accustomed to and indeed our National Security Strategy is built upon freedom of the seas, a freedom that is made possible only through global presence and naval superiority. Absent a credible challenge at sea over the past 2 decades, however, the fleet has drawn down to 280 ships and it's in jeopardy of slipping further.

I share the strong concern raised by the subcommittee these past several years regarding this decline in the size of our fleet. Particularly today as we witness rapid expansion by competitor navies, most notably that of China, we must guard against shortfalls to our numbers of aircraft carriers, submarines, amphibious ships, and surface combatants.

The CNO has presented Congress with a shipbuilding plan to reverse this trend and build the Navy back to 313 ships. Even this plan, however, which strives to balance capability with affordability, must cope with shortfalls in key warfighting areas while confronting significant cost risk. The cost estimate for building this future Navy exceeds the investments of the past 15 years by greater than 50 percent. Arguably, this is a bill that has come due as

a result of the long lapse in ship construction following the end of the Cold War.

In the 2009 budget request, however, it falls four ships and $1.5 billion short of the shipbuilding plan presented to this subcommittee just 1 year ago. This is a disturbing leading indicator of challenges ahead. It is important today to gain your candid assessment of these challenges, to hear from you regarding progress on new ship programs and regarding the health and welfare of the industrial base.

As well, I look forward to your practical assessment of the Navy's ability to finance a shipbuilding plan in the face of ever-increasing budget pressures and competing priorities. In the end, we need to arrive at a common understanding of the Navy and Marine Corps's priorities and risks and the prudent actions available to the administration and Congress that would mitigate these risks.

I also join the chairman in my concern over the LCS program. I want to make sure that we have this on track and are moving forward adequately, because without that component of the new shipbuilding program I don't think we can meet that goal of a 313-ship Navy.

I thank you again for joining us. I thank you for your tremendous service, and I look forward to your testimony here before us today.

Thank you, Mr. Chairman.

[The prepared statement of Senator Martinez follows:]

PREPARED STATEMENT BY SENATOR MEL MARTINEZ

Thank you, Mr. Chairman.

I'm also pleased to welcome our witnesses. Secretary Stiller, Admiral McCullough, and General Amos, thank you for joining us.

Earlier today, the committee received testimony on operations in Iraq, where the 24,000 marines assigned to the Multi-National Force have performed remarkably in the Al Anbar Province. Likewise, the Navy has made vital contributions in-theater with over 10,000 sailors augmenting ground forces.

Without question, marines, sailors, soldiers, and airmen in combat are our number one priority. However, while the committee focuses on meeting the demands of these current operations, we must also take 'the longer view' to ensure the readiness of our Fleet and Fleet Marine Force for future conflict.

By the Navy's reports, as many as half of our ships are underway on any given day supporting the global war on terror, and performing vigilance, peacekeeping, and humanitarian relief missions around the world. We are accustomed to, and indeed our National Security Strategy is built upon freedom of the seas—a freedom that is made possible only through global presence and naval superiority.

Absent a credible challenge at sea over the past two decades, however, the Fleet has drawn down to 280 ships and is in jeopardy of slipping further. I share the strong concerns raised by the committee these past several years regarding this decline in the size of our fleet. Particularly today, as we witness rapid expansion by competitor navies, most notably China, we must guard against shortfalls to our numbers of aircraft carriers, submarines, amphibious ships, and surface combatants.

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welfare of the industrial base. As well, I look for your practical assessment of the Navy's ability to finance the shipbuilding plan in the face of ever-increasing budget pressures and competing priorities. In the end, we need to arrive at a common understanding of the Navy's and Marine Corps' priorities and risks, and the prudent actions available to the administration and to Congress that would mitigate these risks.

Again, thank you for joining us. I thank you for your tremendous service to our country, and I look forward to your testimony.

Senator KENNEDY. Thank you very much.

Secretary Stiller, we'd be delighted if you'd lead off, please.

STATEMENT OF ALLISON F. STILLER, DEPUTY ASSISTANT SECRETARY OF THE NAVY FOR SHIPS, DEPARTMENT OF THE NAVY

Ms. STILLER. Mr. Chairman, Senator Martinez, Senator Collins: It's a privilege for Lieutenant General Amos, Vice Admiral McCullough, and me to appear before you today to discuss Navy shipbuilding. I request that Vice Admiral McCullough's and my written statement be entered into the record.

Senator KENNEDY. Without objection.

Ms. STILLER. The Department is committed to build an affordable fleet at or above 313 ships, tailored to support the National Defense Strategy, the recently signed Maritime Strategy, and the 2006 Quadrennial Defense Review (QDR). For the first time in a long while, the Navy's budget does not include funding for any lead ships. This year a total of seven ships are included in the fiscal year 2009 President's budget: one *Virginia*-class submarine, one DDG–1000-class ship, two LCSs, two T–AKEs, and one Navy Joint High-Speed Vessel (JHSV). In addition, although not part of the Navy's 313-ship force structure, the Navy will procure 1 JHSV for the Army in fiscal year 2009.

I'll now elaborate on the specifics of the request. The Navy is requesting $2.1 billion of full funding for one *Virginia*-class submarine in fiscal year 2009 and advanced procurement for the fiscal year 2010 boat, and advanced procurement for two boats in fiscal year 2011. The *Virginia*-class construction program is continuing to make progress toward realizing CNO's goal of buying two *Virginia*-class submarines for $4 billion as measured in fiscal year 2005 dollars, starting in fiscal year 2012.

Because of your support with the addition of advanced procurement funding last year, the Navy has accelerated the production of two *Virginia*-class submarines per year from fiscal year 2012 to fiscal year 2011. Two months ago, the Navy awarded contracts for the construction of the dual DDG–1000 lead ships to General Dynamics-Bath Iron Works and to Northrop Grumman Shipbuilding. The fiscal year 2009 President's budget request of $2.55 billion provides full funding for the third ship of the DDG–1000-class and advanced procurement for the fourth ship. With recent approval from the Defense Acquisition Executive (DAE) for the follow ship acquisition strategy, the Navy intends to utilize fixed-price incentive fee contracts through a competition for quantity.

The Navy remains committed to the LCS program and LCS remains a critical warfighting requirement for our Navy. The fiscal year 2009 President's budget request includes $920 million for two additional LCS sea frames. The Navy also intends to execute the

fiscal year 2008 appropriation for one sea frame, utilizing the remaining funding and material from the terminated ships. Under an acquisition strategy approved in January 2008 by the DAE, the fiscal years 2008 and 2009 awards will be for fixed-price incentive fee contracts based on a limited competition between the current LCS sea frame prime contractors.

The fiscal year 2009 President's budget request also provides for procurements of two T–AKEs in the National Defense Sealift Fund.

The JHSV program is currently in the technology development phase. Lead ship award is anticipated in late fiscal year 2008, with delivery of the first vessel in 2011. The fiscal year 2009 President's budget request includes $187 million for the construction of the first Navy-funded JHSV and $173 million for the second Army-funded vessel. We worked diligently to stabilize our shipbuilding plan and move into serial production.

The Navy remains committed to ensure fiscal responsibility in shipbuilding acquisition programs, as evidenced by the cancellation of LCS–3 and LCS–4 last year.

Mr. Chairman, we'd like to thank you for this opportunity to discuss the Navy's shipbuilding budget request for fiscal year 2009. Vice Admiral McCullough would like to remark briefly on a day in the Navy. Thank you.

[The joint prepared statement of Ms. Stiller and Admiral McCullough follows:]

JOINT PREPARED STATEMENT BY ALLISON F. STILLER AND VADM BARRY MCCULLOUGH, USN

Mr. Chairman and distinguished members of the subcommittee, thank you for the opportunity to appear before you today to address Navy shipbuilding. The Department is committed to the effort to build an affordable 313-ship fleet by 2020 tailored to support the National Defense Strategy, the Maritime Strategy, and the 2006 Quadrennial Defense Review. This year a total of seven ships are included in the fiscal year 2009 President's budget, one *Virginia*-class SSN, one DDG–1000, two littoral combat ships (LCSs), two T–AKE, and one Navy Joint High Speed Vessel (JHSV). In addition, although not part of the Navy's 313-ship force structure, the Navy will procure 1 JHSV for the Army in fiscal year 2009.

The Department has updated the Long-Range Strategic Shipbuilding Plan with an eye on further stabilizing workload and funding requirements. A stable plan will enable the shipbuilding industry to maintain critical skills and to make business decisions that increase efficiency and productivity in order to meet the Navy's projected shipbuilding requirements. In addition to a stable shipbuilding plan, the Department has been exploring alternatives with the shipbuilding industry to mitigate workload fluctuations among shipyards to maintain a stable and skilled workforce across the industry sectors. The Department requests consideration of a general cost cap exception to allow the Department to work with industry to better level load work across the industrial base.

We still face challenges. In response to cost increases in the lead ships of the LCS class, the Navy has slowed the initial rate of production to reduce risk; however, the Navy remains committed to the program to fill critical warfighting gaps that exist today. In an area of success, the innovative design and build practices being implemented by *Virginia*-class are already showing promise and can serve as a model for other programs. Bringing the cost of the *Virginia*-class fast attack submarine down to $2 billion (fiscal year 2005 $) per hull by fiscal year 2012 remains a challenge and is currently within $50 million of target.

The Gulf Coast shipyards have struggled since Hurricane Katrina. Over the last year the Navy and Northrop Grumman Ship Systems have worked at a ship portfolio level to reset the schedule baselines and have adjusted the associated contracts accordingly. Additionally, six Gulf Coast shipbuilders were awarded contracts in 2007 under Section 2203 of Public Law 109–234, Emergency Supplemental Appropriations for Defense, The Global War on Terror and Hurricane Recovery 2006. The purpose of these contracts is to expedite recovery of shipbuilding capability in areas

affected by Hurricane Katrina by repairing and/or replacing shipbuilding facilities, to make lasting improvement in shipyard facilities that would result in measurable cost reductions in current and future Navy shipbuilding contracts, and to improve the ability of shipbuilding facilities on the Gulf Coast to withstand damage from potential hurricanes or other natural disasters.

Lastly, we are actively working with our Allies to exchange best practices and lessons learned on shipbuilding efforts. A Shipbuilding Quadrilateral forum has been established which includes the U.S., United Kingdom, Canada, and Australia to discuss systematic trends that are emerging in shipbuilding programs. The forum serves to discuss, compare and contrast acquisition matters such as contracting practice and industry trends. In addition, the Navy is partnering with the United Kingdom to support the new missile compartment design for their *Vanguard*-class replacement.

As noted earlier, the Department proposes procurement of seven new construction ships as part of the 2009 President's budget request. Each of these ships as well as other significant Navy shipbuilding programs are discussed below.

VIRGINIA-CLASS

Currently, four *Virginia*-class submarines have been delivered to the Fleet and six more are under construction. In the past year, the Navy commissioned U.S.S. *Hawaii* (SSN–776), the third boat of the *Virginia*-class, christened the fourth submarine of the class, *North Carolina* (SSN–777), and laid the keel for the fifth submarine, *New Hampshire* (SSN–778). In 2008 we will deliver and commission two submarines. *North Carolina* (SSN–777), the fourth submarine, just delivered last week and will commission in May. *New Hampshire* (SSN–778), the fifth submarine is scheduled to deliver in October, 6 months ahead of the April 2009 contract delivery date. In January 2008, the seventh, eighth, and ninth hulls were named *Missouri* (SSN–780), *California* (SSN–781) and *Mississippi* (SSN–782), respectively.

The *Virginia*-class construction program is continuing to make progress toward realizing the Chief of Naval Operation's goal of buying two *Virginia* SSNs for $4 billion as measured in fiscal year 2005 dollars, starting in fiscal year 2012. General Dynamics Electric Boat and Northrop Grumman Newport News (NGNN), will continue to jointly produce these submarines and are working to reduce the construction time and cost of these ships in concert with the program office. In this budget, the production of two *Virginia*-class submarines per year has accelerated to start in fiscal year 2011 vice fiscal year 2012. The fiscal year 2008 congressional plus-up for advanced procurement was instrumental to this effort. Negotiations for an eight-ship multi-year procurement contract will begin soon, and we anticipate signing that contract in late 2008. The Navy requests approval for the next multi-year contract.

DDG—1000 DESTROYER

This multi-mission surface combatant, tailored for land attack and littoral dominance, will provide independent forward presence and deterrence and operate as an integral part of joint and combined expeditionary forces. DDG–1000 will capitalize on reduced signatures and enhanced survivability to maintain persistent presence in the littoral in future scenarios. The program provides the baseline for spiral development to support future surface ships. DDG–1000 with the Advanced Gun System and associated Long-Range Land Attack Projectile will provide volume and precision fires in support of joint forces ashore. The dual band radar represents a significant increase in air defense capability in the cluttered littoral environment. Investment in open architecture and reduced manning will provide the Navy life cycle cost savings and technology options that can be retrofit to legacy ships thus allowing adaptability for an uncertain future. The program continues to execute on cost and schedule.

This month, the Navy awarded contracts for construction of the dual lead ships to General Dynamics Bath Iron Works and to Northrop Grumman Shipbuilding. Ship detail design and the design of the mission system equipment are on track to support the start of production. The fiscal year 2009 President's budget request of $2.55 billion provides full funding for the third ship of the class, and advanced procurement for the fourth ship. With recent approval from the Defense Acquisition Executive for the follow ship acquisition strategy, the Navy intends to utilize fixed-price incentive fee contracts for the follow ships awarded through a competition for quantity.

LITTORAL COMBAT SHIP

LCS will be a fast, agile, and networked surface combatant with capabilities optimized to assure naval and joint force access into contested littoral regions. LCS will operate with focused-mission packages that deploy manned and unmanned vehicles to execute a variety of missions, including anti-submarine warfare, anti-surface warfare and mine countermeasures. LCS will also possess inherent capabilities to support homeland defense, Maritime Interception Operations, and Special Operation Forces.

The Navy remains committed to the LCS program, and LCS remains a critical warfighting requirement for our Navy to maintain dominance in the littorals and strategic choke points around the world. However, the Navy identified significant cost increases on the order of 100 percent for the lead ships in the LCS class, due to unrealistic contractor proposals, development difficulties and changes from a commercial baseline. The Navy believes that active oversight and strict cost controls are needed to deliver these ships to the fleet over the long term. The Navy demonstrated strong oversight when it terminated the contracts for LCS–3 and LCS–4 in 2007.

It is vital that the Navy continue through first-of-class construction challenges to complete LCS–1 and LCS–2. When these ships are delivered, the Department will be able to better evaluate their costs and capabilities. LCS–1 and LCS–2 are currently scheduled to deliver to the Navy in 2008. The Navy will seek congressional support to complete the reprogramming of fiscal year 2007 LCS shipbuilding funds to complete LCS–1 and LCS–2.

The fiscal year 2009 President's budget request includes $920 million for two additional LCS seaframes. The Navy also intends to execute the fiscal year 2008 appropriation for one seaframe, utilizing the remaining funding and material from the terminated ships. The Navy will also seek congressional support for the reprogramming of these funds for the fiscal year 2008 procurement. Under an acquisition strategy approved in January 2008 by the Defense Acquisition Executive, the fiscal year 2008 and 2009 awards will be for fixed-price incentive fee contracts, based on a limited competition between the current LCS seaframe prime contractors. These ships will be designated as Flight 0+ and will include all existing approved engineering changes developed from lessons learned, along with any current improvements to construction or fabrication procedures. The Navy will incorporate further lessons learned from LCS–1 and LCS–2 sea trials into these ships prior to production. Any such changes will be minimized to those essential for safety and/or operability. Acquisition strategies for fiscal year 2010 and follow ships are under Navy review.

LEWIS AND CLARK CLASS DRY CARGO/AMMUNITION SHIP (T–AKE)

T–AKE was designed to replace the Navy's aging combat stores (T–AFS) and ammunition (T–AE) shuttle ships. Working in concert with an oiler (T–AO), the team can perform a "substitute" station ship mission which will provide necessary depth in combat logistics. The fiscal year 2009 President's budget request provides for procurement of two T–AKEs in the National Defense Sealift Fund. Fourteen T–AKE hulls are covered under a fixed-price incentive contract with General Dynamics National Steel and Shipbuilding Company. Three of the T–AKEs are to support MPF–F program requirements. Major accomplishments for the year include the christening of T–AKE–4 (*Richard E. Byrd*) in May 2007 and the delivery of T–AKE–3 (*Alan Shepard*) in June 2007 and T–AKE–4 in November 2007. T–AKE–5 (*Robert E. Peary*) launched in October 2007. Progress continues on the follow on ships including the keel laying for T–AKE–6 (*Amelia Earhart*) in June 2007 and T–AKE–7 in November 2007. T–AKE–8 commenced construction in October 2007. The construction contract option for the T–AKE–10 and long lead time material for the T–AKE–11 were exercised in January 2008. The fiscal year 2009 funding is to complete funding for two ships (T–AKE–11 and T–AKE–12).

JOINT HIGH SPEED VESSEL

High speed connectors will facilitate the conduct of sustained sea-based operations by expediting force closure and allowing the persistence necessary for success in the littorals. Connectors are grouped into three categories: inter-theater, the Joint High Speed Sealift, which provides strategic force closure for the continental United States-based forces; intra-theater, the JHSV that enables rapid closure and sustainment of Marine forces; and the Joint Maritime Assault Connector, to move troops and resources from the sea base to shore. These platforms will link bases and stations around the world to the sea base and other advanced bases, as well as pro-

vide linkages between the sea base and forces operating ashore. JHSV is currently in the Technology Development Phase. The Capabilities Development Document was Joint Requirements Oversight Council (JROC)-approved in January 2007. Milestone B is anticipated in fiscal year 2008 with delivery of the first vessel in 2011. The fiscal year 2009 President's budget request including research and development (R&D) is $186.8 million for the construction of the first Navy-funded JHSV and $173.0 million for the second Army-funded vessel.

The Navy also continues with important new construction and modernization programs. These programs are outlined below.

CVN–21

CVN–78, the lead ship of the CVN–21 program will replace U.S.S. *Enterprise* (CVN–65). CVN–21 warfighting capability improvements include: 25 percent increase in sortie generation rate, ship's force reduction approaching 800 billets with an additional 400 billets reduction including airwing and embarked staff, nearly three-fold increase in electrical generating capacity, restoration of Service Life Allowances, and enhanced Integrated Warfare System to pace future threats. These capability improvements will ensure that the CVN, the centerpiece of the Navy's Carrier Strike Group, continue to pace projected threats. The major critical technologies and capabilities planned for integration into the lead ship include: Electromagnetic Aircraft Launch System, Advanced Arresting Gear, Joint Precision Aircraft Landing System, Improved Survivability, Enhanced Flight Deck and Improved Weapon and Material Handling.

The National Defense Authorization Act for Fiscal Year 2007 authorized the Navy to enter into construction contracts for the first three ships of the CVN–78 class and provided for 4-year funding of the first three ships beginning with construction of the *Gerald R. Ford* (CVN–78) in fiscal year 2008. Non-recurring investment in the class design is $5.7 billion and the cost of the lead ship (excluding all nonrecurring costs) is $8.1 billion ($TY), nearly $300 million less than the projected cost to buy a *Nimitz*-class aircraft carrier in the same timeframe. The President's budget request for fiscal year 2009 included $2.7 billion as the second of the four funding increments planned for CVN–78. The Navy released the Request for Proposal for Detail Design and Construction of the lead ship in July 2007 and NGNN responded with their contract proposal on October 31, 2007. Contract negotiations are ongoing.

CVN–68 CLASS

George H.W. Bush (CVN–77), is the 10th and final *Nimitz*-class nuclear powered aircraft carrier. The construction of CVN–77 has proceeded rapidly following the launch in October 2006. The aircraft catapults began testing in January of this year by 'launching' dead-loads. Sea trials will commence this fall. The *George H.W. Bush* is expected to deliver near the end of this calendar year. The commissioning date has been set for January 10, 2009. The President's budget for fiscal year 2009 requests $20.5 million for the completion of government responsible mission critical and safety system installations reflecting operational needs to deploy the *George H.W. Bush* at a readiness condition appropriate for the defense of America's freedom. The program remains within the congressionally enacted $6,057 million cost limitation.

CVN–68 CLASS REFUELING COMPLEX OVERHAUL

The CVN–68 Class Refueling Complex Overhaul (RCOH) program spans 40+ years across the *Nimitz*-class. During each RCOH, 35 percent of a carrier's total Service Life Maintenance plan is performed, as well as depot level mid-life recapitalization that extends the service life of *Nimitz*-class carriers out to approximately 50 years. Refueling of the ships' nuclear reactors, warfighting modernization, and repair of ship systems and infrastructure are also completed to meet future missions. These combined upgrades support a reduction in operating costs, achieve expected service life, and allow the *Nimitz*-class to deter projected threats well into the 21st century. This program is critical for the class to achieve its service life and retain combat relevance. The President's budget for fiscal year 2009 requests $124.5 million in fiscal year 2009 to facilitate the acceleration of the execution start date for U.S.S. *Theodore Roosevelt* (CVN–71) to September 2009, and $21.4 million advanced procurement for U.S.S. *Abraham Lincoln* (CVN–72) RCOH. This acceleration provides additional 2 months of operational availability to the carrier fleet during the critical 2012–2015 period before the commissioning of the *Gerald R. Ford* (CVN–78) and adds approximately 1 million manhours to NGNN's fiscal year 2009 workload keeping 300 NGNN skilled workers employed.

