COORDINATING REQUIREMENTS, BUDGETS AND ACQUISITION: HOW DOES IT AFFECT COSTS AND ACQUISITION OUTCOMES?

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PANEL ON DEFENSE ACQUISITION REFORM

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(II)

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HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
DEFENSE ACQUISITION REFORM PANEL,
Washington, DC, Wednesday, June 3, 2009.

The panel met, pursuant to call, at 8:09 a.m., in room 2212, Rayburn House Office Building, Hon. Robert Andrews (chairman of the panel) presiding.

OPENING STATEMENT OF HON. ROBERT ANDREWS, A REPRESENTATIVE FROM NEW JERSEY, CHAIRMAN, PANEL ON DEFENSE ACQUISITION REFORM

Mr. ANDREWS. Ladies and gentlemen, with the permission of the minority staff and their gracious cooperation, we are going to begin. I wanted to welcome the witnesses and the members of the public and the media to this morning's hearing, and I wanted to begin by thanking my colleagues on this panel for their diligent work and the efforts that led to the acquisition reform legislation signed by the President 12 days ago.

This panel was empanelled a very brief period of time ago, and each of the members on both the Republican and Democratic side put in a significant amount of time in learning these issues and made a very valuable contribution to that effort which has now become law. I did want to express my appreciation to the staff as well as the colleagues on the panel for their hard work. Our work, as we see it, is only about 20 percent done in that statute. Maybe a little less than that. But obviously, we have a responsibility as the statute was implemented to understand whether it is working or not and to determine what that means. But by any definition, about 80 percent of the procurement done by the Department of Defense (DOD) is not touched by the statute the President signed 12 days ago because it dealt with the major weapons system exclusively, as this panel knows well, and as many members of our panel know very well as well that about 60 percent of the procurement done by the Department of Defense is services, not goods.

And of the 40 percent that is hardware, major weapon systems only make up a part of that, maybe about a half of that. So there is a lot of work left to be done. The panel began with a series of questions and the first question that we started with was what set of metrics should exist or can exist to properly measure the difference between what we are paying for goods and services procured by the DOD and what the value of those goods and services is.

The delta, if any, between what we are paying and what we are getting. And after a series of hearings on that, we are now ready to proceed to our next step which is to ask the next question, what hypotheses are out there as to why that difference exists? In other words, given the fact that the evidence is rather clear that there is a gap between what we pay and what we receive, what are the causes of that gap. Today is the first in a series of hearings that will be structured around the idea of a hypothesis as to what those causes are. This morning, the hypothesis would be this: The gap between what we pay and what we receive is, in some part, explainable by the absence of effective coordination among the requirements process, the procurement process and the budgeting process. That when one looks at those three significant initiatives that must be accomplished in the Department of Defense, there is either little or no coordination on too many occasions.

Now there are exceptions to that rule. There have been many instances where there has been very effective coordination. I think the bulk of the evidence is that that is more a function of the talents and commitment of the individuals that are involved, not necessarily the administrative structure within which they are working. One of the corollary hypotheses to this is maybe it doesn't matter much what the administrative structure is. It is entirely dependent upon the skills and personalities of the people involved and that there are very finite limits as to what we can do with manipulating an administrative structure. That may well be the case.

But the general purpose of this morning's hearing is to hear from three incredibly accomplished individuals with deep experience and broad knowledge in this area to address this hypothesis to the extent there is a lack of coordination among the requirement setting process, the procurement process and the budgeting process to what extent is this the cause we have identified as the gap between what we pay and what we get. After this morning's hearing we will proceed with a lot of other hypotheses that people have suggested over the years and try to evaluate those and come to some understanding as to what combination of hypotheses make the most sense in meeting our ultimate objective, which is to come up with a series of legislative recommendations to try to make the system work better. Pleased to be joined by our friend from Colorado, Mr. Coffman, and I realize he just dashed in. But I would give him the opportunity to make an opening statement if he so desires.

[The prepared statement of Mr. Andrews can be found in the Appendix on page 30.]

Mr. COFFMAN. Thank you, Mr. Chairman. I will submit my statement for the record after the meeting. But I appreciate you all for coming here and look forward to your testimony.

[The prepared statement of Mr. Coffman can be found in the Appendix on page 32.]

Mr. ANDREWS. Thank you very much, Mr. Coffman. And without objection, opening statements from any other member of the panel will be included in the record should they choose to submit them. We appreciate the indulgence of the witnesses in waiting and arriving. I am going to give very brief biographical introductions, because each of you truly is a person who needs no introduction around here. We mean that as a compliment.

But very briefly, Mr. Gordon England is now President of E6 Partners, LLC, a firm specializing in international business. As we well know, he has previously served as the 29th Deputy Secretary of Defense. He also served as the 72nd and 73rd Secretary of the Navy and the first Deputy Secretary of the Department of Homeland Security. He is a native of Baltimore, graduated from the University of Maryland in 1961, earned his masters in business administration from the M.J. Neeley School of Business at the Texas Christian University and has been a leader in civic and charitable organizations as well as his exemplary service to our country. Welcome, Secretary England. Nice to have you back with us.

Secretary ENGLAND. Chairman, thank you.

Mr. ANDREWS. The Admiral is next. The bio is here. Admiral Edmund Giambastiani. Is that correct, Admiral?

Admiral GIAMBASTIANI. Yes, sir.

Mr. ANDREWS. I am from New Jersey. So I get a lot of practice. It is a beautiful Italian name. He joined Alenia North America, Inc., in January of 2008 as Chairman of the Board of Directors. In addition, he serves as Director of SRA International, Inc., Monster Worldwide, Inc., The Atlantic Council of the United States, QinetiQ Group in the United Kingdom. A career nuclear submarine officer, the Admiral retired from active duty on October 1, 2007. In his last assignment, he served as the Nation's 7th Vice Chairman of the Joint Chiefs of Staff and its second highest ranking military officer. He is a native of Canastota, New York. And he graduated from the U.S. Naval Academy in 1970 with leadership distinction. Welcome, Admiral. Thank you for your service.

Admiral GIAMBASTIANI. Thank you, chairman.

Mr. ANDREWS. And Lieutenant General Ronald Kadish is presently the Vice President and the partner in the aerospace marketing group for Booz Allen Hamilton, Inc. He joined that firm on February 15, 2005. He has distinguished himself there as panel Chairman of the Defense Acquisition Performance Assessment, examining the strengths and deficiencies of the current defense acquisition process. He has worked with us for a very long time on this committee as the Director of the Missile Defense Agency in the Office of the Secretary of Defense. As director, General Kadish was the acquisition executive for all ballistic missile defense systems and programs. He entered the Air Force in 1970 after graduating from the Reserve Officers' Training Corps (ROTC) program at St. Joseph's University in Philadelphia. We had another St. Joe's witness earlier. I said the hawk will never die to those witnesses, right, General?

It is great to have you with us, gentlemen. We will start with Secretary England. You know the rules well, that we ask people to summarize their oral testimony in about—their written testimony rather in about five minutes. Your written statements in their entirety will be made a part of the record. We try to maximize the amount of question time for the members so we can get the benefit of your excellent work. So, Mr. Secretary, you are on.

STATEMENT OF HON. GORDON ENGLAND, FORMER DEPUTY SECRETARY OF DEFENSE, FORMER SECRETARY OF THE NAVY, AND PRESIDENT, E6 PARTNERS, LLC

Secretary ENGLAND. So, first, Mr. Chairman, thanks for the opportunity to come by again. First of all, I applaud you. You have to be pretty brave to enter this arena as you know. In my commercial days, I ran several Defense Science Board studies on acquisition reform and probably served on another dozen over my career. When I became the deputy, I had a group, in fact, General Kadish was one of the leaders of that group to look at the 123, I believe, prior formal studies on acquisition reform and that didn't include all the work by think tanks and everybody else in the Government Accountability Office (GAO) and the Congress and so this is not new ground being plowed. But that would tend to indicate that this is an extraordinarily complex topic that you are about. And I would make just a couple of recommendations and observations in terms of how you might improve this process. Obviously requirements is key. I am sure Admiral Giambastiani will have something to say about that because he actually ran the organization in terms of requirements.

I do believe there are some organizational changes that were put in the Department frankly when I was there that are hopefully beneficial to help tie together the requirements, the budgeting, the acquisition, in fact, the operational end of this business. We now have processes in place. I hope they are still in place, specifically called the DAWG, which is the Deputy's Advisory Working Group, which is all the senior leadership, four-stars and civilian leadership met every week several times a week, and literally went over every single program, what the budget was, what was the performance, what was the need, what were the requirements so we integrated this across the department because programs are no longer operated as individual programs.

They are now overarching capabilities. So then we also put processes together to look across all of the programs in terms of how did they all integrate, because frankly they all come together at some point in time. So they have to be synchronized. Everything has to be synchronized so that it all works together when it comes together in terms of being fielded because all of this is integrated some very high level and not individual programs.

So I think some steps have been made to address that, but this is a complex issue and that is one process that was tried as a way to get better visibility and better ways of controlling. In my statement, I made a few recommendations. First of all, I will tell you, the system is very complex. Counterintuitively, that means you want to give managers more flexibility. The more complex the system, the more flexibility you need, managers need. The trend is always the other way. That is it gets more complex, we add layers of bureaucracy and regulation and control and that makes it almost impossible to run very complex programs. So the system today is way over-burdened. It is over-burdened by the Department, it is over-burdened by the Congress. As it becomes a more complex system, we need to simplify it, otherwise managers won't be able to operate.

But the other comment I will make is I think multi-years, we have the wrong approach on multi-year contracts. Stability is what counts in these programs, predictability in programs. Today we have multi-years based on savings. But frankly, in my view, that is the wrong criteria. Multi-year programs almost always hit their targets year after year because there is a long-term commitment of money to the program, people know what the schedule is, they know what the requirements are, they can rely on future years, companies can invest. So we look at saving money. My own view is we should have more and more multi-years on the basis of providing stability of programs so cost doesn't grow. I mean, one approach is to look at cost savings. The other approach is how do you put a structure in place so that costs do not grow in the future. So I would turn that process around.

My last comment would be—you mentioned metrics. I think you need to decide what your objective is here. Not all things are, "going to come out with a perfect answer," just like our international relations. You have to set what the objective is. This is an extraordinarily complex process with many competing interests and cross-currents that go in every day and every year in industry, in government and the DOD and the military. So you have to decide what is the plateau you are trying to achieve in this. Because otherwise, I think if we are looking to end up with this sort of perfect system, perfect meaning manageable like—I almost said a car company, but that is probably a bad example—but manageable like a commercial product. You know, where we put out regular products on a repetitive basis. It is never going to achieve that level of performance because that is not the nature of what this business is about.

So a few comments. My statement hopefully is clear in terms of some observations and recommendations. But I would like to engage in a discussion with the members.

[The prepared statement of Secretary England can be found in the Appendix on page 35.]

Mr. ANDREWS. Thank you, Mr. Secretary. And we have had a chance to read your testimony prior to this. We appreciate it very much. And I appreciate you giving us a chance to expand the question time, too. Admiral, welcome back. It is great to have you with us again.

STATEMENT OF ADM. EDMUND GIAMBASTIANI, USN (RETIRED), FORMER VICE CHAIRMAN OF THE JOINT CHIEFS OF STAFF, AND CHAIRMAN OF THE BOARD, ALENIA, NORTH AMERICA

Admiral GIAMBASTIANI. Thank you, Chairman. And thanks to you and all the members of the committee for inviting not only me, but obviously this group to participate this morning in this incredibly important hearing. I might just mention that the fact that you have focused on, if you will, requirements, budgets and acquisition is gratifying to me because recently, over the last year, I have been helping the Secretary of the Navy out in his advisory panel and my mantra frankly for a year has been requirements, budgets and acquisition. But I would tell you it has been integration of those as opposed to just coordination of them. Coordination is that level that

is very helpful, but if you can integrate these and bring them to a higher level, frankly, I found you are much more successful in the long run. It also feels like old times again to be here with these three individuals. Gordon didn't mention in, but—and Ron may, but I will pre-empt here and just tell you the last time the three of us appeared together in a hearing on this very subject was September of 2005 before the Senate Armed Services Committee.

We also had Ken Krieg at the time who was the new Under Secretary. We were all—Gordon and I were new in our roles as Ken Krieg was and Ron was working on that DAPA report, the Defense Acquisition Performance Assessment. So it is old times here this morning.

Let me make a few points here and you may hear a little bit of repetition on the stability front on what Gordon talked about. But first of all, as I said, I am very pleased that you are covering this. A fundamental premise in my view to our success is based on well informed risk management, a very important thing, well-informed risk management. And I call the requirements, if you will, the budget and acquisition portions of this, the three legs of the stool. And I will refer to these three legs and the integration of them repeatedly. But I would emphasize with the three legs—there is three things that I have always found important across all of them and that is affordability, stability and simplicity. And let me just talk about requirements for a couple of moments, and again, I will summarize what I have got in my statement.

I have participated in these requirements generations, frankly, since I was in my first commanding officer role in the early 1980s, and then onwards throughout successive commands, successive tours in the Pentagon and then in joint and allied positions. In my opinion, at least 50 percent of getting a program right is establishing realistic, sound, practical, simple requirements up front and then, of course, sticking with them.

Affordability, stability and simplicity, those three factors are really important and executable set of requirements for any procurement in my view. Let me talk just for a moment on the affordability front. All too often, this word is forgotten in the course of talking about this, the affordability piece right up front. We need to give military officers who are tasked with defining requirements more and better insights into the cost drivers, the cost drivers in the requirements they are defining.

Now, I just might mention this. I uniquely had a very good relationship here with this gentleman next to me. He was a wonderful man to work with, it is the Deputy Secretary. And I might mention three processes that I spent a lot of time working. And the first one he mentioned was the Deputy's Advisory Working Group. What he didn't tell you is that he, as the Deputy Secretary, went so far as to name me as the co-chair of the Deputy's Advisory Working Group. This was very important, once again, to bring the military side of the equation and the civilian side to produce capabilities for our service personnel together.

He did that early on and it was very important. So that helped me work in the concept, in the resource side as a co-chair of this group. Very important. The second thing, obviously, I was the chairman of the Joint Requirements Oversight Council (JROC)

which sets military requirements. But thirdly, and just as important, I served as the co-chair of the Defense Acquisition Board. So those three things allowed me as a senior military officer to work in all three legs of the stool, if you will, in a line way. Very important.

In the recommendations I have made in panels to date—for example, in the Secretary of Defense (SECDEF) advisory panel with the Business Executives for National Security and the rest is to make sure that we, in fact, take senior military leaders and allow them to be participating in a line functional way in all three of these legs, so that I think it will help them make better decisions, at least in my perspective, as a military officer. Cost-driver-analysis, as I said, in these is very important. And I can elaborate on that, and clearly my statement does. But I borrowed most of the cost-driver-analysis techniques from reviews I learned early on in the acquisition process as a co-chairman of the Defense Acquisition Board, we were looking at the Joint Tactical Radio System, JTRS, we were looking at the National Polar-orbiting Operational Environmental Satellite System. And frankly, we then introduced and made it a requirement through a chairman instruction that all of the services had to bring in cost drivers. Very important.

On the stability front, it should be no news to anyone sitting in this hearing, just as Gordon England has said, is that setting unrealistic requirements during program definition and subsequent requirements creeps are major causes of failing programs. And let me just reiterate one important point here. I believe that delivering 80 to 90 percent of a solution on time with a life cycle maintenance plan allowing for further growth is far superior to trying to go after a 100 or 120 percent solution. Stabilizing requirements is tough. We all see how a program could be better if we could incorporate the latest technology or some additional capacity. Which leads me to my last point of simplicity. We have done best, in my view, as I said, by trying to be simple. I have given you a series of examples in the written testimony. F–16, the series of the F–16, the F/A–18 Super Hornet E/F/G, *Los Angeles*-class, *Arleigh Burke*-class, *Virginia*-class submarine. These have all been successful programs and are successful programs because we kept simplicity, if you will, affordability, we kept that block approach as we provided these capabilities. Funding stability is incredibly important.

Gordon mentioned greater use of multi-year buys. I cannot overemphasize how this takes risk out of the industrial side of the equation and takes risk out on the defense side. The ability to plan ahead, the ability to invest in Research and Development (R&D), the ability to invest in installation and the rest is incredibly important. All those programs I cited before in general had some type of multi-year or risk management that really made them incredibly effective.

Lastly, budgets have no memories. It is something an old Pentagon saying I learned very early on. In order to add memory to the process of procurement, if you will, writ large across our government, multi-year buys are important risk reduction techniques to inject a memory into the budget.

One last point I will just make, and it is very important. Again, I borrowed these from the acquisition side and they are the intro-

duction of technology readiness levels and manufacturing readiness levels into the requirements generation piece where you take these and lift them, if you will, from the acquisition side. You bring them into the requirements generation so you are not trying to shoot for the moon, you are keeping it simple and reduce the risk on a program to make it, if you will, more doable and make it more successful. The healthy conversation to do all of this stuff between industry, the civilian and military sides and with Congress is incredibly important.

Thank you again for allowing me to introduce my written testimony, chairman, and the members of the committee. Recommendations regarding this three-legged stool if I could leave you with one point, those three words, affordability, stability and simplicity. Thank you.

Mr. ANDREWS. Thank you, Admiral very much.

[The prepared statement of Admiral Giambastiani can be found in the Appendix on page 45.]

Mr. ANDREWS. Again, we have had the chance to review your written testimony and look forward to questions. General Kadish, welcome back. It is good to have you with us.

STATEMENT OF LT. GEN. RON KADISH, USAF (RETIRED), FORMER DIRECTOR, MISSILE DEFENSE AGENCY, FORMER CHAIRMAN, DEFENSE ACQUISITION PERFORMANCE ASSESSMENT, AND VICE PRESIDENT, BOOZ ALLEN HAMILTON

General KADISH. It is great to be back, Mr. Chairman. I spent a lot of time in this system and, quite frankly, have been a victim of it at certain times. So I have a perspective and Secretary England allowed me to spend some time on that commission called DAPA, Defense Acquisition Performance Assessment Group, to think about this even more. And my statement has a lot of what the DAPA report came up with it is not so much interesting for this group for the specific recommendations as it is to describe the problem a little bit more in detail and how we saw the issues that both Secretary England and Admiral Giambastiani talked about. But there is just a couple of points I would like to re-emphasize and I would also recommend that if you would allow to have the DAPA report in your record.

[The information referred to can be found in the Appendix on page 67.]

Mr. ANDREWS. Without objection.

General KADISH. The first issue is it has never really been clear to me when we looked at the system what the criteria for success is and when we were dissatisfied with it. We talked a little bit about the metrics and the value equation and that is certainly an important aspect. But as you look in the history where all these studies have been done, in fact, you can go probably to the Civil War and earlier on some of these very same issues, the fact of the matter might be that we need to adjust our expectations a little bit in a sense of the outcomes of this.

All of the hardware, if not most of the hardware and the equipment we have put out of this system over many years have given us a technological edge. So we shouldn't forget that. There are thousands of people working out there every day to make this hap-

pen and doing a very good job. Now, we see some of the disasters, but I think that is more a function of the difficulty of the job. These systems that we are talking about and even the services, under very difficult circumstances in a lot of cases, are difficult tasks, especially in a wartime environment and in a peacetime environment when we faced the Cold War, we produced some of the most technologically sophisticated elements that the world has ever seen.

And the newest examples, you could go right down the list from Unmanned Aerial Vehicles (UAVs) to some of the robotics that we are doing today and especially in medical fields. It is phenomenal what we have been able to accomplish. So we shouldn't lose sight of that. But in the process of trying to improve this system over many years, we have made it almost unintelligibly complex to understand. And that complexity drives a lot of what—the problems we see today. And I would challenge anybody to, in one day's study, try to understand how we actually do business in this area. And I think you might be experiencing that yourselves in the sense that even people who have spent careers like myself here, I still marvel at some of the things that we have in our rule book that we just don't necessarily understand.

So that complexity is an albatross around our expectations for success. And it gets translated into lengthy schedules, time that is out of control and that all translates into huge cost expectations that are not met. However, the system is, if you look at it, could be simply described. Requirements, budget and acquisition and they need to somehow work together and on the charts it looks pretty good. In addition to complexity, we—because of the way we operate independent in each one of those processes, we introduce instability and that is financial instability—I don't think I have ever been if a program where my budget didn't change every 12 to 18 months.

It is remarkable that the people we have out there doing this every day can make this work still under the systems that we impose on ourselves. And all for good reason. There are a lot of heroes out there really making this work and I would almost say in spite of the system. And we tend to, especially at our level with Admiral Giambastiani and Secretary England, work very hard at the top level and we could very easily see that these things are solvable in the sense of making requirements more simple.

And I will just take one example. We came up with a system of key performance parameters not too many years ago and the idea was very simple. If we could leave three to four or maybe five key performance parameters and specify a system, we would be satisfied with that system. And if we didn't, we would have it come back and reevaluate whether we wanted that system. Well, now, we have programs with 14, 15, 16 key performance parameters, and each one of those key performance parameters drives specifications in a tree like manner down to 2,500 to 3,000, to 10,000 specific specification requirements you have got to make.

So the decisions that look very simple, coherent and practical at the top of the pyramid get implemented through this system and through a following of all the rules into very complex and difficult tasks. The last point I would make in summarizing my testimony is that there is a set of criteria—and some questions you should

challenge this hypothesis with any procurement improvement idea that might be postulated.

And the first one would be: Will it reduce complexity? And going back to the Admiral's idea of simplicity here. If it increases the complexity of the system and it adds to the rule book without something coming out, it ought to be challenged. And other layers of oversight and management don't necessarily improve the process. Second, will it be more—will it add stability to the programs at all levels? The big ones we all understand, but the smaller ones out there that people are operating at the same—under the same rule book and having the same challenges. So the stability idea where you can get a decision and operate under it and only have a problem when you cannot perform because the technology is too challenging or you run into an obstacle and not the system coming back and saying you are not spending your money fast enough so we have to take half of it away for next year.

Okay. And the third one, and I think the final point I will make is that we too often substitute costs for the real issue here and that issue is time. The time value of the things that we do is ignored in a lot of cases in decision making. Schedules seem to be more of an afterthought and a desire rather than a sense of urgency in the process. And time—and I am talking about time to make decisions, to do budgets, as well as to write specifications and do the drawings and those types of things that make these systems work and perform the services. The time value of this capability to the warfighter, especially in wartime is incredibly important. And it is similar to the time value of money concept, the dollar today is worth more than the dollar tomorrow.

That is what I have been taught in the economics books. And the same way with the time value of these systems and services. Done today, they are cheaper, better than if we wait years. Some technology requires more time. But we ought to focus more on the time required to make the decisions and implement them and hold people accountable for that and we will reduce the costs.

And finally, this idea that I don't think process is going to fix this problem. When we add process and improvements, we tend to really add things and not take things away. And under that approach, I think we will just increase complexity.

So I would be—I would advise a lot of caution in adding things without asking the question what are you going to take away to make these processes more integrated and less complex. And at the end of the day, it is the people doing the job, making more right decisions than wrong decisions that are going to produce the outcome here. And it really does—it might really come down to the fact that we can make the administrative systems as good as we can make them in human terms, but it is going to come down to people doing the job every day. And we have got to select them right and we have got to support them and make them perform and hold them accountable. Thank you, Mr. Chairman.

[The prepared statement of General Kadish can be found in the Appendix on page 55.]

Mr. ANDREWS. Thank you, General. I thank the panelists for excellent presentations. We will begin with the question time. I think it is fair to say that we have heard a consensus that lack of coordi-

nation that we see in the requirements and procurement and budget process is a result of too many rules and too many attempts to fix the problem, which creates a sort of archeological dig where there is one solution piled on top of another, piled on top of another, piled on top of another that worsens the problem. And that these add—to use the General's criteria—they add complexity, they reduce stability and they extend time, therefore adding to costs and adding to complexity. Which starts the whole downward spiral all over.

I think I also hear a consensus that an expansion of multi-year budgeting and therefore multi-year contracting authority would be one way to address this problem. Because if you do a multi-year contract, sort of by definition, assuming you have got a cleaned up requirements process that goes more toward that 80 percent solution, if you go the multi-year contracting, almost by definition, the procurement and budgeting steps are integrated because of the way you think about a multi-year budget or contract.

Let me play devil's advocate for a moment. Isn't this saying that systems that have produced dramatic cost overruns are now going to buy more of it because we are going to do three or four years' worth of budgeting instead of one and buy three or four years' worth of mistakes instead of one? Doesn't that take away the oversight function of the legislative branch in a way that would be deleterious?

Secretary ENGLAND. I guess, Mr. Chairman, I would say you are obviously not going to put everything into a multi-year. But right now we do very few programs and not just production. I would actually look at development programs because when you go to that multi-year, you basically freeze the requirements, you know, what the dollars are, not only this year, but in out-years, which you never know, because every program, other than a multi-year is funded yearly. So you actually never know your out-year funding. The contractor doesn't know the out-year funding. Everybody gets a bite at this apple, in the services, in the building, in the Congress. Right? So you still have to be selective at this.

Mr. ANDREWS. What would be the criteria for that selection? Which projects and systems would fall into the multi-year basket and which wouldn't?

Secretary ENGLAND. First, I say ones that are critical and national importance I would always look to put in that basket because I believe those——

Mr. ANDREWS. I don't say this to be facetious, but have you ever heard somebody come in here and testify that something is not of critical national importance? I don't mean to be whimsical——

Secretary ENGLAND. You are right. So obviously judgment applies—and I am not sure that there is a formula for that judgment. My only comment would be the formula in the past has been a program that is reasonably stable and that you can predict basically 10 or 15 percent cost savings. And I would say that any program you can predict that if you actually want to because the baseline is always unknown some extent. So I am not sure it is a reasonable baseline anyway. And I would just suggest when you look at the multi-years, don't look at it in terms of savings, look at it in terms of stability achieved so that you don't get the cost——

Mr. ANDREWS. Productivity.

Secretary ENGLAND. Well, predictability. The budgets will be in the out-years. Contractors can invest in improvements because they know there is business in the out-years. I mean, there is incentives in this system to perform better as opposed to a year-by-year type process.

Mr. ANDREWS. As a follow-on to that to either of the—any of the panelists, if the taxpayers are going to make a multi-year budget and contract commitment, should there then be more rigid standards from the contractors to have fewer overruns? In other words, if we are giving you three or four years of stability in a contract, should change orders and cost overruns in the contract be much, much more rare as a quid pro quo?

Secretary ENGLAND. There are fixed price contracts. Multi-years are fixed price contracts. So we negotiate a fixed price contract, and therefore every change has to go through a formal change process and you immediately get control of changes and contractors with the overrun, that is on them.

Mr. ANDREWS. I am aware of that, but of course, the fixed price very often turns out to be a fictional aspiration, rather than a legal reality. Shouldn't it be much more difficult to get ahead of that fixed price contract? If we do a multi-year, shouldn't there be a much, much heavier burden on the vendor to come in and say you have got to go beyond the target that was originally in the contract?

General KADISH. Can I——

Mr. ANDREWS. Yes.

General KADISH. I would like to make sure I understand exactly what we are talking about in terms of the multi-year because I think what Secretary England at least what I heard was that he is introducing the concept for stability and maybe for programs that we haven't done multi-years before. And your question is how do you pick these and what value would you get out of them. And I guess the way—one of the things that we have a problem with in our system today is defining programs and when they are a program. Okay? And it leads to a lot of misunderstanding. Multi-years are most effective and have been designed over the years for cost savings for programs that are in deep production. They are actually putting hardware out, whether it is rifles, or F–22s.

Mr. ANDREWS. Would you start sooner in the process than that?

General KADISH. Those have been very effective if you go back and look at them and C–17 and—there is a big track. Let us postulate moving multi-years sooner in the development context. If we had major programs that had mature technologies but we are pushing a mature technology and not a new technology and I will give you an example. We have been building airplanes for 100 years. I would say that is my maturing technology. Now, parts of those airplanes are really cutting edge, but overall, airplanes are maturing technology. So if we had to postulate that a development program—I hesitate to bring it up—but for an airlift tanker, could be a multi-year development program if the parameters for that were set properly.

On the other hand, in something like missile defense where the technology is disruptive, new and challenging, it would be very

hard for me as a program manager to come to you and say give me a multi-year and I will deliver this——

Mr. ANDREWS. It has gotten a lot harder in the last couple of week, hasn't it?

General KADISH. On those situations, level the budgets where you have the insight and the oversight to see what is going on, where you don't have to—one of the difficulties we have in our system today is that the system demands in all three of those areas that the day you charter the program, you have to put a cost estimate down on a piece of paper, even if you are going to deliver it 20 years from now or 15 or 10——

Mr. ANDREWS. I appreciate that. Admiral, do you want to jump in? I am going to stop so Mr. Coff—one point I want to just interject—I would ask the staff to take a look at his data. I am sure the GAO or someone has this. I am curious as to the percentage of the cost overruns identified by the GAO which I know are controversial, Mr. Secretary. But if you start from that starting point, the percentage of those cost overruns that flowed from multi-year versus non-multi-year contracts. It would be interesting to see if there is any significant difference. Admiral?

Admiral GIAMBASTIANI. If I could add just a couple of points to what Secretary England and General Kadish have brought up. Number one, dealing in multi-years for programs that have mature technologies, stable requirements and the rest are incredibly important. An example of these would be aircraft programs. For example, when I was a resource director for the Navy back in 2000, we went after multi-years to procure the Super Hornet. We wanted to stabilize production. We had, if you will, an aircraft that was fairly mature in its production and we could stabilize it and move on. We do these things with destroyers. We do them with submarines. Areas where we have again stable requirements, we are not making massive changes and we can see the benefits of the risk reduction methods that we have used to go into them.

Requirements for programs that General Kadish talked about, for example, on missile defense where you are dealing in very high-leverage, high-risk, high-payoff technologies but you just don't know if they are going to be successful or not, it is incredibly difficult to go after a multi-year and I am the type of person that would not suggest to you to do that. But if the system is ruthless with, if you will, low-risk technologies and the rest and you are ruthless in not allowing requirements to change willy-nilly and you produce these things, you can do upgrades in the future life of that platform, for example, or vehicle or whatever you are building generally so that you can put upgrades in later and later. And we have got just a bevy of programs like this that have been incredibly successful that have been multi-year buys. However, a multi-year by itself is not going to be successful if you don't have the other integrated components with it.

Mr. ANDREWS. Did you agree that integration is easier in a multi-year context, though?

Admiral GIAMBASTIANI. It probably is, again, if you have stability and simplicity in those three components that you bring into the program.

Mr. ANDREWS. Mr. Coffman is recognized.

Mr. COFFMAN. Thank you, Mr. Chairman. Just a question about changes in requirements in terms of being a cost driver. Where— are those primarily because of the fact that in your view, that it is an immature technology that is being developed or is it from the military side of the House that maybe there is a changing environment tactically in terms of threat scenarios on a given weapon system? So there are changes in requirements there. Where do you think the changes primarily come from?

Admiral GIAMBASTIANI. There are a variety of ways to look at requirements and let me give you an example of this. I am going to use a real life example. Again, I will just pick the Super Hornet. The Navy had just come out of a very, very bad experience with the A–12 aircraft being cancelled. It was very unsuccessful, it was a high-risk venture and there were a whole variety of things on all of the reasons on why a program fails. Many within the Naval aviation and Navy communities wanted to build a more cutting-edge aircraft. But what happened is the Navy got together and brought forward a fighter bomber, if you will, based on some pretty proven technologies without over-the-top requirements. In other words, we didn't double or triple the range.

We didn't try to do things that were just so cutting edge that it would be very high-risk and difficult to do. So therefore you produced a good, solid aircraft, if you will, based on solid requirements. If you try to extend yourself in very high-risk ways and in different technologies, you are not going to be able to produce a program, an aircraft, a ship or whatever you are doing in an effective way because you are working in these high-technology, high-risk areas that you simply can't predict. That is the reason why you want to go after, if you will, more mature technologies for these long-term programs.

You do need to do programs that push the envelope, like missile defense and others, but they are very different from the types that we are talking about that could potentially give you multi-years or if you will, stability.

General KADISH. I would like to add to that and take you down a level because I think my experience is where we get into trouble with requirements is not at the deliberative level that the Admiral is talking about. There are sometimes we push a range, payloads or something like that as a peak performance priority that really gets in trouble. There are very few of those and they are remarkably stable because people have taken a deliberative approach.

Where I see we get in trouble is that when we start translating those top level ideas or requirements into actual specifications, our culture is and it is very much encouraged that the people who are managing the program, go to the people who will use this equipment or idea and say we could do it this way or we could do it that way, which would you prefer? Or more likely, they start looking at what we are doing and they say we would rather do it this way. That is where you get the proliferation of changes where something seemingly easy to do in the first week of the design turns into a disaster as you try to build it. And I can't give you a lot of examples of this because it gets in the minutiae here to make it explainable. But the process is geared to work with the future user and that interaction at the lower levels tend to make the problem a lot

harder, although it is necessary at the same time. I am not saying we shouldn't do that, but that is where we get into trouble.

Admiral GIAMBASTIANI. Let me just add to this because I think it is very important, I had a section originally in my—but it got into the very technical minutiae level. But let me just quickly tell you. Requirements are key performance parameters that the JROC approves and controls day to day. As General Kadish said, typically if we do a program right, they don't change much and generally we are in pretty good shape with them unless we proliferate the rest. The requirements he is talking about are the next level down and the level below them. They are called key system attributes and other things below this. What happens with these requirements is the JROC for example, assigns responsibility to the Air Force or some other agency or service to control those. And I said it in my testimony that requirements people have to be ruthless on controlling these. And the reason why you have to be ruthless on controlling them is because everybody comes up with up great ideas and this is where change orders come from. They don't always come from that. Sometimes there is a technical reason why you really have to do it to make it work. But you try to avoid all of these other change orders based on I have got a really good idea and I want to insert this because I know it will work better or we have been building this for a while and I really think I have a better way to do it. This is—we found in studies and you can get these from the joint staff, that a vast majority of requirements level cost increases actually came from this level of requirements change and they were done, if you will, at a much lower level, day-to-day basis and there is data on this and I know the joint staff, J8, can provide it to you.

Secretary ENGLAND. Another perspective, though, changing requirements is not all bad. We tend to view it as bad. It is actually—my view is we don't change them enough in a lot of respects. Having been on the other side of this in the industry and built a lot of products, F–16s and M1 tanks and every other kind of system imaginable. At our level it is easy to talk, at your level to talk about requirements up here. When you get down to the contractor level there is volumes and pages and great, great detail about this and over time they actually do have to change because it is a reality of design and production. You want them to change. Fact of the matter is there is great reluctance to change any of this once the contract is let because there is pressure on the system not to make those changes.

So this is a more complex than just deciding the range. In the reality, I would say the system is pretty rigid, particularly going forward and that rigidity actually costs us money as people struggle to meet requirements that are not really germane to the ultimate utility. So it is not obviously always the case, but that is still a dimension. It is not all bad to change, quote, requirements as a program proceeds, and I would say you have to have the flexibility to do that or else you will have cost growth.

Admiral GIAMBASTIANI. And this is how you do block upgrades, this is how you do the types of things for all those programs I cited in the testimony. If you do them in a sensible manner, you are

going to get a really good product that over the life cycle produces what this Nation needs.

Secretary ENGLAND. Mr. Andrews is about people by the way. I mean, look, you can have all these—at the end of the day, it is somebody that understands the technology, the business. These are people who exercise good judgment at various steps along the way and you cannot replace that good judgment with systems that you——

Mr. ANDREWS. I have no doubt about that.

Secretary ENGLAND. I used to tell the Secretary, I would take ten John Youngs over all the changes of the acquisition system. An extraordinarily capable person is invaluable in this system and that is true throughout the acquisition process.

Mr. ANDREWS. Mr. Coffman.

Mr. COFFMAN. Thank you, Mr. Chairman.

Mr. ANDREWS. Thank you. Mr. Cooper is recognized.

Mr. COOPER. Thank you, Mr. Chairman. General Kadish, you mentioned that even with a lifetime of experience in dealing with acquisition, occasionally you run across rules that you didn't know about, make no apparent sense. Would you be willing to go through these rule books with a red magic marker and try to—pages, volumes?

Secretary ENGLAND. It was done. There was a congressional— there was a study group in the early 1990s that recommended hundreds of changes, and I think some were made, but I don't think many were.

General KADISH. To answer your question, I would love to do that if I had the time. But what is interesting about the rule books is that, to me, anyway, is that the more they change, the more they stay the same in a lot of areas. You have got—you have got the 5000 series regulations in the Department of Defense that are the bibles for this type of stuff. And then you have got the Federal Acquisition Regulations. All right? And I will tell you if you start reading your contract and look at the clauses that are put on contracts and how they all operate, it is really difficult to understand why we do some of these things. To eliminate them, I would like that challenge. But——

Mr. COOPER. I am worried about the Tower of Babel effect when we create a system that is so complex that nobody can understand it. We were just joking prior to the hearing that how many people actually read the weapons acquisition bill that we just passed. Nobody.

General KADISH. I tried to.

Admiral GIAMBASTIANI. I tried to.

Mr. COOPER. This is an impenetrable thicket that is almost—you challenged us, spend a day trying to figure out the system. Nobody has a clue. So why don't we try simplification, get back to basics? If it is people driven and if Secretary England would love to have ten John Youngs—have we even gone through the task of identifying—I think of them as, like, that marvelous job foreman or the marvelous general contractor, somebody who really knows what is going on and knows how to get stuff done. If we identified folks with those skills that we want to reward and perpetuate and grow more of them like that.

And then I see, like, U.S. Special Operations Command (SOCOM) able to exempt it itself from lots of acquisition regulations, gets the job done pretty well—maybe not with super complex weapon systems, but shouldn't this be tried at least on an experimental basis with some of the services, some of the projects and just say maybe we don't need any of this stuff?

General KADISH. Well, I think that idea is very interesting because that is basically what happened to the Missile Defense Agency, it got special authorities. Properly applied and chosen, a team of people—and I do emphasize a team, not just one individual—given the proper authorities would make better decisions more rapidly than under normal circumstances. This system is so big that it would be hard to do that carte blanche, okay, because you are going to hire 30,000 new people in the process and that might fix some things in terms of numbers but it could create huge problems with more people making—in the process making decisions to be unstable. But choosing the organizational entity, projects, programs along with this multi-year idea could have great benefit if you free them from some of the issues.

Secretary ENGLAND. Mr. Cooper, if I can add, though, the Department has authorities. We can use commercial acquisition rules, et cetera, and buy things. But you have to be really brave to do that because you get criticized when you do that. That is, you don't have the same amount of oversight, you don't get the same amount of data, you don't get the high degree of assurance. These are all trade-offs and risk, right? I mean, this system, this layer exists because it gives comfort, right, that no one is going to do anything wrong and there is a certain degree of comfort that has been laid on. When you move aside and do a commercial acquisition, you no longer have that same degree of comfort. So I will tell you people in the Department, my experience is, people will shy away from using those authorities because you open yourself to severe, severe criticism and in fact programs get stopped sometimes here in the Congress because they don't have the quote sufficient levels of oversight reporting. So this is a complex environment we operate in with many stakeholders and many different objectives that people are trying to achieve. And they don't always come together in some coherent way.

Mr. COOPER. But, Mr. Secretary, aren't our services all about bravery? Isn't sacrifice on the battlefield about life and death? Then we have folks in the puzzle palace afraid of stepping across a bureaucratic line in order to get the job done because they might be criticized?

Secretary ENGLAND. If you are a hero in combat. You get promoted. If you are a hero in this arena, then you get demoted or you don't get——

Mr. COOPER. Let us change the promotion system, let us change the incentive structure so that you can be a hero. I talked about identifying like you did the ten John Youngs, who are these people, how can we reward them? Instead of them fearing criticism, how can they be honored? Why don't we create a system like that?

Secretary ENGLAND. Fair enough, but we all have to do it together. It is not just the Pentagon.

Mr. COOPER. That is why we are having hearings to explore these topics. Admiral.

Admiral GIAMBASTIANI. Mr. Cooper, let me add something that I have observed here over a number of years. Because of the level of regulations you are all asking the right question, how can we make this simpler. And that is the reason why you have a guy like General Kadish that will say that is pretty attractive if I had the time to do it. I would just say to you that I have learned over the years since Goldwater-Nichols there is a lot of good stuff that came out of Goldwater-Nichols, for example. But one of the things that came out of this is that with all of the joint requirements and, by the way, which I believe in deeply, with regard to the joint requirements for operational excellence, one of the things that has occurred is that there is less likelihood of senior line officers, if you will, across all of the services who have vast operational experience existing in the acquisition community, in other words moving back and forth.

And this long-term problem has created a level of misunderstanding, if you will, in technical expertise. We keep telling you people make the difference here, experienced people make the difference. But if you can't have somebody that has got good operational credentials and take hostages and put them in the acquisition community and have them move back and forth, it is very difficult, for example, in some cases for them to truly understand some of these requirements level pieces that are so important. Many of those really effective programs I cited before were built under a system where people came up and spent a significant amount of time in a variety of these different communities and their experiences really paid great benefits to the system. The question is how do you recreate that, how do you get people who can go into the acquisition side, how do you take hostages, if you will, and exchange them between these different communities? That is one of the things that some of us have spent some time trying to figure out how to do this.

Secretary ENGLAND. If I could focus this a little bit, Mr. Chairman. I don't believe we are going to end up redoing the acquisition system. This has been going on a long time. It would seem to me the objective and what I would recommend are one of the few things you know you can pass and get through the Congress that would have a marked improvement. How can you improve—how do you know you are going to improve and actually not make it worse? It is a complex system. You always have that problem, right? So what are the few things you can do and so I would just try to address a few practical things. Give people reserve because now every cent is accounted for, and if something changes, you don't have the money to accommodate whatever you need money for and that costs you ten dollars for every dollar you don't have at the front end, it costs you ten dollars. Make it feasible for people to have reserve. Make the reprogramming easier. I mean, the thresholds are way too low for the level of expenditure and the complexity of it. That is part of the simplicity.

I mean, there are some things you can do to make this system simpler, easier to operate within, without trying to redo this whole system. And I would focus on three or four things that you can get

concurrence from the Department and the Congress, and I keep doing this incrementally. The problem you are going to have is if you try to make too big a change, I keep telling people it is easy to destroy value and it is extraordinarily hard to build value. So we didn't get here just randomly. A lot of this was put into place for a reason. If we start to dismantle it, we better understand the reasons and make sure we are dismantling the right part of this because some parts that you don't want to dismantle. So I would do this on an incremental basis.

Every year I would work this, and every year I would get people to address and I would keep making incremental changes, and I would set my objective that way. So again, recommendation is to get the specific—a few things everybody agrees on and move forward rather than look at this whole thing because as you can tell from his testimony, you can just stay enmeshed in this detail and never get to the one or two few things that you can really do to improve the system.

Mr. ANDREWS. Very good.

Secretary ENGLAND. That is right.

Mr. ANDREWS. Thank you, Mr. Cooper.

Mr. ANDREWS. Mr. Ellsworth.

Mr. ELLSWORTH. Thank you, Mr. Chairman. Thank you for holding this very informative hearing. Thank you, gentlemen. I have become a little concerned. We know there is at least 120 prior studies that go back to the Civil War. I am glad we assembled the group that is finally going to figure this thing out and straighten it out. But that is our challenge. Most of my questions were answered. I would ask one thing maybe for the discussion of how much plays into, and I wouldn't want anybody to take this wrong, that I don't want to give our troops everything they need to do their job. How much of that plays into this?

I can remember back in my days of law enforcement when we would duct tape a flashlight to the barrel of our shotgun. It would have been nice to have a built in flashlight in our shotguns, but we didn't have that. How much of it is the cause of this when someone in the field, someone says wouldn't it be nice to have the switch on this side on the thumb instead of the index finger or if this were in my left hand instead of my right, or if this seat were a little more cushioned or how much is it that we want to do everything we can for our troops on the acquisitions that come out and I think it goes back to those change orders and improvements. I don't have a problem with that. But does that add to the problem of kind of we need to give everything we can, whatever is even suggested. Is that even—I think most of my questions were answered about adding to and improving, but there is a play in there. There is wants and needs and it is a good lesson between what we want and what we need and sometimes you don't always get what you want, but we definitely want to give you what you need. I am not sure the question is in there.

Secretary ENGLAND. It is in the eye of the beholder what the value is. That is sort of the challenge always. There is always many more things you can do in the Department of Defense than you will ever have money for. No matter how much the budget goes up, there will always be needs, unmet needs. Because if you are a

military person, obviously you want the very best equipment or lat-
est equipment, you want the switch on the right side and frankly
they should expect that. That said, there are still limitations. There
are boundaries you have to work within. That is the trade-off that
you keep making. And that is an imperfect world. That is judg-
ments by people between the military, the civilians, the Congress
who has an oversight role.

I mean, everybody places judgments on this, frankly at the end
of the day, it sort of works pretty well. You know, everybody has
an input and it tends to balance out, right, between the military,
the civilian leadership, the Administration, the Congress, I mean,
all of this pushing and shoving—I mean, it looks bad frankly, but
I am not sure it doesn't come out with best results you can get
given all these competing interests that come to bear on this so it
is an ugly process but I am not sure it is ever going to be a pretty
process because that is the nature of what we do and these are all
judgments. This isn't a black and white. This is almost in every
single case judgment calls by well-meaning people and people dis-
agree a lot of times.

Mr. ELLSWORTH. And that vendor that has to move that switch
from the right to the left or left to right, they have to retool ma-
chines that adds to the price. Is that—you make that determina-
tion—worth it versus armoring up a Humvee while the guys in the
field are catching shrapnel, let us do that, let us do it quick, let
us add panels, whatever we have to do. I can see the difference
there. But I agree with that. I think it is an imperfect world. But
that is kind of what we have to deal with.

Secretary ENGLAND. That is the world we are in and that is the
world we deal with.

Admiral GIAMBASTIANI. Let me give you a perspective from some-
body who has worn a uniform and been out and used this stuff for
a hell of a lot of my life. We have very, very thoughtful and good
people. And as Gordon said, you are always going to have people
making recommendations for changes. It just is the way we train
them. We tell them we want to do our best and they expect the
best from what they get. So the question then is how can you incor-
porate and bring these things to bear in a timely and useful man-
ner so that they can use them to do whatever—and accomplish the
mission that they have at hand. There has been a lot of discussion,
for example, about a peacetime procurement system and what you
do in wartime and the rest of it. Well, it makes a difference. When
you have the urgency of impact out there, you are going to modify
what you do on a peacetime basis. What is important today in war-
time may not be as important during peacetime unfortunately or
vice versa. So you modify processes and you modify the way you
deliver capability.

There is a whole variety of these joint rapid acquisition pro-
grams. You do the things that make sense to deliver capabilities
and modify capabilities. And it is always going to happen, but we
train our people—the culture is you want better and you are going
to work for better, and hopefully we can provide them with the
tools that keep them safe and allow them to effectively make their
mission. That is pretty general. But my comment is we always
have to have during wartime a willingness to also fail and maybe

not get it right, because if we are in a zero defect environment trying to protect these people and allow them to accomplish their mission, then we have got problems. How do you balance those and get that capability out there?

General KADISH. I would add there is an element of trust that we have. I have been on both sides. Operating and flying airplanes and buying and developing things. And that trust of the soldier, sailor, airman in the field, that they are going to get the best from our country is something that is unspoken but part of our culture. And I will just give you an example from my own life.

I will never forget when I was in pilot training I had an old combat instructor that was teaching me that day and I had been very clever that morning and went out and bought a flashlight because—a small one that I thought was kind of neat because we were going to practice dark cockpit type stuff. And we were walking to the airplane and I discarded my big flashlight that was the traditional issued type of thing. And he said what are you doing? I said I got this new flashlight. He said you trust that at 30,000 feet. It works great on the ground. I will take my Government Issued (GI). And that made an impression on me because if we are going to put people in harm's way, yes, we have resource issues, we make those trade-offs every day. But that trust, we are going to give them the best we know how to give them has got to be there.

Mr. ELLSWORTH. Thank you, Mr. Chairman. I yield back.

Mr. ANDREWS. Thank you, do any of the members have any follow-up they would like to engage in at this time? Yes, Mr. Cooper.

Mr. COOPER. Secretary England impressed me with his rousing defense of the status quo. And I don't want to be a hopeless idealist, but I also don't want to give up on making the system better either. And surely there is some compromise between the two and I realize there are plenty of obstacles, but surely with your long tenure both in the private industry and as Secretary, there are specific recommendations you can give us that are deeper than more—a politician would call it a slush fund—wiggle room, an extra $57 billion, here, there, whatever the amount is to get the job done, smooth wrinkles. This is the most massive bureaucracy probably in human history, it is the least auditable of all government agencies, perhaps it has the toughest job. But we are, you know, the most important military force in the world. And it is so important for every troop and for every citizen that we get this really right. So to me, after your long experience, kind of waiting for more and deeper advice.

Secretary ENGLAND. What I recommend, Mr. Cooper, I don't recommend the status quo. Everything can always be improved. The Nation is at war. We are buying equipment. We are meeting warfighter's needs. I only recommend that you do this incrementally because you don't want to do something that is also going to make it harder or harmful. So if they are in complex system, I tend to go much more deliberate and so I would take—I would decide what are those things that you can identify and I would work with the Department on this, the current Administration. I say what are those things that we can make changes to that would immediately improve your operation and I believe there are some things you can

do that would be embraced by everyone that would actually have a meaningful effect on this. I mean, this is small things like reserves, small things like reprogramming are very, very large. The multi-year is very important. I think if you can—the National Security Personnel System (NSPS) provides a whole personnel system. It is important. It is hard to get people in the acquisition arena, particularly civilians. We make it very onerous. So if you can attack some of these issues that are identified issues within the Department, you will move the ball forward and you can do that quickly. I mean, you can do that, in effect, what they are doing in the coming budget as opposed to over a long budget. So I am just suggesting take a deliberate approach on this, accomplish what you can accomplish and don't get mired down in this whole system because this whole system has been built up literally over at least 50 years.

Mr. COOPER. George Will had a famous column at one time in which he quoted Mr. Hilton of Hilton Hotels who, when asked, I think at a graduation speech, what his advice would be to future generations. He summed it up succinctly and he said please put the shower curtain inside the tub.

Mr. ANDREWS. Is this the person that raised Paris Hilton?

Mr. COOPER. Thank you, Mr. Chairman.

Mr. ANDREWS. Bizarre note. I did have—I meant my comment, not yours. I did have one quick question if I could just ask the panel. The Center for Strategic and International Studies (CSIS) did a report and they made a recommendation which I am going to read from. I just briefly want to ask the three of you what you think of the recommendation. And frankly, you can supplement your answer in writing if you would like. CSIS recommends that we modify title 10 to require that all JROC memoranda signed by either the chairman or vice chair of the joint chiefs, the Joint Requirement Oversight Council Memorandums (JROCMs), be provided to the Deputy Secretary of Defense for his review. The Deputy Secretary could then issue any JROCMs he approves as binding guidance to DOD components. What do you think of that? Is that something we should do by statute or not?

Secretary ENGLAND. My question to title 10, do you give title 10 authority to the vice chairman?

Mr. ANDREWS. No. Let me read it again. To the Deputy Secretary. In other words, the Vice Chair and the Chair would pass these draft memo up to the Deputy Secretary. He would then or she would then have the authority to give them binding or not to give them binding effect or modify. So what it would do would be to institutionalize a role for the Deputy Secretary that binds the services.

Secretary ENGLAND. My first reaction would be—that is a responsibility of Acquisition, Technology and Logistics (AT&L), the Deputy would just literally go to the AT&L responsible person because they have all of the everyday work in the acquisition arena, they have the authority for acquisition. I mean, my view being the Deputy, I would, at that point, have gone to John Young or Ken Krieg and got their view on that because they are dealing with that every day. Not the Deputy. The Deputy does this, you know, sort of on an as needed as required basis, not—I wouldn't put the Deputy in

that role frankly. I would put the AT&L. And I haven't thought about what all the implications of that are.

Mr. ANDREWS. I would like you to think about that if you could and then supplement your answer to the record if you have time.

[The information referred to can be found in the Appendix on page 225.]

Mr. ANDREWS. Admiral, what do you think?

Admiral GIAMBASTIANI. I would tell you that I think the Deputy is the wrong person in that case. But I do think the Under Secretary for Acquisition, Technology and Logistics is the right person to be doing this. Now, recognizing you could make this a legislative piece clearly that would be a big deal because you were including a civilian in this military requirements discussion, but it is one way to help integrate, if you will, the system.

Now, what I would suggest to you is that I didn't make him the co-chair, but I invited AT&L to every session of the requirements, JROC pieces that I did for two years, and in fact, AT&L attended everything. Ken Krieg personally as the Under Secretary did not, but he always had a senior representative there, and in fact, they did a lot of preparation——

Mr. ANDREWS. The question is the difference between attendance and authority.

Admiral GIAMBASTIANI. Correct. So what you have to think about is if you are going to make the vice chairman, for example, the co-chair of the Defense Acquisition Board, then would it be reasonable to make the Under Secretary the co-chairman of the JROC? And I don't think that is bad. If you go back to the Packard commission, one of the things they talked about was—I think it was called a Joint Requirements and Management Board (JRMB). It was a joint requirements material board or something that compromised mainly of military but also brought some civilian expertise on the acquisition side into it. I personally don't think it is a bad idea at all.

Mr. ANDREWS. General, what do you think?

General KADISH. Mr. Chairman, I, in fact, talked about it to CSIS. I think if I am not mistaken and read it right, this is a reflection of the fact that the only time those three processes come together in the Department is at the Deputy Secretary.

Mr. ANDREWS. I think that is right, yeah.

General KADISH. And because budget decision is really resident there primarily because that is the one that usually is the outlier in these decisions. So making it statutory might be a good idea, but it could also be very problematic because fundamentally, the Deputy Secretary and I hesitate to speak for Secretary England here, because I never was one of those, but it is a huge job to do these types of things. But the processes are designed today to come together at that level.

Mr. ANDREWS. Yeah. I mean, I asked the question as an agnostic. I read segments in the report and wondered what you thought. The attraction of the idea is as the General says it is the venue where these processes come together. And investing the person who sits at that venue with some enforcement authority has some attraction. On the other hand, it does speak to the caution that all three of you have given us from significant experience which adding new process may exacerbate the problem it may not solve it. So upon

further reflection, I would like you to think about whether you think vesting some person with that kind of authority coming off the JROC process makes sense. And if so, whom would that person be?

Admiral GIAMBASTIANI. I can tell you, most military personnel probably would not like that.

Mr. ANDREWS. Is that an argument for doing it or against it?

Admiral GIAMBASTIANI. I am trying to tell you, you have to integrate this. But, with all due respect to my Deputy Secretary former shipmate here, I think the person who really is vested in where all three of these come through, despite what Ron has said to you, is the Secretary of Defense. Because you have service secretaries and service chiefs in there and that is where the ultimate authority for all three of these are supposed to come together, and when you move it to a different level, you change the overall dynamic here in a way sometimes that is not good.

Mr. ANDREWS. You may actually deemphasize the importance of it?

Admiral GIAMBASTIANI. Correct. So some that, though, is very important.

Mr. ANDREWS. My question is whether a person should be vested with the authority. And your position is maybe it should be the SECDEF.

Admiral GIAMBASTIANI. The SECDEF is not going to go to every JROC meeting because he sure doesn't have time for that. But the point is, how do you get that done so he gets advice properly?

Secretary ENGLAND. Chairman Andrews, your original comment about people and personalities. A lot of this is who makes these decisions at any given time, frankly, because it varies dramatically in terms of background and experience and capabilities. So when you say——

Mr. ANDREWS. The Constitution would probably prohibit us from mandating a certain person.

Secretary ENGLAND. I would say what worked out well with what Admiral Giambastiani said is that John Young is the perfect person to do that. So, for all practical purposes, you sort of achieved that when they were together in the offices, because you want to get the requirements right. They were both quite capable, the same reason I brought Ed in on the DAWG. So personality goes a long way on this.

Mr. ANDREWS. I hear you. One of the recurring things in our work, and we will wrap up with this, we think it is self-evident that the talent of the individuals in these positions and the nature of those individuals is central to any result. But what we can do in the law and procedure is create a series of incentives and disincentives that hopefully incent the more desirable behavior and disincent the less desirable behavior. And what we are trying to fumble through is to figure out in this instance.

So I think in closing is if the hypothesis this morning is that the gap between value and cost paid is in part attributable to a lack of coordination among the requirement and procurement and budgeting process, I think the answer is, sure is, there is a significant problem. What we are trying to do is figure out a way to create the right set of incentives that would cause integration, the right set

of disincentives that would mitigate against disintegration, but do so hopefully by going to Mr. Cooper's question, by taking things out of rule books rather than putting them in, and by creating fewer levels of oversight, more transparency, not more levels of oversight and less transparency. That is a tall order, but I think that summarizes what we are about.