WASP (LHD–1)-CLASS AMPHIBIOUS ASSAULT SHIP

The *Wasp* (LHD–1)-class comprises multi-purpose amphibious assault ships whose primary mission is to provide embarked commanders with command and control capabilities for sea-based maneuver/assault operations as well as employing elements of a landing force through a combination of helicopters and amphibious vehicles. Seven LHDs have been delivered to the fleet. The last of the LHD–1-class, U.S.S. *Makin Island* (LHD–8), is scheduled to be delivered in November 2008. Although a modified repeat of the previous seven ships, this ship introduced gas turbine propulsion system with all electric auxiliary systems and eliminated the steam plant and steam systems.

LHA(R) GENERAL PURPOSE AMPHIBIOUS ASSAULT SHIP (REPLACEMENT)

The LHA(R) Assault Echelon ships will provide the Nation with forcible entry capability and forward deployed contingency response forces. These ships will provide enhanced hangar and maintenance spaces to support aviation maintenance and increased jet fuel storage and aviation ordnance magazines. The LHA(R) Assault Echelon ship is the functional replacement for the aging LHA–1-class ships that reach the end of their extended service life in 2011–2015. The Detail Design and Construction contract for the lead ship, LHA–6, was awarded on June 1, 2007, with a contract delivery date of August 31, 2012.

LPD–17 CLASS AMPHIBIOUS WARFARE SHIP

The LPD–17 *San Antonio*-class of amphibious warfare ships represents the Department of the Navy's commitment to a modern expeditionary power projection fleet that will enable our naval force to operate across the spectrum of warfare. The Navy took delivery of the first LPD–17 in the summer of 2005, and operational evaluation began in the spring of 2007. LPD–18 (U.S.S. *New Orleans*) and LPD–19 (U.S.S. *Mesa Verde*) were commissioned in March 2007 and December 2007, respectively. LPD–19 will undergo shock trials this summer. There are five ships currently under construction. LPD–20 (*Green Bay*) is expected to deliver this year, and LPD–21 (*New York*) has been launched and will be christened in March 2008. LPDs–22–24 are in various stages of the construction phase, and the option for construction of LPD–25 was exercised on December 21, 2007. The fiscal year 2009 President's budget request includes funding for outfitting/post delivery efforts on LPDs 20–24 and program closeout efforts required following delivery of the final LPD–17-class ship. The *San Antonio*-class ship replaces four classes of older ships—the LKA, LST, LSD–36, and the LPD–4—and will have a 40-year expected service life. *San Antonio* class ships will play a key role in supporting the ongoing global war on terrorism by forward deploying marines and their equipment to respond to crises abroad.

MARITIME PREPOSITIONING FORCE (FUTURE) (MPF–F)

MPF–F provides a scalable, joint, sea-based capability for the closure, arrival, assembly and employment of up to a MEB-sized force. It will also support the sustainment and reconstitution of forces when required. MPF–F is envisioned for frequent utility in Humanitarian Assistance/Disaster Relief, Noncombatant Evacuation Operations, Theater Security Cooperation, and other Littoral Combat Operations as well as major combat operations. When coupled with an Expeditionary Strike Group or Carrier Strike Group, MPF–F will provide the Nation with a highly flexible operational and logistics support capability that enables rapid reinforcement of the Assault Echelon of an Amphibious Force in anti-access or denial environments. In March 2006, the Defense Acquisition Board approved program entry into the Technology Development Phase. An R&D plan is currently being executed and the program is progressing on track. The fiscal year 2009 President's budget request includes $41.8 million R&D for ongoing risk reduction and technology development, and advance procurement for the fiscal year 2010 MPF Aviation Ship.

DDG MODERNIZATION

The DDG–51 modernization program is a comprehensive 62-ship program designed to modernize the Hull, Mechanical, and Electrical (HM&E) and Combat Systems. These combined upgrades support a reduction in manpower and operating costs, achieve expected service life, and allow the class to pace the projected threat well into the 21st century. This program is critical for the class to achieve its service life and retain combat relevance.

The first DDG to be modernized will be DDG–51 with an HM&E availability in fiscal year 2010. Congress provided additional funds to this program with $50 million SCN in fiscal year 2005, $50 million in SCN in fiscal year 2006, and $30 million

in OPN in fiscal year 2007. The HM&E alterations are being developed in SCN new construction in order to minimize development costs and mitigate technical and schedule risk. The President's budget for fiscal year 2008 included the addition of robust warfighting upgrades. The President's budget request for fiscal year 2009 includes $316 million which supports the Flight I and II ship modernizations starting in fiscal year 2010.

CRUISER MODERNIZATION

Twenty-two cruisers remain in service and are planned for modernization. A comprehensive Mission Life Extension is critical to achieving the ship's expected service life and includes the All Electric Modification, Smartship, Hull Mechanical & Electrical system upgrades and a series of alterations designed to restore displacement and stability margins, correct hull and deck house cracking and improve quality of life and service onboard. Cruiser Modernization bridges the gap to future surface combatants and will facilitate a more rapid and affordable capability insertion process. The first full modernization is CG–52 commencing in February 2008. The President's budget request for fiscal year 2009 includes $413 million which will modernize two cruisers.

CG(X)

CG(X) is envisioned to be a highly capable surface combatant tailored for Joint Air and Missile Defense and Joint Air Control Operations. CG(X) will provide airspace dominance and Sea Shield protection to Joint forces. The Maritime Air and Missile Defense of Joint Forces Initial Capabilities Document was validated by the JROC in May 2006. Under the Navy's current program of record, the program procures its first ship in fiscal year 2011 with follow-on construction in fiscal year 2013.

The results of the Navy's Analysis of Alternatives for the Maritime Air and Missile Defense of Joint Forces capability are currently within the Navy staffing process. Resulting requirements definition and acquisition plans, including schedule options and associated risks, are being evaluated in preparation for CG(X) Milestone A, planned to occur in fiscal year 2008. This process includes recognition of the requirement of the National Defense Authorization Act for Fiscal Year 2008, that all major combatant vessels of the United States Navy strike forces be constructed with an integrated nuclear power plant, unless the Secretary of Defense determines this not to be in the best interest of the United States.

Regardless of the Navy's selection of a particular preferred alternative, vital R&D efforts must continue in fiscal year 2009. These engineering development and integration efforts include systems engineering, analysis, computer program development, interface design, Engineering Development Models, technical documentation and system testing to ensure a fully functional CG(X) system design. The fiscal year 2009 President's budget request will continue maturation of the CG(X) design based on the preferred alternative selected.

OHIO-CLASS SSGN CONVERSION

The *Ohio*-class SSGN Conversion Program continues to be a successful transformational program. All four ships, U.S.S. *Ohio* (SSGN–726), U.S.S. *Florida* (SSGN–728), U.S.S. *Michigan* (SSGN–727), and U.S.S. *Georgia* (SSGN–729), have been delivered to the Fleet. The SSGNs completed their Operational Evaluation and had its Initial Operational Capability declared on November 1, 2007. Additionally, U.S.S. *Michigan* will complete testing with the Advanced SEAL Delivery System in March 2008. U.S.S. *Ohio*, the first SSGN to complete conversion, is now deployed in the Pacific Ocean and has already conducted its first crew exchange in Guam.

SSBN ENGINEERED REFUELING OVERHAULS

The *Ohio*-class SSBN Engineered Refueling Overhaul (ERO) Program will continue with the fiscal year 2009 authorization for the start of the industrial period for the fifth submarine, U.S.S. *Tennessee* (SSBN–734). In addition, fiscal year 2009 includes advance procurement funding for U.S.S. *Pennsylvania* (SSBN–735) and U.S.S. *West Virginia* (SSBN–736) which will start in fiscal year 2010 and fiscal year 2011, respectively. These EROs are the one-time depot maintenance period near the mid-point of the SSBN service life, where the nuclear reactor is refueled, major equipment is refurbished, class alterations are installed, and SUBSAFE unrestricted operations maintenance is accomplished.

SHIP INACTIVATIONS

The Navy remains committed to reducing and eliminating any environmental risks posed by its inactive ships by reducing the size of the inactive ship inventory. This inventory has been reduced from a high of 195 ships in 1997 to 62 ships today. The Navy plans to decommission 29 ships between fiscal year 2009 and fiscal year 2013, of which 23 will be designated for disposal upon decommissioning and 6 will be retained for future mobilization purposes.

The Navy utilizes six disposal methods to reduce the inventory of non-nuclear inactive ships, including Foreign Military Sales transfers; interagency transfers to the Maritime Administration, U.S. Coast Guard, or other agencies; donations for memorial/museum use; domestic dismantling; experimental use/fleet training sink exercises; and ship reefing. While fleet training sink exercises are not a disposal method, since the primary purpose is weapons effectiveness testing or fleet training, it does contribute to inventory reduction.

SUMMARY

The Navy is committed to ensure fiscal responsibility in shipbuilding acquisition and modernization programs.

STATEMENT OF VADM BERNARD J. "BARRY" MCCULLOUGH III, USN, DEPUTY CHIEF OF NAVAL OPERATIONS FOR INTEGRATION OF CAPABILITIES AND RESOURCES, DEPARTMENT OF THE NAVY

Admiral MCCULLOUGH. Chairman Kennedy, Senator Martinez, and Senator Collins: I'm honored to appear before you today with Ms. Stiller and General Amos to discuss Navy force structure requirements and the fiscal year 2009 budget request.

Before we begin, I'd like to share with you what your Navy accomplished on March 19. The fleet is 280 ships strong, with 140 ships, or 50 percent, underway. There are over 332,000 Active Duty, 70,000 Reserve, and 178,000 civilians serving in the Navy; 6,300 sailors are deployed around the world in support of the global war on terror.

Beginning in the Caribbean and eastern Pacific, *Hawaii*, our newest *Virginia*-class submarine, along with *Cromlin, Simpson*, *Steven W. Groves*, and Navy P–3s, are conducting counternarcotics operations in support of U.S. and participating nations' drug control programs.

In the European theater, *Dallas* is in the Mediterranean participating in the North Atlantic Treaty Organization operations, monitoring maritime activity to detect, deter, and respond to terrorism and other transnational threats. *Nassau*, *Nashville*, and *San Jacinto* are conducting maritime and theater security operations. *Fort McHenry* and *Swift* arrive in Monrovia, Liberia, as part of the Africa Partnership Station, supporting an exercise delivering humanitarian assistance and medical goods in conjunction with U.S. Marine Forces Europe and Project Hope.

In the Central Command (CENTCOM) area of operations, supporting Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF), *Harry S. Truman* Carrier Strike Group is underway, while the *Tarawa* Expeditionary Strike Group conducts port visits in the Arabian Gulf. Riverine forces are conducting a variety of missions in country, while in the air, Navy airborne intelligence, surveillance, and reconnaissance assets are providing critical intelligence to Navy and Special Operations Forces. EA–6B Prowlers are supporting efforts on the land.

Carney, *Hopper*, and *Winston Churchill* are conducting maritime security operations, while off the west coast of Africa, *Oscar Austin* is supporting counter-piracy operations with coalition forces.

In the Pacific theater, *Nimitz* Carrier Strike Group is underway in the western Pacific providing presence, while *Kitty Hawk* completes her first day of at-sea training since completing a maintenance period. *Essex* Expeditionary Strike Group is en route to Yokosuka, Japan, for a port visit after completing exercises with Republic of Philippines forces, while *Ohio* is in Guam after participating in the binational exercise Key Resolve/Foal Eagle.

In Indonesia, *Harpers Ferry* and marines from the 31st Marine Expeditionary Unit (MEU) participate in field exercises and provide medical and dental civic action programs. In the eastern Pacific, *Peleliu* and elements of the 15th MEU are underway, preparing for a summer deployment, while Carrier Airwing Two completes embarkation on *Abraham Lincoln* and is in the progress of performing carrier qualifications at the start of a 7-month deployment in support of OIF and OEF.

Finally, in the mid-Pacific *Lake Erie*, which last month launched a modified SM–3 missile and successfully intercepted and destroyed an inoperable satellite containing a toxic hazard, was in Pearl Harbor finishing her last day of material inspection with the Board of Inspection and Survey.

These are everyday examples of the balanced capability set the 2009 fiscal year shipbuilding program will provide to meet the challenge the Nation faces with a reasonable degree of risk. The Navy's 313-ship force structure represents the minimum number of ships the Navy requires, the minimum capacity, if you will, to provide global reach, persistent presence, and warfighting effects expected of Navy forces as outlined in the National Defense Strategy, the 2006 QDR, and the recently signed Maritime Strategy.

I thank you for this opportunity to discuss the Navy shipbuilding program with you and look forward to answering your questions.

Senator KENNEDY. Thank you very much.

General Amos?

STATEMENT OF LT. GEN. JAMES F. AMOS, USMC, COMMANDER, MARINE CORPS COMBAT DEVELOPMENT COMMAND

General AMOS. Thank you, Chairman Kennedy, Senator Martinez, and Senator Collins: Thank you for the opportunity to appear before you today and talk to you about your Marine Corps.

As we meet here this afternoon, we have a little over 2,000 marines that have landed in the southeastern part of Afghanistan—I know you're aware of that—from the 24th MEU. It's not completely on the ground yet, but they'll be flowed in within the next couple of weeks. Early elements of the lead elements of the Second Battalion, Seventh Marines Reinforced, from Twentynine Palms, are on the ground as well.

When it's all said and done, there'll be 3,500 marines and sailors down in the Helmand Province, arguably probably the most dangerous part of all of Afghanistan. So on behalf of those 3,500 marines and sailors and the 24,000-plus that we have in the Al Anbar Province in Iraq, I want to thank you for your strong support for the last 5 years of heavy combat for the marines.

Senator KENNEDY. General, where is more dangerous, do you think, to those 3,200 that have arrived down there in southern Afghanistan, or to the marines in——

General AMOS. I think the area where the marines are going to be in the Helmand Province, down with the Canadians and the Brits, Mr. Chairman, is probably the most dangerous area and the most unstable area of Afghanistan right now.

Senator KENNEDY. Is that more dangerous, less dangerous than Iraq?

General AMOS. For us it's more dangerous. The western part of Iraq, the Al Anbar Province, was the early part that saw the awakening from the sheiks. So there's always danger there. I don't want to misrepresent it. But that area has turned around for us, for the marines.

I also carry a message from the families, the wives, the children, the parents of our marines and sailors, the husbands. I want to thank you again for your strong support for the last 5 years.

I come to you today with really just two comments. The first one is, by nature the Marine Corps is a light and expeditionary force. Arguably, we have been on land now for the last 5 years. But we're going to return to our roots, which is our naval heritage. But we need to be able to return as a light force, light enough to be able to get someplace quickly, with enough punch to complete the mission.

That mission can be something as benign as working the tsunami relief. It can be something not as benign, but important, as removing 17,000 civilians from Lebanon 2 years ago when that crisis took place. It can also come right to our home, our home ports and our countrymen, with the Hurricane Katrina operations. So everything from what we call phase zero operations all the way to the right of the spectrum, where it's major combat operations, your Marine Corps needs to be light and expeditionary.

So as you see our programs come before you—you'll see efforts, for instance the Joint Light Tactical Vehicle, you'll see an effort for us to try to keep the weight of that vehicle down so that we can get it off the ships and get it across beaches, carry it underneath helicopters, and that kind of thing.

So everything we do, from the way we recruit young men and women and promise them, really, hardship, to the equipment we buy and the way we train, are all focused through the filter of expeditionary operations.

My second point, Mr. Chairman, is that we're a maritime force. As I said earlier, we've been on land now for the last 5 years, but our CNO and our Commandant understand that our synergy and our greatest strength is when we come together as a naval force who go aboard ships. So as we grow the force to 202,000, thank you for your support for that, but as we do that, as we back out of Iraq, somewhere down the road we'll be able to get back aboard ships, and that's exactly where the Commandant of the Marine Corps wants to take us.

We will come from the sea more than likely for future naval operations, and when we do we'll come from amphibs and we'll come through sea bases and we'll come through MPF–F. So I'd ask for your support as we take a look at the amphibious requirements, we

take a look specifically for the 10th LPD–17. We need that ship, and I ask for your continued support for the 14 ships, the program of record, for the MPF–F.

Mr. Chairman, I ask that you take my statement for the record and I'm prepared to answer any questions that you have.

Senator KENNEDY. Without objection.

[The prepared statement of General Amos follows:]

PREPARED STATEMENT BY LT. GEN. JAMES F. AMOS, USMC

I. INTRODUCTION

Chairman Kennedy, Senator Martinez, and distinguished members of the Seapower Subcommittee; it is my privilege to report to you on Marine Corps shipbuilding and force structure requirements.

We know these next few years will be challenging—not only in the immediate conflict in Iraq, but in subsequent campaigns in the long war on terror. This is a multifaceted, generational struggle that will not be won in one battle, in one country, or by one method. Many of the underlying causes of the current conflict will persist in the coming decades and may be exacerbated by States and transnational actors who are unwilling or unable to integrate into the global community. In this environment, the Marine Corps must be able to rapidly adapt to broad strategic conditions and wide-ranging threats. We remain faithful to our enduring mission—to be wherever, whenever our country needs us and to prevail over whatever challenges we face. We have done this and will continue to do so by recruiting and retaining the best of our Nation's sons and daughters, training them in tough, realistic scenarios and providing them the best equipment available. We are confident that with your continued support, your Corps will remain the Nation's force in readiness and continue to fulfill its congressionally-mandated mission of being the most ready when the Nation is least ready.

II. LOOKING TO THE FUTURE

Strategic Vision Group

To improve our capacity to anticipate, the Commandant of the Marine Corps established a Strategic Vision Group (SVG) in June 2007. This group is designed to assist the Commandant in determining how best to posture the Marine Corps for successful service to the Nation in the years to come. The Group studies the future state of the world, considers the most likely world conditions and threats, and then conducts assessments of our military, political, and economic power to derive implications for the country, the Department, and the Marine Corps from now through 2025. For example, the SVG characterizes the most likely future conflicts as a blurred mix of irregular and conventional warfare in which terrorists, extremists, and criminals may become the most lethal and dominant enemy. Additionally, the SVG discerned that enemy states may adopt similar asymmetric tactics and techniques that will make access to operating areas ashore and subsequent operations, including combat, more challenging. Armed with these critical assessments, the SVG will translate them into tangible products addressing implications to national security and Marine Corps' continued readiness and relevance.

The SVG has made significant progress in synthesizing inputs from United States and allied strategic assessments, and has established relationships with a wide community of subject matter experts and related sister Service efforts. The Group has briefed our senior leadership on assessments of the 2025 security environment, the key patterns and trends that can be foreseen impacting the strategic context, and future operational environments. Most significantly, recent assessments prompted development of the Commandant's overarching Marine Corps Vision and Strategy. This document will provide a comprehensive, actionable, and compelling narrative that describes how the Marine Corps will continue to serve as the Nation's "force in readiness" for the 21st century and will be published in June 2008.

SCIENCE AND TECHNOLOGY

By always keeping an eye to the future, advances in science and technology (S&T) provide an immediate, measurable advantage to our warfighters and provide for development and implementation of concepts only dreamed of 20 years ago. In light of this importance, the Secretary of the Navy, the Chief of Naval Operations (CNO), and the Commandant recently completed and published a combined Naval S&T Strategic Plan that establishes objectives and provides direction to ensure our in-

vestments are focused on accomplishment of Navy and Marine Corps visions and goals. This plan identifies, as objectives, our five most critically needed technology enhancements:

- lightening the load of our dismounted marines and sailors through new materials and technologies that are both lighter and that provide enhanced protection;
- the application of robotics to ground logistics delivery and a cargo unmanned aerial vehicle to rapidly move logistics on a distributed battlefield;
- high-fidelity immersion simulation in support of small unit ground tactical training;
- improved vehicle survivability for our future family of tactical vehicles through application of new construction materials such as synthetic armor;
- persistent intelligence, surveillance, and reconnaissance technologies aimed specifically at providing tactically relevant intelligence in all phases of a broad spectrum of operations.

III. PROVIDE OUR NATION A NAVAL FORCE THAT IS FULLY PREPARED FOR EMPLOYMENT AS A MARINE AIR-GROUND TASK FORCE (MAGTF) ACROSS THE SPECTRUM OF CONFLICT

Long War Concept

The Marine Corps' concept of force employment to meet the need for counterinsurgency and building partnership capacity is outlined in our February 2008 concept of employment "The Long War: Send in the Marines." This employment concept further explains how the Marine Corps will support the National Defense Strategy and multi-national efforts in the global war on terrorism/Long War. This publication is nested within our major concepts and strategies: the Maritime Strategy, the Naval Operations Concept, and Marine Corps Operating Concepts for a Changing Security Environment. The focus of this new Long War concept is to increase the Marine Corps' global, persistent forward presence, tailored to build partnership capacity for security, while adapting existing forces and creating new capabilities for an uncertain future. Through these efforts, we will better enable multi-national partnerships to address existing regional challenges, while mitigating the conditions that allow irregular threats to proliferate.

Although we will continue to develop our full spectrum capabilities, this war will place demands on our marines that differ significantly from those of the recent past. Paramount among these demands will be the requirement for marines to train and mentor the security forces of partner nations in a manner that empowers their governments to secure their own countries. This long war strategy helps posture our Corps to serve as the Nation's expeditionary force-in-readiness—able to answer the call when needed.