Each of you has made a very significant contribution in that effort this morning. We appreciate that. It is entirely consistent with your lifelong contributions to our country in this and other areas, for which we are very grateful, and we thank you very much for your participation. The hearing is adjourned.

[Whereupon, at 9:33 a.m., the panel was adjourned.]

A P P E N D I X

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

JUNE 3, 2009

The Honorable Robert Andrews
Panel on Defense Acquisition Reform
Opening Statement on Coordinating Requirements, Budgets, and
Acquisition
June 3, 2009

Welcome to today's hearing on Coordinating Requirements,
Budgets, and Acquisition: How Does it Affect Costs and Acquisition
Outcomes? The panel has held three hearings to date on the first
question on our work plan: how do we measure the performance of the
acquisition system in meeting two critical goals 1) rapidly filling
warfighter needs and 2) protecting taxpayers? Today we move on to the
next question on our work plan: what are the root causes of failure in the
acquisition system? We start today with the hypothesis that poor
coordination between the requirements, budget, and acquisition
processes of the Department of Defense is one of the root causes of
failures in the acquisition system. To be exact, we are not starting with
the assumption that poor coordination is a problem for all programs, but
we do suggest that it is a recurring problem on a number of programs
and that when it does occur, it has severe consequences for the
warfighter and for taxpayers. We will test this hypothesis today with our
witnesses, who have all served in senior capacities in leading, operating,
studying, and coordinating the requirements, budget, and acquisition
processes.

We have with us the former Deputy Secretary of Defense, the
Honorable Gordon England, the former Vice Chairman of the Joint
Chiefs of Staff, Admiral Ed Giambastiani, and the former Chairman of
the Defense Acquisition Performance Assessment and former head of
the Missile Defense Agency, Ron Kadish. Gentlemen, we appreciate the
fact that you are here today to share your expertise in acquisition with

us, and to help us test our hypothesis about the critical importance of coordination between requirements, budgets, and acquisition. It appears that the coordination of these processes is still often ad hoc, and may be overly dependent on the personalities and compatibility of the people involved. As you have each wrestled with this problem directly, your testimony will give us insight on this issue.

There are a number of proposals that have been put forward by think tanks to formalize coordination, for example, by requiring the Deputy Secretary of Defense to approve and transmit JROC requirements as binding policy to the military departments; or by adding the Under Secretary of Defense for Acquisition, Technology, and Logistics, the Director of Program Analysis and Evaluation (now the Director of Cost Assessment and Program Evaluation), and the Comptroller as voting members of the JROC. Congress has already required that each military department institute configuration steering boards for major defense acquisition programs, and that these boards include representation from the Joint Staff. What is the right mix in the formal and informal in requiring coordination and how do we achieve it? And if we do make the products of the JROC more binding on the military departments, do we need to change the nature of the requirements process so that we avoid mandates on the acquisition process that are technologically infeasible, or financially impractical? The panel looks forward to getting the witnesses views on all these issues today.

Let me now turn to our panel's ranking member, Mr. Conaway of Texas, for his opening remarks.

Statement of Rep. Coffman

Hearing of the

Defense Acquisition Reform Panel
on

**Coordinating Requirements, Budgets and Acquisition: How
Does it Affect Costs and Acquisition Outcomes?**

June 3, 2009

Good morning, Mr. Chairman, ladies and gentlemen. I would like

to extend a welcome on behalf of Ranking Member Conaway, as well.

He is sorry he could not be with us today. I would like to thank the

Chairman for allowing me to make a few introductory remarks in Rep.

Conaway's place.

I think it's fair to say that to some extent our witnesses have been

involved in every major acquisition reform initiative or study over the

last 20 years and we are very fortunate to have you here today. I

believe your testimony today will prove critical in any actions our panel

takes in the future. My statement is very short because I believe it is

more important that we hear from you rather than you hearing from

me.

My only comment is in regards to the discussion of broader

acquisition, known as big 'A", and the more limited sense of acquisition,

called little "a." As you know, big "A" is the overall acquisition system

consisting of three elements: Planning, Programming, Budgeting;

Requirements; and the Acquisition Process. Little 'a" is just the

acquisition process. In a perfect world the three elements of big 'A'

would be fully integrated and operate in harmony. The implication is

that each of the elements contributes to and gains from being

associated with the others. The intended result is a successful program

that is fully funded and is delivering warfighting capability on cost and

on schedule. In fact, one of the many observations from the 2006

Defense Acquisition Performance Assessment, which was chaired by

General Kadish, was that the three elements exist independently of one

another by virtue of the fact that changing regulations and vague

Acquisition System direction, combined with an inexperienced

workforce, allows the independence to persist. And we all know that

the net impact of this independence is an inability to anticipate and

prevent situations that put programs in jeopardy of failing the cost,

schedule and performance standards.

So it is in this regard, that I hope to learn from our distinguished

panel of witnesses'; what actions can we take to get these three

elements into harmony so that at the end of the day we are delivering a

quality product to the warfighter at a reasonable cost.

With that I will conclude and again thank my fellow members and

you, Mr. Chairman. I look forward to the witnesses' testimony.

Written Statement of Gordon England
Former Deputy Secretary of Defense
HASC Panel on Acquisition Reform
June 3, 2009

Chairman Andrews, thank you for the opportunity to participate in
this hearing before the Defense Acquisition Reform Panel of the
Committee on Armed Services in regard to coordinating
requirements, budgets and acquisition.

I particularly appreciate the opportunity to be here with my good
friends and great Americans, Admiral Giambastiani and General
Kadish.

During my commercial career, I participated in multiple DoD
acquisition reform initiatives. I was the task leader for several
Defense Science Board studies on acquisition and, over a period of
20-25 years, served on or supported numerous other studies
and reviews. In government, as Secretary of the Navy and Deputy
Secretary of Defense, I provided acquisition oversight, worked
with the Department to improve acquisition processes and
interfaced often with international partners on mutual acquisition
programs.

My objective today is to add some factual clarity to what is too
often a sensationalized topic, and to also make a few observations
and suggestions for improvement.

By way of perspective, after being named Deputy Secretary of
Defense, one of my very first actions was to commission a review
of the prior 123 formal acquisition studies. This is not a new
initiative! In addition to these prior studies by many well-informed
and well-intentioned professionals, there have also been

innumerable reviews by the Department of Defense and by the GAO, supplemented by Congressional hearings and work by various independent think tanks.

Yet, by some accounts, the acquisition system seems impervious to improvement, and that has led to frustration and consternation in Congress, in the media and for some in industry.

Defense acquisition is not only highly regulated, but is also an extraordinarily complex enterprise. Defense acquisition programs cannot be easily compared to commercial products because weapon systems are purchased in modest quantities; reply on complex integration of sensors, fire control systems and dangerous warheads; must perform in extreme environments; are tested extensively in accordance with Congressional direction; and must be engineered for use by our all-volunteer, rotational force.

The defense acquisition process has many shareholders and competing interests, complicated by shifting world events, national priorities and politics. Single programs can typically span 10 to 20 years or even longer, encompassing many generations of technology, almost always with single-year funding, and with management and operational employees that change frequently. Rarely does anyone involved in the start of a program ever see the program fielded or even entered into production.

Technically, the trend is to integrate more and more multiple, separate, and complex systems into a single overarching capability. Conventional war is becoming even more technological and, in many respects, finding, identifying and waging war against terrorists is still more complex. Of course, time and money will always be important dimensions, but even the importance of these dimensions vary, depending on the threat.

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This leads to my first observation. It may be that the broad Defense acquisition enterprise will never be able to achieve the "linear management model" that some seem to be seeking; that is, a manageable system with a high degree of certainty, predictability and stability. This may not be achievable in an inherently unstable environment.

However, there is always room for improvement. To improve, however, it is important that the broad topic of acquisition be parsed into manageable and actionable segments. The starting point is to understand the nature and size of the problem to be solved.

The GAO recently reported a $296B cost growth on 96 DoD programs with the conclusion that "cumulative cost growth is higher than it was five years ago." This has been widely reported and sensationalized in media around the world. To the GAO's credit, they did comment, "DoD's performance in some of these areas is driven by older programs as newer programs, on average, have not shown the same degree of cost and schedule growth." Indeed, 41 of the 96 programs in the 2008 portfolio received initial milestone development approval prior to 2001, and these programs are responsible for $189B of the reported $296B of cost growth. Frankly, in many areas, mainly by omission, the report is highly misleading and not helpful in formulating a better way forward.

My recommendation is that the GAO be directed by the Congress to coordinate and correlate their baseline numbers, findings and conclusions with the DoD prior to publication. This will lead to better understanding by the Congress and the public – rather than the various parties talking past each other because of differing baselines of comparison.

My second recommendation deals with stability. Even in an inherently unstable environment, every effort needs to be made to

maintain stability in DoD programs. This includes stability in requirements, funding, personnel, schedule and all other factors that affect program performance. Requirements' stability is clearly the responsibility of the DoD, and AT&L leadership has made specific recommendations to the SECDEF. DoD also has some of the budget responsibility, and there is now a senior working board, designated the Deputy's Advisory Working Group – the DAWG - to provide continuous oversight of program status and budget planning.

However, each year, Congress must ultimately approve each program line item request by the DoD, and it is not unusual for Congress to modify these requests year-to-year. Even small funding changes can have an outsized impact on all aspects of program performance. Further, it is essential for these complex weapons programs to have management reserve in order to efficiently respond to changes and challenges during the execution year. However, the Executive Branch and the Congress frequently cut management reserve funds from program budgets – requiring perfect execution. Many have noted that the lack of a dollar at the right point in a development program can cost 3-5 dollars in later development stages and 8-10 dollars in the early production stages.

In this regard, greater budget flexibility would be helpful. Reprogramming has not kept pace with inflation and is not timely for efficient program execution. With an 18- month budget cycle, DoD is required to take added risk at program start. Otherwise the Department would be severely hamstrung in meeting and defeating quickly changing threats.

Regarding management and oversight, the acquisition structure is far too burdensome. Perhaps counterintuitive, as systems become more complex, managers need more flexibility. Across DoD, management structures and processes need to be simplified, and Congress needs to assist by relaxing documentation and reporting

requirements. A fundamental problem today is that our program managers spend the majority of their time defending the current budget request before four committees and staff, running cut drills regarding reductions in future outyear budgets, and producing documentation that does not contribute to program speed or success. We need to let program managers spend the majority of their time proactively managing programs.

In almost all production programs, cost decreases as rate increases. Unfortunately, many large DoD programs are executed at less than economic order quantities. This can result from too many programs chasing too few dollars or budget priorities shifting after a program is initiated. One recommendation is to change the multi-year criteria. Multi-year contracts provide stability by forcing program budget stability on the contractor, the DoD and the Congress. However, to obtain a multi-year award, a program today needs to identify savings.

I recommend that programs become candidates for multi-year award as a management approach to force stability into DoD programs. Frankly, we even need to consider multi-year development awards for needed weapon systems to provide funding stability.

Mr. Chairman, acquisition reform is a complex issue, and I have offered a few thoughts to hopefully stimulate thinking. My last recommendation is not to add another layer of oversight and reporting as that will have a negative result. Ultimately, the efficiency and effectiveness of any institution is about the quality of its people. I would concentrate on providing an environment for highly qualified and experienced people to work in defense acquisition.

Secretary Gates has called for increasing the size of DoD's professional acquisition workforce over time. The flexibilities inherent in the National Security Personnel System will allow him to facilitate that necessary expansion.

Mr. Chairman, thank you for the opportunity to express my views.
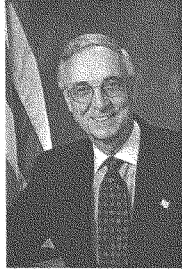
Gordon England is now President of E6 Partners LLC, a firm specializing in international business.

Previously, Mr. England served as the 29th Deputy Secretary of Defense. He also served as the 72nd and 73rd Secretary of the Navy and as the first Deputy Secretary of the Department of Homeland Security.

Prior to joining the federal government, Mr. England served as President of the General Dynamics Fort Worth Aircraft Company (later Lockheed), President of the General Dynamics Land Systems Company and as corporate Executive Vice President of General Dynamics Information Systems and Technology Sector, Ground Combat Systems Sector and the International Sector. His business career spanned over 40 years as an engineer and senior executive.

A native of Baltimore, Mr. England graduated from the University of Maryland in 1961 with a bachelor's degree in electrical engineering. In 1975 he earned a master's degree in business administration from the M.J. Neeley School of Business at Texas Christian University and is a member of business, engineering and leadership honor societies.

Mr. England has served in a variety of civic, charitable and government organizations, including serving as a city councilman; Vice Chair, national Board of Goodwill, International; the USO's Board of Governors; the Defense Science Board; the Board of Visitors at Texas Christian University; and many others.
He has been recognized for numerous professional and service contributions by multiple universities and organizations.

March 2009

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DISCLOSURE FORM FOR WITNESSES
CONCERNING FEDERAL CONTRACT AND GRANT INFORMATION

INSTRUCTION TO WITNESSES: Rule 11, clause 2(g)(4), of the Rules of the U.S. House of Representatives for the 111th Congress requires nongovernmental witnesses appearing before House committees to include in their written statements a curriculum vitae and a disclosure of the amount and source of any federal contracts or grants (including subcontracts and subgrants) received during the current and two previous fiscal years either by the witness or by an entity represented by the witness. This form is intended to assist witnesses appearing before the House Armed Services Committee in complying with the House rule.

Witness name: _Gordon England_

Capacity in which appearing: (check one)

_✓_ Individual

___ Representative

NOTE DoD employee during this 3 year period

If appearing in a representative capacity, name of the company, association or other entity being represented:_____

FISCAL YEAR 2009

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
	NONE		

FISCAL YEAR 2008

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
	NONE		

FISCAL YEAR 2007

Federal grant(s)/ contracts	federal agency	dollar value	subject(s) of contract or grant
		None	

Federal Contract Information: If you or the entity you represent before the Committee on Armed Services has contracts (including subcontracts) with the federal government, please provide the following information:

Number of contracts (including subcontracts) with the federal government:

Current fiscal year (2009):_____
Fiscal year 2008:_____;
Fiscal year 2007:_____;

Federal agencies with which federal contracts are held:

Current fiscal year (2009):_____;
Fiscal year 2008:_____;
Fiscal year 2007:_____.

List of subjects of federal contract(s) (for example, ship construction, aircraft parts manufacturing, software design, force structure consultant, architecture & engineering services, etc.):

Current fiscal year (2009):_____;
Fiscal year 2008:_____;
Fiscal year 2007:_____.

Aggregate dollar value of federal contracts held:

Current fiscal year (2009):_____;
Fiscal year 2008:_____;
Fiscal year 2007:_____.

None

5/28/09

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Federal Grant Information: If you or the entity you represent before the Committee on Armed Services has grants (including subgrants) with the federal government, please provide the following information:

Number of grants (including subgrants) with the federal government:

    Current fiscal year (2009):_____;
    Fiscal year 2008:_____;
    Fiscal year 2007:_____.

Federal agencies with which federal grants are held:

    Current fiscal year (2009):_____;
    Fiscal year 2008:_____;
    Fiscal year 2007:_____.

List of subjects of federal grants(s) (for example, materials research, sociological study, software design, etc.):

    Current fiscal year (2009):_____;
    Fiscal year 2008:_____;
    Fiscal year 2007:_____.

Aggregate dollar value of federal grants held:

    Current fiscal year (2009):_____;
    Fiscal year 2008:_____;
    Fiscal year 2007:_____.

None

Written Statement of Admiral Edmund P. Giambastiani, Jr., USN(ret)
Former Vice Chairman of the Joint Chiefs of Staff
HASC Panel on Acquisition Reform
June 3, 2009

Chairman Andrews and Ranking Member Conaway, thanks for inviting me to participate in this important hearing on "Coordinating Requirements, Budgets, and Acquisition" before the Committee on Armed Services Defense Acquisition Reform Panel.

It feels like old times again being able to testify along with my former shipmates and great Americans Gordon England and LtGen Ron Kadish. The last time the three of us appeared together on this subject was September 2005 before the Senate Armed Services Committee. Both Secretary England and I were new in our jobs, he as the Deputy Secretary and I as the Vice Chairman of the Joint Chiefs of Staff. General Kadish had already retired from active duty and was working on his report titled "Defense Acquisition Performance Assessment" at the time.

I'm very pleased that you and your panel are focusing on the three legs of the acquisition "stool" so to speak – "Requirements, Budgets and Acquisition". My 41 years in uniform, my new experiences in the commercial world delivering defense capability and my continued public service on Federal Advisory panels dealing with acquisition reform have reinforced time and time again the importance of addressing all three legs in a coherent and integrated fashion from program inception through life cycle management through to equipment disposal. Unfortunately over the years, I've found that all too often organizations, managers, panels and reviews focus almost exclusively on one or two of the legs only to find out that it takes an integrated approach to ultimately achieve success.

A fundamental premise on which our success will be based is a consistent, coherent and well-informed risk management approach to

requirements, budgets and acquisition. In each of these three "legs of the stool", I would emphasize – and then re-emphasize – affordability, stability and simplicity.

Let me speak to Requirements first.

The development and validation of military requirements is a process I have been personally involved with since my first command on Submarine NR-1 and has been an aspect of my work as a naval officer and as a Joint and Allied Commander ever since. Getting the Requirements right up front is, in my opinion, at least 50% of the way to success in an acquisition program. And affordability(cost), stability and simplicity are essential to an executable set of requirements.

On the affordability front, we need to give the military officers who are tasked with defining the requirements more and better insights into the cost drivers in the requirements they are defining. As Chairman of the Joint Requirements Oversight Council, working with my colleagues from the Services, we established and insisted on a "cost driver analysis" whenever we validated the requirements for a major new program, when we revisited a program for a major acquisition milestone review, and when we conducted the statutory Nunn-McCurdy reviews. Additionally, after I became Vice Chairman, I instituted the following cost related requirements reviews in all JROC approval documents: "Should the __XXX_____ encounter costs exceeding ten percent of the approved acquisition program baseline (Program Acquisition Unit Cost/Acquisition Procurement Cost), they shall return to the JROC prior to reprogramming or budgeting additional funding into the program." These actions allowed us to see where the fiscal "handles and levers" were in the program and, where necessary, we could "dial back the cost rheostat" without sacrificing what was crucial to the warfighter. Now it's important to recognize that these costing features were not built into the requirements process prior to 2006.

I learned this early on in my tenure as Vice Chairman when we had to revisit and scale back the requirements for the Joint Tactical Radio System (JTRS) and the National Polar-orbiting Operational Environmental Satellite System (NPOESS). Working with our acquisition professionals, we quickly identified the key cost drivers and then worked with the warfighters and others outside the Department of Defense to re-craft the requirements to meet not all but a good portion of their capability needs in a more affordable fashion.

On the stability front, it should not be news to anyone here that setting unrealistic requirements during program definition and subsequent "requirements creep" are major causes of failing programs. Let me state up front, that, in almost all cases, I believe that delivering the 80 or 90% solution on time, with a life cycle maintenance plan allowing for future growth, is far superior to attempting to deliver a 100% or 120% solution (which varies over time and in many cases is based on immature technologies at best) at some more distant – and usually continually receding - point in the future. Establishing realistic requirements in consultation with the warfighter and industry at program inception is absolutely essential for success. In a nutshell – don't let the perfect be the enemy of the good – because you will never get the "perfect" program. More on this in a moment.

Stabilizing requirements is tough – we all see how a program could be better if only we could incorporate the latest technology or some additional capacity. And in many cases, the levers driving "requirements creep" are well below the "radar horizon" of senior leaders. Simply stated, responsible leaders such as those on the JROC and those developing service requirements must be ruthless in holding the line on requirements growth over the life of a program. Otherwise acquisition program managers are at the mercy of constantly moving goalposts.

Which leads me to my last point of simplicity. We have done best, in my view, in programs which started simple, got the basic platform right and built in the capacity for organic growth over the program life cycle.

Examples abound: F/A-18 E/F/G; the F-16 series; the DDG-51 ARLEIGH BURKE Class destroyer; the LOS ANGELES Class and the VIRGINIA Class Submarines — each of which progressively incorporated more capable flights or blocks into the programs based on maturing technologies. And finally, I would cite the Advanced Rapid COTS Insertion Program (ARCI), which built in technology and software refreshes on periodicities to match commercial IT development cycles. In each of these programs, we got needed capability NOW and we built in the ability to enhance those capabilities FOR THE FUTURE. So, start as simply as you can and plan to build in more sophisticated capabilities as technological opportunities emerge from concept development, from a capable technology insertion program and from military experimentation.

On the Budget and Resources leg of the stool, stability of funding is the paramount virtue.

Stability reduces risk. Stability incentivizes industry innovation, investment in facilities and R&D. Stability allows purchases in economic order quantities. Stability produces a "virtuous circle" of good industry and government behaviors that result in acquisition success. And this stability must be maintained at every level of decision-making – from the Service Chief, through the Secretary of Defense and the President to the Congress. It also requires greater use of multi year buys and other appropriations techniques in the Congressional budget process that emphasize stability. We have a saying in the Pentagon that I learned many years ago—"budgets don't have memories". In order to add a memory to the process, multi year buys are important risk reduction techniques for both the government and industry. And more importantly, a way for the taxpayer to save in the long run while delivering the capability the warfighter needs. I recognize these techniques are not always popular on Capitol Hill, but they are crucial to program success. Stability is important.

I would also laud the virtue of affordability, but from a different perspective. In my view, instability in budgets in many cases is a result of improper pricing. We almost always underestimate program costs in the Future Years Defense Program, so we can fit more programs inside a constrained top-line. This turns out to be penny wisdom and pound foolishness. In all of the Services and in OSD as well, we now can benefit from a cadre of cost estimators – or what I like to call "cost engineers" – who can price out a program with an increasingly accurate level of fidelity and granularity. As the Director of Submarine Warfare and as the Navy's chief budgeteer and programmer, I insisted that programs be costed at the "cost engineer's" baseline – not at the Program Manager's projections. It was painful up front, but it allowed stability over the long haul, and that was worth the investment.

Let me finish with a few words on the Acquisition leg of the stool. I think we have developed some fabulous tools to monitor and review acquisition programs as they mature and I think we need to build on them. Again, affordability, simplicity and stability are key.

In our reviews of acquisition programs over the years, we can now assess key "readiness levels" of the acquisition community and the industrial base well before a program moves from requirements development to acquisition execution. In particular, I have found assessing "technology readiness levels" and "manufacturing readiness levels" and then basing both requirements and acquisition decisions on these assessments to be roads to success. If any of these levels are too low, then you need to either dial back the "requirements rheostat" OR invest in risk mitigation R&D up front OR identify "acquisition off-ramps" to pre-approved programmatic variants if your risk mitigation strategies fail. To do otherwise raises the overall program risk - meaning time and money - to unacceptable levels.

A healthy continuing conversation up front on these issues between the acquisition community and the military requirements generation community generally produces the optimum acquisition strategy – and

helps allow for stability and affordability in that strategy. Oftentimes this conversation is best held in a rigorous Concept Development phase in the acquisition life cycle, where all of these "readiness levels" can be tested and pushed and prodded on one side – and where military concepts of operations and the requirements that flow from them can be modified in sensible ways to generate affordable capabilities through executable programs.

Thank you again for the opportunity to share some of my thoughts on this critical topic. I look forward to working with the committee regarding your recently passed legislation. If I can leave you with a three-word mantra to guide your continuing deliberations and your eventual recommendations regarding the "three legged stool", it would be affordability, stability and simplicity.

Edmund P. Giambastiani Jr.
Admiral, United States Navy (Ret.)

Admiral Giambastiani joined Alenia North America, Inc. in January of 2008 as Chairman of the Board of Directors. In addition, he serves as a director of SRA International, Inc., Monster Worldwide, Inc., the Atlantic Council of the United States and the QinetiQ Group plc in the United Kingdom. He is also a member of the Board of Trustees of the MITRE Corporation and a member of the Guiding Coalition for the Congressionally mandated Project on National Security Reform. He also consults independently with a variety of companies.

In his public work on national security issues, Admiral Giambastiani most recently served as a member of the Secretary of Defense Task Force on DoD Nuclear Weapons Management. This task force recommended necessary improvements and measures to enhance deterrence and international confidence in the U.S. nuclear deterrent. He is a member of the Defense Science Board, the Secretary of the Navy Advisory Panel, the National Security Agency Advisory Board and the Secretary of State's International Security Advisory Board.

A career nuclear submarine officer, Admiral Giambastiani retired from active duty on October 1, 2007. In his last assignment, he served as the nation's seventh Vice Chairman of the Joint Chiefs of Staff and its second highest ranking military officer.

During his tenure as Vice Chairman, Admiral Giambastiani worked with the Secretary and Deputy Secretary of Defense and other senior defense leaders to draft and implement the 2006 Quadrennial Defense Review. Admiral Giambastiani chaired the Joint Requirements Oversight Council, focusing on the emergent capability needs of the Combatant Commanders as well as the long-term future requirements of the Services. He co-chaired the Deputies Advisory Working Group and the Defense Acquisition Board and was a member of the National Security Council's Deputies Committee and the Nuclear Weapons Council.

Throughout his career, Admiral Giambastiani held extensive operational and staff assignments including command at the submarine, squadron, fleet, joint combatant command and allied strategic command levels. He has extensive experience leading organizations dedicated to military innovation and experimentation. Prior to his tenure as Vice Chairman, he served as the Senior Military Assistant to the Secretary of Defense; as Commander, United States Joint Forces Command (CDR USJFCOM); and, as NATO's first Supreme Allied Commander Transformation. As CDR USJFCOM, Admiral Giambastiani exercised combatant command over approximately 1.1 million Army, Navy, Air Force and Marine Corps servicemembers and was responsible for advancing joint concepts, experimentation, training and interoperability. During his tenure as the Chief of Naval Operations' Director of Submarine Warfare, he and his staff led the successful launch of the VIRGINIA Class attack submarine and the Acoustic Rapid COTS Insertion Programs and laid the groundwork for the conversion of 4 OHIO Class ballistic missile submarines to their new role as guided missile and Special Operating Force platforms.

A native of Canastota, New York, Admiral Giambastiani graduated from the U.S. Naval Academy in 1970 with leadership distinction.

DISCLOSURE FORM FOR WITNESSES
CONCERNING FEDERAL CONTRACT AND GRANT INFORMATION

INSTRUCTION TO WITNESSES: Rule 11, clause 2(g)(4), of the Rules of the U.S. House of Representatives for the 111th Congress requires nongovernmental witnesses appearing before House committees to include in their written statements a curriculum vitae and a disclosure of the amount and source of any federal contracts or grants (including subcontracts and subgrants) received during the current and two previous fiscal years either by the witness or by an entity represented by the witness. This form is intended to assist witnesses appearing before the House Armed Services Committee in complying with the House rule.

Witness name: _GIAMBASTIANI, Edmund T. Jr._

Capacity in which appearing: (check one) *Admiral, USN (ret)*

_X_ Individual

___ Representative

If appearing in a representative capacity, name of the company, association or other entity being represented:_____ *N/A* _____

FISCAL YEAR 2009

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
N/A			

FISCAL YEAR 2008

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
N/A			

FISCAL YEAR 2007

Federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
N/A			

Federal Contract Information: If you or the entity you represent before the Committee on Armed Services has contracts (including subcontracts) with the federal government, please provide the following information:

Number of contracts (including subcontracts) with the federal government:

Current fiscal year (2009): N/A ;
Fiscal year 2008: ;
Fiscal year 2007: .

Federal agencies with which federal contracts are held:

Current fiscal year (2009): N/A ;
Fiscal year 2008: ;
Fiscal year 2007: .

List of subjects of federal contract(s) (for example, ship construction, aircraft parts manufacturing, software design, force structure consultant, architecture & engineering services, etc.):

Current fiscal year (2009): N/A ;
Fiscal year 2008: ;
Fiscal year 2007: .

Aggregate dollar value of federal contracts held:

Current fiscal year (2009): N/A ;
Fiscal year 2008: ;
Fiscal year 2007: .

2

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Number of grants (including subgrants) with the federal government:

Current fiscal year (2009):____None_____;
Fiscal year 2008:_____None_____;
Fiscal year 2007:_____None_____.

Federal agencies with which federal grants are held:

Current fiscal year (2009):____None_____;
Fiscal year 2008:_____None_____;
Fiscal year 2007:_____None_____.

List of subjects of federal grants(s) (for example, materials research, sociological study, software design, etc.):

Current fiscal year (2009):_____None_____;
Fiscal year 2008:_____None_____;
Fiscal year 2007:_____None_____.

Aggregate dollar value of federal grants held:

Current fiscal year (2009):_____None_____;
Fiscal year 2008:_____None_____;
Fiscal year 2007:_____None_____.

Written Statement of Ronald T Kadish, LTG, USAF(Ret)
HASC Panel on Acquisition Reform
June 3, 2009

Chairman Andrews, thank you for the opportunity to participate in this hearing before the Defense Acquisition Reform Panel of the Committee on Armed Services in regard to coordinating requirements, budgets and acquisition.

In my 34 year career in the US Air Force I had the opportunity to manage or lead major defense programs in various stages of their life cycle. These included the F-16, F-15, C-17, and all the missile defense programs. I also commanded the Electronic systems Center for the AF and the Missile Defense Agency for DOD. In all these assignments, I studied and operated in the DOD acquisition system. After I retired, Secretary England chartered a review of the system called the Defense Acquisition Performance Assessment (DAPA) which I had the honor of Chairing.

Mr. Chairman, I would request that the DAPA report be made part of the record of this hearing.

Today, I'd like to discuss some of what we found during that Assessment and offer some thoughts based on my experience as a program manager for your consideration.

If there is one central theme surrounding the subject of Acquisition reform, it is that we've been unsatisfied with the system for many years because we cannot consistently meet expectations. As an unintended consequence, in an effort to improve the system we have made it exceeding complex. Many studies and commissions have been charted to improve the acquisition process, but the problems still persist.

The DAPA report goes into great detail on these issues, but I would like to highlight three ideas—the notion of complexity, its consequent instability and the value of time.

1

The system today is extremely complex and almost unintelligible to most observers and participants. Because it is so complex. critics are able to point to increasing costs that are seemingly out of control to indict the system. Aside from sensational nature of the criticism surrounding the cost, the problems are persistent and systemic.

The Acquisition System is supposed to be a simple construct that efficiently integrates the three interdependent processes of budget, acquisition and requirements. Most efforts at reform have targeted just the acquisition process and do not address the larger acquisition system elements which include the budget and requirements areas.

Actually, our observations showed the system to be a highly complex mechanism that is fragmented in its operation. Further, the findings we developed indicated that differences in the theory and practice of acquisition.

Divergent values among the acquisition community, and changes in the security environment have driven the requirements, acquisition and budget processes further apart and have inserted significant instability into the Acquisition System. This divergence has spawned essentially two systems—a wartime system focused on rapid procurements and a peacetime system for everything else.

In theory, new weapon systems are delivered as the result of the integrated actions of the three interdependent processes whose operations are held together by the significant efforts of the organizations, workforce, and the industrial partnerships that manage them.

In practice, however, these processes and their practitioners often operate independent of one another. Uncoordinated changes in each of the processes often cause unintended negative consequences that magnify the effects of disruptions in another area.

In unstable acquisition processes, owners and practitioners take actions without considering the impact the actions will have on the entirety of

the system. Requirement developers mandate systems that are technologically unrealistic or unable to be delivered within the "time-to-need" that is desired by Combatant Commanders.

Program teams allow requirements to escalate without discipline, thereby driving costs beyond baseline budget and schedule. Those who hold the budget purse strings in the Department of Defense look dispassionately on the Acquisition System and reduce annual program budgets to fit within the "top-line" of the President's Budget by trading off some programs to "fix" others. Then Congress makes changes based on authorization and appropriations cycle.

This creates a cycle of government-induced instability that results in a situation in which senior leaders in the Department of Defense and Congress are unable to anticipate or predict the outcome of programs as measured by cost, schedule and performance.

When defense and congressional leaders are "surprised" by unanticipated cost overruns, and failure to meet expected schedule and system performance, they lose confidence in a system that is expected to be transparent and consistent to provide promised capabilities. Leaders and staffs at all levels react by becoming more involved, applying more oversight and often making budget, schedule or requirements adjustments that significantly lengthen development and production cycles and add cost. In other words introduce even more complexity.

Complex and asynchronous acquisition processes do not promote success-- they increase cost and schedule. Anything we can do to introduce more stability into the system would be helpful.

Any improvement in process should be tested against three criteria. First, will the suggested improvement reduce the complexity of the system? Second, will it make the programs more stable and, third, will it reduce the time required to produce the outcome?

I believe that process improvements and oversight alone will not solve this problem and in fact could make it worse by making it even more complex. Incremental improvement applied solely to the acquisition process requires the budget and requirements processes to be stable - they are not. Improvements must apply across the entirety of the Acquisition system and to all stakeholders.

Time is costly. We should be less tolerant of lengthy acquisition programs and where the technology demands more time, we should have interim milestones that show progress. If we had more of a focus on time, we could cancel programs that are not performing and start over and still be better off in the end.

If process is not the solution, people and the decisions they make are. The job of the people involved is extremely difficult and demanding. In the end, good decisions make a program successful. We need to support and encourage those responsible for these tough decisions by making the system less complex and more stable while introducing a sense of urgency to the task.

In summary, we must remember, despite these problems the systems we have put in the field are the best in the world. But there is no guarantee that this will be the case in the new security environment of this new century. Our interest in reform should be to make sure we maintain that edge and not make the system even more complex, unstable and lengthy in the name of efficiency.

Thank you Mr. Chairman.

LIEUTENANT GENERAL RONALD T. KADISH, USAF (Ret)

Lieutenant General (Retired) Ronald T. Kadish is Vice President and Partner, in the Aerospace Marketing Group, Booz-Allen Hamilton, Inc. Mr. Kadish joined Booz Allen on February 15, 2005. Since joining Booz Allen, Mr. Kadish has distinguished himself individually as Panel Chairman of the Defense Acquisition Performance Assessment (DAPA), examining the strengths and deficiencies the current defense acquisition process. The DAPA commissions recommendations for structural changes and other improvements to the defense acquisition process were published January 27, 2006.

Before his retirement from the Air Force in 2004, Lieutenant General Ronald T. Kadish was the director of the Missile Defense Agency (MDA), Office of the Secretary of Defense, Pentagon, Washington, DC. As director, General Kadish was the Acquisition Executive for all Ballistic Missile Defense systems and programs.

The general entered the Air Force in 1970 after graduating from the Reserve Officer Training Corps program at St. Joseph's University. He was the Program Director for the F-15, F-16 and C-17 system program offices, as well as Director for Manufacturing and Quality Assurance for the B-1 System Program Office. He is a senior pilot with more than 2,500 flying hours, principally in the C-130. Before assuming his current position, he commanded the Electronic Systems Center. The general was responsible for the Air Force's Center of Excellence for command and control systems, handling more than $3 billion in programs annually.

EDUCATION
1970 Bachelor of Science degree in chemistry, St. Joseph's University, Philadelphia, Pa.
1975 Master's degree in business administration, University of Utah
1975 Squadron Officer School, Maxwell Air Force Base, Ala.
1981 Distinguished graduate, Air Command and Staff College, Maxwell AFB, Ala.
1988 Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C.
1990 Defense Systems Management College, Fort Belvoir, Va.

ASSIGNMENTS
1. June 1970 - June 1971, student, undergraduate pilot training, Vance AFB, Okla.
2. June 1971 - June 1974, C-130E pilot and instructor pilot, 62nd Tactical Airlift Squadron, Little Rock AFB, Ark.
3. June 1974 - June 1976, wing operations staff officer, 314th Tactical Airlift Wing, Little Rock AFB, Ark.
4. June 1976 - June 1977, Air Force Institute of Technology's Education-with-Industry, Vought Corp., Dallas, Texas
5. July 1977 - August 1980, subsystem co-production officer, F-16 System

Program Office, Aeronautical Systems Division, Wright-Patterson AFB, Ohio
6. August 1980 - June 1981, student, Air Command and Staff College, Maxwell AFB, Ala.
7. June 1981 - March 1982, C-130E instructor pilot, 37th Tactical Airlift Squadron, Rhein-Main Air Base, West Germany
8. April 1982 - January 1983, wing and base Chief, Aircrew Standardization and Evaluation Division, 435th Tactical Airlift Wing, Rhein-Main AB, West Germany
9. January 1983 - July 1984, operations officer, 37th Tactical Airlift Squadron, Rhein-Main AB, West Germany
10. July 1984 - September 1985, Director for Manufacturing and Quality Assurance, B-1 System Program Office, Aeronautical Systems Division, Wright-Patterson AFB, Ohio
11. September 1985 - July 1987, executive to the Commander, Aeronautical Systems Division, Wright-Patterson AFB, Ohio
12. July 1987 - June 1988, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C.
13. June 1988 - July 1989, Chief, Program Integration Division, Office of the Secretary of the Air Force for Acquisition, Washington, D.C.
14. July 1989 - May 1990, military assistant to the Assistant Secretary of the Air Force for Acquisition, Office of the Secretary of the Air Force for Acquisition, Washington, D.C.
15. May 1990 - September 1990, student, Defense Systems Management College, Fort Belvoir, Va.
16. September 1990 - August 1992, F-15 Program Director, Aeronautical Systems Center, Wright-Patterson AFB, Ohio
17. August 1992 - September 1993, F-16 Program Director, Aeronautical Systems Center, Wright-Patterson AFB, Ohio
18. October 1993 - August 1996, Program Director, C-17 System Program Office, Aeronautical Systems Center, Wright-Patterson AFB, Ohio
19. August 1996 - June 1999, Commander, Electronic Systems Center, Hanscom AFB, Mass.
20. June 1999 - January 2002, Director, Ballistic Missile Defense Organization, Department of Defense, the Pentagon, Washington, D.C.
21. January 2002 - present, Director, Missile Defense Agency, Department of Defense, the Pentagon, Washington, D.C.

FLIGHT INFORMATION
Rating: Senior pilot
Flight hours: More than 2,500
Aircraft flown: C-130

MAJOR AWARDS AND DECORATIONS
Defense Distinguished Service Medal with oak leaf cluster
Distinguished Service Medal
Legion of Merit

Meritorious Service Medal with three oak leaf clusters
Air Medal
Air Force Commendation Medal with two oak leaf clusters
Air Force Outstanding Unit Award
Air Force Organizational Excellence Award with three oak leaf clusters
Combat Readiness Medal
Air Force Recognition Ribbon
National Defense Service Medal with two bronze stars
Air Force Overseas Ribbon - Long
Air Force Longevity Service Award Ribbon with silver and bronze oak leaf
clusters
Small Arms Expert Marksmanship Ribbon
Air Force Training Ribbon

EFFECTIVE DATES OF PROMOTION
Second Lieutenant June 3, 1970
First Lieutenant Dec. 14, 1971
Captain Dec. 14, 1973
Major Nov. 28, 1979
Lieutenant Colonel March 1, 1985
Colonel Sept. 1, 1989
Brigadier General Sept. 1, 1993
Major General Oct. 1, 1995
Lieutenant General Aug. 16, 1996

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**DISCLOSURE FORM FOR WITNESSES
CONCERNING FEDERAL CONTRACT AND GRANT INFORMATION**

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Witness name: _____ **Ronald T. Kadish, LGen USAF (Ret)** _____

Capacity in which appearing: (check one)

__X_Individual

____Representative

If appearing in a representative capacity, name of the company, association or other entity being represented: _____

FISCAL YEAR 2009

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			

FISCAL YEAR 2008

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			

FISCAL YEAR 2007

Federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			
N/A			

Federal Contract Information: If you or the entity you represent before the Committee on Armed Services has contracts (including subcontracts) with the federal government, please provide the following information:

Number of contracts (including subcontracts) with the federal government:

      Current fiscal year (2009):_____ None_____;
      Fiscal year 2008:_____ None_____;
      Fiscal year 2007:_____ None_____.

Federal agencies with which federal contracts are held:

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      Fiscal year 2008:_____ None_____;
      Fiscal year 2007:_____ None_____.

List of subjects of federal contract(s) (for example, ship construction, aircraft parts manufacturing, software design, force structure consultant, architecture & engineering services, etc.):

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      Fiscal year 2008:_____ None_____;
      Fiscal year 2007:_____ None_____.

Aggregate dollar value of federal contracts held:

      Current fiscal year (2009):_____ None_____;
      Fiscal year 2008:_____ None_____;
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Fiscal year 2007:_____None_____.

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Fiscal year 2008:_____None_____;
Fiscal year 2007:_____None_____.

List of subjects of federal grants(s) (for example, materials research, sociological study, software design, etc.):

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Fiscal year 2008:_____None_____;
Fiscal year 2007:_____None_____.

Aggregate dollar value of federal grants held:

Current fiscal year (2009):_____None_____;
Fiscal year 2008:_____None_____;
Fiscal year 2007:_____None_____.

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DOCUMENTS SUBMITTED FOR THE RECORD

JUNE 3, 2009

A Report by the Assessment Panel of the

Defense Acquisition Performance Assessment Project

For the Deputy Secretary of Defense

Defense Acquisition Performance Assessment

Report

January 2006

Panel

Lieutenant General Ronald Kadish, USAF (Ret)
Panel Chairman

Dr. Gerald Abbott
Mr. Frank Cappuccio
General Richard Hawley, USAF (Ret)
General Paul Kern, USA (Ret)
Mr. Donald Kozlowski

Advisors

Dr. Francis W. Ahearn
Dr. Linda S. Brandt
Ms. Judy A. Stokley
Mr. Alfred G. Hutchins, Jr.

Staff

Mr. J. David Patterson, Project Director
Ms. K. Eileen Giglio, Deputy Project Director
Colonel Alan Boykin, USAF, Director of Staff
Ms. Juli R. Branson, Editor
Ms. Protean Gibril, Graphics Support
Ms. Colleen Wiatt, Graphics Support
Mr. Carl Berry, Graphics Support

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Defense Acquisition Performance Assessment Project

The Honorable Gordon England

You assigned us a difficult and complex task – and we believe that we have met your challenge. After six months and much public and private deliberation, we reached complete consensus about the performance assessments and the performance improvements that are reflected in this report. I want to make sure you understand that we are not suggesting that these recommendations will result in immediate budget savings. This effort was focused on making better decisions and benefiting from getting things done quicker and more efficiently.

Although our Acquisition System has produced the most effective weapon systems in the world, leadership periodically loses confidence in its efficiency. Multiple studies and improvements to the Acquisition System have been proposed – all with varying degrees of success. Our approach was broader than most of these studies. We addressed the "big A" Acquisition System because it includes all the management systems that DoD uses not only the narrow processes traditionally thought of as acquisition The problems DoD faces are deeply imbedded in the "big A" management systems not just the "little a" processes. We concluded these processes must be stable for incremental change to be effective -- they are not.

We propose sweeping changes to dramatically improve the Department's ability to stabilize and integrate key elements of the Acquisition System–organization, workforce, budget, requirements, acquisition and industry. We also recognize the potential for unintended consequences of such changes. Therefore, we recommend "strategic gaming" during the implementation process. A valuable library of materials and data bases, that have resulted from our review, will be available to the Acquisition Community through the Defense Acquisition University.

I am grateful to my colleagues on the Panel and our very competent staff for their expertise and their commitment to this project. With the submission of this report we will officially stand down. However, we are ready individually, as well as collectively, to brief and explain our report in any forum you deem necessary.

Thank you for the opportunity to serve and contribute to this important effort.

Sincerely,

Ronald T. Kadish
Chairman

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DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

JUN -- 7 2005

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
COMMANDERS OF THE COMBATANT COMMANDS
ASSISTANT SECRETARIES OF DEFENSE
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
DIRECTOR, OPERATIONAL TEST AND EVALUATION
INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE
ASSISTANTS TO THE SECRETARY OF DEFENSE
DIRECTOR, ADMINISTRATION AND MANAGEMENT
DIRECTOR, PROGRAM ANALYSIS AND EVALUATION
DIRECTOR, NET ASSESSMENT
DIRECTOR, FORCE TRANSFORMATION
DIRECTORS OF THE DEFENSE AGENCIES
DIRECTORS OF THE DOD FIELD ACTIVITIES
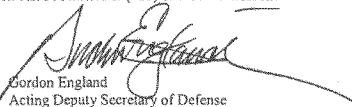
SUBJECT: Acquisition Action Plan

There is a growing and deep concern within the Congress and within the Department of Defense (DoD) Leadership Team about the DoD acquisition processes. Many programs continue to increase in cost and schedule even after multiple studies and recommendations that span the past 15 years. In addition, the DoD Inspector General has recently raised various acquisition management shortcomings.

By this memo, I am authorizing an integrated acquisition assessment to consider every aspect of acquisition, including requirements, organization, legal foundations (like Goldwater-Nichols), decision methodology, oversight, checks and balances – every aspect. The output of this effort, provided to me through the Under Secretary of Defense (Acquisition, Technology and Logistics), will be a recommended acquisition structure and processes with clear alignment of responsibility, authority and accountability. Simplicity is desirable.

This effort will be sponsored by the USAF with Dave Patterson as lead. The first action will be to establish a baseline of recommendations from earlier studies and to integrate all other acquisition reform activities into a single coordinated roadmap. This roadmap will determine the schedule to implementation and will be delivered to the DoD Leadership team within 30 days.

Restructuring acquisition is critical and essential. Accordingly, kindly cooperate fully with Dave in this assignment. Dave Patterson can be reached at (703) 695-8777. Thanks.

Gordon England
Acting Deputy Secretary of Defense

OSD 10870-05

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Foreword

On the surface, defense acquisition appears to have little in common with commercial acquisition. For starters, defense acquisition occurs in a monopsony. Further, it is replete with mini-monopolies. (From how many places could one have purchased, say, an additional B-2?) Defense acquisition also operates in a governmental system that intentionally traded optimal efficiency for strong checks and balances – such as those implicit in separating the Legislative and Administrative branches. Nonetheless, there are certain fundamentals of sound management which are applicable virtually everywhere, including in the defense acquisition process. They are just much more difficult to apply in government, where the stakes are higher, authority less hierarchical, and the spotlight much brighter.

The problems in defense acquisition – and there are many – tend to be widely misunderstood. Outright dishonesty, for example, is extraordinarily rare...but when it occurs its impact is particularly devastating. Over the years, toilet seats, coffee pots and screwdrivers have also received an abundance of ink, but they are not the problem either.

A number of studies of the defense acquisition process have been conducted since the genre was born with the Hoover study in 1949. There is remarkable agreement as to the problems which need to be addressed. The difficulty resides in having the will to do anything about those problems.

Gil Fitzhugh's study in 1966 observed that a fundamental problem is that everyone is responsible for everything and no one is responsible for anything. Dick DeLauer's study in the 1970's concluded that the problem was "turbulence" – perpetually changing budgets, schedules, requirements and people. Dave Packard's somewhat more recent study pointed to the shortage of experienced managers as the root cause of many problems. And in a particularly indiscreet moment, I once described the defense acquisition process as "the epoxy that greases the wheels of progress."

But it is important to note that in spite of such criticisms, the Department of Defense's acquisition process has provided our armed forces with the equipment that is the envy of the world's military forces. It's just that it could, and should, do even better.

The present review, requested by Secretary England (himself deeply experienced in acquisition management), affords a relatively unique opportunity. Change is almost always the result of a culmination of pressures, and rarely are those pressures greater than today as our nation conducts multiple combat operations, recovers from hurricanes, counters terrorist threats here at home, and endures intense budgetary demands.

Experience suggests that promising areas to look for progress include seeking experienced, capable managers; supporting basic research; starting fewer and finishing more projects; reducing turbulence; assigning clear responsibilities; providing financial reserves; incrementally budgeting to milestones; accepting prudent risks; controlling cost; disciplining requirements; utilizing appropriate contractual and competitive instruments; emphasizing reliability; creating fast-tracks; and, as always, insisting on ethical comportment.

Our nation's military forces may be called upon to fight outnumbered, to fight at great distances from home, and to win with very few casualties. Only with a properly functioning defense acquisition process can this be possible. The present review, as was the case with its predecessors, will ultimately be judged not by how well it identified the problems, or even how well it points to the solutions. It will be judged by what it (the DAPA Project) actually makes happen.

Norman R. Augustine

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Summary

The Context

For nearly 60 years, the Department of Defense has been engaged in a continuous process of self assessment to identify and improve the way it acquires weapons systems. Frequent major acquisition reform initiatives have responded to concerns that acquisition costs are too high, that the Department is buying the wrong things, or that the process is too slow.

The need to review the process and to institute change has become very obvious to the acquisition community. The House and Senate Fiscal Year 2006 Defense Authorization Committee Reports addressed concerns about the ability of the Department's Acquisition System to develop and deliver required capabilities when needed and at predictable costs. The reports further stated that addressing symptoms one program or one process at a time is unlikely to result in substantial improvement. (Figure 1)

Both Congress and the Department of Defense senior leadership have lost confidence in the capability of the Acquisition System to determine what needs to be procured or to predict with any degree of accuracy what things will cost, when they will be delivered, or how they will perform. This was particularly evident during the confirmation hearing before the Senate Armed Services Committee, for Gordon England to become the Deputy Secretary of Defense.

The Task

On June 7, 2005, then Acting Deputy Secretary of Defense Gordon England authorized a sweeping and integrated assessment to consider "every aspect" of acquisition, giving rise to the Defense Acquisition Performance Assessment Project. The centerpiece of this project is a panel governed by the tenets of the Federal Advisory Committee Act of 1972 (Public Law 92-463).

The Deputy Secretary's direction to the panel was unambiguous (Figure 2)

The task assigned to the panel "to consider every aspect of acquisition and to develop a recommended acquisition structure and processes with clear alignment of responsibility, authority and accountability" was difficult and complex. (Figure 2)

Over many years, 128 studies have been done to address perceived problems with the system and to prevent waste, fraud and abuse. Historically, we observed that cost and schedule instability have been a problem in all system acquisitions since the Civil War. We see some of the same issues as problems today that the Packard Commission saw 20 years ago. We asked the obvious question -- why?

We concluded that the problems are deeply imbedded in many of the acquisition management processes that we use in the Department of Defense and not just the traditional procurement processes. We need a radical approach to improvements that can make the Acquisition System better and adapt these improvements to the new security environment of the 21st century. Our acquisition performance assessment process and conclusions are outlined in this report.

Proposing change to improve performance is not without risk. The existing Acquisition System is the product of more than 60 years of continuous focus dedicated to fielding systems with the best possible performance. Despite its flaws, this system has produced some of the finest military equipment that the world has known. It has delivered the foundation for today's military and it has become an important element of U.S. strategic advantage. Therefore, when proposing improvements or modifications to the existing Acquisition System, the potential for unintended

consequences must be considered carefully. But failing to make improvements will have other unintended consequences -- and they are potentially more problematic.

Integrated Assessment

This comprehensive review was conducted to form the basis of our conclusion that integrating all of the elements of the Acquisition System is essential. However, our detailed review was complicated by the absence of a standard, consistent and coherent cost tracking system that is necessary to add clarity to any analysis. We reviewed more than 1,500 documents to establish a baseline of previous acquisition reform recommendations, held open public meetings and operated a web site to obtain public input. We heard from 107 experts, received more than 170 hours of briefings, conducted a detailed survey and interviews of over 130 government and industry acquisition professionals, and subsequently developed 1,069 observations.

From these observations, we identified 42 issue areas upon which to focus our attention. In addition to assessing each of the Defense Acquisition processes and their performance, we developed specific integrated assessments that are grouped into six broad areas: Organization, Workforce, Budget, Requirements, Acquisition and Industry. These assessments resulted in the Panel's proposals for performance improvements and recommendations to establish specific criteria within specific timeframes. (Figure 3)
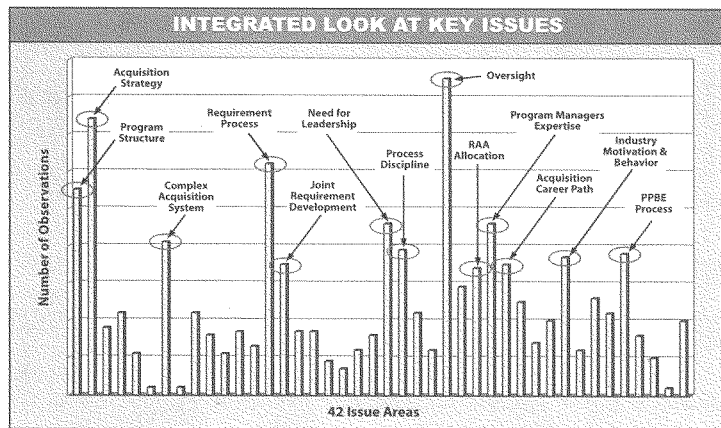
Aggregation analysis helps identify areas of wide-spread interest (Figure 3)

Understanding the Complexity of the Acquisition System
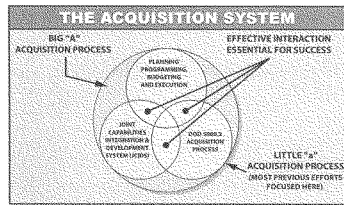
In theory, the requirements, budget and acquisition processes work together (Figure 4)

The Panel found that the Acquisition System is believed to be a simple construct that efficiently integrates the three interdependent processes of budget, acquisition and requirements termed -- "Big A."

Little "a" is the acquisition process that tells us "how to buy" but does not include requirements and budget, creating competing values and objectives. (Figure 4)

Actually, our observations showed the system to be a highly complex mechanism that is fragmented in its operation. Further, the findings we developed indicated that differences in the theory and practice of acquisition, divergent values among the acquisition community, and changes in the security environment have driven the requirements, acquisition and budget processes further apart and have inserted significant instability into the Acquisition System. (Figure 5)
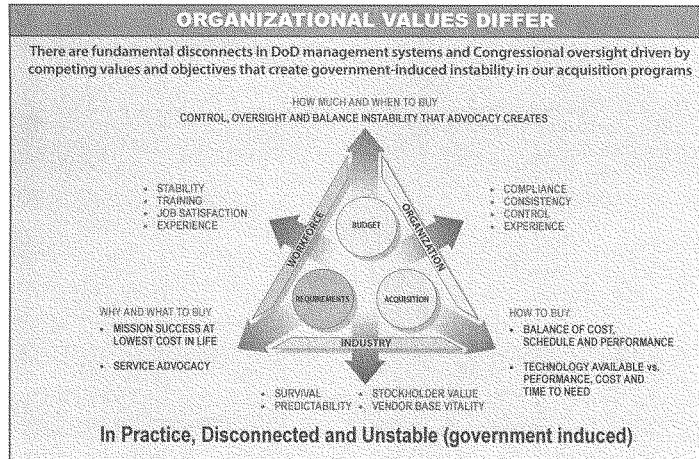
Differing organizational goals and values interfere with Acquisition Process Integration (Figure 5)

In theory, new weapon systems are delivered as the result of the integrated actions of the three interdependent processes whose operations are held together by the significant efforts of the organizations, workforce, and the industrial partnerships that manage them. In practice, however, these processes and practitioners often operate independent of one another. Uncoordinated changes in each of the processes often cause unintended negative consequences that magnify the effects of disruptions in any one area.

Incompatible behaviors often result because organizational values differ among process owners and participants.

- Organizations providing oversight and coordination of "little a" acquisition activities value compliance, consistency of approach and control of program activities.

- The workforce is incentivized by job satisfaction, the opportunity for continuous training and stability in the process.

- The budget process values how much and when to buy and focuses on control and oversight to balance the instability that advocacy creates.

- The requirements process values the "why" and "what to buy", focusing on obtaining the ability to achieve mission success and to protecting the life of the warfighter.

- The "little a" acquisition process values "how to buy," striving to balance cost, schedule and performance.

- For industry, the critical issue is survival, followed by predictability in the defense market segment and achieving stockholder confidence.

While each of these sets of values is legitimate, pursuing them without consideration for their impacts in other processes adds instability to the entire system.

In unstable acquisition processes, owners and practitioners take actions without considering the impact the actions will have on the entirety of the system. Requirement developers mandate systems that are technologically unrealistic or unable to be delivered within the "time-to-need" that is desired by Combatant Commanders. Program teams allow requirements to escalate without discipline, thereby driving costs beyond baseline budget and schedule. Those who hold the budget purse strings in the Department of Defense look dispassionately on the Acquisition System and reduce annual program budgets to fit within the "top-line" of the President's Budget by trading off some programs to "fix" others.