Maritime Strategy

The October 2007 Maritime Strategy reaffirms our naval character and reemphasizes our enduring relationship with the Navy, and now, the Coast Guard. Current combat operations limit our ability to aggressively commit forces to strategy implementation at this time. However, as we increase our end strength to 202,000 marines and as security conditions continue to improve in Iraq, the Marine Corps will transition our forces to forward presence in other priority areas and other battles in the Long War. The Maritime Strategy notes that, "Our ability to overcome challenges to access and to project and sustain power ashore is the basis of our combat credibility." Our means of projecting power is the congressionally-mandated mission of amphibious forcible entry. The same flexible, expeditionary capabilities that enable forcible entry also have great utility in enabling the wide range of missions needed to counter the growth of extremist movements and terrorism. Such expeditionary capability and readiness require a high level of proficiency and long-term resourcing and is not a capability we can create on short notice.

Today, information moves almost instantaneously around the world via cyberspace, and while people may quickly travel great distances by air, the preponderance of materiel still moves the way it has for millennia—by sea. Whenever the United States has responded to conflict around the globe, the vast majority of United States Joint Forces, their equipment, and supplies have been transported by sea. In the first half of the 20th century, demonstrating considerable foresight and innovation, U.S. Navy and Marine Corps leaders developed the capabilities necessary to establish sea control and project power ashore where and when desired. In the latter half of the same century the importance of these capabilities waned, as the United States enjoyed the luxury of extensive basing rights overseas, to include secure ports and airfields.

In recent years, this network of overseas bases has been dramatically reduced, even as we are confronted by a variety of strategic challenges and are locked in a global struggle for influence. The ability to overcome political, geographic, and military challenges to access has re-emerged as a critical necessity for protecting vital interests overseas. Fortunately, the United States possesses an asymmetric advantage in that endeavor: seapower. Our ability to cross wide expanses of ocean and to remain persistently offshore at a time and place of our choosing is a significant national capability. This means that the Navy-Marine Team can use the sea as both maneuver space and as a secure operating area to overcome impediments to access.

Seabasing

The approach for overcoming these impediments is called Seabasing. The Joint Seabasing concept—particularly when using aircraft carriers and amphibious ships with embarked marines—mitigates reliance on ports and airfields in the area of operations. It is the ideal method for projecting influence and power ashore in a selectively discrete or overt manner—from conducting security cooperation activities, to providing humanitarian assistance, to deterring and, when necessary, supporting major combat operations.

The seabasing capability currently employed by the Navy-Marine Corps team, however, is limited in its ability to support large joint operations. The sealift transporting the preponderance of the joint force's materiel is still dependent upon secure ports and airfields. Recognizing the importance of seabasing to 21st century needs, the Navy and Marine Corps evolved a robust body of conceptual work and, with other joint partners, produced a Seabasing Joint Integrating Concept. This concept defines Joint Seabasing as "the rapid deployment, assembly, command, projection, reconstitution, and re-employment of joint combat power from the sea, while providing continuous support, sustainment, and force protection to select expeditionary joint forces without reliance on land bases within the Joint Operations Area. These capabilities expand operational maneuver options, and facilitate assured access and entry from the sea."

Just as the amphibious innovations championed by the Navy-Marine Corps during the 1920s and 1930s benefited the entire joint and allied force in World War II, the Navy-Marine Corps seabasing initiatives currently underway are expanding into more comprehensive joint and interagency endeavors. The ability to conduct at-sea transfer of resources, for both ship-to-ship and ship-to-shore purposes, has emerged as a key enabler for deploying, employing, and sustaining joint forces from the sea. Building upon the cornerstones provided by amphibious ships and aircraft carriers, initiatives include developing high-speed intra-theater connectors, surface connectors, and Maritime Prepositioning Force (Future) (MPF–F). These initiatives—as well as others—will be employed in combination to achieve an increasingly robust capability to reduce the joint force's reliance on ports and airfields in the objective area.

Together, the Navy and Marine Corps provide the Nation with its capability to rapidly project and sustain combat power ashore in the face of armed opposition. When access is denied or in jeopardy, forward-postured and rapidly deployable Marine forces are trained and ready to create and exploit seams in an enemy's defenses by leveraging available joint and naval capabilities, projecting sustainable combat power ashore, and securing entry for follow-on forces. The Marine Expeditionary Force (MEF) is the Nation's premier forcible entry force. Two Marine Expeditionary Brigades (MEB) provide the assault echelon that fights from amphibious ships. These forces launch from over the horizon to strike inland objectives and fracture the enemy's defenses. They are reinforced by a brigade of marines employed through MPF–F. Collectively, these capabilities provide an ability to respond to crisis across the spectrum of operations without reliance on infrastructure or basing ashore.

In recent years our amphibious and prepositioned capabilities have been in high demand across the spectrum of operations. These capabilities have enabled over 85 commitments, such as the recent Lebanon noncombatant evacuation and tsunami and Hurricane Katrina relief operations, since the end of the Cold War—doubling the rate at which they were employed during that superpower stand-off. Considering this demonstrated utility, the modest investment of 34 amphibious ships and MPF–F is not too much of an investment to secure the United States' ability to conduct forcible entry operations; ensure strategic access and retain global freedom of action; strengthen existing and emerging alliances and partnerships; and establish favorable security conditions.

IV. SHIPBUILDING REQUIREMENTS

Based on strategic guidance, in the last several years the Navy and Marine Corps have accepted risk in our Nation's forcible entry capacity, and reduced amphibious

lift from 3.0 MEB assault echelon (AE) to 2.0 MEB AE. In the budgetary arena, the value of amphibious ships is too often assessed exclusively in terms of forcible entry—discounting their demonstrated usefulness across the range of operations and the clear imperative for marines embarked aboard amphibious ships to meet Phase 0 demands. The ability to transition between those two strategic goalposts, and to respond to every mission-tasking in between, will rely on a strong Navy-Marine Corps Team and the amphibious ships that facilitate our bond. The Navy and Marine Corps have worked diligently to determine the minimum number of amphibious ships necessary to satisfy the Nation's needs.

The Marine Corps' contribution to the Nation's forcible entry requirement is a single, simultaneously-employed two MEB assault capability—as part of a seabased MEF. Although not a part of the MEF AE, a third reinforcing MEB is required and will be provided through MPF–F shipping. Each MEB AE requires 17 amphibious warfare ships—resulting in an overall ship requirement for 34 amphibious warfare ships. However, given current fiscal constraints, the Navy and Marine Corps have agreed to assume a degree of operational risk by limiting the AE of each MEB by using only 15 ships per MEB—in other words, a Battle Force that provides 30 "operationally available" amphibious warfare ships.

Amphibious Ships

In that 30-ship Battle Force, 10 aviation-capable big deck ships (LHA/LHD/LHA(R)), 10 LPD–17-class ships, and 10 LSD class ships are required to accommodate the MAGTF capabilities. In order to meet a 30-ship availability rate—based on a CNO-approved maintenance factor of 10 percent—a minimum of 11 ships of each of the current types of amphibious ships are required—for a total of 33 ships. The CNO has concurred with this requirement for 33 amphibious warfare ships, which provide the "backbone" of our maritime capability—giving us the ability to meet the demands of harsh environments across the spectrum of conflict.

The LPD–17 *San Antonio*-class of amphibious warfare ships represents the Department of the Navy's commitment to a modern expeditionary power projection fleet enabling our naval force to operate across the spectrum of warfare. The LPD–17 class replaces four classes of older ships—LKA, LST, LSD–36, LPD–4—and will have a 40-year expected service life. It is imperative that 11 of these ships be built to meet the minimum of 10 necessary for the 2.0 MEB AE amphibious lift requirement. Procurement of the 10th and 11th LPDs remains a priority.

Maritime Prepositioning Force (Future)

Capable of supporting the rapid deployment of three MEBs, the legacy Maritime Prepositioning Force (MPF) is a proven capability used as a force deployment option in selected contingencies to close forces on accelerated timelines for major combat operations and, in combination with amphibious forces, to rapidly and simultaneously react to crises in more than one theater. The next and necessary evolution of this program is fielding of the MPF–F Squadron. MPF–F is a key enabler of Seabasing and will build on the success of the legacy MPF program. It will provide support to a wide range of military operations with improved capabilities such as at-sea arrival and assembly, selective offload of specific mission sets, and long-term, sea-based sustainment. From the sea base, the squadron will be capable of prepositioning a single MEB's critical equipment and sustainment for delivery offshore—essentially creating a port and airfield at sea. While the MPF–F is not suitable for independent forcible entry operations, it is critical for the rapid build up and sustainment of additional combat forces once entry has been achieved by our AE. The MPF–F, along with two legacy MPF squadrons, will give our Nation the capacity to quickly generate three MEBs in support of multiple combatant commanders. The MPF–F squadron composition decision was made in May 2005 and is designed to consist of three aviation-capable big-deck ships, three large medium-speed roll-on/roll-off ships, three T–AKE supply ships, three Mobile Landing Platforms, and two dense-packed container ships. Many of these will be crewed by civilian mariners and, as stated earlier, are not designed to conduct forcible entry operations.

Ship Modernization

Amphibious and maritime prepositioning ship modernization is vital to maintaining our Nation's maritime forward presence and expeditionary capabilities. Two decades of equipment growth and recent armor initiatives have impacted the capability and capacity of our present amphibious and maritime prepositioning ship fleets that were designed to lift an early 1980s naval force. We are monitoring the Navy's progress in upgrading and extending the service lives of our big-deck amphibious assault support ships to ensure those vessels are uniformly outfitted with up-to-date sea-based communications and network capabilities, and will be able to compensate

for increased weight and density of Marine Corps assets as a result of armoring initiatives. We must ensure that the dock landing ship fleet is recapitalized to accommodate 21st century Marine Corps forces. Moreover, we are actively working with the Navy to incorporate newer, more flexible ship platforms from the existing Military Sealift Command fleet into our aging Maritime Prepositioning Ships program. As we reset these ships, changes are necessary to ensure future afloat prepositioning platforms can accommodate our updated tables of equipment and sustainment support requirements.

V. RIGHT-SIZING OUR MARINE CORPS

To meet the demands of the Long War, and prepare for other contingencies for which the MAGTF is uniquely capable, our Corps must be sufficiently manned, well trained, and properly equipped. To fulfill our obligations to the Nation, and with the approval of the President and Congress, we are growing our end strength to 202,000 Active component marines. Our decision to grow to 202,000 marines was based on national strategic guidance combined with increasing operational forward presence requirements, and was guided by the Department of Defense's 1:2 unit deployment-to-dwell ratio policy. The additional end strength will result in three balanced MEFs—balanced in both capacity and capability—and will ensure the Marine Corps can meet increasing combatant commander demands for expeditionary forces.

The development of Marine Corps force structure has been the result of a thorough and ongoing process that supports the combatant commanders and accomplishes our title 10 responsibilities. The process addresses each pillar of combat development—Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, and Facilities—and identifies our required capabilities and the issues associated with fielding them. We have front-loaded structure for recruiters and trainers to support this growth and have phased the introduction of units balanced across the MAGTF. The increase in capacity will be gradual, as we stand up new units and add end strength through fiscal year 2011, while we simultaneously grow mid-grade enlisted and officer leadership—a vital part of our growth that cannot be developed overnight. In addition to personnel, this growth includes expansions of our infrastructure to provide suitable housing and support facilities, and the right mix of equipment for the current and future fight.

Our engagements thus far in Iraq and Afghanistan have been a Total Force effort—our Reserve Forces continue to perform impressively. As our Active Force increases in size, our reliance on our Reserve Forces should decrease—helping us achieve the 1:5 deployment-to-dwell ratio. We believe our current authorized end strength of 39,600 Selected Marine Corps Reserves is the right level. As with every organization within the Marine Corps, we continue to review the make-up and structure of our Reserve to ensure the right capabilities reside within Marine Forces Reserve units and our Individual Mobilization Augmentee program.

Building Educational and Training Structure

As part of our holistic growth plan, we are increasing training capacity and reinvigorating our pre-deployment training program to provide support to all elements of our MAGTFs. In accordance with the Secretary of Defense's Security Cooperation guidance, we are developing training and education programs to build the capacity of allied and partner nations. We are also developing the capability to conduct large-scale MAGTF exercises within a joint, coalition, and interagency context to maintain proficiency in core warfighting functions such as combined arms maneuver, amphibious operations, and maritime prepositioning operations. Finally, our budget request supports our training and education programs and training ranges to accommodate the 202,000 Grow the Force effort.

World-Class Marine Corps University (MCU)

Our success in the Long War hinges on a multi-dimensional force well trained for the current fight, but educated for the next. Historically, our Corps has produced respected leaders who have demonstrated intellectual agility in warfighting; however our current deployment tempo places our Professional Military Education (PME) programs at risk. We must maintain the steady flow of thinkers, planners, and aggressive commanders who can execute effectively across the entire spectrum of operations. Last year we conducted a comprehensive 'health of PME' assessment which identified six areas necessary for the creation of a world-class MCU: students, curriculum, educational programs, staff, policy, and infrastructure. We have world-class students and faculty as evidenced by Marines' performance on today's battlefields. We have made substantial improvements in our curricula by integrating irregular warfare instruction while maintaining a balance with conventional and amphibious warfare. Seeking to ensure readiness for the next challenge, this year we

added Iran and China faculty chairs. We must however, correct significant infrastructure and information technology deficiencies. It is crucial that resources to support our MCU master plan be committed and approved to support this critical effort. With proper investment and your support, the MCU will become a world-class educational institution to match its world-class students.

Center for Irregular Warfare

In 2007, we established the Center for Irregular Warfare (CIW) as our primary agency for identifying, coordinating, and implementing Marine Corps irregular warfare capability initiatives. The CIW reaches out through the Center for Advanced Operational Culture Learning (CAOCL) and Security Cooperation Education and Training Center (SCETC) to other military and civilian agencies. Last year, the CAOCL expanded beyond pre-deployment unit training by offering operational culture, regional studies, and limited language courses for officer PME programs. Thus far, approximately 2,100 new lieutenants have been assigned regions for career long-term study through the regional learning concept, which are being expanded this year to include sergeants, staff sergeants, and captains. Both officer and enlisted marines will receive operational culture education throughout their careers.

Since early 2006, the SCETC has formalized our military advisor training curricula, and in fiscal year 2007 trained over 30 transition teams. In fiscal year 2008, the SCETC is scheduled to train over 100 teams (over 2,000 marine advisors) and we will stand up a Training Advisory Group to manage global sourcing of future transition and security cooperation teams.

VI. CONCLUSION

Our Nation rightfully has high expectations of her Corps—as she should. Your marines are answering the call around the globe, performing with distinction in the face of great hardships. As they continue to serve in harm's way, our moral imperative is to fully support them—we owe them the full resources required to complete the tasks we have given them. Now more than ever, they need the sustained support of the American people and Congress to simultaneously maintain our readiness, reset the force during an extended war, and to modernize to face the challenges of the future. Again, we thank you for the opportunity to report to you on their behalf.

Senator KENNEDY. First of all, Admiral McCullough, the Navy is projecting a shortfall, as I mentioned, of the F–18 aircraft during the next decade. According to Navy testimony, that shortfall could be as large as 125 aircraft short of the number required to support the 10 aircraft carrier wings and 3 Marine Corps. In my opening statement I asserted that anyone looking to solve the shipbuilding problems could not look to naval aviation to be a bill-payer. Do you agree with that assessment?

Admiral MCCULLOUGH. Yes, sir. The way I look at this is particularly from the Navy. The 125 shortfall is for the Department. The Navy shortfall commencing in 2017 is approximately 69 strike fighter aircraft. There are several ways we've worked at that. We're looking at life extensions from a fatigue life standpoint on the F/A–18 A through Ds to 10,000 hours, on the F/A–18 E and Fs to 9,000 hours, to try to mitigate the effects of that strike fighter shortfall.

Senator KENNEDY. We'd appreciate your keeping us abreast of your assessment, both of the life expectancy of the planes, what's necessary to get it, and also how that fills the gap.

Secretary Stiller, one of the big decisions in shipbuilding is to fund the third DDG Land Attack Destroyer in fiscal year 2009 or whether to delay it a year and perhaps even truncate it at a total of two ships, as some have suggested. Such discussions usually included buying some form of DDG–51 Aegis destroyers, either in the 1-year delay or continuing until the Navy's ready to buy the CG(X), the next generation cruiser.

The Navy had intended to sign the contracts for two lead ships in 2007, but recently completed negotiations and signed the contracts almost a year later than planned. In part, the Navy delayed the award while they switched the shipyard responsible for building the first ship. The Navy plan for the fiscal year 2009 ship is to award a fixed-price contract for that ship.

Since it's taken so long to sign the lead ships contracts, which are cost plus contracts, and since very little actual ship construction information will be available at the time the contractors have to submit their bids for fiscal year 2009 ship, why would the Navy believe that you'll be able to sign these contracts in a timely fashion in 2009?

Ms. STILLER. Yes, sir. One is that we took several steps as we took a pause on DDG–1000. We didn't stop the activity on the detailed design. So the detailed design has been continuing right along, as well as procurement of long lead items as authorized by the DAE.

While we didn't sign the actual construction contract until about a month ago, we were proceeding incrementally, in fact, there are a couple things that make us feel very confident that we could sign fixed-price deals in 2009. That's because part of what we've authorized the shipbuilders to do is to build a complex machinery block to prove out the translation of the design from the product model into the production floor, so to speak.

That's ongoing. That will wrap up at Bath Iron Works this summer and at Northrop Grumman a little later in the year. But that will inform their bids.

Senator KENNEDY. So you don't feel that you lost the time?

Ms. STILLER. No, sir. From the original when we thought we would start on the lead ship, there was about a 5-month slip. But we still feel that we were doing the prudent things to continue the program and that the 2009——

Senator KENNEDY. That's manageable, you think?

Ms. STILLER. Yes, sir.

Senator KENNEDY. Why would the Navy believe that the contractors would be willing to take a larger portion of the risk to build the ship for roughly $2.5 billion in a fixed-price contract, when the first ship cost more than $3 billion and the shipyards will have very few actuals upon which to base their bids?

Ms. STILLER. There are a couple of reasons. First of all, they will be significantly far along in design when they start production. They'll be about 85 percent. For example, LCS was less than 25 percent along. So they should be getting the return data right away.

Also, what I talked about, what we've carved out for both of them to do is a complex machinery block, and that work will be done before the bids are due, so they will have that return data, and we feel comfortable that that will prove to them and the Navy that they understand the design and what these ships truly cost.

Also, the other element is the material that's under procurement. A good portion, I'd say 98 percent, of the long lead material and some of the other commodities are already under fixed-price contracts for the lead ship. They understand the material portion of the ship.

Senator KENNEDY. So you're on track on those and feel confident about it?

Ms. STILLER. Yes, sir.

Senator KENNEDY. General Amos, I mentioned the MPF in my opening statement, where defining the requirements has been a problem. I know that it's been prudent to take sufficient time upfront to define the requirements for any major program. But the MPF program appears to be taking longer than anyone had originally estimated.

While the subcommittee has heard for several years about the contribution such a force would make to the Marine Corps and Navy, we have seen the procurement of certain ships designed to support the MPF program, such as the Mobile Landing Platform (MLP), being delayed each year as the resolution of questions about requirements and capabilities has been deferred.

What clarification can you give us about when requirements will be defined for these new ships, and when will we see the plans for building these new ships stabilize?

General AMOS. Mr. Chairman, we just completed about 3 weeks ago the Commandant's Title 10 war game on sea basing, and it was joint and combined. Eleven nations participated, over 300 folks from the Office of the Secretary of Defense (OSD) and the interagency. The whole idea was sea basing. Buried in there, in the middle of all of that, was MPF–F. It's an important part of the whole sea basing concept.

But MPF–F is not sea basing, but it is certainly the key enabler, and it is the heart and soul of our Nation's ability to do sea basing in the future, vice the kind of sea basing we do right now, where you pull up with a single ship and you can't offload necessarily in stream, it's difficult to offload at high sea states. So MPF–F will provide us that capability.

The good news is that in the Future Years Defense Program (FYDP) there are three of these MLPs. We're actually going to start cutting steel on the MLP within the next couple of years and we'll see that. I predict when that ship pulls alongside a large, medium-speed, roll-on/roll-off (RORO) ship and lowers a ramp onto the MLP and the first 70-ton tank comes off of that, when you have landing craft, air cushions up there to take it ashore, it's going to revolutionize sea basing and our whole perspective on that in the future.

So, Mr. Chairman, I think we have the requirements identified. I think what we've done is we've just done a poor job of being able to pass that message across to both Congress and OSD and the American people.

Senator KENNEDY. Conceptually it certainly makes a good deal of sense. But there have been the questions about the implementation.

Let me ask you about the urgent needs process, General. According to recent reports, the Marine general in command of the forces in western Iraq sent the urgent request on February 17, 2005, for 1,169 mine resistant ambush protected (MRAP) vehicles, and the urgent request was apparently lost in the bureaucracy of Marine Corps combat development and never made it up to the senior levels of the Marine Corps. As we all know, it took the Secretary of Defense personally getting involved in 2007 to fix a broken bu-

reaucracy and a get sufficient number of MRAP vehicles to forces in Iraq.

Last June, Secretary Gates stated: "The way I put it to everyone is that you have to look outside the normal bureaucratic way of doing things, and so does industry, because lives are at stake. For every month we delay, scores of young Americans are going to die."

In this morning's Senate Armed Services Committee hearing, General Petraeus thanked the committee for their support in delivering the MRAP vehicles to Iraq, calling them lifesavers.

If proper MRAP procurement had begun in 2005 in response to the known threats, hundreds of deaths and injuries could have been prevented. The Marine Corps questioned the press reports about the issue, but a Naval Audit Service report last September said the Marine Corps had not established adequate oversight of the urgent needs requirement process. This process at the time of our audit was ineffective.

The Marine Corps has asked the Pentagon's Inspector General (IG) to examine the allegations. The real question is whether the Marine Corps today is adaptive enough to meet urgent needs. There are many success stories with rapidly fielding urgent needs in the last few years, including small unmanned ground and aerial vehicles, hand-held electronic translators, and Quick Clot, a granular mineral material that speeds the natural clotting process and limits blood loss.

But many of these successes have involved the Army's urgent needs system. The Army's rapid equipping force has been in place for years. It seems to be a more responsive system for addressing urgent needs, including the practice of deploying many of its members to forward teams throughout Iraq and Afghanistan to identify needs and then assess how well rapidly fielded equipment works.

So I'm concerned, General Amos, that the changes the Marine Corps seems to be making to the system are only bandaid solutions, more importantly, that not enough of the changes are long term. If too much of the system is being fixed in informal meetings or by personal intervention of senior leaders, that doesn't fix the bureaucracy for the future.

So what actions are you specifically taking to make changes to the urgent needs process and to codify these changes so that the entire culture with respect to urgent needs is fixed in the Marine Corps?

General AMOS. Mr. Chairman, I truly appreciate your concern in this area. There are probably a number of urgent needs in 2003, 2004, and 2005 that have my personal signature on them from Iraq. So I'm very sensitive to this and I do appreciate exactly what you said.

As I look back on 2005—and I was there, had come up from Camp Lejeune and was part of the meeting when the decision was made to buy the M–1114s. I know you've been briefed on that, as your staff has. But honestly, at the time we thought—the Commandant did and the senior leadership did—we were doing exactly the best thing for the Marines as a result of our IG that had just come back and said the Marines want the up-armored Humvee.

I look back now, like you, I regret that we didn't have the foresight to buy the MRAPs in 2005. They have saved lives and they

are a critical enabler. But what we've done since the Naval Audit report has come in—and they talked about three major things. They said you need to have some type of overarching order that defines roles and responsibilities; you need to have a tracking system that allows visibility up and down the chain; and you need to establish controls and provide oversight, in other words metrics. We've done that.

In 2006 we've had a Lean 6 Sigma effort that's come in, that came in before I went there and took command. The results of that are right now an electronic system in cyberworld where when a requirement comes in from the fleet—and it has to come in from our warfighters; it can't be just somebody that's in WestPac that's not affiliated with warfighting necessarily. But when that urgent need comes in, we see it, I see it automatically right here as well as my other generals, my colonels, and the folks that process this thing.

We see it. It comes in, it flows. We've reduced the amount of time. We have visibility. We've done everything, I think, that we ought to be doing as responsible stewards of the lives and requirements of our young men and women. So I think we're there.

I'd like to give you two examples of what just took place within the last about 2 weeks to talk about the value of this cyber system, this virtual network where everybody gets to see it. The 24th MEU that's on the ground in Afghanistan right now, the commander about 2 weeks before he deployed, so just about a month ago, said: I need tier two unmanned aerial vehicles. We don't have any with the MEU. That's not an integral part of a MEU. That came in signed by the three-star. I saw it. It came into the process. I looked at it and I said: We need to get moving on this right away because this MEU is going to deploy immediately.

While this thing was grinding its way—and I say "grinding" not in the slow term, but I mean working its process—it went right to the head of Marine Aviation, went over to the Naval Air Systems Command, and we already have it under contract, and the Scan Eagles will be in theater here within the next probably 2 weeks.

The second thing they asked for is a counter-mortar radar. We don't have that. That's not part of a battalion's normal fix. That thing popped up. I saw it about 2 weeks ago and said: Let's buy it; it's in the system; it's commercial off-the-shelf; other forces have it.

So, Mr. Chairman, I appreciate what you're saying. I think we understand and we have the system in place.

Senator KENNEDY. I thank you. My time is up, and I think it's impressive, what you've said and what you've done. We want to make sure that it's going to be a system that's going to remain in place.

General AMOS. Yes, sir.

Senator KENNEDY. Perhaps I'll be a little bit more specific and ask if you'd give me a note on this about how you're working on this.

[The information referred to follows:]

UNITED STATES MARINE CORPS
HEADQUARTERS UNITED STATES MARINE CORPS
WASHINGTON, D.C. 20380-0001

APR 24 2008

The Honorable Edward M. Kennedy
Subcommittee on Seapower
Senate Armed Services Committee
U.S. Senate
Washington, DC 20515

Dear Senator Kennedy:

During the April 8, 2008 hearing on Department of the Navy force structure requirements and programs to meet those requirements contained in the Fiscal Year 2009 Defense Authorization Request and the Future Years Defense Program, you asked that I address the Marines Corps' policy and procedures for meeting the urgent needs of our war-fighters. In particular, you wanted to know how the Urgent Universal Needs Statement (UUNS) satisfies the Marine Corps' urgent requirements. At the conclusion of my response, you asked that I send you a summary of the Marine Corps UUNS process. I believe the enclosed attachments provide the necessary background and rationale for the Marine Corps UUNS policy and procedures.

Thank you for your continued support of our Nation's Corps of Marines and for this opportunity to address this very important issue.

Sincerely,

James F. Amos
Lieutenant General, U.S. Marine Corps
Deputy Commandant for Combat Development and Integration

Copy to:
The Honorable Mel Martinez, Ranking Member

21 Apr 08

INFORMATION PAPER

Subject: SUMMARY OF THE MARINE CORPS URGENT UNIVERSAL NEED STATEMENT (URGENT UNS) PROCESS

Enclosure: Virtual Urgent UNS System screen shots

1. **Definition of an Urgent UNS**. The Urgent UNS is an exceptional wartime request from a Marine component commander for an additional warfighting capability critically needed by operating forces conducting combat or contingency operations. It describes an acute deficiency in operational capability, and, at times, may include specific recommendations for a solution. Failure to deliver the capability requested by the Urgent UNS is likely to result in the inability of units to accomplish their missions or risks increased probability of casualties and loss of life.

2. **Purpose of the Urgent UNS Process**. The Urgent UNS is a tool that initiates an abbreviated form of capabilities-based planning within the Marine Corps Expeditionary Force Development System (EFDS). The Urgent UNS Process is intended to expeditiously field an interim solution to a capability gap identified in an Urgent UNS.

3. **Continuous Evolution**. The Urgent UNS Process has been the subject of constant adaptation as lessons were learned, new threats were encountered, and new technology became available. Since its initial use, the Process has seen changes in the levels of "command authorized to submit and respond to requests," the means by which requests were submitted and managed, and even in the philosophy guiding its execution. The Urgent UNS Process was initially developed to rapidly field commercially-available products, to forces engaged in relatively short-term combat. When Marine forces were ordered back to Iraq to conduct sustained operations ashore, an initially simplistic system required substantial revision.

4. **Process Improvements**. In Fiscal Year 2004, the Marine Corps requested Naval Audit Service support and implemented their suggestions, even as the audit was ongoing. During the audit, the Deputy Commandant for Combat Development and Integration (DC, CD&I) implemented a series of industry-best practices, centered around Lean Six Sigma, to evaluate and rapidly improve the existing Process. Those efforts substantially reduced the time required at Headquarters, Marine Corps to develop recommended solutions to critical capability gaps. Similar efforts continue, as our acquisition professionals at Marine Corps Systems Command (MCSC) complete their own Lean Six Sigma rapid improvement events. We recently revised the EFDS Marine Corps Order and are conducting follow-on projects to better link the Urgent UNS Process with our deliberate planning systems.

5. **Virtual Urgent UNS**. As the Naval Audit Service's review was ongoing, the Marine Corps was already introducing new technology to improve the Process. Based on MicroSoft SharePoint applications, a new web-based "Virtual Urgent UNS" (vUUNS) system provides the additional visibility, transparency, accountability, and oversight needed to better support forces now

deployed to multiple combat theaters. By enabling widespread and simultaneous collaboration, the Process is also now both more effective and more efficient. Specific benefits include:

- Visibility. Solution developers in our Supporting Establishment now see capability gaps as they are identified and entered by units in the field. Understanding that these draft requests may later be modified, reprioritized, or even cancelled by senior leaders, functional experts can begin planning potential responses, considering broader implications, and requesting the further information they will need to rapidly provide the best possible interim response.

- Transparency. As capability gaps are identified and solutions are requested, commanders can view the progress of the Urgent UNS, understanding likely solutions, and learning how to better identify future capability gaps. Developers, at the same time, gain better perspective on operational priorities.

- Accountability. With the secure, web-based publication of assigned tasks and the automatic dating of every step in the submission and development phases, vUUNS provides process managers with significantly greater ability to monitor progress, ensure quality, and drive action where required.

- Oversight. Each of these benefits adds up to the most important improvement to the Process. Senior leaders, whether they are identifying problems or providing solutions, now have real-time access to the current status of every Urgent UNS. Commanders can take immediate action, with most of the information they require already at hand, rather than wait for staff to provide answers or request guidance.

6. **Current challenges**. The Urgent UNS Process faces a number of practical realities to the challenge of instantly fielding an exact capability requested. They include:

- Funding. Each solution takes reprioritization, reprogramming from an existing requirement or supplemental requests for legislative action.

- Expectations. At times, requested technology proves unachievable in the near-term, as the capability requested simply has not been invented or developed yet.

- Regulations. While urgency may authorize streamlining of many procedures, statutes still appropriately require documented consideration of factors such as safety, supportability, live-fire testing, competitive sourcing, and many more issues. Significant Law of War and Presidential policy concerns have also had impacts.

7. **Current Process**. The enclosed PowerPoint slides on the vUUNS system best illustrate many of the key elements in our current Urgent UNS Process. Key steps and characteristics include:

- Online. Development and employment of the online, MicroSoft SharePoint-based "Virtual Urgent UNS" system provides end-to-end visibility, automatic dating, broader collaboration, and simplified oversight.

- Submission. Marines, at any level, can draft an Urgent UNS to identify a critical capability gap. Screened by General Officers in this chain of command, the Urgent UNS is validated by combat theater component commanders, usually Commander, United States Marine Forces, Central Command.

- Triage. The Secretary of the Navy's Naval Innovation Lab (NaIL) and MCSC survey industry and academia, assess technological readiness, and propose options for development paths towards a solution.

- Capabilities Development Integration Board (CDIB). Stakeholder representatives from all Deputy Commandants, the Marine Forces, Training and Education Command (TECOM), the Capabilities Development Directorate (CDD), the Marine Corps Warfighting Laboratory (MCWL), MCSC, and the NaIL along w/ CD&I Integration Officers evaluate & integrate alternatives, recommending combinations of materiel and non-materiel components to close capability gaps.

- Resourcing. The Deputy Commandant for Programs and Resources (DC P&R), DC CD&I, and MCSC determine the scale and suggested source of funds once indicated by the recommended combination of capability solutions. The Commandant has directed that every approved Urgent UNS be resourced.

- Recommendation. DC CD&I documents the operational capability gap for continued deliberate development, and directs any immediate action by his subordinate TECOM, MCWL, and CDD. He recommends actions to the Marine Requirements Oversight Council (MROC), which includes all Deputy Commandants and is chaired by the Assistant Commandant of the Marine Corps.

- Decision. The MROC approves reprioritization of available resources or a request for Supplemental funding, and directs further action across Headquarters Marine Corps.

8. **Ongoing efforts**. Despite the improvements we have made thus far, we continue to work to improve the Urgent UNS Process. Initial experience with the web-based system has lead to further changes in Process execution. We are well into development of additional publications, including a Marine Corps Bulletin. In addition, practice with the web-based vUUNS application has revealed both strengths and weaknesses. We are now planning the next version of the system, building on the capability we now have in place and use daily. To date, we have reduced the Headquarters Marine Corps Urgent UNS processing time from 142 days to 83.2 days.

Marine Corps
Virtual Urgent Universal Need Statement System

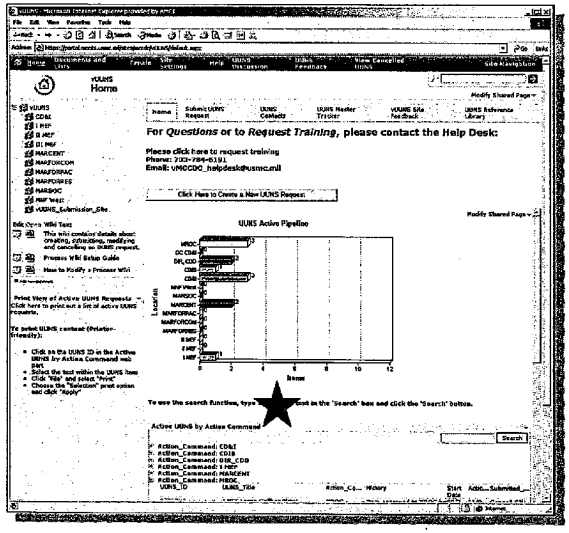
Deputy Commandant for Combat Development and Integration
Capabilities Development Directorate
Capabilities Processing Branch
22 April 2008

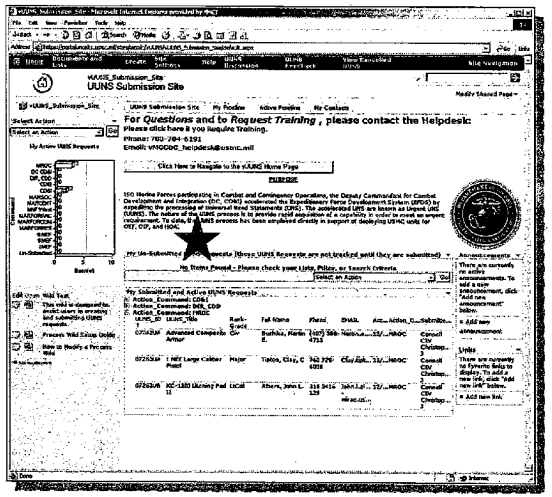
Enclosure (1)

vUUNS Home Page & Submission Sites

vUUNS Home Page

Allows every user across USMC to monitor progress of **any** vUUNS from submission to approval by the Deputy Commandant for Combat Development & Integration (DC, CD&I)





vUUNS Submission Site

Provides the user with feedback on each of **their unit's** entries in the system

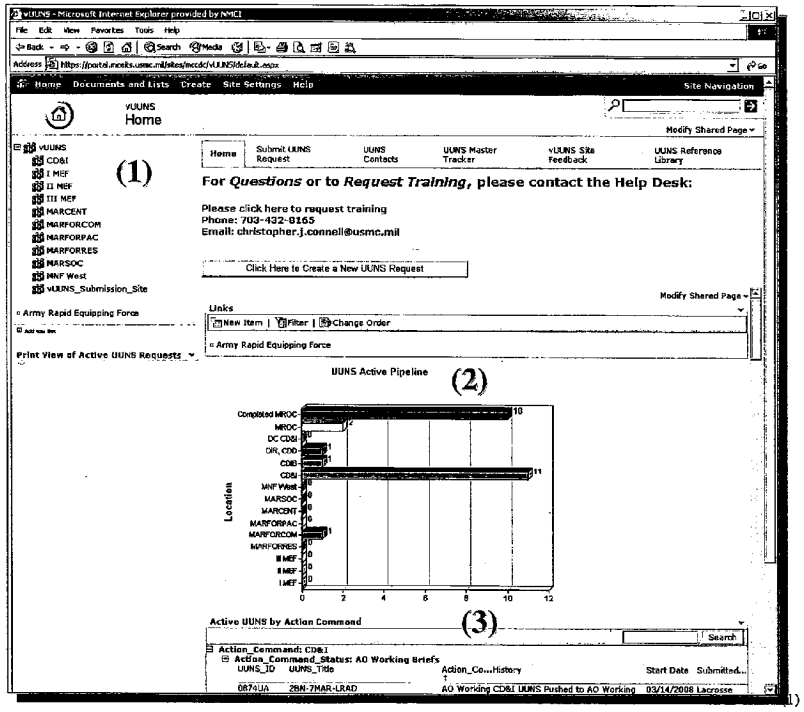
Tracking a Submission using vUUNS

Each vUUNS can be tracked in a number of different ways at different points in the vUUNS process:

(1) Users at different command levels can track and view each vUUNS as it moves through their portion of the process

(2) A bar chart gives each user a summary of all vUUNSs at each level in the process

(3) The listing by Action Command gives users a detailed look at where their request is in the process



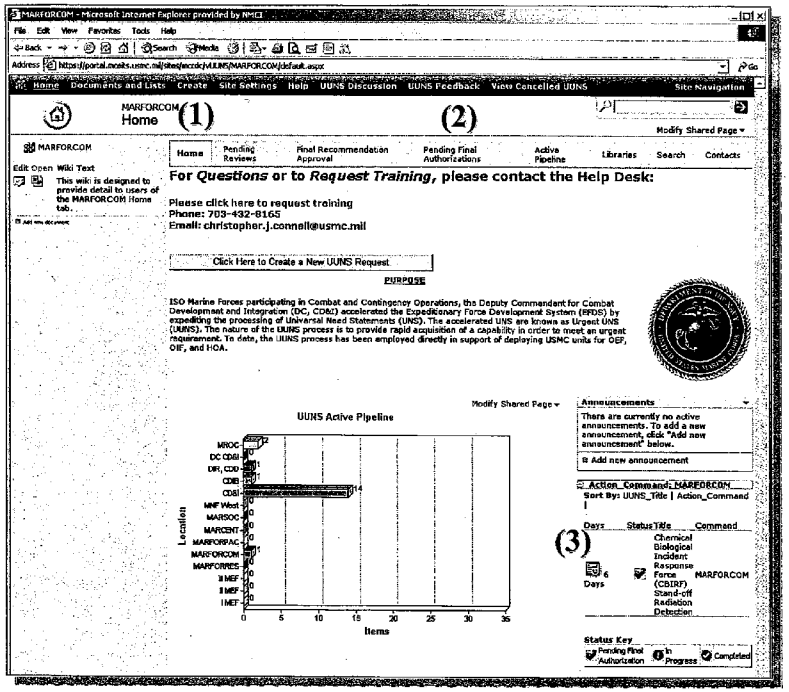
Viewing Current Assignments using vUUNS

Leaders can monitor each vUUNS at every step in the process:

(1) Each command level has its own optimized view of the process

(2) Each can carefully monitor every vUUNS within their organization. Once their have completed their action they can submit the vUUNS to the next higher level in their chain of command

(3) This area shows all vUUNS being processed by the command



Enclosure (1)

Triage

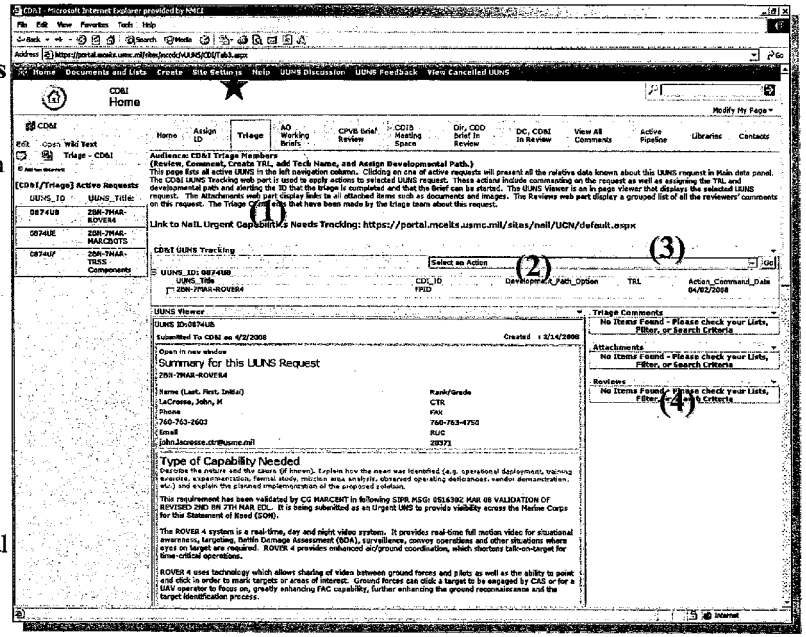
Triage provides a rapid view of potential options for solutions

(1) Led by the Secretary of the Navy's Naval Innovation Laboratory (NaIL), using contacts across industry, academia, & the S&T community,

(2) They recommend a development path, whether to pursue a commercial off the shelf solution if available, or conduct rapid prototyping to produce an interim solution,