OUR INTEGRATED ASSESSMENT
The Government-Induced Cycle of Instability

Because our major processes are not well integrated:

We have an unrecognized, Government-Induced and long-standing cycle of instability,

which causes unpredictable cost, schedule and performance

that ultimately result in development programs that span 15-20 years with substantial unit cost increases

leading to loss of confidence in the DoD Acquisition Systems

- Budget, Schedule Requirements Adjustments Made
- Budget, and Program Instability
- Unpredictable Program Cost, Schedule, Performance
- More Oversight Applied
- More Intervention
- Leadership Loses Confidence in Acquisition System
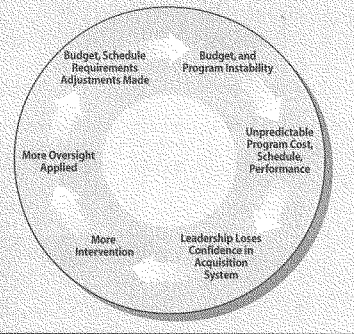
Lack of process and organizational integration induces instability (Figure 6)

This creates a cycle of government-induced instability that results in a situation in which senior leaders in the Department of Defense and Congress are unable to anticipate or predict the outcome of programs as measured by cost, schedule and performance. When defense and congressional leaders are surprised by unanticipated cost overruns, and failure to meet expected schedule and system performance, they lose confidence in a system that is expected to be transparent and consistent to provide promised capabilities. Leaders and staffs at all levels react by becoming more involved, applying more oversight and often making budget, schedule or requirements adjustments that significantly lengthen development and production cycles and add cost. (Figure 6)

Although the operational environment faced by the U.S. Armed Forces has changed significantly since the Cold War, the system that we use to design, develop and deliver the necessary systems has not changed. Further, efforts today to improve the performance of this Acquisition System have focused almost entirely on only one portion of the process, namely "little a" acquisition. These factors are exacerbated by changes in the international security environment.

Major Findings

Several major findings became obvious as we reviewed defense acquisition performance and documented the integrated nature of the process. (Figure 7)

MAJOR FINDINGS

* **Strategic Technology Exploitation - Key U.S. Advantage**

* **The U.S. Economic And Security Environments Have Changed**

* **The Acquisition System Must Deal With External Instability**

* **DoD Management Model Based On Lack Of Trust**

* **Oversight Is Preferred To Accountability**

* **Oversight Is Complex -- Not Process or Program Focused**

* **Complex Acquisition Processes Do Not Promote Success -- They Increase Cost And Schedule**

* **Incremental Improvement Applied Solely To The Little "a" Acquisition Process Requires All Processes To Be Stable - They Are Not**

Major Findings were developed across the spectrum of acquisition processes (Figure 7)

* Strategic technology exploitation is a key factor that allows the U.S. to maintain dominant military capabilities. Militarily critical technologies need to be identified and documented early in the acquisition process to ensure that cutting edge technologies have appropriate export controls.

* The fundamental nature of defense acquisition and the defense industry has changed substantially and irreversibly over the past 20 years. New and emerging global markets have substantially affected the dynamics of acquisition reforms envisaged in the Goldwater-Nichols Act. In 1985, defense programs were conducted in a robust market environment where more than 20 fully competent prime contractors competed for multiple new programs each year. The industrial base was supported by huge annual production runs of aircraft (585), combat vehicles (2,031), ships (24) and missiles (32,714). In 1985, threats were well-known and well-defined. This allowed the Department to conduct stable strategic planning. Today, the Department relies on six prime contractors who compete for fewer and fewer programs each year. Reductions in plant capacity have failed to keep pace with the reduction in demand for defense systems (188 aircraft, 190 combat vehicles, 8 ships, 5,072 missiles). The security environment has become unpredictable, threats are often difficult to define and situations often require asymmetric responses. The world dynamic has changed.

* The Acquisition System must deal with external instability, a changing security environment and challenging national security issues. The Department must be agile -- to an unprecedented degree -- to respond quickly to urgent operational needs from across the entire spectrum of potential conflicts.

* Although the Department functions with a single serial acquisition process with extended planning horizons, the Department's budgeting process is based on short-term decision making in which long-term cost increases are accepted to achieve short-term budget "savings" or "budget year flexibility."

* The Department compounds the chaotic nature of its financial model with a program oversight philosophy based on lack of trust. Effective oversight has been diluted in

a system where the quantity of reviews has replaced quality, and the tortuous review processes have obliterated clean lines of responsibility, authority and accountability. The oversight process allows staffs to assume de-facto program authority, stop progress and increase program scope. The current system is focused on programs, not on improving and standardizing the processes of acquisition; it inhibits rather than promotes steady improvement in achieving program success.

* Complex acquisition processes do not promote program success -- they increase costs, add to schedule and obfuscate accountability.

Over the past twenty years, many acquisition reform recommendations have focused on making incremental improvements to a narrowly defined acquisition process. (Figure 8)

SAMPLES OF PAST ACQUISITION REFORMS

Packard Commission - 1985
* Followed 131 separate investigations of 45 of the Department's 100 top contractors
* Focused on Defense management issues, evauated Department's acquisition system, organization and decision-making as well as Congressional oversight

Defense Reorganization Act - 1986
* Established the Service Acquisition Executive and consolidated acquisition decision-making in the hands of the civilian leadership
* Codified many of the Packard Commission recommendations

Section 800 Report - 1993
* Reviewed existing legislation and recommended repeal or amendments
* Focused on streamlining and simplifying acquisition laws

National Performance Review - 1993
* Vice President Gore initiative in light of the end of the Cold War
* Promoted using commercial standards for more acquisition programs

Federal Acquisition Streamlining Act - 1994
* Consolidated and simplified hundreds of laws into unified procurement code

SecDef Perry Memo - 1994
* Addressed shrinking industrial base
* Commercial technologies are outpacing DoD sponsored efforts

Defense Reform Initiative - 1997
* Consolidation of industry and erosion of core capabilities addressed
* Need to recover interest in DoD requirements by commercial sector

The Road Ahead - 1999
* Addressed the slowness of logistics to meet sustainment needs
* Requirement to integrate civil-military industrial base

Rumsfeld's Challenge - 2001
* Bureaucratic inertia stopping crucial initiatives, excess infrastructure
* Planning, Programming and Budgeting System outdated
* Technology moving faster than DoD, that is deploying outdated technology

The Acquisition System has been reviewed extensively (Figure 8)

If incremental improvements to the acquisition process are to achieve success in improving program cost, schedule and performance, then all six internal elements of the Acquisition System (organization, workforce, budget, requirements, acquisition and industry) must operate in a stable and predictable manner. Also, external influences on the Acquisition System, including leadership and congressional oversight, must exert stabilizing and predictable guidance. None of these processes and influences are stable and predictable today.

The Department of Defense needs a new, integrated Acquisition System. It must be able to deal with an unstable external environment typified by rapidly changing security and economic challenges that are emerging with the expansion of the global marketplace. We concluded that an effective Acquisition System requires stability and continuity that can only be developed through improving all of the major elements upon which it depends.

Overview of Performance Improvements

We recommend reducing government-induced instability through an integrated transformation of the major elements of the larger Acquisition System that can reduce cost, enhance acquisition performance and accelerate by years the delivery of key capabilities. (Figure 9)

Organization

OVERVIEW

- **Organization**
  - Realign authority, accountability and responsibility at the appropriate level and streamline the acquisition oversight process.
  - Establish dedicated Four-Star Acquisition Systems Commands, at the Service level.

- **Workforce**
  - Rebuild and value the acquisition workforce, and incentivized leadership.

- **Budget**
  - Transform the Planning, Programming and Budgeting process and establish a distinct Stable Program Funding Account.

- **Requirements**
  - Replace the Joint Capability Integration and Development System with the Joint Capabilities Acquisition and Divestment Plan (a Combatant Commander-led requirements process in which the Services and Defense Agencies compete to provide solutions.)
  - Establish a two-year recurring process to produce an integrated, time-phased and fiscally-informed Joint Capability Acquisition and Divestment plan and a continuous Materiel Solutions Plan Development Process to identify and initiate development of Materiel Solutions.

Performance improvement recommendations have been made for each of the major elements of the Acquisition System (Figure 9)

OVERVIEW CONTINUED

- **Requirements Continued**
  - Add an "Operationally Acceptable" test evaluation category.
  - Give program managers explicit authority to defer non-Key Performance Parameter requirements to later spirals or block upgrades.

- **Acquisition**
  - Adopt a risk-based source selection process.
  - Shift to time-certain development procedures and make schedule a Key Performance Parameter.
  - Mandate a time start and end dates that are clearly defined and revamp the acquisition processes to support it.

- **Industry**
  - Overcome the consequences of reduced demand by sharing long range plans and restructuring competitions for new programs.
  - Require government insight and favor formal competition for major subsystems when a Lead System Integrator acquisition strategy is pursued.

(Figure 9) continued

Fully implement the intent of the Packard Commission. Create a streamlined acquisition organization with accountability assigned and enforced at each level.

- Direct the Army and Air Force Chiefs of Staff, and the Chief of Naval Operations to establish Systems Commands for Acquisition that report to the Service Chiefs of Staff, the Chief of Naval Operations and the Service Acquisition Executives. These Systems Commands will align the acquisition workforce, including requirements and acquisition budget personnel, by establishing appropriate certification requirements based on formal training, education and practical experience. They will direct and manage the preparation of Service Materiel Solution proposals and advocate for the future technology requirements of the Services. (Figure 10)

- Elevate both the Service Acquisition Executives and the Under Secretaries of all the Services to Executive Level 3.

- At Milestone B, assign accountability for overseeing day-to-day execution and integration of programs to the Service Acquisition Executives and through them to the Four-Star Acquisition Systems Commands, Program Executive Officers and Program Managers.

- Designate the Under Secretary of Defense for Acquisition, Technology and Logistics a full member of the Joint Requirements Oversight Council and delegate authority to the Under Secretary of Defense for Acquisition, Technology and Logistics to budget and program for a newly created Stable Program Funding Account.

- Assign responsibility to establish and operate a Materiel Solution Development Process to the Under Secretary of Defense for Acquisition Technology and Logistics, the process should be responsive to the capability needs of the Combatant Commands as identified in a new time-phased and fiscally-informed Joint Capabilities Acquisition and Divestment Plan. (See Figure 22)

- Disestablish the Acquisition Integrated Product Teams in the Office of Under Secretary of Defense for Acquisition, Technology and Logistics, and replace the current oversight process with a small staff, focused on decision-making to support joint programs.
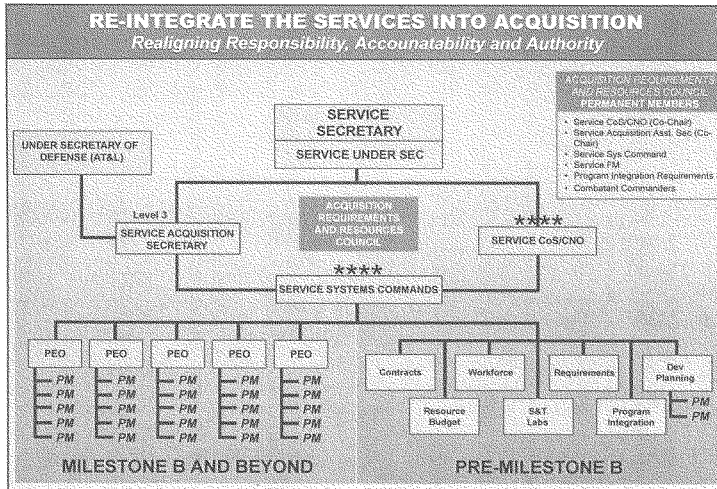
*Four-Star Acquisition Systems Commands will facilitate
integration of the Acquisition System (Figure 10)*

Workforce

Realign responsibility, authority and accountability at the lowest practical level of authority by reintegrating the Services into the acquisition management structure.

- Seek legislation establishing the Service Acquisition Executives as Five-Year Fixed Presidential Appointments renewable for a second five-year term. This will add leadership continuity and stability to the Acquisition System.

- Seek legislation to retain high-performance military personnel in the acquisition workforce to include allowing military personnel to remain in uniform past the limitations imposed by the Defense Officer Personnel Management Act and augment their pay to offset the "declining marginal return" associated with retired pay entitlement.

- Request that the White House Liaison Office create a pool of acquisition-qualified, White House pre-cleared, non-career senior executives and political appointees to fill executive positions, to provide leadership stability in the Acquisition System.

- Immediately increase the number of federal employees focused on critical skill areas, such as program management, system engineering and contracting. The cost of this increase should be offset by reductions in funding for contractor support.

- Establish a consistent definition of the acquisition workforce with the Under Secretary of Defense for Acquisition Technology and Logistics, working with the Service Secretaries to include in that definition all acquisition-related budget and requirements personnel.

- Establish and direct standard and consistent training, education, and certification and qualification standards for the entire acquisition workforce.

Budget

Transform the Planning, Programming, and Budgeting and Execution process and stabilize funding for major weapons systems development programs.

- Establish a separate Stable Program Funding Account to mitigate the tendency to stretch programs due to shortfalls in the Department of Defense non-acquisition accounts that ultimately increase the total cost of programs. (See Figure 21)

- Reduce substantially the incidence of reducing program funding or procurement quantities to solve budget year shortfalls to significantly enhance program funding stability.

- Create a Management Reserve in the Stable Program Funding Account by holding termination liability at the Service level. Availability of a Management Reserve will substantially reduce the impact of unexpected technical distortion during program execution and thus stabilize the contract management and execution process.

- Adjust program estimates to reflect "high confidence" -- defined as a program with an 80 percent chance of completing development at or below estimated cost --when programs are baselined in the Stable Program Funding Account.

Requirements

Transform the requirements process to adapt to the new security environment by including the Combatant Commanders as the major influence for requirements and by changing the requirement development process.

- Replace the Joint Capabilities Integration and Development with the Joint Capabilities Acquisition and Divestment Plan. (See Figure 23)

- Task each of the Combatant Commanders to prepare extended planning Annexes to each of their operational and contingency plans, to be updated on a two-year cycle, that will provide a 15-year forecast of both capability gaps and excesses relative to mission requirements.

- Seek legislation to create an Operationally Acceptable evaluation testing category and issue new implementing instructions. Systems will be evaluated as Operationally Acceptable when their performance is not fully adequate when tested against criteria established by the Director of Operational Test and Evaluation but the Combatant Commander has determined that the system, as tested, provides an operationally useful capability and the Combatant Commander desires immediate fielding of the "as tested" capability.

- Delegate explicit authority from the Under Secretary of Defense for Acquisition, Technology and Logistics to reschedule achievement of non-Key Performance Parameter requirements to future production blocks or program spirals. Transfer this authority to the Service Acquisition Executives through the Program Executive Officers to Program Managers. This will assist in maintaining Time Certain Development delivery requirements and will limit the time that systems are in development, thereby reducing program cost risk and enhancing the ability to meet Combatant Commander capability needs in a timely manner. (See Figure 24)

- Direct the Deputy Director for Research and Engineering to coordinate service science and technology transition plans with the appropriate military service.

- Direct the Deputy Director for Research and Engineering to actively participate in the Joint Capabilities Acquisition and Divestment process to reemphasize technology push initiatives.

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Acquisition

Change the Department's preferred acquisition strategy for developmental programs from delivering 100 percent performance to delivering useful military capability within a constrained period of time, no more than 6 years from Milestone A. This makes time a Key Performance Parameter.

- Create acquisition strategies for each program prior to Milestone A to streamline procurement, reduce time-to-market, require formal subcontractor level competition, and tie award fees to contractor performance.

- Change existing source selection guidance to enhance communication to industry. Eliminate the requirement for single competitors to share all questions or information they submitted and responses received, with all competitors, prior to issuance of the final request for proposals.

- Direct changes to the DoD 5000 series to establish Time Certain Development as the preferred acquisition strategy for major weapons systems development programs.

- Submit proposed changes to the Defense Supplement to the Federal Acquisition Regulation by formalizing a risk-based source selection process. Replace detailed evaluations of cost proposals with an affordability determination based upon a most probable cost estimate agreed upon by industry and government.

- Realign the Milestone B decision to occur at Preliminary Design Review.

- Direct changes to the DoD 5000 series to require the Test and Evaluation Master Plan and the Initial Operational Test and Evaluation Plan to be completed and signed prior to Milestone B.

- Direct the Service Acquisition Executives to appoint Program Managers to be held accountable for each baseline from Milestone B through completion of the Beyond Low Rate Initial Production report.

Industry

Share Department of Defense long-range plans with industry with the goal of motivating industry investments in future technology and performance on current programs.

- Establish regular roundtable discussions hosted by the Deputy Secretary of Defense with executives from industry to share Joint Capabilities Acquisition and Divestment plans and align industry and defense strategic planning.

- Establish a Blue Ribbon panel of owners of large and small businesses that are not traditional defense suppliers to create an aggressive set of recommendations with accompanying implementation plans to eliminate the barriers for them to do business with the government.

- Direct changes to the DoD 5000 series by the Under Secretary of Defense for Acquisition, Technology and Logistics to require government insight and favor formal competition over make/buy decisions for major subsystems where a Lead System Integrator acquisition strategy is involved. The trend toward Lead System Integrator acquisition strategies is reducing subcontractor opportunities to compete, and impacts the viability of the vendor base.

In addition to these specific recommendations, we propose that the Department and the Congress evaluate the impact of industrial consolidation and its unintended effects. Such a review should be conducted with an acute awareness of the current security environment and the nature of our fundamental assumptions about the industry upon which our policy, laws and regulations are based.

Our Perspective and Commitment

The operation of all of the Department's Acquisition System elements must be stable for incremental improvements in the acquisition process to achieve success -- we found that they are not. We concluded the problems we face are deeply imbedded in many acquisition management systems. We therefore need a radical approach to stabilize processes and adapt them to the new and evolving security environment.

One thing is clear: the larger acquisition process was designed and optimized to respond to a security environment dominated by a single strategic threat, the former Soviet Union. The security environment is very different today; therefore, the processes need to change to meet the demands of this new environment. We must have the flexibility and agility to respond to dynamic security challenges and rapidly changing needs.

The hours we spent were rich in providing an opportunity to view the entire spectrum of issues -- past and present, and to look through a prism to the future. Implementation is about putting everything in focus.

The performance improvements we propose will significantly improve the Department's ability to deliver capabilities to the warfighter by stabilizing and integrating key elements of the Acquisition System. Taken together, our recommended performance improvements represent significant transformation of the Acquisition System, and they are designed to address the obvious sources of instability and lack of accountability. We believe we have offered a sweeping set of choices to the decision makers to reduce government-induced instability and complexity. We acknowledge that these choices are difficult but necessary to resolve this very complex process.

Strategy does not (or should not) stand alone as a management process. A continuum exists that begins in the broadest sense, with the mission of the organization. The mission must be translated so that the actions of individuals are aligned and supportive of the mission. A management system should ensure that this translation is effectively made. Strategy is one step in a logical continuum that moves an organization from a high-level mission statement to the work performed by frontline and back office employees.

"The Strategy Focused Organization"

Robert S. Kaplan and David P. Norton. Harvard Business School Press. Page 72. 2000

Effective communication of the Panel's strategic recommendations will be essential (Figure 11)

Because these are hard choices with potentially unintended consequences, implementation should be approached rigorously. We recommend that the Department do "strategic gaming" on the changes, in parallel with implementation, to get better insight and confidence in the outcome. Our legacy of war gaming has served us well in operations and we should use this approach to manage change in our Acquisition System.

The timing for change has never been better. Congressional interest in ensuring that the funding it provides is turned into usable and effective military capability, the dedication of the Secretary of Defense to transform the way the Department of Defense does its acquisition business, the Quadrennial Defense Review's challenge to improve the acquisition process, the 2005 Defense Science Board Report on Business Practices and, the Business Transformation Enterprise Plan, all combine to create a very fertile ground for change. The Defense Acquisition Performance Assessment Panel is committed to the validity of its assessment and the value of its recommendations for improvement. The specifics of our proposals, as well as the methodology that we used to develop our conclusions, are described in the following sections of this report. (Figure 11)

It is one thing to create and establish vision and to recommend focusing on change -- it is quite another to motivate the unity of purpose required to achieve success and to ensure that the stakeholders understand not only what is written and said, but also what we meant to write and say about these ideas and issues. We tried to be as clear and unambiguous as time and talent allowed, but this subject is extremely complex. We are prepared to meet the need to further clarify, interpret, discuss and explain our effort.

Section II

Background
Establishing the Framework

History of Defense Acquisition Reform

Multiple reviews of the Department of Defense Acquisition System have been conducted since the establishment of the Department, in 1947. Many of these reviews have focused on procurement practices but have not comprehensively addressed requirements and budget issues. This is significant, since these processes impact the ability of the procurement process to deliver effective capabilities on time and within cost. These past reviews were limited in their assessment of the processes and the inter-relationship between workforce performance, the responsibility of industry to deliver capabilities, and the oversight and control mechanisms that are intended to make the Acquisition System work efficiently.

The Necessity for Acquisition Performance Assessment

GENERAL ACCOUNTING OFFICE REPORT

Acquisition Processes Have Significant Shortcomings Leading to Loss of Confidence by Congress and the Defense Community.

* Increased cost over-runs
* Failure to establish acquisition priorities and trade-offs
* Undefined requirements
* Undefined performance characteristics
* Accepting compromised performance
* Untested and undetermined technology risks
* Poorly defined requirements
* Complex and inefficient organizational management
* Lack of centralized responsibility and authority
* Major delays in product delivery
* Inadequate attention to the conceptual phase

"Acquisition of Major Weapons Systems" (B-163058), March 18, 1971 (Figure 12)

Many improvements to the Department's Acquisition System have been made as a result of these past reviews, and the system has produced some of the finest military equipment in the world. However, the ability of the acquisition process to deliver operational performance of major systems within predicted cost and schedule has not improved over the last 20 years and the economic and security environment has changed substantially.

Multiple reports by the U.S. Government Accountability Office have highlighted performance deficiencies, Especially noteworthy is the March 18, 1971 Report to Congress regarding "Acquisition of Major Weapons Systems" (B-163058). (Figure 12)

At the time, the General Accounting Office recommended that the Department should make every effort to develop and perfect the Department of Defense-wide method to determine what needs to be procured and

identify mission priorities relative to other systems development. The report recommended that cost-effectiveness studies meet certain standards and that these studies should be updated regularly where a major program alternative was considered. The report further suggested that greater decision-making authority for each major acquisition be placed within a single organization in the service concerned, and that this organization be vested with more direct control over the operations with sufficient status to overcome organizational conflict. The report also required that each selected acquisition report contain a summary statement regarding the relationship of the mission designed for the weapon compared with other complementary weapon systems and to include the current status of the program.

As the result of concerns expressed by Members, in testimony by the then Deputy Secretary before the House Committee on Government Operations in September 1970, major reforms were already underway in the Department before this March 1971 General Accounting Office report was released. The 1971 report followed numerous other reports that were critical of the acquisition processes. For example, reports by the Blue Ribbon Panel, National Security Industrial Association, and the Defense Science Board Task Force on Research and Development Management, and a report from the House Government Operations Committee dated December 10, 1970 all addressed the same concerns.

The General Accounting Office Report, "Weapons Cost – Analysis of Major Weapons Systems Cost and Quantity Changes," published on December 31, 1987 noted that the combined total program cost estimate of Selected Acquisition Report systems was 40.5 percent over base year estimates. In 1999, the Defense Systems Management College published technical report TR 1-99 that documented an average cost growth of 40 percent over base year estimates -- a number very close to the performance reported by the General Accounting Office 12 years earlier. In March 2005, the Government Accountability Office published Report 05-301, stating that "it is not unusual for estimates of time and money to be off by 20 to 50 percent."

It is clear that, despite frequent reform and some isolated successes, the overall performance of the Acquisition System remains problematic.

The Task for Acquisition Performance Assessment

During congressional hearings on defense acquisition issues, Deputy Secretary of Defense Gordon England and committee members agreed that the Acquisition System requires dedicated leadership and aggressive initiatives for improvement.

During subsequent congressional hearings, Secretary England stated that "the entire acquisition structure within the Department of Defense needs to be re-examined and in great detail...there is growing and deep concern about the acquisition process within the Department of Defense and in the Committee..."

Secretary England concluded that Congress and the senior leadership of the Department of Defense had lost confidence in the ability of the Defense Acquisition System to deliver the right products to the warfighter on time and within cost. Accordingly, on June 7, 2005, the Deputy Secretary directed an integrated assessment of all aspects of the Department of Defense processes and procedures for acquisition. The Defense Acquisition Performance Assessment Project was established to accommodate this tasking. (Figure 13)

The Deputy Secretary directed an integrated assessment and requested recommendations for an acquisition structure with clear alignment of responsibility, authority and accountability (Figure 13)

The Defense Acquisition Performance Assessment Project was organized as a Federal Advisory Committee. This ensured a transparent and open process as well as a forum to solicit comments and suggestions from stakeholders in industry and government, academia, trade associations, labor unions and the general public. This forum resulted in multiple and diverse observations as evidence of the complexity of the issue.

The centerpiece of the DAPA Project is a Panel governed by the tenets of the Federal Advisory Committee Act of 1972 (Public Law 92-463). The Federal Advisory Committee was organized into a six member Panel with an executive director, senior advisors and support staff. (Figure 14)
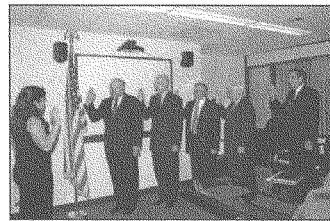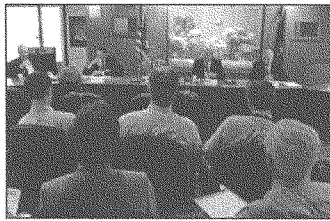
Panel members are successful leaders from government, industry and academia (Figure 14)

Toward an Integrated Assessment - Analyzing the Data

Observations and Aggregation Analysis

We analyzed the observations captured during the data-gathering phase to identify the causes for the inability of the Acquisition System to consistently and successfully predict the ultimate cost, schedule and performance of defense systems. These observations were organized into issue areas in a process called aggregation analysis. In aggregation analysis, observations that address similar topics are grouped into issue areas. The number of observations in each issue area is indicative of how widespread the perception of an issue is among the population interviewed. Our analysis identified a total of 42 issue areas. We considered each of these issue areas when conducting our integrated assessment.

Performance Assessment Structure

We developed performance assessments for each of the six basic elements of the Acquisition System (organization, workforce, budget, requirements, acquisition and industry). Our performance assessment structure is comprised of four parts: the performance of the Acquisition System element, major findings, suggested performance improvements and implementation

criteria.

Reporting the Conclusions

The Panel's Executive Director and the Panel Chairman provided our findings to the Deputy Secretary of Defense, the Under Secretary of Defense for Acquisition, Technology and Logistics and reported the assessments and implementation plan to the Quadrennial Defense Review.

This is an opportunity for a new beginning. The success of these recommendations depends upon improved internal and external communication, clarity and simplicity in the regulations and instructions that guide the processes, more effective oversight and accountability and enhanced
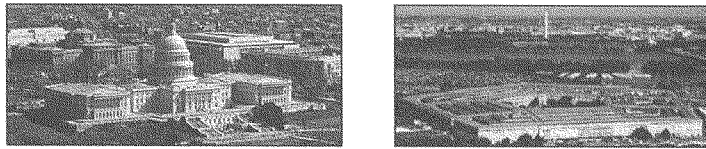
Effective cooperation between the Department and Congress is essential (Figure 15)

relationships and cooperation between the Legislative and Executive Branches of government. (Figure 15)

Section III

Our Integrated Performance Assessment

Process Integration and Stability

The evidence we discovered was persistent in recognizing that an effective Acquisition System requires stability and continuity that only can be provided through successful integration of the major elements upon which it depends. When we began this task, we presumed the Department's Acquisition System to be an efficient integration of the acquisition, requirements and budget processes. However, in the course of our review we found that the System is a highly complex mechanism that is fragmented in its operation. We found that the budget, requirements and acquisition processes function in a framework that is bound by process practitioners and stakeholders. To make the whole System operate, acquisition-related organizations structure the processes, industry turns requirements into weapon systems and the acquisition workforce provides human capital. In this framework, divergent bureaucratic goals and values have resulted in behaviors that drive the budget, acquisition and requirements processes apart -- processes that need to be in harmony for the Sytem to work.

In a non-integrated Acquisition System, process practitioners and stakeholders take actions without understanding the impact that these actions have on each other and on the rest of the system. Requirement developers and operational testers mandate system requirements that are neither technologically realistic nor deliverable within the time-to-need established by the Combatant Commander. Program teams allow requirements to "creep" without discipline, driving costs beyond the baseline budget and extending schedules. Those who hold the budget purse strings reduce annual Research Development Testing and Evaluation, Procurement, and Operations and Maintenance for Program budgets to ensure that all the acquisition funding accounts fit within the "top-line" President's Budget. This results in causing some programs to be "un-executable" at the expense of others, essentially borrowing from one to pay for another.

The failure of process integration engenders instability in programs and results in the Department being unable to anticipate or predict the outcome of programs as measured by cost, schedule and performance. When defense and congressional leaders are surprised by unanticipated cost overruns, failure to meet expected schedule and system performance, they lose confidence in a system that is expected to provide promised capabilities. Leaders and staffs at all levels react by becoming more involved, applying more oversight and often making budget, schedule or adjustment of requirements that significantly lengthen development and production cycles and add cost.

If the Department is to restore confidence in its ability to adequately predict program performance, aggressive steps must be taken to re-integrate the acquisition-related process. We must modify the behavior of process practitioners and stakeholders, thus reducing system instability. Significant improvements across the entire scope of all six major elements of the Acquisition System -- organization, workforce, budget, requirements, acquisition and industry -- are required to achieve this result.

The Six Major Elements

Organization

Performance Assessment

Our assessment is that we do not meet the standards set by the Packard Commission. The Department of Defense relies on multiple staff oversight regimes, lengthy lines of communication and adversarial relations. These procedures result in excessive and ineffective exercise of derived authority without accountability and inhibit proper execution of our programs. As a result, uncertainty is introduced into the decision process and instability is created in execution of programs. The current decision-making process is flawed. (Figure 16)

PACKARD COMMISSION AND COMMUNICATION

Successful organizations have "short, unambiguous lines of communication among levels of management, small staffs of highly competent professional personnel . . . [and] most importantly, a stable environment of planning and funding."

"President's Blue Ribbon Commission on Defense Management.
National Security Planning and Budgeting"
The Packard Commission, June 30, 1986

The Packard Commission emphasized a simple, efficient organization (Figure 16)

Major Findings

An unintended consequence of implementing the Packard Commission recommendations is that the budget, acquisition and requirements processes are not connected organizationally at any level below the Deputy Secretary of Defense. This induces instability and erodes accountability. Segregation of requirements, budget and acquisition processes create barriers to efficient program execution. It subsequently decoupled leadership from acquisition and requirements increases the likelihood of program disconnects.

The rigidity of the Acquisition Category designation process and its single focus on program cost results in an excessive number of programs requiring Defense Acquisition Board review. This dilutes the authority of the Service Acquisition Executives and causes excessive review and reporting requirements.

According to 97 percent of the input that we received, the current oversight and leadership process is deficient. Existing oversight relies upon overlapping layers of reviews and reviewers at the expense of quality and focus. For example, the preparation for each Defense Acquisition Board meeting requires a variety of review sessions that are conducted as part of the Joint Capabilities Integration and Development System process. In addition, there are Service reviews and meetings of a variety of Integrated Product Teams. Each of these reviews has the potential to significantly lengthen the nominal 180 work days, as outlined in the Defense Acquisition Guidebook, for the Defense Acquisition Board preparation. Multiple reviews result in multiple revisions to program documentation the generation of new tasks. The review construct allows the staff in the Office of the Secretary of Defense to assume de facto program authority that allows them to stop progress and increase program scope. Actually, none of these outcomes enhance the likelihood of program success. Furthermore, responsibility and accountability are blurred since none of these review bodies are accountable for the impact of the imposed changes.

Despite the involvement of thousands of people in the community and ineffective oversight, there is evidence that the current structure does not promote program success. Actually, programs advance in spite of the oversight process rather than because of it. In addition, regardless of this oversight, troubled programs still manage to pass through the laborious approval process.

The Department of Defense does not have a single consistent, sufficient set of metrics applicable across programs to manage acquisitions or measure success. Key Performance Parameters, originally conceived to be the critical measures of system performance, are excessive in number. They do not correlate with either force or system capability and often are not testable. Frequent program re-baselining complicates identification and assessment of cost and schedule performance.

Finally, although programs are burdened with large data reports and updates, it is not clear the data are effective program oversight tools. The Secretary of Defense Office of Program Analysis and Evaluation summarizes program performance data into Defense Acquisition Executive Summaries. When the Department re-baselines a program, it tracks program performance and reports program status relative to the new baseline in the Defense Acquisition Executive Summary. The Government Accountability Office summarizes program performance data reported in Selected Acquisition Reports using different criteria. The Government Accountability Office reports performance against the originally reported program cost and schedules, not re-baselined cost and schedule. As a result, programs performing "on track" in the Defense Acquisition Executive Summaries are reported to Congress as "over-running" in Government Accountability Office reports. Conflicting criteria in performance evaluations contributes to confusion about program performance in the community.

Performance Improvement

To correct these vulnerabilities, we determined that it is necessary to implement the intent of the Packard Commission more fully and regain stability in the Acquisition System by realigning authority, accountability and responsibility at the appropriate levels. Increasing the stature and authority of the Under Secretary of Defense for Acquisition, Technology and Logistics and the Service Acquisition Executives will improve accountability. Establishing a dedicated Four-Star Acquisition Systems Command at the Service level will consolidate responsibilities and streamline the acquisition oversight process of the Department. (Figure 17)

CHANGE THE CULTURE

The Department requires a culture that embraces change. Both the Military and Civilian workforce must become more agile, responsive and lean. We must encourage high performance individuals and foster organizations that are:

- quick and responsive
- attracting and retaining the best qualified employees; and,
- rewarding high performers.

Department of Defense Business Transformation.
Volume I. Page 4. September 30, 2005

The Department has recognized the need for a more efficient and effective organization (Figure 17)

Implementation Criteria

Successful implementation will require the personal involvement of the Service Secretaries, the Army and Air Force Chiefs of Staff, and the Chief of Naval Operations.

By Fall 2006, the original intent of the Packard Commission should be more fully implemented.

- Designate the Under Secretary of Defense for Acquisition, Technology and Logistics as a full voting member of the Joint Requirements Oversight Council.

- Assign the Under Secretary of Defense for Acquisition, Technology and Logistics ownership of the Stable Program Funding Account. Delegate authority to the Under Secretary of Defense for Acquisition, Technology and Logistics to budget and program for this account. (See Figure 21)

- Establish a small office within the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, using existing Office of the Secretary of Defense personnel to manage the allocation of the Acquisition Category One, Stable Program Funding Account. Charter this office to develop a single, consistent set of metrics acceptable and useful to Congress, the Government Accountability Office and the Department to monitor acquisition programs funded through this Stable Program Funding Account.

- Assign execution responsibilities within the new Joint Capabilities Acquisition and Divestment system to the Under Secretary of Defense for Acquisition, Technology and Logistics. Include responsibility to choose Materiel Solutions from among those proposed by the Services. (See Figure 22)

- Eliminate the endless cycle of program reviews and replace them with a time-constrained decision support review process that is resident in the Services. The review process should focus on enhancing program success. The review teams should not have the ability or authority to slow progress or require program changes. Effective alignment and enforcement of responsibility, authority and accountability at the program level will provide substantially better oversight than any number of layers of repetitive staff reviews.

- Disestablish Acquisition Integrated Product Teams and replace the current oversight process with a small Acquisition, Technology and Logistics staff to support the most significant joint programs.

- Push program management to the Acquisition Systems Commands or Defense Agencies. Acquisition programs should not be managed by the Office of the Secretary of Defense or Service staff personnel.

- Elevate the Service Acquisition Executives and the Service Under Secretaries from Executive Level Four to Executive Level Three.

- Establish a dedicated Four-Star Acquisition Systems Command within each Service, as program execution agent for the Army and Air Force Chiefs of Staff, and the Chief of Naval Operations, prior to Milestone B. The major responsibilities of this command are to integrate decision responsibilities for budget, requirements and acquisition; serve as technology advocates for the future objectives of each Service; advocate and manage the acquisition workforce; and provide day-to-day program execution and oversight.

- Establish a Program Initiation Activity in each Four-Star Acquisition Systems Command charged with management from Milestone 0 to Milestone B. A Program Execution Charter for each program and for each phase (Milestone 0 to Milestone A, Milestone A to B) will be produced by this office. A Program Manager that is an expert in defining operational requirements, and an acquisition professional Deputy Program Manager should be identified for each program at Milestone 0 by the Program Initiation Activity.

At Milestone B, an acquisition professional will become Program Manager and a requirements professional will become the deputy.

* Vest Milestone A decision authority in the Army or Air Force Chief of Staff, the Chief of Naval Operations or appropriate Agency head at Milestone 0, when the program execution agent (Service or Agency) is selected to deliver a Materiel Solution.

* Vest decision authority for Milestone B and beyond in the Service Acquisition Executive.

Workforce

Performance Assessment

A successful program requires a professional workforce with subject matter expertise. Our assessment is that the acquisition workforce does not include requirements or budget personnel and does not properly recognize the value of Program Managers. Since 1990 there has been a concerted effort to reduce the government acquisition workforce. As a result, the government workforce has become increasingly overburdened as the demands have increased with the nature and complexity of the Acquisition System. In addition, both political and Senior Executive Service appointments are not filled in a timely way. All of this results in instability in the decision-making process.

Major Findings

One unintended consequence of removing the Army and Air Force Chief of Staff and the Chief of Naval Operations from Acquisition is that the Services are now isolated from their Acquisition workforce stewardship responsibilities. The Defense Acquisition Workforce Improvement Act does not compensate for this neglect.

With the exception of training and certification, the implementation of the Defense Acquisition Workforce Improvement Act has been spotty across the Department. The focus on compliance with the Act's certification requirements has led to the illusion that we are managing the workforce.

The definition of the Acquisition workforce does not include requirements and budget personnel and these key personnel are not covered in the Defense Acquisition Workforce Improvement Act. Requirements personnel are assigned to major commands and staff offices to establish and codify threshold and objective performance requirements and sit on requirements generation, control and approval boards. They represent the warfighting community in Acquisition decision-making forums, such as Acquisition strategy panels, source selection committees and milestone reviews. Budget officers are personnel assigned to the Services and the Office of the Secretary of Defense to allocate and manage program

accounts. Thus, no single organization is accountable for overall acquisition workforce career development, no consistent training or experience requirements exist for these key skills and training and certification standards are not enforced.

Failure to rapidly fill senior acquisition leadership positions, both political appointments and within the Senior Executive Service, has led to serious gaps in leadership and management continuity and this has contributed significantly to a lack of direction and leadership in the acquisition workforce.

Key Department of Defense acquisition personnel who are responsible for requirements, budget and acquisition do not have sufficient experience, tenure and training to meet current acquisition challenges. Personnel stability in these key positions is not sufficient to develop or maintain adequate understanding of programs and program issues. System engineering capability within the Department is not sufficient to develop joint architectures and interfaces, to clearly define the interdependencies of program activities, and to manage large scale integration efforts.

Experience and expertise in all functional areas has been de-valued and contributes to a "Conspiracy of Hope" in which we understate cost, risk and technical readiness and, as a result, embark on programs that are not executable within initial estimates. This lack of experience and expertise is especially true for our program management cadre.

The Department of Defense exacerbates these problems by not having an acquisition career path that provides sufficient experience and adequate incentives for advancement. The aging science and engineering workforce and declining numbers of science and engineering graduates willing to enter either industry or government will further enforce the negative impact on the Department's ability to address these concerns.

With the decrease in government employees, there has been a concomitant increase in contract support with resulting loss of core competencies among government personnel.

Performance Improvement

To become a competent procurer of capability and improve performance, it is necessary to rebuild and value the acquisition workforce as well as to stabilize its leadership. It is time to "go back to basics" and make Acquisition a core competency in the Services, comparable to the combat arms.

Implementation Criteria

The following criteria should be met prior to the stand-up of the new Four-Star Acquisition Systems Commands, by Fall 2006.

* Seek legislation establishing the Service Acquisition Executives as five year, fixed-term presidentially-appointed and Senate-confirmed positions renewable for a second five year term to add leadership continuity and stability for the process.

* Request that the White House Liaison Office create a pool of acquisition-qualified, pre-cleared non-career senior executives and political appointees to fill executive positions. This will add leadership continuity and stability to the acquisition process.

* Seek legislation to retain high-performance military personnel in the acquisition workforce, to include allowing military acquisition personnel to remain in uniform past Defense Officer Personnel Management Act mandated years of service and augment their pay to offset the "declining marginal return" associated with retired pay entitlements.

* Increase immediately the number of the Department's Acquisition federal employees focused on critical skill areas such as program management, system engineering and contracting. The cost of this increase should be offset by reductions in funding for contractor support.

* Establish a consistent definition of the acquisition workforce to include all acquisition-related budget and requirements personnel and to reflect an integrated System.

* Establish and direct standard and consistent training, education, certification and qualification standards for the entire Acquisition workforce including acquisition-related requirements and budget personnel. These standards already largely exist for "little a" acquisition personnel. The standards for a newly created "requirements generation" career field and "acquisition budget" career field need to be created and implemented. (Figure 18)

LEADERSHIP

The key to creating and sustaining the kind of successful twenty-first-century organization is leadership -- not only at the top of the hierarchy, with a capital L, but also in a more modest sense (l) throughout the enterprise. This means that over the next few decades we will see both a new form of organization emerge to cope with faster-moving and more competitive environments and a new kind of employee. The twenty-first-century employee will need to know more about both leadership and management than did his or her twentieth-century counterpart. The twenty-first-century manager will need to know much about leadership.

"Leading Change"
John P. Kotter, Harvard Business School Press.
Chapter 12. Page 175. 1996

Extensive training and education programs are required to develop an effective workforce (Figure 18)

* Assign responsibility for and direct the newly established Four-Star Acquisition Systems Commanders to take aggressive and sustained action to enhance Acquisition Workforce training, education, experience levels and expertise.

* Designate the Four-Star Acquisition Systems Commanders as the certification authority for the Acquisition Workforce.

* Require political appointees assigned to acquisition-related positions to receive orientation about the Acquisition System and the Department of Defense administrative procedures prior to assuming positions.

* Assign workforce management responsibility to the Under Secretary of Defense for Acquisition, Technology and Logistics, to include career development training and promotion for personnel in the Offices of the Secretary of Defense, the Joint Staff and Defense Agencies.

* Reduce to 30 days the time required to establish and fill Senior Executive Service and Highly Qualified Expert positions.

* Submit legislation to reinstate Public Law 313 that provides for recruiting highly qualified personnel and placing them in positions where they may direct and supervise other federal employees.

* Infuse program management expertise into the workforce in the near-term by routinely contracting for and providing expert mentoring to Program Managers.

* Fund and direct the Services to implement an Acquisition Career Incentive Program to encourage highly experienced professionals to remain in the Federal Government and motivate the workforce to gain broader experience and greater expertise.

Budget

Performance Assessment

Successful Research, Development, Test and Evaluation and Procurement programs require stable budgets and accurate planning. Our assessment concluded that this stability does not exist. Current budget reallocations, and or, shortfalls are frequently resolved by stretching programs, thereby introducing instability and long-term cost growth. In taking these actions, the Department accepts long-term cost increases and delays in acquisition programs to achieve short-term savings and budget flexibility.

Major Findings

Variability between annual budget predictions and the ultimate budget authority makes program planning difficult.

Congressional inclination to take money from specific program elements for non-programmatic reasons as well as the Services' propensity to take procurement investment account money to pay Military Personnel and Operations and Maintenance bills have combined to create a root cause for program instability. (Figure 19)

Fiscal Year	Request $M	Net Change		Additions Only		Subtractions Only		Gross Changes	
		$M	%	$M	%	$M	%	$M	%
1996	$39,409	$3,978	10	$8,468	21	-$4,490	-11	$12,958	33
1997	$38,937	$5,332	14	$7,961	20	-$2,628	-7	$10,589	27
1998	$42,606	$2,487	6	$5,140	12	-$2,653	-6	$7,793	18
1999	$48,705	$471	1	$2,923	6	-$2,452	-5	$5,375	11
2000	$53,020	$1,848	3	$5,686	11	-$3,838	-7	$9,524	18
2001	$61,191	$753	1	$5,967	10	-$5,213	-9	$11,181	18
2002	$61,129	$1,115	2	$6,005	10	-$4,889	-8	$10,894	18
2003	$68,710	$1,721	3	$7,118	10	-$5,398	-8	$12,516	18
2004	$72,746	$8,382	12	$12,976	18	-$4,594	-6	$17,570	24
2005	$74,904	$4,720	6	$9,806	13	-$5,086	-7	$14,892	20

CONGRESSIONAL CHANGES TO DEFENSE PROCUREMENT REQUESTS

Comparison of identical Department of Defense procurement lines between President's Budget Request and Congressional Appropriation. Differences can include changes due to congressional action, budget amendments, and supplemental budget appropriations. (Figure 19a)

PRESIDENT'S BUDGET PROJECTIONS vs. ACTUAL DEFENSE BUDGET FY 80-06 (FY05$)
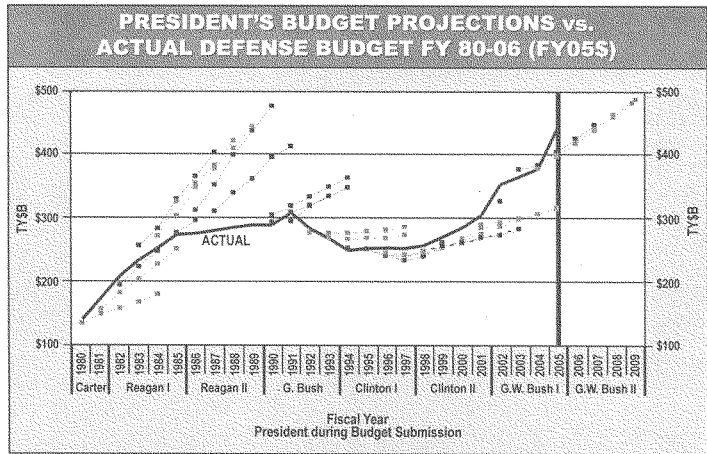
Example of budget instability (Figure 19b)

Using optimistic budget estimates (50/50 prospects to achieve realistic cost projections, versus 80/20 prospects) for Military Personnel, Operations and Maintenance, Research, Development, Test and Evaluation and Procurement activities forces excessive annual reprogramming and budget exercises within the Department, which in turn causes program "restructuring" that drives long-term cost, causes schedule growth, and opens the door to requirements creep. Requiring the use of unrealistic inflation factors in program cost estimates and other planning factors causes further instability. (Figure 20)
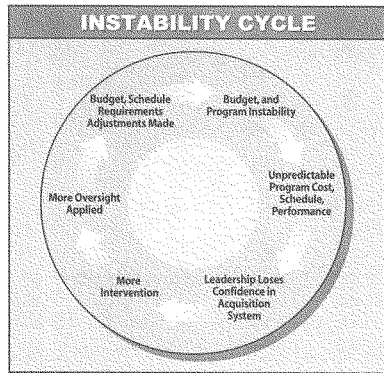
The Department's management and oversight systems generate significant program instability (Figure 20)

The Research, Development, Test and Evaluation and Procurement accounts become the source of funding to cover shortfalls in the Military Personnel and Operations and Maintenance budgets.

The absence of a Program Management Reserve makes fiscal management extremely problematic for Program Managers. Not providing Program Managers with financial authorities, similar to what is available to nearly every corporate Chief Executive Officer and Chief Financial Officer, puts government acquisition executives at a significant disadvantage.

Performance Improvement

To correct the budget process, it is necessary to enhance the Planning, Programming, Budgeting and Execution system to achieve budget and programming stability by programming to high confidence estimates for all accounts and establishing a distinct Stable Program Funding Account. (Figure 21)

STABILIZING THE FUNDING FOR ACQUISITION

For the purpose of this performance improvement recommendation, the term "Stable Program Funding Account" is defined as a single account appropriated by the Congress that funds all Acquisition Category I Programs at the beginning of the fiscal year and is managed through a Capital Budgeting process. Capital Budgeting and execution is the total process of generating, evaluating, selecting and following-up on capital expenditures that are expected to have a significant impact on financial performance. Capital Budgeting means a budget process that identifies large capital outlays that are expected to be made in future years, together with identification of the proposed means to finance those outlays and the expected benefits of those outlays. Major Acquisition Programs would be fully funded at a level that would cover the program from Milestone A through the first delivery of low rate production.

Funds will be appropriated by Congress for Acquisition Category I Programs through the Under Secretary of Defense for Acquisition, Technology and Logistics, who will allocate the funds to the Military Departments in amounts equal to the approved program annual budgets. Military Departments will then be accountable for the individual program management and the stability of the programs.

This approach is a departure from the single line item budgeting that the Department has implemented in the past. Consequently, the Panel recommends a phased approach to implement the Stable Program Funding Accounts. The Under Secretary for Acquisition, Technology and Logistics should identify three to five Major Acquisition Programs for test programs. Successful results would give the Congress confidence that the Department is capable of executing a capital budgeting approach, while maintaining appropriate oversight and accountability. Stable Program Funding Accounts will establish a stability in the budgeting process that heretofore has been absent.

The Panel's proposal to stabilize the budget process (Figure 21)

The Stable Program Funding Account will be budgeted and programmed by the Under Secretary of Defense for Acquisition, Technology and Logistics for all Acquisition Category One programs at Milestone A through Initial Operating Capability. It is necessary to include and maintain a practical Management Reserve held at the Service level.

Implementation Criteria

Take explicit actions necessary to achieve stability that results in savings and flexibility in the current budgeting process.

* Establish a separate Stable Program Funding Account prior to submission of the Fiscal Year 2007 budget.

  * Complete a Concept of Operations with appropriate policies by defining organizational and leadership responsibilities, authority and accountability for a new and distinct Stable Program Funding Account, by Summer 2006.

* Require the Services to ensure that the acquisition process discipline is in place in order to support Capital Budgeting and execution.

  * Create Management Reserves in the Stable Program Funding Account by holding expiring termination liability budgeted funds at the Service level, under the authority of the Service Acquisition Executive, by early Spring 2006 for the Fiscal Year 2007 and subsequent budgets. Availability of a Management Reserve will substantially reduce the impact of unexpected technical upsets during program execution and thus stabilize the contract management and execution process.

  * Program and Budget in all accounts, and or categories to an 80/20 confidence level for inclusion in the Service Fiscal Year 2008 Program Objective Memorandum submissions.

  * Program for items such as those funded through the Small Business Innovative Research. Historically, they have been funded through a "tax" on programs.

Requirements – The Process

Performance Assessment

A successful acquisition process must be based on requirements that are relevant to the obvious security environment. Those requirements should be derived in a timely way from capability shortfalls identified by Combatant Commanders and should be informed by realistic technical assessments and fiscal guidance. Our assessment is that the current requirements

process does not meet the needs of the current security environment or the standards of a successful acquisition process. Requirements take too long to develop, are derived from Joint Staff and Service views of the Combatant Commands' needs and often rest on immature technologies and overly optimistic estimates of future resource needs and availability. This fact introduces instability into the system when the lengthy and insufficiently advised requirement development process results in capabilities that do not meet warfighter needs or the capabilities that are delivered "late-to-need."

Major Findings

Combatant Commanders participate but do not play a leading role in defining capability shortfalls, nor do they have a mechanism to identify areas of excess capability. Therefore, requirements frequently are not linked to the capabilities desired by the Combatant Commanders.

Senior military leadership is not adequately involved in managing the requirements process.

Neither the Joint Capabilities Integration and Development System nor the Services requirement development processes are well informed about the maturity of technologies that underlie achievement of the requirement or the resources necessary to realize their development.

No time-phased, fiscally and technically informed capabilities development and divestment plan exists to guide and prioritize the development and understanding of weapon system requirements.

The Joint Capabilities Integration and Development System, like its predecessors, is slow and complex. It is particularly ill-suited to respond to urgent needs arising from current operations and is structured for a "Cold War," traditional opponent.

There is a significant disconnect between "requirements management and development" and the budget and acquisition processes in the Acquisition System.

Most of the comments that the Panel received concerning the Joint Capabilities Integration and Development System found it too complex, with little added value in defining capabilities that require Materiel Solutions or that establish actionable parameters to guide program definition. The consequence is a widely-held doubt that the Department is acquiring the "right things" in the "right quantities."

Management of the requirements process was the third most frequently cited issue of concern among our observations.

While satisfying urgent needs depends on readily available new technologies, the Department's science and technology program is not adequately sized and structured to meet this requirement. It is not well-integrated with major system acquisitions and does not efficiently transition technology into products rapidly, if at all. Further, active investigation and infusion of science and technology efforts conducted by non-defense or small businesses is not routinely solicited. This results in lost opportunities.

Performance Improvement

Replace the Joint Capabilities Integration and Development System with the Joint Capabilities Acquisition and Divestment Plan. The Panel proposes this Plan in which the Combatant Commands play the lead role in defining needed capabilities, and Services and Department of Defense Agencies compete to provide solutions. (Figure 22)

JOINT CAPABILITIES DIVESTMENT ACQUISITION PLAN

Our proposed requirements' development process will include two major activities designated to help the Department procure a balanced portfolio of capabilities responsive to current and future operational needs of the combatant commands — to "buy the right things."

- The first activity is a two-year, recurring process to produce an integrated, time-phased and fiscally-informed Joint Capabilities Acquisition and Divestment (JCAD) Plan.

- The second is a continuous Materiel Solutions Development Process to identify and initiate development of materiel solutions to satisfy needs identified in the JCAD Plan.

The Panel developed an implementation plan and a process flow and schedule for the Joint Capabilities Acquisition and Divestment Plan System (Figure 22)

To participate in this Divestment Plan, Combatant Commands should develop 15-year extended planning annexes for each of their operational plans. These annexes should consider projected changes in the environment and potential threats in their areas of responsibility. They should match them against Service and or Agency programs of record to identify capability gaps or areas of excess capability and we provided the resources to accomplish this effort.

The Combatant Commands should define the capability required and the date by which the capability is needed, the relative priority of the capability, and a time-phased plan for divesting current capabilities or assets that are either reaching the end of useful service life, or which are excess-to-need.

The Joint Requirements Oversight Council should then integrate these Combatant Commands analyses into a time-phased, fiscally-informed Joint Capabilities Acquisition and Divestment Plan. The Under Secretary of Defense for Acquisition Technology and Logistics should be a full member of the Joint Requirements Oversight Council.

This plan should guide the development of fiscally and time-constrained Materiel Solution solicitations against which the Services and other Agencies of the Department propose solutions to address the needs. A parallel, but much accelerated, process should be developed to respond to urgent needs identified by Combatant Commands engaged in ongoing operations.

We recommend the first Joint Capabilities Acquisition and Divestment process planning cycle be compressed to 100 days in order to kick start the process of acquisition performance improvement, recognizing that this first plan, and the processes used to create it, will require much refinement and improvement as it evolves. Nevertheless, with strong and determined leadership, this first Joint Capabilities Acquisition and Divestment Plan will identify the Combatant Commander's highest priority capability needs and will serve as an adequate guide to the Materiel Solutions Development Process, until a more refined product can operate.

Upon completion of the compressed Joint Capabilities Acquisition and Divestment process planning cycle, the Office of the Joint Chiefs, Force Structure, Resources and Assessment Directorate (J8) should lead a two-month assessment of the process to identify lessons learned and develop detailed instructions to guide the next planning cycle, by Spring 2008.

Implementation Criteria

To meet the needs of the current security environment and to establish a successful process for determining credible requirements for the warfighter, the Panel believes a replacement for the Joint Capabilities Integration and Develop System is necessary. The chart depicts the Joint Capabilities Acquisition and Divestment system that the Panel recommends. (Figure 23)

- Direct the Combatant Commanders with support from the Services and other Defense Agencies to prepare 15-year Extended Planning Annexes to include capability gaps and redundancies for all Operational and Contingency Plans and to submit this extended plan to the Secretary of Defense, by early Spring 2006.

JOINT CAPABILITIES ACQUISITION IMPLEMENTATION
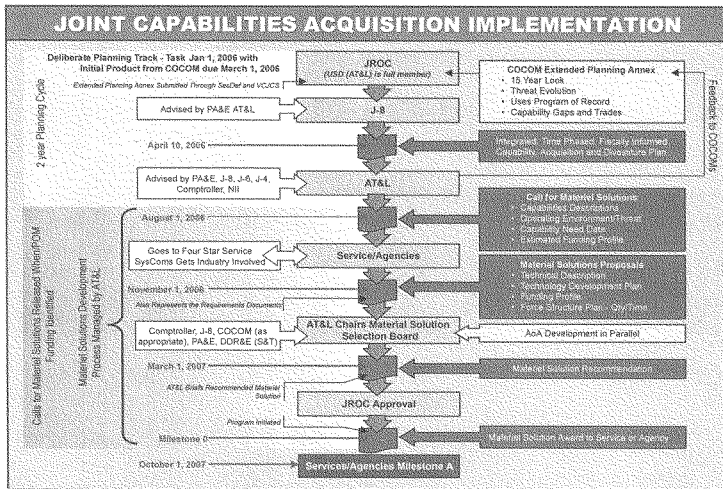
If implemented immediately, the Panel's Joint Capabilities Acquisition and Divestment Plan process can support the Fiscal Year 2007 budget development process (Figure 23)

- Annexes will match the capabilities that are expected to be provided by the program of record in support of the Combatant Commanders' assessment of those capabilities needed to successfully accomplish the missions for which the plan was created.