(3)and assess the Technical Readiness Level of potential options,

(4) providing additional comments & documents to the Integration Division

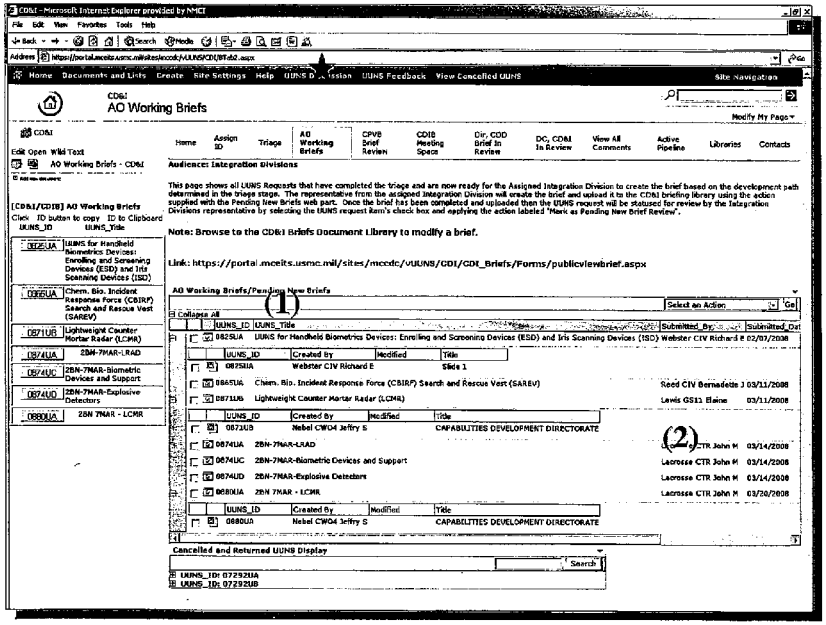


Courses of Action

Action Officers further develop one or more recommendations

(1) Formatted brief will be used to detail and recommend a solution to the Capabilities Development Integration Board (CDIB)

(2) Action Officers contact submitters to best define the capability gap and to ask for feedback on potential solutions

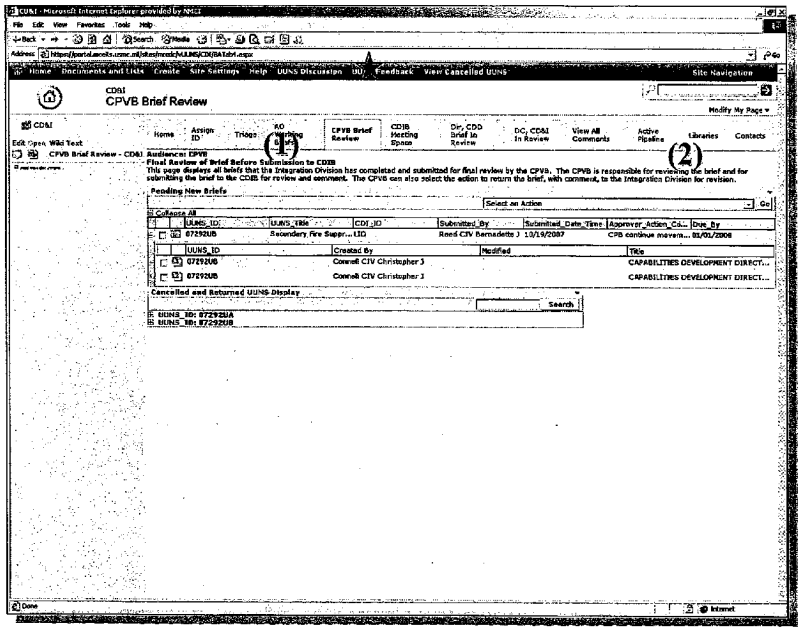


Quality Assurance (QA)

The Capability Processing & Validation Branch provides QA

(1) The brief is reviewed to ensure it considers all necessary elements

(2) If issues remain, the brief is returned to the Action Officer for further development



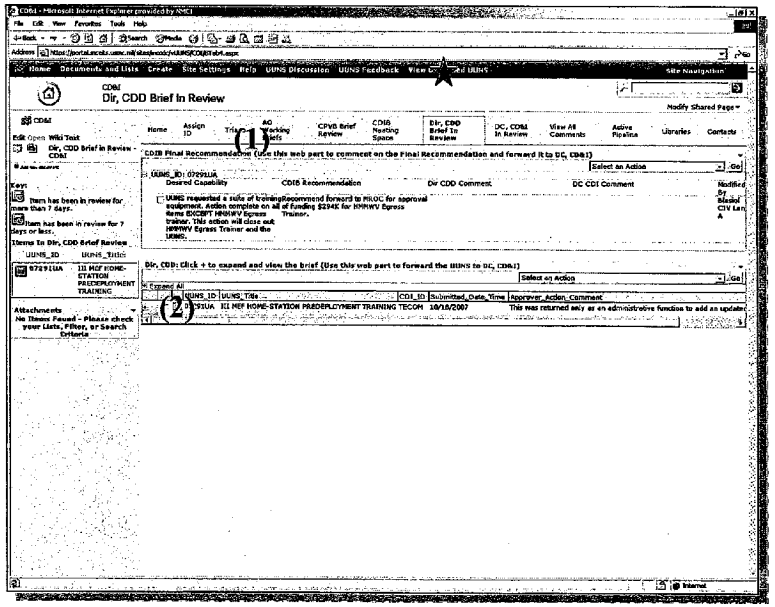
Recommendation

CDIB makes recommendation to the Brigadier General leading the Capabilities Development Directorate (CDD)

(1) CDIB chairman summarizes deliberations and makes a recommendation

(2) Director, CDD, reviews brief and adds his own comments, or returns it for further development

- Recommendation might be that no solution can be found immediately due to technological or industrial constraints, or that the submission does not qualify as Urgent.



Deputy Commandant's Review

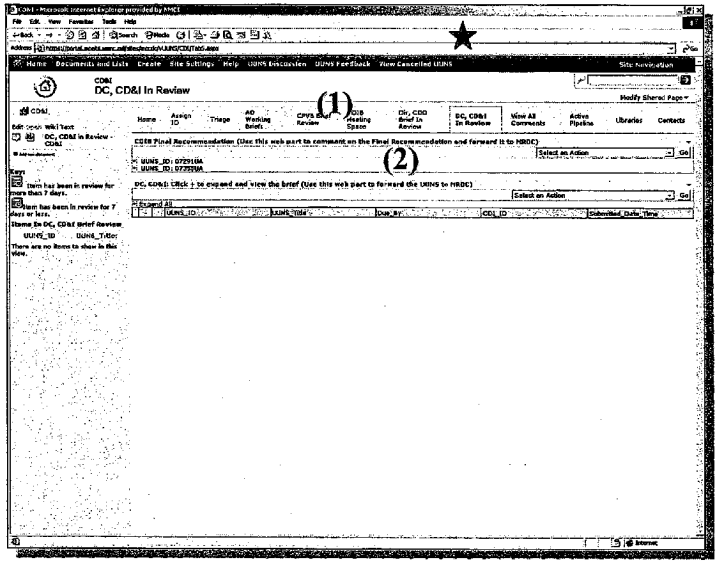
DC CD&I reviews and approves recommendation

- DC will typically have seen a submission from its first entry, and will often communicate with his counterpart Marine Forces Commanders
- The DC will be provided with a resourcing strategy, which might include reprogramming of funds or a request to the Congress for Supplemental Funding

(1) The DC will add his personal comments

(2) and forward a recommendation to the Marine Requirements Oversight Council

- He can direct immediate action to solve the gap.

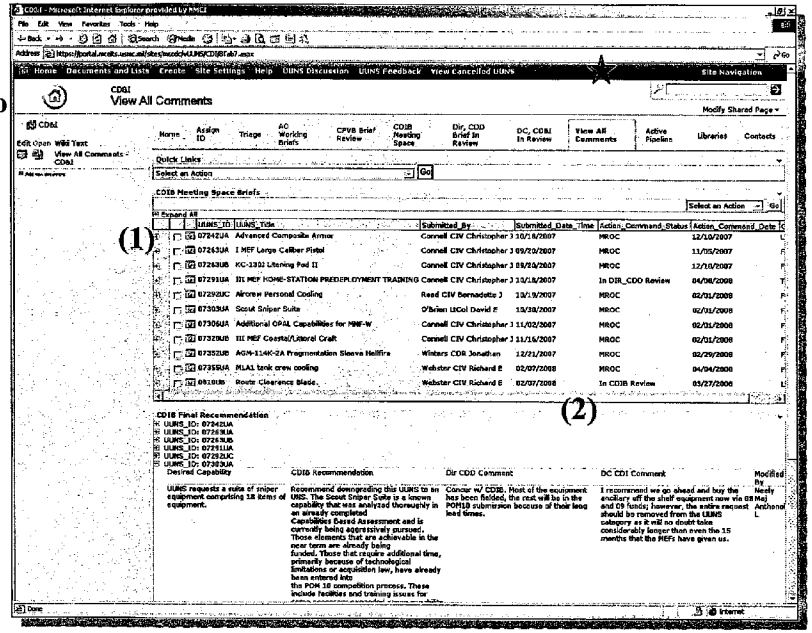


Summary Page

vUUNS captures every step, from submission, through development, to approval, through various links

(1) Starting with the initial request and the AOs brief

(2) and all comments and recommendations

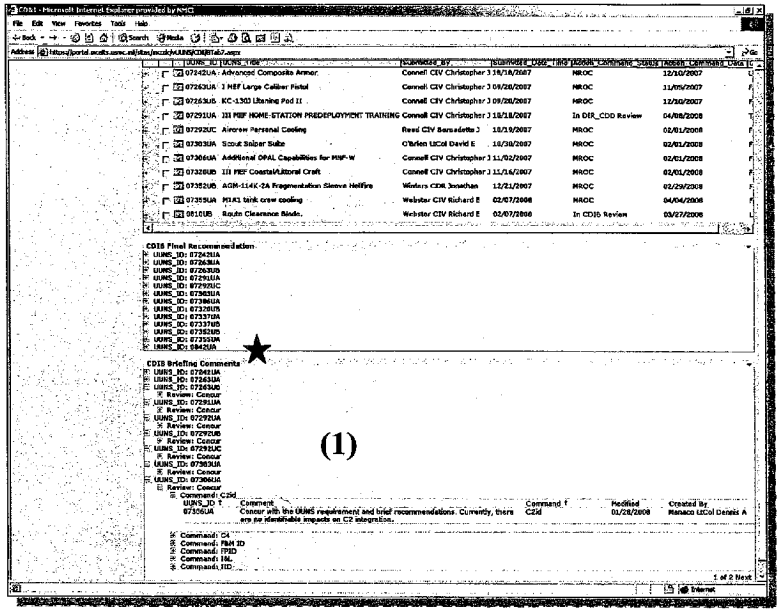


... With Comments

Important comments are provided to the MROC

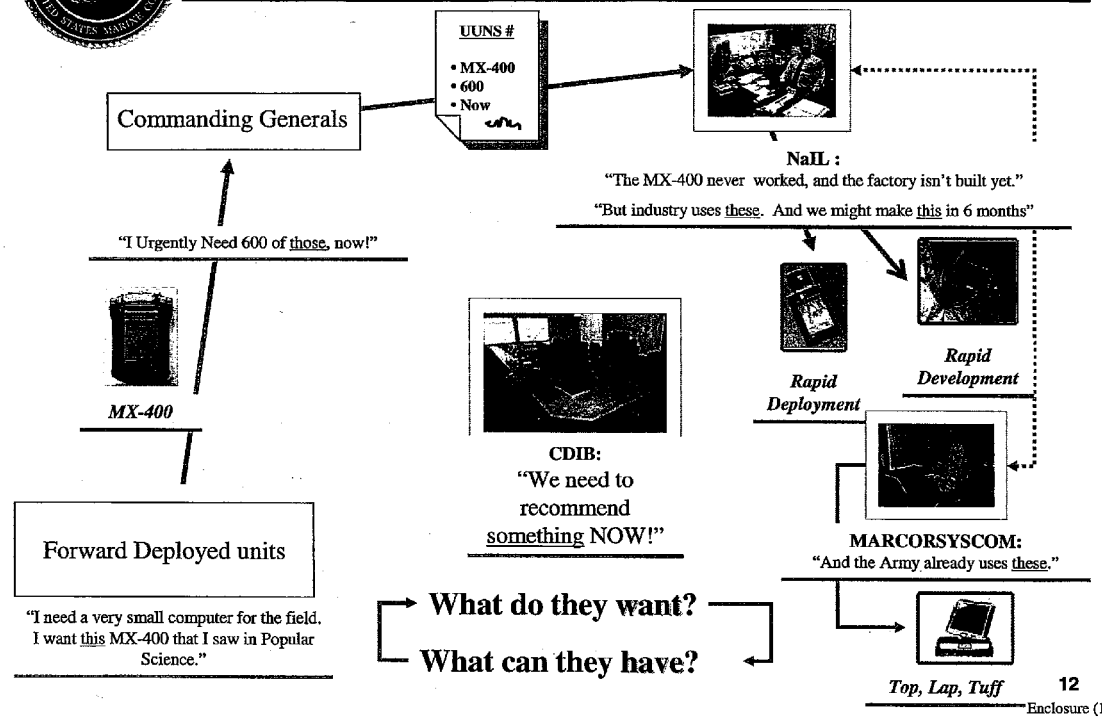
(1) Senior MROC leaders can ensure issues under their cognizance have been considered by the CDIB, providing broad control of the process.

- Ensuring "Non-concur" comments are provided is critical. *Though rare, the emphasis on speed accepts that perfect consensus is not always possible.*
- Only the MROC can deny a Commander of Marine Forces' request, and it generally approves significant expenditures.



Behind the vUUNS Screen

Submission and Triage



Behind the vUUNS Screen

Online Solution Collaboration

Commanding Generals

Forward Deployed units

UUNS#

- MX-400
- 600
- Now

NaIL

MCSC

MX-400

- Promised capability is perfect
- Failed 1st test, being modified
- Industrial capacity doubtful
- $6,000 cost requires delay in other programs, or wait for Supplemental

Rapid Deployment

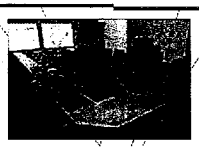
- Available now as COTS
- Not waterproof, needs new batteries
- Civilian software needs adaptation
- $300 cost available w/o impacting other programs

Rapid Development

- Prototyped and tested by USAF
- Available in 9-12 months
- Waterproof, but heavier than requested
- $1,200 cost available in S&T funding

Top, Lap, Tuff

- Available in Supply
- Uses common batteries
- Has military software
- Much larger, heavier
- No new cost, but requires redistribution from CONUS units



CDIB:

"Automatic Email Alert: You have a new UUNS posted to the CDIB Meeting Space. Assigned Action Officer is Maj Johnson. Comments are due in 5 working days. Contact us to request a live Board."

Enclosure (1)

Senator KENNEDY. Just finally, Admiral McCullough, I'm interested always in mine warfare. General Amos talks about how we're coming in from the sea and returning to the sea, and this mine warfare has been an area which we've been interested in for some period of time. I'm going to submit some questions just on that.

The last question, if I could ask, Admiral, I understand, since the time that the U.S.S. *Cole* was in Aden and they had that tragedy there, that naval ships don't go back into Aden. I was in preparation for the Petraeus hearing and someone mentioned to me that this has some significance, because they're trying to make the point that al Qaeda is making is that once the United States leaves it doesn't come back, and they were using the fact that there had been the attack on the *Cole* and we haven't had a Navy ship that's come back into Aden. They used other examples, the Khobar Towers in Saudi Arabia; once Americans have left places they don't come back, and if they leave in Iraq they're not going back.

It was just an interesting point. I see you down here at the other end of the table. I don't know whether you want to make a quick comment on this or whether there's a reason that they don't come. I know it was rare that they went there, but if you want to submit something later; it's a sort of an off-the-wall question.

Admiral MCCULLOUGH. Yes, sir. I'll have to check on whether we've put anybody back into Aden. I'm not sure that that's totally correct, but I'll get that answer.

Senator KENNEDY. Yes, that would be fine.

Admiral MCCULLOUGH. We've used Aden as a refuel point for ships that were independently deploying to Fifth Fleet to execute maritime security operations, both going in and coming out, and that's what we used Aden for. We didn't use it a lot, but that's what we used it for.

Senator KENNEDY. Okay. If you could just let me know I'd appreciate it. Thanks very much.

[The information referred to follows:]

No U.S. ships have pulled into Aden, Yemen, in any capacity, since U.S.S. *Cole*'s terrorist attack in October 2000. This includes port visits or servicing stops.

Senator KENNEDY. Senator Martinez.

Senator MARTINEZ. Thank you, Mr. Chairman.

Admiral McCullough, one of the things we've been discussing is the need for there to be a floor of a 313-ship Navy. From your perspective, what is the optimal number of ships that we should have in our Navy, obviously 313 being the goal?

Admiral MCCULLOUGH. Senator, we look at the 313 number as a capability-based force structure based on a 2020 threat. As we speak to our component commanders globally, specifically in Pacific Command with Pacific Fleet and in CENTCOM with Commander, United States Navy Central Command, there's always a higher demand for presence than we have in theater. Specifically, Admiral Willard would like to get at the southwestern Pacific.

I don't have a specific number to give you, but I'll tell you that in a lot of ways capacity becomes a capability of its own. So I'll get back to you on a higher number, but CNO has specifically said we believe we can do the Nation's bidding in accordance with the Maritime Strategy with moderate risk with a 313 capability-based force structure.

Senator MARTINEZ. I know there are some challenges in funding this and in the budget and so forth for this, and I was just wondering. The CNO has emphasized that he will control the costs by controlling requirements.

Admiral MCCULLOUGH. Yes, sir.

Senator MARTINEZ. But in spite of this, the Congressional Budget Office believes that the Navy has underestimated shipbuilding costs by $3 to $4 billion per year, suggesting further cuts are necessary to meet the overarching requirement for the 313-ship Navy. So, Admiral, my question is, how has the CNO's direction to control requirements translated into policy and practice? It would be good to know exactly examples where we've done that in the reduction of shipbuilding costs.

[The information referred to follows:]

A full force structure assessment occurs as a part of the Department of Defense's (DOD) Quadrennial Defense Review (QDR). In 2005, the Navy conducted a comprehensive, capability-based Force Structure Assessment to support POM–08. The Navy's ship force structure requirement of 313 ships is based on detailed campaign and mission analysis of 4 warfighting scenarios (3 major contingency operations (MCO), plus global war on terror), using ship types projected to be in the fleet in 2020 through 2024 and the current DOD planning guidance to wage two nearly-simultaneous conventional campaigns. Subsequent campaign analysis for MCO and in-depth global war on terror analysis validated capability and capacity requirements of the 313-ship force structure. The analytic baseline supporting the 313-ship plan, although significantly updated with new warfare analysis since 2005, continues to support the quantities of ships by class in the original baseline. The next QDR will provide an opportunity to readdress the basis of the current planning guidance, which if changed, will affect the inputs into Navy's next comprehensive, capability-based Force Structure Assessment and produce an updated requirement.

The current President's budget 2009 represents the best overall balance between procurements to meet operational requirements and affordability. The Navy has examined the feasibility of increased shipbuilding investment in fiscal year 2009. Given current industrial base capacity, the Navy's plan to achieve the 313-ship mix required by the fiscal year 2020 timeframe, and other competing Navy requirements that must be met, $12.4 billion in the fiscal year 2009 budget request is sufficient and represents the necessary resources to achieve the required warfighting capability on time. In addition, the Navy's plan increases shipbuilding investments from $12.4 billion in fiscal year 2009 to over $17.9 billion in fiscal year 2013.

It is a significant challenge to get the number of ships we need with the right capabilities within the Navy's overall funding level; however, the Navy is committed to achieving a force structure of at least 313 ships, with the necessary warfighting capability that the Navy will need by fiscal year 2020.

Admiral MCCULLOUGH. Sir, when we submitted the 2009 shipbuilding plan to Congress we looked at what we had said: in fiscal year 2005 dollars to execute the plan, that we needed about $13.4 billion a year. Our review prior to submitting the 2009 plan, because of the escalation in material and some labor requirements in the various yards, said that we should probably have funded that to about $14.6 billion a year, which in 2007 dollars is about $15.7 billion a year. So right now we believe the plan's based on $15.7 billion a year and escalated out through 2020.

Additionally, the CNO asked us to look at a different way to couch a shipbuilding plan, because we think we understand relatively well the costs in the near years and through the FYDP and probably to some degree out through what we call the near term, to 2020. Beyond 2020, the ships in the shipbuilding plan are replacements for ships that were built in the late 1970s and 1980s and are just our best estimate on what they'd be in a per-unit replacement.

Requirements generation, we've worked with the Marine Corps and the secretariat to develop an acquisition governance process which gets senior Navy leadership much more involved in major acquisition decisions at an earlier point. We call it the six gate review process. The CNO or the Commandant are responsible for the first three gates, which involve development of the initial capabilities document, the guidance to work through the analysis of alternatives, and approval of which alternative is selected, and then development of the capabilities development document that goes into the joint capabilities integration and development system process.

At that point, the Assistant Secretary of the Navy for Research, Development, and Acquisition, starts to chair the gate reviews. We have developed a process called a system design specification (SDS) that goes into the overarching requirements, technical requirements that exist currently in the Navy, to better specify what requirements we put in the Request for Proposals (RFPs) with the contractor.

Once we agree on the SDSs and the capabilities development document is approved by the Joint Requirements Oversight Council (JROC) process, we come together and develop the RFP. This goes through another gate review that's approved by the Assistant Secretary of the Navy for Research, Development, and Acquisition.

The way I liken this to is when we used to develop key performance parameters (KPPs) in the capabilities development document. They're high level requirements, like a ship will go so many knots for X number of miles, or it'll have so many weapons tubes in it, and it'll have threshold and objectives in those requirements. We then gave that to the acquisition community and expected them to develop detailed requirements to pass to industry. We didn't always do that very well.

So the SDS will provide adequate detail to industry, so that if I had asked for a CTS Cadillac that the specifications I give to industry tell them I want a CTS Cadillac and can't be interpreted to mean I want a Ford F–150 pickup truck.

So I think through that process we better control our requirements, because throughout the process we review the health of the program, the budget, and the cost estimates. This process has been recently implemented and I think that's probably what the CNO was referring to.

Senator MARTINEZ. Ms. Stiller, if you could focus on the requirements discipline that is necessary, but not enough to reduce costs, and what is the acquisition organization doing to improve cost estimates and to elevate cost control in the shipbuilding contracts?

Ms. STILLER. Yes, sir. Just to echo what Admiral McCullough said, I have one tangible example that came out right after we went through the LCS review. We were in the process of getting ready to issue the RFP for the JHSV, and we took a pause and worked with the requirements community and what I call the technical community that's writing the building codes to say, do we really want these features to be designed to Coast Guard specs, naval vessel rules, or military specs.

We came up with a detailed matrix, which is part of what a SDS will do, that will tell you what specifications you want to build that

ship. So we delayed the RFP release until we knew we had it right and we had agreement across the board. That's one example.

But what we're doing on the acquisition side to improve the independent cost estimates is, we're using realistic indices. We've seen escalation on certain materials, like nickel for example rose 700 percent in 1 year. Instead of using just standard OSD inflation indices, we're looking at the indices that are specific to shipbuilding—copper, steel, aluminum. Whatever goes into a ship, we're watching those and factoring those into our cost estimates.

We look at cost estimating relationships as it relates to ships we've built in the past and what that means to future ships. As we get through a bunch of these lead ships and we start to get into serial production—that's why I commented I'm very happy we don't have lead ships in this budget—it helps us to inform our cost estimates for the future ships, and we're using those as well.

We look at obsolescence and we work with the shipyards to understand where we might have obsolescence issues in the vendor base, so that we can factor that in as well.

Another tool that we've given to all the program managers is restrictions on the type of changes that they can approve. Changes for safety items or test and trial deficiencies, for example, they have the ability to make the change. If the change is I want more or somebody else tells me I want more, they have to come and ask approval through the process. That will greatly reduce the number of changes that are introduced during the design and construction of a vessel.

Senator MARTINEZ. Thank you.

My time's about to expire, but let me ask one last question. Admiral, regarding the situation at Mayport, the Environmental Impact Statement has now been completed and I was wondering what your plans were for future funding of Mayport, particularly to complete any of the improvements that need to be made. Are you at all familiar with what I'm talking about? We need some dredging, wharf upgrades, and things of that nature.

Admiral MCCULLOUGH. Yes, sir, I'm familiar with that and I've dealt with it on the periphery. I'd like to take that question for the record and have the right folks get you the correct answer.

Senator MARTINEZ. I'd like to know when is completion of the strategic laydown study so that we may know when a decision may be made on that.

Admiral MCCULLOUGH. Yes, sir.

[The information referred to follows:]

Only the Draft Environmental Impact Statement (EIS) has been completed. The Final EIS will not be completed until November 2008. A Record of Decision (ROD) on a preferred alternative for the Mayport EIS will follow in December 2008. The Navy will fully consider operational, financial, and environmental factors before making decisions regarding the homeporting alternatives being evaluated in the EIS. If the Navy's preferred alternative requires military construction (MILCON), these requirements will be balanced with the Navy's other programming priorities.

The plan for future funding of Mayport depends upon the alternative chosen in the ROD. Should the ROD select an alternative to move any ships to Mayport, funding will be requested in order to meet the desired date of initial operating capability (IOC). For example, in order to make a 2014 IOC date for CVN homeporting at Mayport, several supporting MILCON projects would need to be programmed beginning in the fiscal year 2010 budget.

Senator MARTINEZ. Thank you.

Senator KENNEDY. Senator Collins.

Senator COLLINS. Thank you.

Ms. Stiller, I want to take up where the chairman left off on the DDG–1000. Some House members have proposed terminating the DDG–1000 after building just the two lead ships and instead building more DDG–51s, which the Navy has not asked for.

So first let me get you on record: Does the Navy oppose that plan?

Ms. STILLER. Right now, ma'am, the program of record is seven DDG–1000s. That was signed out in the 30-year shipbuilding plan.

Senator COLLINS. So that's a yes, right?

Ms. STILLER. Yes, ma'am.

Senator COLLINS. In addition to the many capabilities that would be sacrificed if we went back to the DDG–51 instead of proceeding to the DDG–1000, there are also some important cost considerations. The DDG–51 is coming to the end of that class of ships. Has the Navy done an estimate of how much it would cost to restart the DDG–51 line?

Ms. STILLER. Ma'am, we've looked at it in a couple of ways because that information has been requested from the House. Some estimates indicate if you built one ship it would be $2.1 billion and if you built two it would be $3.3 billion if you go back to DDG–51. However, I expressed concern when I testified before the House Armed Services Committee that I don't necessarily understand all the subvendor implications, because the last multi-year was signed in 2002 and we did an economic order quantity.

I have agreed to work with the shipbuilders to try to understand the subvendor implications, and I don't have that data yet. They're going to come see me in a couple of weeks. But there may be some subvendor implications that we were not aware of when we cost this. But right now those were the estimates, yes, ma'am.

Senator COLLINS. If there are those implications, that presumably would increase the cost still further, correct?

Ms. STILLER. Yes, ma'am.

Senator COLLINS. In addition, has the Navy looked at the total life cycle cost, the total operational costs of the DDG–1000 versus the DDG–51?

Ms. STILLER. Yes, ma'am. As part of all program documentation that we take forward to the DAE, we have to look at the total ownership cost of those vessels. I don't have the comparison between DDG–1000 and DDG–51. I'll have to take that for the record. But I'll be happy to provide that for you.

Senator COLLINS. As luck would have it, I do have that information. It's my understanding that the Navy has estimated that the DDG–1000, when you look at the total life cycle costs, that it actually costs less to operate the DDG–1000 over 35 years than the DDG–51. In fact, the estimate that I have from the Navy is that it's $4.5 billion less to operate 10 ships over 35 years.

Setting aside that issue for just a moment, isn't there a considerable cost savings that results from the far smaller crew size that is needed to operate the DDG–1000 compared to the DDG–51?

Ms. STILLER. Yes, ma'am. Certainly manpower reductions will save you over the life of the class. There are additional maintenance costs, though, when you do that. When you take sailors off,

there's going to be more shoreside maintenance that will have to be done. But overall I do believe there is a net savings. I hear your numbers. I'll make sure that I go back and verify those.

[The information referred to follows:]

The Navy has not stated that it would cost roughly the same amount of money to procure and maintain one DDG–51 ship as it would a DDG–1000 ship. The unit costs for the final ships of the DDG–51 class (procured in fiscal year 2005) are lower than the projected unit costs for the follow ships of the DDG–1000 class. However, the Navy does expect that a DDG–1000-class ship will have a lower annual total operating and support (O&S) cost per ship than a DDG–51 class ship. This comparison is based on the Navy service cost estimate for DDG–1000 O&S costs compared to a composite across all ships of the DDG–51 class based on reported O&S cost data. The overall lower DDG–1000 per ship annual O&S cost is primarily due to the decreased ship manning for DDG–1000 as compared to DDG–51. This decreased manning affects both direct mission personnel costs and indirect support costs (such as installation and personnel support costs). The Navy is currently updating the O&S cost estimate for DDG–1000 based on the current design and life cycle support strategy.

Senator COLLINS. Thank you.

It's my understanding that the crew size for the DDG–1000 is projected to be only 148 sailors. Admiral, if I'm wrong on that feel free to jump in.

Admiral MCCULLOUGH. Yes, ma'am. The core crew on the DDG–1000 is 114 crew members. The aviation detachment 28, so the total for the ship is about 142.

Senator COLLINS. 142, and that compares very favorably with the DDG–51. The crew size for that I believe is something in the neighborhood of 346 or so; is that correct?

Admiral MCCULLOUGH. Yes, ma'am, depending on what variant of the ship and what we've done to take efficiencies in Smart Ship and drive the crew size down. But it's in excess of 300 folks, yes, ma'am.

Senator COLLINS. So we're talking about a ship that is more capable and yet can be operated with about half the crew size; is that accurate?

Admiral MCCULLOUGH. It's much more capable in the littoral, given the radar suite that we put on it, the signature reductions that we've put into the ship, and yes, ma'am, it has less than half the crew size on it.

Senator COLLINS. Admiral, could you speak to some of the other capabilities that the DDG–1000 would give the Navy that it does not currently have with the DDG–51, fine ship though that is?

Admiral MCCULLOUGH. Yes, ma'am, DDG–51's a great ship.

DDG–1000 has 10 technological advancements on it, and I'll do the best I can without a cheat sheet in front of me. It has an integrated electric drive fight-through power system that's a 78 megawatt power plant, and it is electric drive. It has a significantly reduced acoustic signature that rivals the signature of some of our attack submarines. It has a thermal suppression system that reduces the infrared signature of the ship.

The hull form is specifically designed to reduce the wake, which is a significant portion of the radar cross-section of the ship. So the ship has a very, very small radar cross-signature compared to a DDG–51.

Senator COLLINS. So it's stealthier?

Admiral MCCULLOUGH. Yes, ma'am.

We put two advanced gun systems on it that are unmanned 155 millimeter tubes, that are designed to shoot a long-range land attack projectile that has a nominal range in excess of 60 miles with a very small circular error probability. So it's very accurate. It's GPS-guided. The system is designed so it can have multiple rounds simultaneously impact the target at that range.

The gun system is totally unmanned. I would tell you from the work that we've done from computer simulation and actually shot the gun at Dugway Proving Grounds in Utah, if you looked at the computer simulation of the gun and compared it to the real gun firing, you can't tell which one's which until the breach block opens on the gun.

We have fired the long-range land attack projectile from a 155 tube. I believe it was at Point Mugu. We fired it at a barge approximately 60 miles at sea. We put a video camera on the barge. The barge owner was not as convinced as we were what the accuracy of the projectile would be. They made us insure the barge. You can see the projectile splash off the barge where it was supposed to.

The SPY–3 radar, the X-band radar on that ship, provides the ship with periscope detection as well as very high fidelity in the littoral. So it reduces the clutter of the radar and enables it to see targets over land much better than what a SPY–1 can do.

The last one's the fire suppression system, which enables us to reduce the crew size.

Senator COLLINS. Thank you, Admiral. I think it's clear that it is an extraordinarily capable ship which will be able to be operated with half the crew size, which has life cycle costs that are extremely favorable, and that we should proceed with it.

If I could just ask one more quick question of Ms. Stiller. Ms. Stiller, how important is the DDG–51 modernization program to achieving the goal of a 313-ship Navy?

Ms. STILLER. DDG modernization is an important component. But I'll defer to Admiral McCullough for the requirements.

Admiral MCCULLOUGH. Modernization of our current fleet is the heart of the 313 force structure plan. If you look at 2020 and look at the battle force inventory, the majority of the ships that make up the battle force inventory are sitting at the pier today.

We historically don't do a good job with ships if we don't modernize the combat systems. If you look at the 993-class DDGs, we decommissioned them at about 17 years, which was half their engineered service life. The Baseline 1 cruisers we decommissioned at about 20 years. That was about half of their expected service lives. The *Spruance*-class destroyers we decommissioned at an average age of 22 years, which was half of their estimated service life roughly.

If you don't modernize the combat system and you can't pace the current threat, the ships have a tendency to become irrelevant. So the combat systems and hull, mechanical, and electrical modernization program that we've put in for the 47 cruisers in the DDG–51s is a key cornerstone of the 313 plan, and *Bunker Hill* is in her modernization right now.

Senator COLLINS. Thank you.

I would just conclude my questioning by saying to the chairman that the most efficient way to undertake that modernization of the

DDG–51s, a modernization that we just heard is critical to achieving the goal of a 313-ship fleet, is to return those ships to the building yards, which have the expertise to do the retrofits in a most efficient manner.

Thank you, Mr. Chairman.

Senator KENNEDY. I never thought of that before. That's a real interesting observation.

Senator COLLINS. I know the chairman wants to save money at all times and the best way is to bring them back.

Senator KENNEDY. Bring them home, bring them home.

Senator COLLINS. Thank you, Mr. Chairman.

Senator KENNEDY. Senator Sessions.

Senator SESSIONS. Thank you. I'm not surprised that Senator Collins had all that information when she asked that question. She's not trained as a lawyer, but she usually knows the answer before she asks.

Let me ask a few questions about the LCS. I'm a little worried about that. But first let me compliment the Navy on a decade of work that is designed to transform the Navy into an effective fighting force that can utilize less personnel, more firepower, and more capabilities. I hope we continue to do that, but we don't need to weaken the Navy in the process. So I hope you'll keep us advised.

As I understand it, I think it's clear that the Navy has placed, Secretary Stiller, the LCS at the center of its procurement and at the center of its 313-ship Navy. How many of those LCS ships are planned to be part of the 313-ship Navy?

Ms. STILLER. The plan is still for 55 LCS as part of the 313 plan.

Senator SESSIONS. At one point it was as high as 82, I believe, in one of the plans.

The LCS vessel has outstanding capabilities in areas, for example, like the Persian Gulf, would it not?

Ms. STILLER. Yes, sir. I'm going to defer to Admiral McCullough.

Senator SESSIONS. Admiral McCullough, I guess I'll ask you.

Admiral MCCULLOUGH. Yes, sir. The ship's designed as a focused mission ship. It has very good capability in mine warfare and in the anti-surface warfare area that we looked extensively at scenarios in the Arabian Gulf, yes, sir.

Senator SESSIONS. It's not exactly a replacement of any other ship. It's more of a new capability for the Navy; is that correct, Admiral?

Admiral MCCULLOUGH. Yes, sir, that's correct.

Senator SESSIONS. What are some of the new capabilities that you expect to achieve from that ship?

Admiral MCCULLOUGH. It has significant enhancements in the mine warfare area, specifically with a remote mine-hunting vehicle that tows an SQS–20 sonar, which is a very accurate sonar, to find mines.

Senator SESSIONS. Let me mention that Senator Kennedy I think for years has rightly been concerned about mines and the threats of mines to major vessels. One mine can neutralize hundreds of millions of dollars of ship capability.

The LCS clearly is an advancement in our anti-mine capability?

Admiral MCCULLOUGH. Yes, sir.

Senator SESSIONS. Would that be one of its top capabilities? It's the first one you mentioned.

Admiral MCCULLOUGH. We've delivered the first mine mission package. It came out just last fall. It had the remote mine-hunting vehicle, the SQS–20A sonar. We're working on an Airborne Mine Neutralization System. It also included an Airborne Laser Mine Detection System and the support equipment that goes with that.

We're working on some additional capability which involves putting a 30-millimeter gun on the ship to neutralize mines. The system's called the Rapid Airborne Mine Clearance System. We're also working on a program where it can detect mines over the beach. So this will have a significant mine warfare capability to enable us to maintain access against people that would use mines as an anti-access strategy.

Senator SESSIONS. Compared to capabilities, this ship also has personnel demands?

Admiral MCCULLOUGH. Yes, sir. The core crew on the ship is 40 folks. There are 15 folks that go with the mission packages and about 20 or 22 that go with the aviation detachment on a ship.

Senator SESSIONS. So 60 or so even with the packages and capabilities.

Admiral MCCULLOUGH. 75, yes, sir.

Senator SESSIONS. Fuel mileage? It depends on how fast it goes, right?

Admiral MCCULLOUGH. It depends. Yes, sir, it depends on how fast it's traveling. The threshold KPP for the ship is 40 knots. Both of the ships use large gas turbine engines as well as diesel engines to propel them. So even with the advanced hull-form and General Dynamics variant, they still burn a lot of fuel when they go fast, yes, sir.

Senator SESSIONS. But just to ask you, Admiral McCullough, the Navy remains committed to this ship to being 55 of the 313 ships we envision in the Navy?

Admiral MCCULLOUGH. Yes, sir, that's correct.

Senator SESSIONS. We have one today.

Admiral MCCULLOUGH. Yes, sir.

Senator SESSIONS. Now, Secretary Stiller, I have been concerned. I can't complain too much. I have to admire Secretary Winter for saying we're going to challenge the costs, we're going to keep costs down. Basically, you've put a hold on both versions now of the ship. Explain to me in simple English where we are in terms of bringing this ship up to the 55 we're supposed to have. Are we going to be behind? Does this represent any lack of commitment on behalf of the Navy to the ship, or do you remain committed to it as a critical part of the future navy combat system?

Ms. STILLER. Yes, sir, we are committed to the LCS program. Right now LCS–1 is about 82 percent along in her construction. She'll go to builder's trials here in May. LCS–2 is about 68 percent along and she'll launch in late April.

We have one ship in 2008 and two in 2009 that we are in the process of running a limited competition between the two primes for the total of three. Ideally, one would have one and the other would have two. That RFP was just released and so the contractors are in the process of working up their proposals. The Navy's hope

is to award toward the latter part of the summertime the 2008 ship as well as the options for the 2009 ships.

As for getting to 55, I believe in the 313 plan we still get there before 2020. It's in 2019. So we've laid out a ramp-up of quantities that will get us there by 2019.

Senator SESSIONS. I can't criticize you if you need to examine the expense, examine the capabilities, and make a good decision. But I do think that you have to be aware that in the environment we operate under that if we delay something too long and we can't make up our minds it can allow Congress to take money and spend it on other things.

If it's a critical part of your shipbuilding capability, Admiral, and your needs for the warfighter, we don't need to dawdle around here. We need to work out the problems, challenge the contractors if need be, and get this thing moving.

Do you understand the dangers that we can have with uncertainty in the procurement process?

Ms. STILLER. Yes, sir, absolutely. That's why we are moving forward as quickly as we can on the 2008 and 2009 procurements, which will also be in a fixed-price environment, recognizing the cost cap imposed by Congress as well.

Senator SESSIONS. Thank you.

Senator MARTINEZ [presiding]. Thank you.

I want to focus on the LCS, but I want to make sure that we talk a little bit about the amphibious lift requirements, General Amos. My understanding is that the Marine Corps has long had a requirement for three amphibious brigades to conduct amphibious assault, but fiscal constraints reshaped this requirement for operationally available amphibious lift to two brigade assault echelons.

So how does this requirement for two brigade assault echelons translate into numbers and types of amphibious ships, and what are the assumptions and related risks in sizing this amphibious force?

General AMOS. Senator Martinez, you're absolutely correct. There has been risk that has been taken already as we went from three Marine Expeditionary Brigades worth of assault echelon, which equates to forcible entry, our Nation's ability to project forces from the sea ashore in an environment or a nation that doesn't want us to be there. So we went from 3 to 2.5 and we're down to 2.0 right now.

That number of marines and that requirement requires just a little bit over 17 ships to hold that many marines, 17 ships per Marine Expeditionary Brigade. A decision was made 2 years ago by the Commandant and the CNO to accept the level of risk, further level of risk, and allow those total numbers to get down to 15 per Marine Expeditionary Brigade.

So that's a total of 30 ships. Now, just like anything else, like airplanes and whatever, everything's not up 100 percent of the time. Things are in maintenance, things are in overhaul. So if you just take the historic average of maintenance and availability, you need about 34 ships. You need a little bit more than 34, but 34 ships to bring those two brigades worth of marines ashore.

Now, it's important to note that the mix inside that is important, and that's why in my opening statement I talked about the 10th

LPD and I talked about the importance of that ship and the capabilities it brings. It's a 25,000-ton ship. It is an enormous ship and it's very, very capable.

So we're looking at a proper mix inside those 15 ships: 5 big-deck what we call LHA–LHD ships, 5 LPD–17 ships, and 5 LSD–41, or 49 ships to bring up the total of 15 to put in there. So that's how we got to the total requirement agreed to by the CNO and the Commandant of 34 ships. It's really about 33: 11 big decks, 11 LPD–17s, and 11 LSDs.

Senator MARTINEZ. We need to fix the problem. My question to you would be, what would be your priorities in terms of fixing the capabilities and the shortfalls? From your perspective, how would you like to see this proceed?

General AMOS. I know the Commandant's number one unfunded priority for this year is the 10th LPD. Right now there is the LPD–17 line scheduled to be closed in fiscal year 2009. There is money applied to that, $103 million, and what the Navy and the Marine Corps—I'll just speak for the Marine Corps—what the Marine Corps would like to see happen is to have that 10th LPD fully funded with global war on terror funds and get that thing underway and under contract.

Senator MARTINEZ. Ms. Stiller, if that was not to take place what would then happen to the industrial base for the shipbuilding of that particular class of ship?

Ms. STILLER. If you look at the industrial base and where we are in the LPD production, I would say that you could wait until fiscal year 2010 to buy that ship with a little bit more risk, but beyond that you would definitely end up with a cold production line.