- Annexes will use a 15-year planning horizon and will consider expected changes in threats, the geopolitical environment, and doctrine, training and operational concepts. It will also include potential capability enhancements from the program of record and current science and technology programs.

- Annexes will be time-phased with capability assessments provided for the current year as well as 5, 10 and 15 years into the future.

- Annexes will identify and prioritize gaps not likely to be closed by the program of record, as well as areas where the program of record is expected to provide more capability than required.

- Direct the Joint Staff to coordinate with the Services and the Office of Program Analysis and Evaluation and the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics to integrate the Combatant Commander's Annexes into a departmental time-phased, fiscally-informed and prioritized Joint Capabilities Acquisition and Divestment Plan, by early Spring 2006. This part of the process repeats on a two-year cycle while the actions shown in the Figure 25 are a continuous execution process paced by resource availability. These actions fit in the Joint Capabilities Acquisition and Divestment process. (Figure 24)
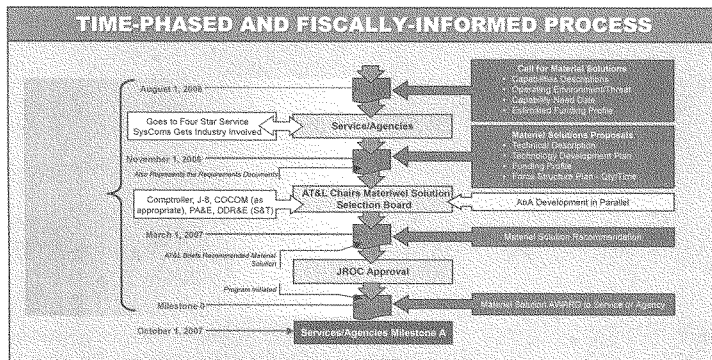
*The Joint Capabilities Acquisition and Divestment Plan process
delivers a time-phased, fiscally-informed and prioritized plan (Figure 24)*

- Direct the Under Secretary of Defense for Acquisition, Technology and Logistics, with support from the Office of the Secretary of Defense for Program Analysis and Evaluation; Office of the Joint Chiefs Logistics Directorate (J4); Command, Control, Communications and Computer Systems Directorate (J6), and Force Structure, Resources and Assessment Directorate (J8); the Office of the Assistant Secretary of Defense Networks and Information Integration; and the Office of the Secretary of Defense, Comptroller to prepare an initial set of "Calls for Materiel Solutions" for release, by late Summer 2006. The Under Secretary of Defense for Acquisition, Technology and Logistics will release "Calls for Materiel Solutions" only when resources can be identified in the Program Objective Memorandum to fund potential solutions. The initial set of "Calls for Materiel Solutions" will be developed to satisfy the highest priority capability gaps identified in the newly established Joint Capabilities Acquisition
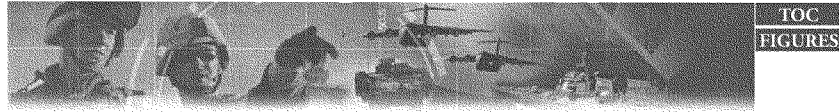
and Divestment Plan, for which resources can be identified. After completion of these initial "Calls for Materiel Solutions," subsequent "Calls for Materiel Solutions" will be prepared and released on a continuous basis as resources are identified in the Program Objectives Memorandum and long-range financial plans. A "Call for Materiel Solutions" is analogous to a "Request for Proposal" and will include a detailed description of the capability to be provided, the environments in which it will be expected to operate, the threats it is expected to face, a capability need date and an estimated funding profile for Systems Design and Development and procurement. "Calls for Materiel Solutions" will be informed by a dialogue with the Services and Defense Agencies, just as Request for Proposals are currently informed by Request for Information and other forms of collaboration with industry. (Figure 25)
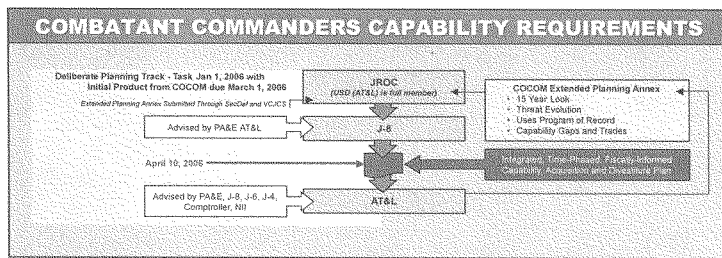
The Joint Capabilities Acquisition and Divestment Plan process creates robust competition for Materiel Solutions to fill the Combatant Commander's capability gaps (Figure 25)

* Direct the Office of Program Analysis and Evaluation to initiate work on Analyses of Alternatives as likely alternative solutions become clear.

* Direct the Office of Program Analysis and Evaluation to complete Analyses of Alternatives on the initial set of "Calls for Materiel Solutions" in order to support "Materiel Solution Awards," by early Spring 2007.

* Direct interested Services and Defense Agencies to respond to the "Calls for Materiel Solutions" and submit an initial set of "Materiel Solution Proposals" to the Under Secretary of Defense for Acquisition, Technology and Logistics, by Fall 2006. Materiel Solution Proposals will include a detailed technical description of the solution, a technology development and maturation plan, a concept of employment, a proposed force structure quantity and rate of fielding, and an estimated cost. Note that this is not

a program baseline. Preparation of Materiel Solution Proposals will be led by the Service Four-Star Acquisition Systems Commands and Agency counterparts, and is expected to involve extensive collaboration with their industry partners who will compete for subsequent Systems Design and Development and production contracts.

* Direct the Under Secretary of Defense for Acquisition, Technology and Logistics with support from the Office of the Secretary of Defense for Program Analysis and Evaluation; the Office of the Joint Chiefs of Staff, Resources and Assessment Directorate (J8); the Director of Defense Research and Engineering, the Office of the Secretary of Defense, Comptroller and the staff of the requiring Combatant Commanders to evaluate Materiel Solution Proposals submitted by the Services and Agencies and recommend solutions for approval by the Joint Requirements Oversight Council.

* Direct the Joint Requirements Oversight Council to award authority to initiate a program to the selected Service or Agency for the initial set of programs resulting from the Joint Capabilities Acquisition and Divestment Plan, by Spring 2007.

* Formally establish programs at Milestone 0 at which time the Program Execution Agent (Service or Agency) for the Under Secretary of Defense for Acquisition, Technology and Logistics and Service Acquisition Executives will be identified and the specific program budget will be created.

* Direct the Program Execution Agent (Executing Service or Agency) to fund program initiation activities and achieve a Milestone A decision for the initial set of programs resulting from the Joint Capabilities Acquisition and Divestment Plan, no later than Fall 2007.

* Direct the Director, Defense Research and Engineering to coordinate service science and technology transition plans to minimize duplication of effort, enhance cross service application of emerging technology and re-emphasize "technology push".

* Establish a permanent Advanced Technology System Deployment budget in the Office of the Director, Defense Research and Engineering to expand the current Advanced Concept Technology Demonstration program. The expansion will enable systems to be deployed to meet Combatant Commanders' emerging needs without having to get a single Service to take ownership under a new or existing program of record.

* Request funding in the Fiscal Year 2008 budget submission to exploit maturing technology and field equipment and capabilities that are responsive to evolving changes in the security environment identified by the Combatant Commands (two-to-four year horizon).

- Conduct a realistic annual experiment exercise, cosponsored by the Director Defense Research and Engineering and the Joint Staff, to evaluate technology, innovative concepts and capabilities and to validate emerging requirements and technology maturity, beginning in Fiscal Year 2007.

Requirements – Managing Operational Testing

Performance Assessment

The current Operational Test and Evaluation process is creating program instability by introducing new requirements through the testing process. Instability of requirements is also introduced by policy mandates and changes in acquisition rules.

Major Findings

The length of the program development cycle provides many opportunities for requirement growth that result in instability in the requirement process.

In addition, we observed many instances in which programs formerly declared to be Not Operationally Effective by the Director of Operational Test and Evaluation were actually fielded in combat situations and proved to be operationally useful. The Joint Surveillance Target Attack Radar System, Joint Direct Attack Munitions, Predator - Medium Altitude Endurance Unmanned Aerial Vehicle, and the F-15E Long-Range Interdiction Fighter are examples.

There is an inclination for the test community to drive increased requirements that are not otherwise identified in program baselines or by the Combatant Commanders.

Changes in acquisition instructions, policies and mandates are applied to programs that are already baselined, without consideration for cost or schedule impact. The LINK-16 and Joint Tactical Radio System programs and the interoperability Key Performance Parameter are examples of this problem.

Between Fiscal Years 2002 and 2005, the Test and Evaluation workforce grew by over 40 percent while the program management workforce declined by 5 percent, production engineering declined by 12 percent and financial managers declined by 20 percent. This imbalance creates an environment in which requirements can be created and grow through the test and evaluation process, outside of the ability of the acquisition process to manage or control them.

Performance Improvement

Make operational testing more realistic, time and resource constrained, and limited in its ability to create additional performance requirements.

Create a new category for Initial Operational Test and Evaluation results that allows Combatant Commanders to accept useful capabilities for deployment which the Director of Operational Test and Evaluation would otherwise determine to be Not Operationally Effective.

Require that test planning and criteria development for Operational Test and Evaluation reflect testing in environments and against the range of threats that are identified by the Combatant Commander -- not by the test community.

Give Program Managers explicit authority to defer non-Key Performance Parameter related requirements to later acquisition "spirals" or "block upgrades" to meet time-certain standards, after Milestone B.

Require Joint Requirement Oversight Council approval of all test plans that require operational testing in environments other than those established in the Test and Evaluation Master Plan, the Initial Operational Test and Evaluation Plan, and placed under contract at Milestone B. If such testing is approved, require that remediation of any deficiencies noted during testing in changed environments will be corrected in future upgrades rather than prior to first article delivery and require that additional program budgets be allocated accordingly.

Implementation Criteria

Enhance requirements stability by modifying Initial Operational Test and Evaluation processes and procedures and establishing realistic testing based upon needs and threat environments defined by the Combatant Commanders.

* Submit legislation and provide new instructions to establish a third category, Operationally Acceptable, for Initial Operational Test and Evaluation test results by Spring 2006. Systems would be evaluated as Operationally Acceptable when the system performance is not fully adequate when tested against criteria established by the Director of Operational Test and Evaluation, but when the Combatant Commander has determined that the system, as tested, provides a useful capability and the Combatant Commander desires immediate fielding of the capability as tested. This will limit the addition of requirements during tests for system performance that go beyond the levels established at System Design and Development contract award.

* Review and modify applicable regulations relative to Program Manager Authority to empower the Program Manager, after Milestone B, to defer requirements other than those established as Key Performance Parameters to later blocks or spirals meet Time Certain Development standards, by early Spring 2006.

- Review and modify applicable regulations to require Joint Requirements Oversight Council approval to conduct Initial Operational Test and Evaluation in an environment other than that defined and documented in the Test and Evaluation Master Plan and the Initial Operational Test and Evaluation Plan at the Milestone B decision, by early Spring 2006.

- Revise Joint Requirement Oversight Council procedures, by early Spring 2006. Remediation of any deficiencies resulting from testing at the Initial Operational Test and Evaluation in an environment other than the specified decision documented at that the time of the Test and Evaluation Master Plan decision will be a candidate for future system upgrades only at the Milestone B juncture, rather than prior to first article delivery.

- Increase the size of the test and evaluation workforce to reflect an appropriate balance with the size of other Acquisition System workforce, by Fall 2006.

Acquisition – The Process

Performance Assessment

Successful acquisition processes need the stability that results from a successful acquisition strategy and best value to the government. Our assessment is that current acquisition strategies encourage a "Conspiracy of Hope" that introduces instability at the very beginning of acquisition programs. The "Conspiracy of Hope" occurs when industry is encouraged to propose unrealistic cost, optimistic performance and understate technical risk estimates during the acquisition solicitation process and the Department is encouraged to accept these proposals as the foundation for program baselines. The "Conspiracy of Hope" is reinforced by the cost-plus environment in our current acquisition strategies that encourages industry to be overly optimistic in their bids by imposing little or no financial risk to those who submit such bids.

Major Findings

The government starts fewer "new" programs which in turn produces a "must win" environment for industry on programs now being competed.

Defense industry consolidation results in fewer bidders. This makes it harder for the government to obtain the advantages of competition.

Proposed cost is a significant factor in source selections. Many awards go to the lowest bidder, even in best value determinations, when cost is weighted as the least important evaluation factor for award.

The current process for development of solicitations and subsequent contract structures does not adequately incentivize desired contractor performance, either during competition or after contract award.

The Center for Strategic and International Studies observed that because of the Department's culture of "cost rather than value," it would rather pay $10 billion and 4 percent margins than $500 million and 20 percent margins for a system.

Performance Improvement

A risk-based source selection process must be adopted. For development contracts, proposal cost should be replaced by industry and government agreements on a high confidence cost estimate for the desired capability and a subsequent determination, by Source Selection Authorities, of a competitive range based upon which high confidence costs of these proposals are considered to be affordable.

Following this determination, Source Selection Authorities should evaluate technical and management proposals and base their source selection decisions on technical and management risk of the proposal as well as the ability to achieve cost and schedule targets. At contract award, the agreed high confidence cost should be set as the contract target cost and industry should be incentivized aggressively to deliver at or below that cost.

Implementation Criteria

Create acquisition strategies for each program prior to Milestone A that reflect restructuring source selection competitions for Acquisition Category I and II programs to significantly shorten their length and base their results on system risk and management performance instead of cost.

* Establish streamlined procurement and milestone review processes to substantially reduce time-to-market.

* Establish source selection evaluation criteria to emphasize effective program management, subcontract management and low program risk.

* Create contract terms and conditions that require formal subcontractor level competition instead of internal make-or-buy assessments by the prime.

* Encourage use of both positive and negative incentive structures to promote desired contractor performance.

* Tie award fees to Contractor Performance Assessment Reporting system ratings.

* Change existing source selection guidance to include the following, as a minimum:

  ■ Create an environment of open communication to ensure that industry understands government requirements and government understands industry capabilities and limitations.

  ■ Include industry in development of program acquisition strategies for each phase of the process, and the acquisition and source selection plans for each competitive source selection.

  ■ Ensure traceability of requirements from program to the acquisition strategy to the acquisition plan, to the instructions to offerors, to the evaluation factors for award, to the contract incentive provisions and program control and to the performance evaluation metric selection.

  ■ Standardize the content of the Concept Development and Demonstration phase competitive prototype contracts to include conducting initial baseline review and preliminary design review for the contractor's proposed System Design and Development program.

  ■ Eliminate the requirement to share all questions or information submitted and eliminate answers provided to a single competitor with all competitors prior to issuance of the final request for proposals.

  ■ Incorporate existing scheduled contractor technical or program reviews as proposal elements, to the maximum extent possible.

  ■ Require oral presentations of proposals during source selection and encourage open exchanges between evaluators and industry, not limited to clarification only, during these presentations.

  ■ Use an affordability assessment based upon industry and government-agreed high confidence costs as the principal factor in competitive range determination during source selection. Once a competitor's government and industry agreed-to development cost is determined to be affordable, and thus the competitor is determined to be within the competitive range, no other consideration will be given to the development cost, other than cost realism, during subsequent competitive source selection evaluations for Concept Development and Demonstration and System Design and Development contracts.

  ■ Stress the critical nature of risk mitigation and completeness of data supporting offerors' claims as a heavily weighted evaluation factor for award.

  ■ Establish performance and schedule confidence as well as management confidence including subcontractor selection and management as primary evaluation factors

for award of Concept Development and Demonstration and System Design and Development contracts.

- Set target cost for cost-type concept development and system design and development contracts at the Cost Analysis Improvement Group estimate, identifying the difference between proposed and target cost as management reserve, aggressively incentivizing cost performance, and penalizing cost growth over target.

- Publish an instruction from the Under Secretary of Defense for Acquisition, Technology and Logistics codifying this recommendation.

  - Create an implementation plan for these recommendations, developed jointly by industry and government.

  - Publish the announcement of these proposed changes to the Federal Acquisition Regulation in the Federal Register, by Spring 2006.

Acquisition - Time Certain Development

Performance Assessment

Acquisition programs need to deliver timely products. Our assessment is that the culture of the Department is to strive initially for the 100 percent solution in the first article delivered to the field. Further, the "Conspiracy of Hope" causes the Department to consistently underestimate what it would cost to get the 100 percent solution. Therefore, products take tens of years to deliver and cost far more than originally estimated.

The acquisition process is slow, overly complex and incompatible with meeting the needs of multiple, competing, departmental demands, in a diverse marketplace. The Department does not adequately consider many significant issues, such as impacts on the industrial and vendor base, the competitive pressure to win, and the willingness to take risks when creating the initial acquisition strategies for programs. This results in programs being structured without due consideration for the implications of technology maturity, and in setting unrealistic scheduling for program success.

The Department of Defense's "one size fits all" acquisition program structure does not meet the diverse capability and rapid time of delivery needs that are typical of a rapidly changing security environment.

Major Findings

The Department of Defense 5000 series Directives set Milestone B in advance of System Requirements Review and before technology and system design are sufficiently mature to establish high confidence regular cost, schedule and performance thresholds.

The greatest trade space for programs and the largest risk reduction opportunities exist between Milestone A and Milestone B. The Department places most program focus on Milestone B. The balancing and integration of technology maturity, system capability, cost and program risk is not being achieved and agreed to prior to Milestone B, thereby engendering excessive cost, schedule and performance risk.

Technology maturity or "knowledge-based" development has been a subject of considerable discussion between the Department and the Congress. However, although there is agreement concerning the advantages of ensuring that technology is mature prior to proceeding to development and production, there are no clearly definable measures of technology readiness. This inability to define and thus measure technology readiness facilitates decisions to incorporate immature technology in system design at Milestone B which subsequently leads to technical problems during System Design and Development. This, in turn, begins a long cycle of instability, budget and requirements changes, costly delays and repeated re-baselining.

Repeated re-baselining masks cost increases and lengthens schedules. The increased costs are aggregated in Selected Acquisition Reports and erode confidence in the Acquisition System. There is no coherent, standardized tracking system and accountability is lost.

When lengthy development nears completion, changes in threat definition and test scenarios cause systems to fail Initial Operational Test and Evaluation. The rework required to accommodate the changes prior to first article delivery drives cost and schedule growth.

The vulnerability of programs to these changes increases as schedule lengthens. New mandates, changes in acquisition rules, and new policies are applied to programs already baselined, thereby driving costs up and lengthening schedules.

While the former Department of Defense Directive 5000.2R has been reissued as a "guidebook", it effectively remains a compliance document, forcing all programs to adopt a similar architecture and comply with a similar set of processes.

Performance Improvement

There is a need to shift to Time Certain Development and make "schedule" a Key Performance Parameter. Developmental programs must change their focus to deliver useful military capability within a specified time (nominally no more than six years for major platforms) from Milestone A. ·

Time Certain Development enforces evolutionary acquisition by making time the focus of the up front requirement statement. Capabilities should be upgraded over time as technologies mature and operational requirements become clearer. Time Certain Development differs from prior attempts at valuing time to market, such as evolutionary acquisition and spiral development in that a maximum number of years is mandated, the start and end dates are defined, and the driving processes (requirements, budget, source selection, etc.) are revamped to support it.

At Milestone B, when technology maturity and system design are sufficiently mature to set high confidence cost, schedule, and performance thresholds, program baselines should be established to meet a specified time (nominal six year timeline) from Milestone A to delivery of the first Operationally Acceptable capability to the operating force. Time Certain Development adds "time" as a factor critical to the discussion of the need to balance cost and performance. (Figure 26)

DEFENSE ACQUISITION MODEL

"While we would model defense acquisition after the practices of the best industrial companies, we recognize the unique problems DoD faces. Management of the acquisition of military equipment requires a unique blend of flexibility and judgement. The contributions of innovative scientists and engineers, necessary for equipment to achieve maximum performance, must be matched by those of military personnel who will use and maintain the equipment. Overlaying these complexities is the need for an informed tradeoff between quantity and quality. At some point, more weapons of lower performance can overcome fewer weapons of higher performance. Hence it is necessary to achieve a critical balance between high military capability and low life cycle cost. In these and other respects, defense acquisition is one of the most difficult management jobs."

"President's Blue Ribbon Commission on Defense Management"
The Packard Commission. April 1986

We must add "time" as a factor to the Packard Commission discussion of the need to balance cost and performance (Figure 26)

Program Managers should be empowered with accountability and authority to manage their program. This includes empowerment to defer to future upgrades non-Key Performance Parameter requirements that cannot be satisfied within the time established to deliver an operational capability. Unity of effort in the acquisition community is critical across the Department once the baseline is set.

Today's Acquisition System should be replaced with one that recognizes both the importance of time-to-need and the critical role that technology maturity plays in achieving program success. At Milestone 0, a realistic capability delivery date, the definition of an initial operationally useful capability and the level of acceptable technology risk, based on the current level of technology readiness of major potential subsystems components, should be established.

Once the time-to-need and the current technology risk level are determined, the program should be time-constrained. We recommend no more than six years from Milestone A to fielding of the first operational article. Also, technical performance should be traded off to maintain this schedule. Subsequent system or platform improvements, to enhance performance initially, above the agreed upon useful capability level, can be made in block or spiral upgrades. This approach gets weapon systems fielded more quickly and at lower risk with acceptable operational capability.

Implementation Criteria

- Issue an amendment to Department of Defense 5000 series Directives, to endorse Time Certain Development as the preferred acquisition strategy for major weapons systems development programs, by Spring 2006.

- Require delivery of the first unit to operational forces within approximately six years of the Milestone A decision. Set fixed durations for program phases based on integrating technology with maturity appropriate to the program phase, defined risk reduction horizons and mutually agreed (acquisition, requirements, budget and industry) Program Execution Criteria and establish the Acquisition Category for each program at Milestone A. The established durations will not be adjusted to accommodate new requirements or capability enhancements prior to fielding the useful military capability. Evolutionary acquisition, spiral development or block upgrades will be used to allow for the inclusion of enhancements and increased requirements.

- Establish technology readiness levels for the system design to support the fielding of the capability in the specific time frame.

- Use early fielding of a basic capability to allow operational users to gain a clear understanding of the requirements to be incorporated during future block or spiral upgrades and the technologies that are sufficiently mature to enable producers to satisfy those requirements.

- Time Certain Development and improved program management will substantially reduce time in development for systems, reducing pressure on investment accounts and increasing funding stability for all development programs. Include the following provisions in the directive update.

* Require Joint Requirement Oversight Council revalidation for any program that fails to meet a specific time constraint.

* Reposition the Milestone B decision to occur at Preliminary Design Review, when designs are mature and realistic cost determination is possible.

* Require the Test and Evaluation Master Plan and the Initial Operational Test and Evaluation Plan be completed and signed before the program is baselined at Milestone B. Include the Program Manager as a signatory on both test plans.

* Appoint certified professional acquisition Program Managers accountable for each baseline with tenure beginning prior to the appropriate Milestone B approval and ending with completion of the Beyond-Low Rate Initial Production (LRIP) Report.

* Direct each newly appointed Four-Star Acquisition Systems Commanders to implement these changes, no later than Fall 2006.

* Task the Director, Defense Research and Engineering to establish rigorous, demonstrable definitions for technology maturity at the component, subsystem and system level, by early Summer 2006.

Industry

Performance Assessment

Successful acquisition requires a stable environment of trust and confidence between government and an industrial base that is responsive and healthy. This fosters competition for ideas and solutions to efficiently and effectively provide required capabilities and guaranteed best value for the government. Our assessment is that the consolidation of the industrial base, caused by unstable defense demand, has reduced the benefits of competition, introduced industrial organizational conflict of interest issues, and made every defense contract a "must win" situation for the prime contractors. The net result is that the U.S. industrial base is fragile. It will re-learn very expensive lessons with every program and will require the re-building of infrastructure, tailored to each new program.

Major Findings

Goldwater-Nichols reforms were designed in a different world of 20 more than prime contractors, multiple new starts and huge annual production run (585 aircraft, 2,031 vehicles, 24 ships, 32,714 missiles). Today there are six primes that the Department cannot live without, few new starts and low rates of production (188 aircraft, 190 combat vehicles, 8 ships/subs, 5,702 missiles) plus a need to respond quickly to urgent operational needs. This reduced demand has had major consequences.

The consolidation of the U.S. defense industry to just six major suppliers over the last 19 years, coupled with the volatility in Department investment accounts and weighted profit and fee guidelines has both limited the competitive landscape (making the idea of cost competition less meaningful) and removed industry's incentive to invest in capital equipment and research and development.

The Department does not have adequate access to emerging commercial innovations and technology from both large and small commercial businesses. While we did not have sufficient time to consider this growing issue in detail, it poses a serious impediment to the Department's ability to strategically exploit emerging technology and to obtain the goods and services required by the Department at the lowest possible cost.

Consolidation of the defense industrial base, vertical integration of a limited number of suppliers, and erosion of the supplier base at the second and lower tiers have reduced the benefits of competition and increased acquisition instability. Department of Defense acquisition strategies that consolidate multiple capability needs into "single weapon system procurement" force industry into "must win" cost competitions. In these competitions, industry typically proposes contract costs with a 20 percent confidence that the resources (dollars and time) are sufficient to deliver the proposed technical solutions. Although independent cost analysis and technical assessments conducted by the Department routinely establish most probable costs and schedules for these proposals at appropriate levels, contracts are awarded at the proposed cost and baselined against proposed schedule. Department requirements to budget programs to the most probable cost are routinely interpreted to apply only to the budget years. This "Conspiracy of Hope" almost guarantees that programs will encounter significant cost and schedule upsets during development. Further, given that development contracts are required to be cost type arrangements, this calls into question the validity of assumptions underlying the advantages of cost competition. Acquisition strategies that drive "must win" situations ensure that industry will continue to pursue this behavior. Traditional cost competitions conducted in this environment that result in contract award at proposed contract prices ensure that the Department's history of cost and schedule in development programs upsets will continue.

The Department has not adequately addressed the globalization of the defense industry. Provisions of the export control regimes do not acknowledge the dynamics of a global market place and are having a substantial impact on international competitiveness for American businesses. In some cases, these controls and conditions are providing strong disincentives to businesses to make their products or technologies available to the defense industry. The Department should review and make specific determinations to identify critical military technologies and to refine the export control process. (Figure 27)

EXPORT CONTROLS

While the defining measurement of the Cold War was weight, particularly the throw weight of missiles, the defining measurement of the globalization system is speed; speed of commerce, travel, communication and innovation. Globalization tends to revolve around Moore's Law which states that the computing power of silicon chips will double every 18 to 24 months, while the price will halve.

> **In the Cold War**, the most frequently asked question was:
> *Whose side are you on?*
>
> **In globalization**, the most frequently asked question is:
> *To what extent are you connected to everyone?*
>
> **In the Cold War**, the second most frequently asked question was:
> *How big is your missile?*
>
> **In globalization**, the second most frequently asked question is:
> *How fast is your modem?*
>
> **"The Lexus and the Olive Tree"**
> **Thomas L. Friedman. Page 10.**

*The Department must acknowledge and deal with the dynamics
of globalization (Figure 27)*

Performance Improvement

The acquisition community can overcome the consequences of reduced demand by sharing long-range plans and restructuring competitions for new programs with the goals of motivating industry investments in future technology and improving performance on current programs.

Aside from these specific recommendations, we propose that the Department and Congress initiate an evaluation of the impact of industrial consolidations and their unintended effects. Such a review should be conducted with a view toward our current security environment and the nature of our fundamental assumptions about the industry upon which our policy, laws and regulations are based.

Implementation Criteria

- Establish a Defense and Industry roundtable hosted by the Deputy Secretary of Defense, by early Spring 2006. The roundtable sessions should be scheduled frequently with the Chief Executive Officers of the defense industry prime contractors and first tier subcontractors to share the Joint Capabilities Acquisition and Divestment Plans and align industry and defense strategic planning. This will encourage industrial investment in areas of importance to the Department and ensure that a robust industrial base responds to the Department's needs. (Figure 28)
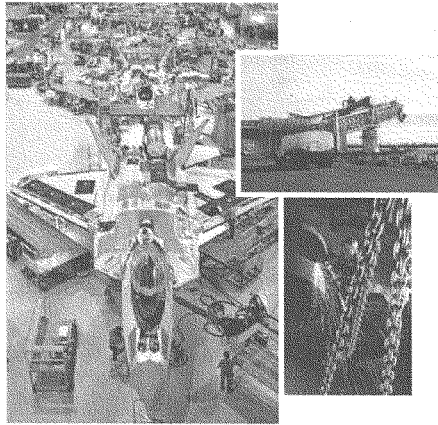
The Department and industry must operate in close partnership to ensure that the Department remains able to obtain dominant warfighting capabilities (Figure 28)

* Establish a Blue Ribbon panel comprised of owners of large and small businesses that are not traditional Department of Defense suppliers to create an aggressive set of recommendations with accompanying implementation plans to eliminate the barriers to do business with the government.