Senator MARTINEZ. One last question, General Amos. As you indicated in your opening remarks, the role of the marines in Iraq and Afghanistan has been a land-based role, not the traditional role of the Marine Corps in expeditionary warfare. Is there a need for you, for the Marine Corps, to rebuild this fundamental expertise through the ranks of the Corps in order to retain the full skills and capabilities required to project power ashore from the sea?

General AMOS. Sir, there is. The Commandant talked to his leadership about that. We have really a couple of generations of young company-grade officers now that have never even been aboard a ship, because we've been focused solely, narrowly on the set of operations that we're doing in Iraq and Afghanistan. So we understand that.

One of the driving factors behind growing the Marine Corps to 202,000 was to give us a little bit of elasticity in the deploying units. Right now—and I know you know this, Senator—there's a large percentage of our front-line combat units that are on about a one-to-one dwell to rotation. They're gone for 7 months, they're home for 7 months. It's a bit of a ruse because they're home really for probably 6 to 5 months because they spend 30 days at Twentynine Palms away from their family, then they're going to rotate early so that they can go over there and relieve the unit that they're going to take their spot. So somewhere between 5 to 7 months is the time they're home.

So if we grow the force we get a little bit more dwell, hopefully two-to-one, which is our goal. Then when we do that, that now al-

lows us, the senior leadership, to be able to say: Okay, you're going to go a year from now or 14 months from now, you're going to go back into Iraq, you're going to go into Afghanistan, instead of saying 5 months from now and we have to start training immediately.

So that allows us the opportunity to do some full-scale operations and training. We're building that capability right now with the growth of the force and with the training plans that come underneath my command down at Quantico. So we recognize it. We need to be able to do it. Quite honestly, it's a Title 10 responsibility that Congress has given us and we're not doing that right now.

Senator MARTINEZ. Thank you all very much.

The hearing is adjourned.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR EDWARD M. KENNEDY

LITTORAL COMBAT SHIP

1. Senator KENNEDY. Secretary Stiller and Admiral McCullough, you are having particular problems with the Littoral Combat Ship (LCS) that are very much in the news. Admiral Clark said he wanted this relatively inexpensive ship in a hurry to meet the projected threat in the littorals. Now we find that we will not get these ships in a hurry, nor will they be as inexpensive as we were led to believe. What is the Navy doing to meet this urgent threat that the LCS was intended to address with the LCS program delayed as it has been?

Ms. STILLER and Admiral MCCULLOUGH. The Navy is accepting greater risk by addressing littoral threats with current force structure of mine countermeasures ships and multi-mission ships. However, there will be capability gaps until LCS delivers in capacity.

2. Senator KENNEDY. Secretary Stiller and Admiral McCullough, have you investigated deploying mission modules on other Navy combatant vessels?

Ms. STILLER and Admiral MCCULLOUGH. The Navy is examining options to deploy selected LCS mission modules on other combatant vessels. In February 2008, Secretary Young (USD, AT&L) directed the Secretary of the Navy to conduct an analysis of alternative (AoA) platforms and develop a concept of operations (CONOPs) for mine countermeasures (MCM) capability fielding with and without LCS. The analysis and CONOPs will be submitted with the fiscal year 2010 MCM Master Plan and should also include forward staging and system sparing considerations.

3. Senator KENNEDY. Secretary Stiller and Admiral McCullough, if you are just accepting greater risk for the interim, why didn't the Navy just plan from the beginning to accept that greater risk for some period of time and get the LCS program right in the first place?

Ms. STILLER and Admiral MCCULLOUGH. The LCS program was designed to address warfighting gaps in MCMs, surface warfare, and anti-submarine warfare. Because of the compelling and urgent warfighting need, the LCS program attempted to meet a faster schedule than typical Navy programs. With a constrained price, tight schedule, two different designs at two different shipyards, and demanding performance requirements, LCS took on much higher risk than other programs. The rapid schedule also forced a large degree of concurrency between design and construction.

In order to reduce program risk to acceptable levels, the Navy has restructured the program to accommodate known cost and schedule estimates. LCS remains a program of maximum importance to the Navy, and the Navy continues to monitor it closely. Warfighting requirements to fill the capability gaps remain compelling and consistent; therefore, the requirement for LCS remains unchanged.

ACQUISITION REFORMS

4. Senator KENNEDY. Secretary Stiller, it seems that the LCS should provide plenty of educational opportunities for how not to manage a major acquisition program. Unfortunately, it appears that many of the lessons learned from the LCS program were actually lessons ignored. We were in such hurry we ignored almost all of the lessons we learned painfully in previous years about how not to buy major weapons

systems. For example, we picked the ship platform without having conducted any analysis to see whether there were other, more capable or less expensive solutions to the problem we faced. We changed requirements after we signed the contract. We did not have an adequate number of people with the right acquisition experience to oversee the shipyards. What steps have you taken or are you planning to take to improve the Navy's ability to acquire major systems on time and on cost?

Ms. STILLER. On February 26, 2008, we issued SECNAVNOTE 5000, which instituted an Acquisition Governance Improvement Six-Gate reporting, reviewing, and oversight process that provides specific criteria for areas such as requirements, funding, and technical performance including a Probability of Program Success tool. This new process ensures that the various stakeholders from the resources, requirements, and acquisition communities address and revisit at defined intervals issues associated with technical maturity, affordability, and program health. We are currently developing new guidance addressing system design methods; the use of independently-chaired engineering technical review boards; and responsibility for Configuration Steering Boards to monitor requirements changes as well as consider cost and funding availability. It is important to note that the success of all these initiatives is heavily dependent on personnel with the correct training and experience commensurate with responsibilities assigned. While we are working to ensure we have the personnel with the requisite skill sets, this is an area where there is a shortage in both government and industry.

5. Senator KENNEDY. Secretary Stiller, I know that previous uniformed Navy leaders, including Admiral Mullen, have complained about a lack of transparency between the officers responsible for setting requirements and the acquisition system trying to meet those requirements. What steps should be or have been taken to break down these barriers?

Ms. STILLER. On February 26, 2008, we issued SECNAVNOTE 5000, which instituted an Acquisition Governance Improvement Six-Gate reporting, reviewing, and oversight process. Its purpose is to ensure early and frequent involvement and collaboration among the leadership of the requirements, resources, and acquisition communities. New changes to both DOD Instruction 5000.2 and SECNAVINST 5000.2 include additional emphasis on requirements discipline. Configuration Steering Boards will oversee any changes to the requirements baseline. In addition, the Department of the Navy will implement a Systems Design Specification which will provide more clarity to the Capability Development Document (CDD)/CPD development process and convert and interpret operational specifications into affordable design requirements.

AIRCRAFT CARRIER FORCE STRUCTURE

6. Senator KENNEDY. Admiral McCullough, Congress argued at length over the past several years about letting the aircraft carrier force structure fall below 12. That was contentious enough. Again this year, the Navy is proposing legislation that would permit a temporary reduction in the number of aircraft carriers from 11 to 10 in the middle of the next decade. Assuming that Congress were to agree to allow this temporary reduction, what steps is the Navy proposing to take between now and then to mitigate this drop in force structure that impinges on the ability of future Chiefs of Naval Operations to meet requirements of the combatant commanders?

Admiral MCCULLOUGH. The Navy remains fully committed to an 11-carrier force; however, it is fiscally imprudent to operate 11 carriers between CVN–65 inactivation and CVN–78 commissioning. For the duration of this force structure gap, Navy can meet projected operational requirements with moderate risk by mitigating the operational impacts through the selective rescheduling of carrier maintenance availabilities and the inherent flexibility provided by the Fleet Response Plan (FRP). Ongoing process improvement events focus on reducing the time between the end of construction/maintenance availabilities to ship Initial Operational Capability/Major Combat Operations (MCO) Surge Readiness. Additionally, the maturity of FRP, increased experience with the Refueling Complex Overhaul program, and refinement of the Continuous Maintenance concept allows Navy to improve carrier operational availability. Navy will have the force structure to maintain six carriers deployed or available within 30 days plus an additional carrier available within 90 days. Accordingly, Navy will continue to work with the combatant commanders through the Joint Staff to best mitigate operational risk during this timeframe.

COST CONTROL

7. Senator KENNEDY. Secretary Stiller, we all know that the Navy will have difficulty affording the shipbuilding procurement programs that will meet our requirements and maintain the 313-ship that Admiral Mullen and Admiral Roughead have identified as the requirement. What steps are you taking or proposing to help constrain the rising costs in the shipbuilding account?

Ms. STILLER. The Navy's shipbuilding plan recognizes the need for careful management of requirements and aggressive cost control measures. This can only be achieved in partnership with industry by utilizing realistic assumptions, instilling discipline in shipbuilding requirements, and driving more industry and government investments to reduce cost. Given the importance of requirements-containment and cost-reduction to the viability of the shipbuilding plan, the Navy continues to evaluate each ship class and identify cost reduction opportunities while balancing warfighting requirements, costs, and industrial base realities.

The Navy plans to make greater use of other contract incentives, such as multiyear procurements, fixed-price contracts (when and where appropriate), and increased use of competition. These efforts are expected to contribute to real cost containment in future shipbuilding plans. The Navy's shipbuilding plan requires a balance among operational requirements and risk, affordability, and industrial base utilization. Additionally, use of gates in oversight of shipbuilding programs to better integrate the requirements and the acquisition community in order to further stabilize the programs have been implemented. The Navy's long-range vision reduces the types and models of ships, maximizes the reuse of ship designs and components, and implements open architecture for software and hardware systems.

The Navy continues to work with shipbuilders to strive for level loading of production facilities. Workload peaks and valleys are mitigated through work share opportunities and regional outsourcing.

8. Senator KENNEDY. Secretary Stiller, given this cost concern, why has the Navy chosen again this year to not provide any funding for the National Shipbuilding Research Program (NSRP), the one program where the Navy was providing matching funding for industry to help make itself more efficient?

Ms. STILLER. Although NSRP was put in place with the major goal of reducing the cost of shipbuilding and repair, there was a lack of direct focus on specific shipbuilding programs. The focus was on cross-shipyard collaboration to implement initiatives that were applicable industry-wide. Navy and industry collaboratively have decided to transform NSRP from its previous structure to a mechanism that will address ship-specific initiatives. This new construct will align with corporate Navy philosophy to reduce the cost of our shipbuilding programs. While it is no longer a dedicated line item in the budget, Navy is still committed to NSRP.

CG(X) RADAR

9. Senator KENNEDY. Secretary Stiller and Admiral McCullough, the cost of pursuing ballistic missile defense has been very high. I am very concerned about ensuring that we spend no more than is necessary to achieve that capability in order to hold down those costs. We know that the DDG–1000 program is developing new radars as part of the ship's combat system. One of those radars is the Volume Search Radar (VSR). Some have asserted that the Navy and the contractors could modify the VSR to make it larger for comparatively little cost, and by doing so could avoid the very high cost of developing totally new radars for the Navy's next generation cruiser, the CG(X) class. I know that you have not published the CG(X) AoA, but I will ask this question anyway. Would it be possible to upgrade the VSR radars from the DDG–1000 to do more than serve as the primary sensor on the CG(X)? If so, would that course be substantially cheaper than developing totally new radars for CG(X)?

Ms. STILLER and Admiral MCCULLOUGH. No, it is not technically feasible to upgrade VSR to meet integrated air and missile defense requirements for CG(X). VSR, as designed, does not contain the critical technologies required to provide the minimum capabilities required to satisfy the integrated air and missile defense requirements set. Incorporating these capabilities into the VSR is not technically achievable.

QUESTIONS SUBMITTED BY SENATOR BILL NELSON

STRATEGY

10. Senator BILL NELSON. Ms. Stiller and Admiral McCullough, what is the status of the strategic laydown study? Has it been completed? If not, when will it be delivered to Congress?

Ms. STILLER and Admiral MCCULLOUGH. Conducted yearly as part of an internal review, the Strategic Laydown and Dispersal study is currently still ongoing and is not yet complete. The Strategic Laydown and Dispersal was developed as part of a working process used to inform Navy decisions on the potential future alignment of fleet capabilities and operations. As part of an ongoing Navy process, the Strategic Laydown and Dispersal was not developed with the intent to produce a public document.

11. Senator BILL NELSON. Ms. Stiller and Admiral McCullough, the National Defense Authorization Act for Fiscal Year 2006 requires the Navy to maintain 11 operational carriers. Does the Navy plan to deviate from this law?

Ms. STILLER and Admiral MCCULLOUGH. The Navy continues to work with Congress through established legislative processes to identify a position that is both fiscally and operationally responsible. The Navy is committed long-term to a minimum of 11 operational carriers.

12. Senator BILL NELSON. Ms. Stiller and Admiral McCullough, please detail the Navy's plan to address Navy leadership's goal of strategic dispersion.

Ms. STILLER and Admiral MCCULLOUGH. The Chief of Naval Operations (CNO)-directed Strategic Laydown and Dispersal plan was designed to inform Navy decisions on where ships of the 313-ship Navy could be homeported based on steady state security postures and potential contingency operations in the 2020 time frame. The Strategic Laydown and Dispersal takes into account response times, analysis of requirements for regional presence and deployment locations, as well as infrastructure capabilities and capacities.

The Strategic Laydown and Dispersal is just one aspect of a more comprehensive and complex analysis of our Naval Forces. There are multiple ongoing efforts that also contribute to developing the force structure, personnel, and infrastructure needed to execute the New Maritime Strategy and support the future fleet.

13. Senator BILL NELSON. Ms. Stiller and Admiral McCullough, how will the Navy carry out this goal with respect to dispersing its Atlantic Fleet aircraft carriers among more than one port?

Ms. STILLER and Admiral MCCULLOUGH. A decision with respect to Atlantic Fleet carrier dispersal has not yet been made. There are multiple ongoing efforts that inform this decision. The Navy will fully consider operational, financial, and environmental factors before making decisions regarding the homeporting alternatives being evaluated for its Atlantic Fleet aircraft carrier force.

The Mayport Draft Environmental Impact Statement (DEIS) was released to the public on 28 March 2008. This DEIS reviews and assesses several potential action alternatives for comparison. Upon completion of the public comment period, efforts will begin to incorporate public and agency comments and develop the Final EIS. Originally planned to close on 12 May, the public comment period is being extended to 27 May 2008. This limited extension of the public comment period recognizes the importance of public review and comment on the DEIS while allowing Navy decision-making to proceed on a reasonable timeline.

While not exclusively concerned with a single class or ship location, the Strategic Laydown and Dispersal study is part of a larger Navy process to inform future decisions on the potential alignment of fleet assets, capabilities, and operations. This effort is exploring several disposition alternatives without presupposing the results of the Mayport DEIS.

ENVIRONMENTAL IMPACT STATEMENT

14. Senator BILL NELSON. Ms. Stiller and Admiral McCullough, the Navy recently released a DEIS on Mayport Naval Station to look at home porting options for additional ships. In addition, the Navy also released a DEIS on Naval Air Station Jacksonville. According to the Congressional Research Service and the Senate Committee on Environment and Public Works, it is unusual for a DEIS to omit a preferred alternative. The Navy included a preferred alternative in the NAS Jacksonville DEIS. Why did the Navy omit a preferred alternative in the Mayport DEIS?

Ms. STILLER and Admiral MCCULLOUGH. The Navy did not identify a preferred alternative in the DEIS released on 28 March 2008 because the Navy has not selected one. Not stating a preferred alternative in the DEIS is authorized under NEPA and CEQ regulations. While the DEIS does thoroughly examine environmental factors, the selection of a preferred alternative will also consider force laydown implications, total costs, and other relevant factors. Analysis of these other factors is not yet complete. The Navy will identify a preferred alternative based on all these factors in the final EIS scheduled for release in November 2008.

15. Senator BILL NELSON. Ms. Stiller and Admiral McCullough, when will the Navy provide a preferred alternative in the Mayport DEIS?

Ms. STILLER and Admiral MCCULLOUGH. The Navy did not identify a preferred alternative in the DEIS released on 28 March 2008, because the Navy has not selected one. While the DEIS does thoroughly examine environmental factors, the selection of a preferred alternative will also consider force laydown implications, total costs, and other relevant factors. Analysis of these other factors is not yet complete. The Navy will identify a preferred alternative based on all these factors in the final EIS scheduled for release in November 2008.

QUESTIONS SUBMITTED BY SENATOR MEL MARTINEZ

VALVES AND PUMPS

16. Senator MARTINEZ. Ms. Stiller, recent reports indicate that a group of important Navy suppliers, valve and pump manufacturers, may be in jeopardy of going out of business or filing for bankruptcy due to numerous asbestos lawsuits. Are you aware of this issue?

Ms. STILLER. Yes. The Valve and Pump Coalition (VPC) met with me on April 1, 2008, to inform the Navy of the wave of asbestos litigation being brought against their industry, and the risk the VPC foresees for the pump and valve industrial base as a result of this litigation. The VPC consists of Buffalo Pumps and Leslie Controls. As a result of this meeting, the Navy has been assessing the potential impacts to national defense and the domestic industrial base if pump and valve vendors go out of business due to asbestos litigation.

17. Senator MARTINEZ. Ms. Stiller, these lawsuits have the potential to disrupt the supply of certain valves and pumps for our ships. If this disruption were to occur, would it pose a significant problem for our ships and operations?

Ms. STILLER. The disruption of our valve and pump supply could potentially have an impact to our shipbuilding programs. The severity of the impact would depend on which and how many vendors had supply disruptions, and the suddenness, duration, or finality of the disruption. If any vendor went out of business, it is reasonable to expect that its product line could be purchased by the remaining vendors; there would likely be a gap in engineering continuity; and there would likely be some impact to ship design, construction, and in-service support. While it is possible to transition the data required to produce another vendor's product to a new vendor, it is expected to cause cost increases and time delays for the Navy's programs.

18. Senator MARTINEZ. Ms. Stiller, how do you plan to solve this problem?

Ms. STILLER. While the loss of any pump and valve supplier to our shipbuilders will have an impact on Navy programs, it is possible that the Navy could qualify other vendors to supply pumps or valves for Navy programs. Development costs and time would be required for this option. However, the Navy could procure a stockpile of equipment and spare parts as a means of minimizing schedule and service delays.

SONAR DOMES

19. Senator MARTINEZ. Ms. Stiller, is the Navy satisfied with the performance of the surface ship and submarine sonar domes currently supplied to the fleet?

Ms. STILLER. The Navy is satisfied with the performance of the surface ship sonar domes currently supplied to the fleet by B.F. Goodrich, Jacksonville, FL. The rubber and composite domes for the FFG class have performed well, as have the sonar dome rubber windows for both the CG and DDG classes.

The Navy is also satisfied with the performance of sonar domes and sonar dome boots being procured for *Virginia*-class submarines.

20. Senator MARTINEZ. Admiral McCullough, does the Navy have a requirement or a plan to seek a second source for sonar dome production?

Admiral MCCULLOUGH. Sonar domes and boots are procured for surface ships and submarines from the only presently-qualified vendor, B.F. Goodrich, Jacksonville, FL. There is no current plan to seek a second source; however, the Navy is conducting a Small Business Innovation Research (SBIR) effort to explore alternative solutions.

MAYPORT

21. Senator MARTINEZ. Admiral McCullough, now that the EIS has been completed, what are your plans for future funding for Mayport?

Admiral MCCULLOUGH. Only the DEIS has been completed. The Final EIS will not be completed until November 2008. A Record of Decision (ROD) on a preferred alternative for the Mayport EIS will follow in December 2008. The Navy will fully consider operational, financial, and environmental factors before making decisions regarding the homeporting alternatives being evaluated in the EIS. If the Navy's preferred alternative requires MILCON, these requirements will be balanced with the Navy's other programming priorities.

The plan for future funding of Mayport depends upon the alternative chosen in the ROD. Should the ROD select an alternative to move any ships to Mayport, funding will be requested in order to meet the desired date of initial operating capability (IOC). For example, in order to make a 2014 IOC date for CVN homeporting at Mayport, several supporting MILCON projects would need to be programmed beginning in the fiscal year 2010 budget.

22. Senator MARTINEZ. Admiral McCullough, we have been told that the final decision may hinge on the completion of a strategic lay-down study. When do you expect this strategic lay-down study to be completed?

Admiral MCCULLOUGH. Conducted yearly as part of an internal review, the Strategic Laydown and Dispersal study is currently still ongoing and is not yet complete. The Strategic Laydown and Dispersal was developed as part of a working process used to inform Navy decisions on the potential future alignment of fleet capabilities and operations. As part of an ongoing Navy process, the Strategic Laydown and Dispersal was not developed with the intent to produce a public document.

23. Senator MARTINEZ. Admiral McCullough, how much money does the Navy plan on including in the fiscal year 2010 budget for Mayport wharf upgrades and dredging?

Admiral MCCULLOUGH. In addition to the fiscal year 2009 P–999 Alpha Wharf project ($14.9 million), the 2009 President's budget (PB–09) request includes MILCON restoration projects for Bravo Wharf (P–888; $30.0 million) in fiscal year 2010 and Charlie Wharf (P–777; $20.8 million) in fiscal year 2011. The PB–09 request also includes O&MN funds for maintenance dredging: fiscal year 2010 ($5 million), fiscal year 2012 ($6 million), and fiscal year 2014 ($6 million). The fiscal year 2010 President's budget request is still under development. The investments currently programmed for fiscal year 2010 and beyond will be given full consideration and prioritized against all Navy requirements.

QUESTIONS SUBMITTED BY SENATOR JEFF SESSIONS

HAWAII SUPERFERRY

24. Senator SESSIONS. Ms. Stiller, an important part of having a capable Navy is having available substantial lift capabilities for both inter-theater and intra-theater lift. Combatant commanders identified both a near-term and a long-term requirement for high-speed intra-theater surface lift and there is now in the budget a plan to procure a substantial number of Joint High Speed Vessels (JHSV) to meet that requirement. However, with the current building schedule we won't see the first of those ships until 2012 or 2013 and it will be a decade or more before we see a significant JHSV capability on the water, which means that we will have a substantial shortfall in intra-theater lift capabilities for many years to come. I understand that the Navy has been considering for the last few months a plan to install national defense features (NDF) on one or more of the Hawaii Superferry ships that have been built or are being built in the United States and will be in the Voluntary Intermodal Sealift Agreement (VISA) program. Are you aware of this issue?

Ms. STILLER. The Navy is reviewing the operational requirements that could be met by the Hawaiian Superferry company's unsolicited proposal which identified specific changes to be funded under the NDF program. The bridge to the JHSV program is currently being met by the Military Sealift Command (MSC)-leased vessels M/V Westpac Express and HSV–2 Swift. Although the NDF program is a cost-effective means to provide for surge sealift or resupply capability by providing active, crewed ships with proven mechanical reliability and desirable performance capabilities, it is not meant to support continuous operations and the ships are only used in times of national emergencies.

25. Senator SESSIONS. Ms. Stiller, would it be fair to say that the Navy and the Marine Corps would benefit from having available on call a high speed ferry like the Hawaii Superferry with substantial NDF already installed?

Ms. STILLER. The Navy and Marine Corps are currently reviewing what requirements the Hawaiian Superferry, with the proposed NDF features installed, could provide in meeting wartime surge operations.

26. Senator SESSIONS. Ms. Stiller, wouldn't this give the combatant commanders some much needed near-term capability?

Ms. STILLER. The NDF program is designed to ensure that the Department of Defense can obtain militarily-useful commercial cargo ships in times of national emergencies. The NDF program funds installation of militarily-useful features on U.S.-built vessels during construction or conversion. NDF funding also pays for any increased costs during commercial operations that are directly attributable to the NDF. The NDF program is a cost-effective means to provide for surge sealift or resupply capability by providing active, crewed ships with proven mechanical reliability and desirable performance capabilities. The NDF program is not meant to support continuous operations and the ships are only used in times of national emergencies. Each proposal submitted for NDF must be addressed on its own merit, and consideration of the business case for the Navy must be taken into account.

QUESTIONS SUBMITTED BY SENATOR SUSAN COLLINS

DDG

27. Senator COLLINS. Ms. Stiller, given the focus and concern on cost of Navy shipbuilding in general and the DDG–1000 specifically, please tell me what the impact would be on cost of the first two ships, as well as the impact on the stability of the program's industrial base if the program were terminated after first two ships.

Ms. STILLER. If the fiscal year 2009 President's budget request for DDG–1000 is not funded, it will impact warfighting capability gaps, cost, and the shipbuilding industrial base. The cost of the first two ships, now under contract to General Dynamics Bath Iron Works and Northrop Grumman Shipbuilding, will significantly increase due to the lack of the shipbuilders' ability to spread shipyard overhead cost among multiple ships. Additionally, the cost of the mission systems equipment for the lead ships will increase for similar overhead cost increases. The loss of this workload would also likely impact costs on other Navy contracts at these shipbuilders. Finally, the lack of a fiscal year 2009 ship will likely impact the shipbuilding industrial base including workforce stability and may endanger the future viability of the Nation's major shipyards.

Each shipbuilder's lead-ship cost proposal was based on a seven-ship program of record DDG–1000 workload. The cancellation of the program would affect vendors that are currently under contract and building class-specific systems and components that would not be incorporated in large numbers or at all on future ships, including systems such as the Dual Band Radar (Raytheon/Lockheed Martin), Advanced Gun System (BAE Systems), Integrated Power System (Converteam/DRS Technologies), Advanced Vertical Launch System (Raytheon/BAE Systems), and Total Ship Computing Environment Infrastructure (Raytheon). Hundreds of system and component vendors employing thousands of people in 49 States would also be impacted. To date, total of $13.2 billion has been invested in the program: $6.3 billion spent on research and development (R&D) and $6.9 appropriated for lead ships construction and advance procurement for the third ship. Terminating the program would provide little return on this investment and a decades' worth of development effort.

The Navy continues to stress that a stable plan will enable the shipbuilding industry to maintain critical skills and to make business decisions that increase effi-

ciency and productivity in order to meet the Navy's projected shipbuilding requirements. Terminating the program would produce the opposite effect. Most importantly, the cancellation of future ships would deny the Fleet critical capabilities and limit the introduction of next-generation capabilities to deal with known and anticipated threats.

28. Senator COLLINS. Ms. Stiller and Admiral McCullough, the current Navy shipbuilding request of $14.1 billion in the fiscal year 2009 budget does not meet the $15.8 billion the Navy has estimated it needs to meet its own 30 shipbuilding plan, and the CNO has stated that the cost of a nuclear-powered cruiser would be $600 to $700 million more per ship. Do you see any way that the Navy can afford to build nuclear-powered surface combatants?

Ms. STILLER and Admiral MCCULLOUGH. There is always a balance that must be achieved in the shipbuilding accounts. Our first priority is to get the capabilities we need on the schedule we need them. However, these priorities are always tempered by affordability and the impact of any single program on the resources available to support other programs within that sector of the Navy's accounts. Clearly accommodating the upfront cost for a nuclear-powered cruiser would be difficult and will pose a challenge with respect to the limited resources we have within the shipbuilding sector. This may result in a need to request additional funding from the Office of the Secretary of Defense (OSD) or Congress to meet the direction provided in last year's National Defense Authorization Act.

The greatest concern regarding affordability of nuclear cruisers would not be whether we can afford to build the ships but rather what the impact is on the remaining resource demands the Navy faces after funding these nuclear cruisers to the appropriate resource level. As the Navy prepares for Milestone A and selection of a preferred design alternative, including consideration of ships with a nuclear-power option, the Navy will continue to assess the potential impacts on the remaining shipbuilding program.

29. Senator COLLINS. Ms. Stiller and Admiral McCullough, aside from the dramatically increased costs, is it even practical to replace the current power plant in the DDG–51 or DDG–1000 with a nuclear power plant?

Ms. STILLER and Admiral MCCULLOUGH. No, it is not practical to replace the current power plant in the DDG–51 or DDG–1000 with a nuclear power plant.

The specific capability needs as well as unique ship integration constraints of the DDG–51 and DDG–1000 compared to existing nuclear-powered ships would necessitate a wholly new nuclear propulsion plant design and/or significant hull redesign for these applications. Given the extensive redesign of the DDG–51 and DDG–1000 to incorporate nuclear propulsion, this effort would take many years and several billion dollars to complete and therefore is impractical.

QUESTIONS SUBMITTED BY SENATOR JOHN MCCAIN

UNFUNDED REQUIREMENT FOR 10TH LPD–17 CLASS SHIP

30. Senator MCCAIN. Ms. Stiller, the Navy and Marine Corps have included a 10th LPD–17 class ship as a top priority on the unfunded requirements list again this year. With the ninth and currently last ship of the class starting construction, what would be the impact to the shipbuilding industrial base and to the Navy's ability to procure a future LPD–17 if funding is not provided in 2009 for this ship?

Ms. STILLER. There are currently five LPD–17 class ships under construction. As LPD–25, the 9th LPD–17-class ship, is not expected to deliver until February 2012, there is currently a backlog of LPD work. To avoid a production break impact, the 10th ship would need to be appropriated no later than fiscal year 2010. The Navy is revisiting the 10th LPD–17 as part of fiscal year 2010 budget deliberation.

FUTURE CRUISER, CG(X)

31. Senator MCCAIN. Admiral McCullough, the Navy's program includes about $3 billion in R&D towards a future missile defense cruiser, CG(X), in 2011. The 2008 National Defense Authorization Act requires that CG(X) be nuclear-powered unless the Secretary of Defense determines that it is not in the national interest. What is the status of the Navy's AoA for the CG(X), and when will Congress have sufficient insight to the program to be able to support this year's budget request?

Admiral MCCULLOUGH. The results of the Maritime Air and Missile Defense of Joint Forces (MAMDJF) AoA, more commonly referred to as the CG(X) AoA, were

delivered to the Staff of the CNO in January 2008. The CNO Staff is reviewing the comprehensive and lengthy report. A series of internal Navy reviews have been conducted, and will continue, until decisions in several critical areas are made. The Navy will select a service-preferred alternative for CG(X) and then provide a recommendation to OSD at a Milestone A Defense Acquisition Board (DAB) anticipated in fiscal year 2008. Once complete, the AoA Report will be forwarded from CNO via SECNAV's OSD. Following approval of the AoA, the Navy will seek Milestone A approval for the CG(X) program from the Defense Acquisition Executive. The Navy will be able to provide further detail on the AoA results and the Navy's selection of a preferred alternative to Congress upon Milestone A approval.

Regardless of the selected alternative, the President's fiscal year 2009 budget request for the CG(X) budget funds vital efforts in requirements analysis, technology development, and ship design activity that need to continue.

32. Senator McCAIN. Admiral McCullough, the press has reported that the Navy has determined that if it is to be nuclear-powered, CG(X) would use a scaled version of the CVN–21 reactor plant. Has the Navy determined whether this reactor plant could be installed in the DDG–1000 hullform?

Admiral McCULLOUGH. Yes, the Navy has determined that the CVN–78 reactor plant cannot be installed in the DDG–1000 hull form. The nuclear-powered CG(X) option will have a hull form which will be designed to accommodate the CVN–78 reactor plant.

33. Senator McCAIN. Admiral McCullough, what is the Navy's range of cost estimates for building a nuclear-powered CG(X)?

Admiral McCULLOUGH. The MAMDTF AoA includes cost analysis for the potential use of nuclear propulsion for CG(X).

Navy leadership is reviewing the AoA results. The Navy will select a service preferred alternative for CG(X) and then provide a recommendation to OSD at a Milestone A DAB anticipated in fiscal year 2008.

The Navy's fiscal year 2006 Report to Congress on Alternative Propulsion Methods for Surface Combatants and Amphibious Warfare Ships indicated an upfront nuclear acquisition cost premium of ~$600–$700 million in fiscal year 2007 dollars per ship for a medium surface combatant. This premium is over and above the acquisition cost of a fossil fueled ship. While the nuclear-power variant includes a higher upfront acquisition cost than the fossil fuel variant, it will be offset over the life cycle by lower operations and support costs completely or to some degree depending on ships OPTEMPO, energy demands, and fuel prices.

34. Senator McCAIN. Admiral McCullough, what is the Navy's plan for certifying the two surface combatant shipbuilders, Bath Iron Works and Ingalls Shipbuilding, for nuclear ship construction?

Admiral McCULLOUGH. The Navy currently has no plans to certify General Dynamics Bath Iron Works (BIW) and Northrop Grumman Shipbuilding-Gulf Coast (NGSB–GC) for nuclear-powered ship construction. Northrop Grumman Shipbuilding-Newport News and General Dynamics Electric Boat are the Nation's two authorized and experienced nuclear qualified construction shipyards. However, nonnuclear sections of future nuclear-powered ships could be built by other shipyards currently experienced in naval surface combatant construction (BIW and NGSB–GC). The method and location of construction of potential nuclear-powered surface combatants have not yet been determined.

NATIONAL SECURITY CUTTER

35. Senator McCAIN. Admiral McCullough, the National Security Cutter (NSC), constructed for the Coast Guard Deepwater program, would appear to provide a low cost alternative for certain naval missions. Has the Navy reviewed the capabilities offered by the NSC, and if so, could you provide your assessment regarding the suitability of this ship to meet low-mix missions envisioned by the Maritime Strategy?

Admiral McCULLOUGH. Yes, the Navy has reviewed the capabilities of the Coast Guard's NSC. The NSC cannot fulfill key requirements within the naval warfare mission that the Navy's LCS is designed to achieve, including survivability, crew size, sprint speed, draft, and the ability to embark and employ focused mission packages. The CONOPs and design specifications for the two ships are not compatible.

- LCS is built to Naval Vessel Rules to provide Level 1 survivability. NSC is built to commercial standards and was not designed to operate in the same threat environment.
- LCS has a crew size requirement of 75, including core crew, mission package detachment and aviation detachment. NSC's crew size is 143.
- The LCS has a sprint speed of 40+ knots. NSC's sprint speed is 28 knots.
- LCS draft is approximately 13 feet. The NSC's draft is 21 feet. This fundamentally limits the areas where the ship can effectively operate.
- LCS has been designed and purpose-built to carry and operate focused naval warfare mission packages that address Joint Staff-approved capability gaps in MCMs, surface warfare, and anti-submarine warfare. The NSC does not have the shipboard interface nor the footprint availability required to receive and operate these mission packages, nor does it have the organic capability to execute the specific LCS gap filler capability and therefore cannot fulfill the role of LCS.

The Navy and LCS Program Office have partnered with the Coast Guard Deepwater program to share useful information, identify risk mitigations to new technology, and to ensure commonality where it is practicable and cost effective (e.g., common 57mm gun, common air search radar, and associated crew training programs).

OHIO-CLASS BALLISTIC MISSILE SUBMARINE REPLACEMENT

36. Senator MCCAIN. Admiral McCullough, funding for development of the *Ohio*-class ballistic missile submarine replacement is included in the Future Years Defense Program, with procurement of long lead material within the decade. However, the Navy's long-range shipbuilding plan does not include procurement funding required to replace the *Ohio*-class ballistic missile submarines. What are the projected procurement costs for this strategic program, and how does the Navy propose that it be funded?

Admiral MCCULLOUGH. The Navy is working to define the initial capabilities for the Sea-Based Strategic Deterrent, which will describe the attributes required for strategic deterrence influence for the follow-on capability to the *Ohio*-class SSBN. This capability analysis will support an AoA planned to commence in fiscal year 2009. The Shipbuilding and Conversion, Navy (SCN) estimated cost will be developed at the conclusion of the AoA in the fall of 2009.

The Navy anticipates commencing R&D efforts for the follow-on to the *Ohio*-class SSBN in fiscal year 2010. However, since the *Ohio*-class SSBN replacement has neither been designed, nor the program developed, any cost estimate for SCN at this time would be premature.

SEA BASING AND THE MARITIME PREPOSITIONING FORCE (FUTURE)

37. Senator MCCAIN. Admiral McCullough, how does the Navy intend to man and equip the large deck amphibious ships included in the Maritime Prepositioning Force Future, and what warfighting role is planned for these ships in amphibious assault operations?

Admiral MCCULLOUGH. The CDD for the MPF–F large deck amphibious ships has not yet been finalized. One option being considered calls for the MPF–F large deck aviation ships to be manned and operated by a MSC civilian crew while in a prepositioned status. MSC crews would be augmented by Active Duty Navy/Marine Corps and civilian contractor personnel who are charged with maintaining the prepositioned equipment and certain ship systems.

Once operationalized, the MSC crew will be augmented by Navy and Marine Corps personnel to fully man required functions to employ forces ashore, such as the air department, ordnance department, combat information center, and ship's company. MSC crews would continue to provide non-warfighting support in propulsion, ship auxiliaries, and housekeeping.

Excluding the self defense systems except crew served weapons the MPF–F LHA(R)s will be identical (with fact of life changes) to the legacy design.

The MPF–F big decks, as part of the MPF–F, will deliver the Vertical Assault element of a reinforcing Third Marine Expeditionary Brigade (MEB) to complement the two MEBs delivered by Assault Echelon shipping in an MCO. MPF–F's big decks will also provide a substantial contribution to the sustainment of forces operating ashore by creating an air base at sea to generate ample sorties for air delivery of supplies and support of aircraft maintenance.

38. Senator MCCAIN. Admiral McCullough, has the Navy established capstone requirements to provide for defense of the sea-base ships, which by themselves lack the self-defense and damage control capabilities of amphibious warships?

Admiral MCCULLOUGH. A Capstone System Threat Assessment (ONI–CTA–003–06) was completed in May 2006. Additionally, on 15 January 2008 the Joint Staff for Intelligence (J–2) and Defense Intelligence Agency (DIA) certified concurrence with the assessed threat as laid out in the MPF–F Capability Development Document's threat section. The assessments identify potential, projected, and technologically feasible threats to MPF–F and will be used as the basis for threat delineation. It is anticipated that the primary threats shall be from aircraft, ships, submarines, coastal defense units armed with anti-ship cruise missiles, theater ballistic anti-ship surface-to-surface missiles, and air-, ship-, and submarine-launched mines. Secondary, but significant, threats also come from submarine-launched torpedoes; tactical air-to-surface missiles; other ordnance carried by sea- and land-based aircraft (fixed and rotary-wing); chemical, biological, and nuclear weapons; and in the future, directed energy weapons. When operating in the littoral environment, additional threats may be encountered from coastal artillery, multiple rocket launchers, small boats, and atypical sources such as torpedoes from coastal defense sites. A tertiary threat will include preemptive attacks or covert action from Special Operations Forces, combat divers and terrorists. Command, control, and communications (C3) electronic attack and electronic support systems may support the weapons threats.

An MPF–F program-sponsored Sea Shield analysis was conducted for an approved MCO scenario. The scenario used an approved Multi-Service Force Deployment (MSFD) document for 2012 with friendly and threat capabilities extrapolated out to 2024. MPF–F was included in the force laydown operating from a sea base and delivering a MEB ashore from over the horizon. The Navy's Seabasing and Sea Shield pillars, Marine Corps Combat Development Command's Seabasing Integration Division, Naval Sea Systems Command, elements of the Joint Staff, and OSD's Program Analysis and Evaluation Branch participated in the development of the analysis. While operating in a threat environment, MPF–F will be protected by other Naval Sea Shield and/or other Joint or Combined forces commensurate with the threat. The analysis showed that an appropriate level of Sea Shield was attained to protect the MPF–F.

LITTORAL COMBAT SHIP

39. Senator MCCAIN. Admiral McCullough, the two versions of the LCS are very different, yet reportedly both meet Navy requirements. The Navy has previously stated the intent to gain efficiencies in construction and lifecycle by conducting a downselect once these ships' capabilities have been fully tested. What is the current Navy's plan for downselecting to a single design and opening up competition for construction?

Admiral MCCULLOUGH. The acquisition strategy for fiscal year 2010 and out-year ships is under Navy review. OSD will conduct a Milestone B prior to fiscal year 2010 procurement. The Navy and OSD will consider the questions of down-selecting seaframes and the transition to full and open competition as part of the fiscal year 2010 acquisition strategy deliberations.

40. Senator MCCAIN. Admiral McCullough, what is the Navy's current estimate for follow ship costs on the program, and how is the Navy leveraging its plan to build a large number (55) of these ships to drive these costs down?

Admiral MCCULLOUGH. The statutory cost cap for LCS is $460 million per ship. However, execution within that cost cap will be a challenge as this estimate was based on its applicability to the fifth and sixth ships of the class and on two ships being appropriated in fiscal year 2008. This procurement plan would have allowed increased sharing of some program costs between seaframes.

The Navy believes that additional design maturity, production progress on LCS–1 and 2, and a competitive contract award between incumbent suppliers will enable the use of fixed-price incentive terms for the fiscal year 2008 ship appropriated by Congress and the two fiscal year 2009 ships that the Navy is requesting.

When these first two ships are delivered, the Navy will be able to better evaluate their costs and capabilities, and to make decisions regarding the best manner to procure the remainder of the class. The acquisition strategy for fiscal year 2010 and outyear ships has not yet been formulated. OSD will conduct a Milestone B prior to fiscal year 2010 procurement. The Navy and OSD will consider the questions of single seaframe assessment and the transition to full and open competition.

DDG–1000 DESTROYER PROGRAM

41. Senator MCCAIN. Admiral McCullough, the committee has strongly supported the DDG–1000 Destroyer, and views it as a critical capability for the future Navy. When considering that greater than $5 billion has been invested in new technologies for this ship, it's difficult to understand how the Navy has determined that a seven-ship program is the right size for the dollars invested and the missions envisioned for the class. How many DDG–1000 Destroyers are needed to meet the Marine Corps requirement for naval gunfire support in support of MCOs?

Admiral MCCULLOUGH. The Navy requires seven multi-mission DDG–1000s to support MCOs and to maintain presence in forward operating areas to support the warfighting needs of the combatant commanders, including meeting Marine Corps naval gunfire support. U.S. Marine Corps fire support requirements are specifically addressed with DDG–1000 Advanced Gun System and its Long-Range Land Attack Projectile which will meet 90 percent of the Marine Corps' call for fires requirement within 5 minutes.

42. Senator MCCAIN. Admiral McCullough, what are the accompanying assumptions regarding the availability of DDG–1000 ships to meet this mission, when accounting for depot maintenance and other employment factors?

Admiral MCCULLOUGH. The requirement for seven DDG–1000 ships in the Navy's Annual Long-Range Plan for Construction of Naval Vessels for fiscal year 2009 was based on analysis that included the following assumptions: intermediate and depot level maintenance periods and availability timelines, DDG–1000 employment across the globe, potential warfighting requirements, affordability in filling the Naval Fires warfighting gap, and acceptable risks.

[Whereupon, at 3:56 p.m., the subcommittee adjourned.]

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