* Require government insight and favor formal competition over make or buy decisions for major subsystems, particularly where a Lead System Integrator acquisition strategy is in place. The trend toward Lead System Integrator acquisition strategies is reducing subcontractor opportunities to compete and impacting the viability of the vendor base, thereby increasing the risk that the Department cannot achieve its required capabilities.

The Panel aggressively sought corrective actions necessary to improve the Acquisition System as reflected in the issues described above. The structure of the Panel and the expertise of the Panel's members and advisors provided a solid foundation to create "bold new ideas."

Section IV

The Project

The Panel

Panel members and advisors were selected for their expertise, diversity and long records of success in the field of defense acquisition and related disciplines. They are official members of a Federal Advisory Committee functioning as independent reviewers and advisors to the Department of Defense. (Figure 29)

PANEL MEMBERSHIP

PANEL MEMBERS

Chairman - Lieutenant General Ronald T. Kadish, USAF (Ret)
Partner and Vice President of Aerospace Market Group, Booz Allen Hamilton

Dr. Gerald W. Abbott
Professor and Director Emeritus Industry Studies, Industrial College of the Armed Forces

Frank J. Cappuccio
Executive Vice President and General Manager of Advanced Development Programs, Lockheed Martin Aeronautics

General Richard E. Hawley, USAF (Ret)
Independent Defense Industry Consultant

General Paul J. Kern, USA (Ret)
Executive Advisor and Senior Counselor, The Cohen Group

Donald R. Kozlowski
Former Vice President, McDonnel Douglas Aircraft Corporation, Aerospace Consultant

ADVISORS

Dr. Francis W. A'Hearn
Professor of Acquisition, Industrial College of the Armed Forces

Dr. Linda S. Brandt
Professor of Acquisition, National Defense University

Dr. Judy A. Stokley
Deputy for Acquisition, Air Armament Center

Mr. Alfred G. Hutchins, Jr.
President, Hutchins & Associates, Inc.

Panel members represented government, industry and academia (Figure 29)

Executive Director's Staff

The Deputy Secretary of Defense Gordon England assigned the task of conducting the Defense Acquisition Performance Assessment to the Executive Director, Mr. J. David Patterson, formerly the Special Assistant to then Deputy Secretary of Defense Paul Wolfowitz. Mr. Patterson was assisted by an executive staff of military and federal service personnel. (Figure 30)

DAPA SUPPORT

OFFICE OF THE EXECUTIVE DIRECTOR

J. David Patterson, Executive Director

K. Eileen Giglio, Deputy Director

Col Alan J. Boykin, USAF
 Designated Federal Official and Director of Staff

Lt Col Rene Bergeron, USAF

Lt Col Annette Foster, USAF

Mr. Stephen Hayes

Ms. Maggie Souleyret

Ms. Annette Atoigue

REPORT EDITOR

Ms. Juli R. Branson

GRAPHICS SUPPORT

Ms. Protean Gibril, Project Manager

Ms. Colleen Wiatt, Graphics Designer

Mr. Carl Berry, Graphics Designer

*The Executive Director and his staff were responsible
for completing the Defense Acquisition
Performance Assessment (Figure 30)*

External Review Teams

The senior domain experts from government and the private sector generously agreed to contribute their time to advise us as we developed our assessment and performance improvement recommendations. Two separate teams met on three different occasions. With the assistance of a facilitator, provided by the Defense Acquisition Performance Assessment Project, they independently discussed the issues and provided their inputs and observations to the Chairman at the end of each session. Their views were extremely helpful and many were incorporated in these final assessments and major findings. Their participation, however, does not necessarily indicate their agreement with our final report or the assessments and improvements that are suggested. (Figure 31)

EXTERNAL REVIEW TEAMS

SENIOR REVIEW TEAM

Ms. Carolyn Becraft
President, Becraft Associates

Dr. Lawrence Delaney
Executive Vice President of Operations, The Titan Corporation

Mr. John Douglass
President and CEO, Aerospace Industries Association

Lieutenant General Lawrence P. Farrell, USAF (Ret)
President, National Defense Industrial Association

Dr. Jacques Gansler
Vice President for Research, Director (Robert C. Lipitz Chair),
Center for Public Policy & Private Enterprise, University of Maryland

Dr. John Hamre
President and CEO, Center for Strategic & International Studies

General Lester Lyles, USAF (Ret)
President, The Lyles Group

Maj General Darryl Scott, USAF
Commander, Defense Contract Management Agency

Mr. David Van Buren
Chairman, NovaSol

Review teams provided valuable independent, highly experienced
views to the Panel (Figure 31)

EXTERNAL REVIEW TEAMS

INTERMEDIATE REVIEW TEAM

Mr. Paul Brinkley
Deputy Under Secretary of Defense for Business Transformation

Mr. Pierre Chao
Senior Advisor, International Security Program, Center for Strategic and International Studies

Lt Col Sarah B. Cliatt, USAF
Deputy Director, Programs Support and Planning, Space and Missile Center, Financial Management Programs Support and Planning

Ms. Lisa Davis
Principal Director, Innovation and Leadership, Advanced Systems & Concepts, Office of the Under Secretary of Defense

Mr. Joseph Diamond
Director, Air Force Office of Small and Disadvantaged Business

Mr. Jon Etherton
Vice President of Legislative Affairs, Aerospace Industries Association

Mr. Tom Heinsheimer
Managing Director, Colbaugh & Heinsheimer Consulting, Incorporated

Mr. Bill Sain
Deputy Director, Acquisition Regulation Systems, Federal Acquisition Regulation Council

Ms. Joanne Schoonover
Senior Manager, Advanced Solutions Team, Raytheon

(Figure 31) Continued

Air Force Support

Deputy Secretary England requested that the Air Force sponsor this effort. The Air Force acquisition team provided exceptional support to us throughout the proceedings. Significantly, Mr. Blaise Durante, Deputy Assistant Secretary of the Air Force for Acquisition Integration, provided staff and arranged for contracting support as well as facilities. Without his assistance, we would not have met our milestones and objectives.

A facility was provided at 1560 Wilson Boulevard, Arlington Virginia where the Federal Advisory Committee Panel was able to hold open and closed sessions in an environment that provided support for the numerous meeting, preparation and analysis efforts. A special room was designated as a library and resource center for use by the Panel and staff.

Through the sponsorship of the Air Force, the support of the faculty and administration at the University of Tennessee College of Business Administration is particularly noteworthy. The University recognizes the need for acquisition professional development and has established a Masters of Business Administration with emphasis on defense and aerospace acquisition.

Senior Acquisition Executive Working Group

The Project Executive Director established the Senior Acquisition Executive Working Group to provide a communication link between the Panel and the Department's acquisition community. (Figure 32)

INTERNAL ACQUISITION COMMUNITY

SENIOR ACQUISITION EXECUTIVE WORKING GROUP

Ms. Deidre Lee
Director of Defense Procurement & Acquisition Policy, Office of the Secretary of Defense

The Honorable Claude Bolton
Assistant Secretary of Army (Acquisition, Logistics & Technology)

Mr. Blaise Durante
Deputy Assistant Secretary of the Air Force (Acquisition Integration),
Office of the Assistant Secretary of the Air Force for Acquisition

The Honorable John Young, Jr.
Assistant Secretary of the Navy for Research, Development and Acquisition

Mr. Frank Anderson
President, Defense Acquisition University

Service Acquisition Executives participated in frequent reviews and status of assessments
(Figure 32)

Defense Acquisition University

The Defense Acquisition University contributed significantly to this assessment and provided excellent support to the Panel. Their efforts included obtaining reference materials for the DAPA Reference Library, and providing information briefings, and dedicated researchers to respond to our inquiries. Additionally, the Defense Acquisition University participated in the interview process, the survey data distillation and analysis process, and preparation of survey results. They will become the repository for all the data assembled by the Panel.

Panel Liaison Support Staff

The Army, Navy, Air Force and Under Secretary of Defense for Acquisition, Technology and Logistics provided staff to support the Project. The Project staff managed meeting logistics, provided administrative support, conducted analyses and research and reviewed documentation for our consideration.

Industry, Trade Association and Labor Union Participants

Industry, trade associations and labor unions contributed the time and talent of their senior personnel to develop and present briefings and reports to the Panel. (Figure 33)

DAPA SUPPORT	
INDUSTRY	**ASSOCIATIONS**
Anteon Corporation	The Association of Scientists and Professional Engineering Personnel
BAE Systems, Incorporated	
Bechtel Group, Incorporated	Aerospace Industries Association
The Boeing Company	National Defense Industrial Association
Booz-Allen Hamilton	Salaried Employees Association
Computer Sciences Corporation	Society of Professional Engineering Employees in Aerospace
Flight Safety International	
The General Dynamics	Business Executives for National Security
L-3 Communications Corporation	Center for Strategic and International Studies
Lockeed Martin Corporation	
Northrup Grumman Corporation	Potomac Advocates
Pratt & Whitney, A United Technologies Company	The Potomac Institute for Policy Studies
RAND Corporation	**OTHERS**
Raytheon Company	Defense Acquisition University
	National Defense University Foundation
Rockwell Collins	National Academy of Sciences

Active, voluntary participation by industry, trade associations, and labor unions was vital to the Project (Figure 33)
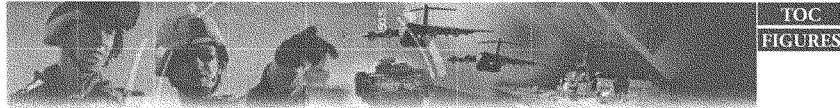
DAPA SUPPORT

LABOR UNIONS

International Association of Machinists and Aerospace Workers

International Brotherhood of Electrical Workers

International Federation of Professional and Technical Engineers (AFL-CIO & CLC)

United Automobile, Aerospace and Agricultual Implement Workers of America (UAW)

United Steelworkers of America

Independent Steelworkers Union

(Figure 33) Continued

Other Support

We are pleased by and appreciative of the participation of an extraordinary number of individuals and organizations that expressed interest in the Project and significantly contributed to the Panel's assessments. (Appendix A)
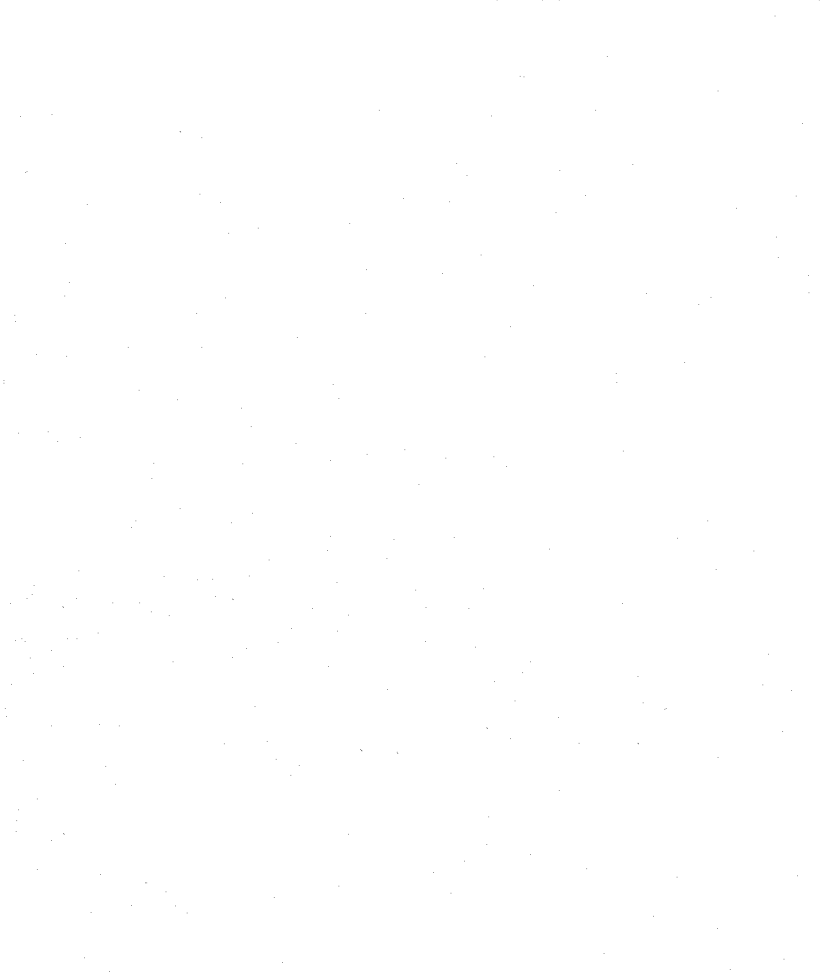
Section V

The Process

Study Approach

Our approach to this study is different from previous efforts in that it considers the totality of the acquisition processes and provides an implementation plan with time-definite implementation criteria. We embraced the "simple" and "timely" approach but sought the maximum resources available to us in a limited period of time in order to validate our findings. The comprehensive study approach and the diverse expertise on the panel led us to form significant assessments of the information that we had at our disposal. The stovepipes in the organizations and processes that we encountered led us to conclude that the only way to capture solutions is to integrate all the factors. Consultations with public and private experts, to test our observations as they evolved, were also part of the process. We held the Panel's activities as open and transparent as possible for the public while gathering as much input as practical from multiple sources in a four-to-five-month period.

During the course the Panel's work, new concepts, terms and definitions were created and were added to the glossary of terms. (Appendix B)

The Panel employed a qualitative assessment process to support their work.

- Gathering data
- Capturing observations
- Defining issue areas
- Developing assessments
- Identifying performance improvements
- Creating an implementation plan -- with performance improvement criteria

Conducting the data analysis process in this systematic manner provided a disciplined approach to identify acquisition process impediments and permitted the formulation of a set of performance improvement efforts linking all the major elements of the Acquisition System. (Figure 34)
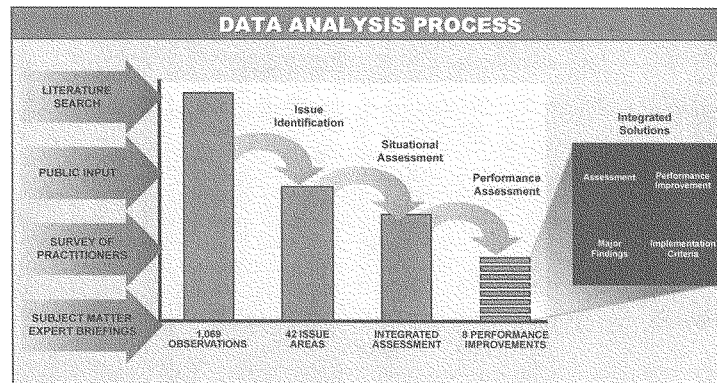
Our qualitative assessment process allowed integration of inputs from diverse sources (Figure 34)

Data Gathering

We collected data from diverse sources.

- Baseline search and review of the historical literature and reform initiatives

- Subject Matter Expert briefings covering the entire spectrum of the defense acquisition community (Appendix C)

- Surveys and interviews of current industry and government acquisition practitioners, trade association executives and labor union leaders

- Public input through open panel meetings, external presentations, office visits and the Defense Acquisition Performance Assessment Project public website for public comments.

Developing a Baseline of Historical Acquisition Reform Efforts

The project began by conducting a comprehensive baseline review of all defense acquisition reform initiatives and recommendations since the Goldwater-Nichols Department of Defense Reorganization Act of 1986 (PL 99-433). As an integral part of the baseline review of historical acquisition reform efforts, the Defense Acquisition Performance Assessment staff engaged Monitor Venture Services, LLC (Monitor) to do a literature search and review of all pertinent documents that discussed the shortfalls of the Acquisition System and reform initiatives from

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1985 to the present. (Appendix E) The review also considered initiatives that focused on the Planning Programming Budgeting and Execution System, the Joint Capabilities Integration Development System and other relevant Department of Defense enterprise systems.

In the course of their review, Monitor identified approximately 1500 relevant commentaries or recommended reforms. Approximately 750 relevant documents were identified as significant to the project's study. Documents that were identified as relevant to our work were synopsized and then prioritized based on the degree of relevance to the objectives of the task. Significant past acquisition initiatives were identified and analyzed to determine the effectiveness of each in achieving desired outcomes.

The Monitor report included statistical information, findings and analytical results, as well as a summary set of conclusions and recommendations that provided options for the Panel's consideration.

General Observations from Past Reviews

The overall Acquisition System is significantly inter-related with the requirements and budget processes -- although it is not always apparent. The requirements and budget processes strongly influence the ability of the Acquisition System to deliver predictable results. Further, the workforce, industry and oversight organizations each exhibit unique values and behaviors that distort the ability of these processes to interact and integrate effectively. Focusing on isolated problems within one process, for example, the requirements process, often results in unintended consequences in either or both the budget or acquisition processes. The leaders and managers that operate within each process may neither be aware of nor concerned with the impact that they have on the other processes. These leaders and managers, in fact, are interdependent. Decisions made outside procurement activities generally influence the day-to-day acquisition behavior. Understanding the wider context of how the inter-related processes affect individual motivation and behavior is an important task that few past reformers have attempted.

Specific Observations

Despite many reform efforts and initiatives, the Acquisition System continues to under-perform relative to expectations, even though the Acquisition System eventually delivers needed capabilities to the warfighter.

The overall Acquisition System is slow and cumbersome -- from identification of need to the delivery of systems for the warfighter. The large body of laws, regulations, policies and procedures increase the complexity of the Acquisition System. A major consequence of the current System is that the time to field new weapons systems does not keep pace with both the changing threats and the rapid pace of technology evolution.

The Panel concluded that acquisition reform requires an effective implementation plan with clear goals and metrics for success -- and follow-through. More disciplined and conservative management of requirements and technology risk is required if acquisition program outcomes are to improve significantly as measured by cost, schedule and performance. The Department of Defense must make its objectives explicit and innovate ways for decision makers to assess progress. Efforts to reform any system in an organization as large and complex as the Department of Defense must consider and address the root causes of organizational and individual behaviors in order to be successful. The following are examples of these root causes.

- Lack of budget stability during the period of program performance has a negative impact on program execution.

- The Department of Defense must carefully manage the quality of the acquisition workforce, from the assignment of the most senior political appointee to the hiring of the most junior member and then focus on retention and training.

- Changes in the defense industrial base and competition in a global market place is every bit as dramatic as the changes in the security environment. Therefore, the Department of Defense acquisition strategy and planning must take this into account if it is to preserve its industrial base.

Subject Matter Experts

At the first meeting of the Defense Acquisition Performance Assessment Panel, we outlined an outreach plan to identify a broad spectrum of experts to ensure that all aspects of the acquisition processes would be addressed. We invited senior officials from each acquisition process discipline to provide briefings and reference material. As we conducted our work and identified the need for access to additional information, relevant experts were invited to respond and provide their insights. Involving these Subject Matter Experts in the process also ensured that we heard the viewpoints and considered the equities of the stakeholders and practitioners. The Panel defined Subject Matter Experts as executives who are accountable for a portion of the operation, performance or oversight of the Department's acquisition processes. They also include nationally recognized leaders, commentators or critics who possess substantial domain knowledge and expertise.

These experts shared in-depth knowledge concerning all aspects of acquisition including assessments of current system performance, identification of persistent systemic problems and suggestions for process improvement.

Subject Matter Expert Briefings

The Panel heard from 107 experts and received more than 170 hours of briefings. When an expert wished to discuss proprietary or other sensitive information with the Panel, they were given the opportunity to present their material at meetings that were closed to the public. Office visits with the Defense Acquisition Performance Assessment Executive Director were arranged for experts whose schedules could not accommodate participation in our meetings.

Subject Matter Expert Observations

The "top five" issue areas that were identified by these Subject Matter Experts are categorized into acquisition strategy, program structure, program oversight, workforce development, and leadership.

According to these experts, current acquisition strategies are optimistic and do not adequately address the critical issues. For example, they observed that the unintended consequences of cost competition, technology maturity, risk mitigation, etc., are the fundamental causes of the problems. They do not adequately consider the means of creating and encouraging competition other than "cost." This has the downside of causing "must-win" or "buy-in" behavior by industry. This consequently results in awarding contracts on a "most probable cost" basis which adds significant program execution risk. Many strategies do not consider manufacturing and production base issues or alternative approaches to manufacturing that may lower unit costs. The strategies do not provide adequate time for competitive technology maturation and risk reduction, and they ignore the technical risks associated with the system integration aspects of complex weapon systems. As a result, programs do not establish "off-ramps" to identify and close-in on risk and technical readiness.

In the area of program execution structure, the experts observed that on many major acquisition programs, the decision to proceed is made with inadequate data, relative to both technical maturity and stability of requirements. The experts observed that many programs also go forward with unsubstantiated designs, immature technologies, unstable production processes and overly optimistic cost estimates. The net result is that the linkage to requirements, technical readiness, risk mitigation plans, schedules and cost occurs late in the program, typically at the Critical Design Review. Subject Matter Experts suggest more aggressive use of a "baseline with ceiling" as a mechanism to limit government exposure to unrealistic schedules and costs.

Concerning the issue of oversight, the Subject Matter Experts were nearly unanimous in stating that the current oversight process is not effective and adds little value. Excessive numbers of reviews and of oversight personnel captured the attention of more than 50 percent of the observations. Another 25 percent of comments added to this finding suggest that the oversight provided by these groups is burdensome and serves to dilute or eliminate accountability for

program performance. The Acquisition, Technology and Logistics Acquisition Integrated Product Teams seriously affect programs because layers of review divert the Program Manager from the real responsibilities of program execution.

A number of the experts observed that acquisition programs are often very complex and present unique and time consuming management and leadership challenges. As a result, these experts indicate that the Acquisition System must be augmented by effective personnel policies and training programs to provide highly qualified Program Managers, contracting officials, scientists and engineers with all the skills necessary to manage the development and production of weapon systems and other equipment. In fact, they note that acquisition workforce cuts were made over the past ten years without consideration of their impact on the system. The consequences of these cuts have affected recruitment, training and career building. As a result, the experience level and technical depth of government acquisition personnel have decreased. Many of the continuing acquisition program problems in high-risk areas are attributed to the continued loss of workforce expertise and inadequate human capital planning. The Office of Acquisition, Technology and Logistics Administration has recognized this deficiency and is devoted to enhancing the career path of those working in the acquisition fields. Over the years, personnel cuts in the acquisition workforce are compounded by the fact that acquisition is not considered a "core function" in the Services and acquisition community. This lack of talent and expertise contributes significantly to acquisition program cost and schedule overruns. Holding personnel accountable is also an issue for improving the productivity of the workforce. Individuals respond to expectations and often are not empowered to accomplish their responsibilities. The Panel observed that the National Security Personnel Act will be very effective in enhancing performance across the Department.

In regard to performance and accountability, a former Department of Defense executive observed that overruns are not only tolerated, but are anticipated and, worse still, expected as standard procedure with little or no consequences given the cost-plus nature of most contracts. A senior industry executive stated that the government system, although armed with the common knowledge about program costs and schedule overruns that are caused by budget instability and requirements creep, continues to practice and endorse both policies. He continued by noting that the Department not only does not terminate non-performing programs but also fails to match the number of programs being pursued to the resources available. In fact, just the opposite course of action is practiced. A senior Department of Defense official stated during discussions with the Panel that the Department's policy was to "fit 80 programs into a 50 program budget."

Congressional staffers expressed concern about the state of leadership in the acquisition community. They stated that accountability is lacking in the process and that decision-makers neither know how to interface with industry nor know how to relate to the business culture that drives industry. The staffers concluded that without leadership at the "top" and consistent

direction, the government will continue to experience the kind of problems that generated the need for the formation of this Panel. (Figure 35)

UNLEASHING CHANGE

"You have many people who resist change, but there's also likely to be an important group who welcomes and even is eager to try to change and improve the organization. The task of a leader is to unleash those people and give them a feeling that if they go ahead and try to make the changes, they won't be shot down."

"Unleashing Change – A Study of Organizational Renewal in Government"
Steven Kelman. Brookings Institution Press 2005

Change Management is the only way to "fix" the System (Figure 35)

In conjunction with the "top five" areas discussed above, the next seven most frequently mentioned areas (in order of frequency) are the requirements process; process discipline; industrial motivation and behavior; joint requirements development; disconnects between requirements, acquisition and budgeting; Program Manager expertise; and the persistence of acquisition reform issues.

Interviews and Surveys

We gained insight into the views of current Department of Defense acquisition practitioners through independent interviews and surveys. Of particular note is the broad spectrum of individuals that were interviewed. Government and industry Program Managers were contacted to ensure their views were considered. In addition, an unprecedented outreach was made to labor union officials and trade associations. The Panel Director contacted 14 local labor union senior executives and four trade associations to have them participate in the interview process. These individuals eagerly provided a unique perspective on the impact of the Defense Acquisition System. They indicated that they are uniquely affected by the benefits and deficiencies in acquisition, therefore, it was important to capture their experience when evaluating the system.

Questionnaire Construct

Since the briefing schedule was time consuming, we expanded our search for information and created a questionnaire. This process enhanced and expanded the opportunity to solicit ideas

for our review to add to the database of observations.

A two-part, 76 item questionnaire gathered views from relevant government executives, government and industry Program Managers, requirements developers, labor union leadership industry, and trade association executives.

Part I consisted of 8 open-ended questions that were addressed during face-to-face interviews. These questions were constructed to gather data through dialogue between the respondent and the interviewer.

Part II consisted of 68 closed-ended multiple-choice selections that comprised the survey portion of the questionnaire. The respondents circled their selection based on levels of agreement or disagreement with each survey statement.

Survey Teams

Interviewers and recorders from Office of the Secretary of Defense, the Air Force, Army and Navy led the teams to conduct these interviews. All interview team members were provided formal training to include interview "best practices," mock interviews and feedback sessions from a certified professional facilitator.

Analysis Process

Each survey team extracted data from interviews and transcribed it to electronic media coded by demographic group. Then data was transferred to a central database for consolidation and analysis by the government analyst team. Personal data regarding the respondents was not entered into the central database to preserve anonymity.

Part I interview questions were mapped to the survey objectives and were used to gain qualitative insights and support for the key themes that emerged from the survey.

Part II survey questions provided the basis for quantitative analysis and key theme development. The survey questions were mapped to 12 acquisition process study areas.

Part III of the Survey Team used a four-phased analysis process:

First - The survey data was sorted into each relevant study area to quantitatively identify the top three study areas that the respondents believed could change the system or have the most positive impact on this assessment.

Second - Survey responses were categorized demographically and compared and

contrasted to identify areas of divergence among the groups in order to isolate especially noteworthy observations.

Third - Interview data was reviewed to determine why the top three study areas were selected by the majority of respondents and to identify key study areas not included among the questionnaire's 12 study areas.

Fourth - Summaries were written to capture observations of all the data provided to the Panel in each of the key study areas where respondents believed change or restructure would have the most positive impact on the acquisition process.

Survey and Interview Results

Analysis of the data concludes that the majority of respondents believed the "top five" areas affecting the Acquisition System are requirements management, budget and funding instability, technology maturity, organization, responsibility, authority and accountability, and regulation and policy interpretation, and should be considered for change or restructuring.

When respondents were asked to identify why Department of Defense acquisition programs have significant cost growth and schedule extensions, requirements instability was the most mentioned problem area, followed by funding instability and high-risk systems. Of the respondents, 96 percent agreed that program stability and predictability -- to include requirements stability, funding stability and technology maturity -- are crucial to maintaining cost, schedule and performance.

Requirements Management

Managing the requirements process was identified as the number one area that, if restructured or changed, would have the most positive influence on the overall Acquisition System. While 96 percent of respondents agree that changes in requirements adversely impact programs, there is not a common agreement on what drives those changes. For example, 68 percent of government respondents believe budget or other funding issues drive these changes, but 65 percent of those interviewed in industry disagree. Neither the government nor industry participants feel that requirement changes are driven by technology, and or changes in the threat.

The recent move to a capability-based Joint Capabilities Integration and Development System process is cumbersome, overly complex and takes too long to complete according to 73 percent of respondents. The capability-based requirements cycle is still significantly longer than most technology cycles, which makes it difficult to field a technologically

current weapon system, as well as increasing the probability of further requirement creep. Additionally, parochial Service requirement interests sub-optimize joint efforts.

With poorly defined requirements early in an acquisition process, the government runs the risk of selecting a contractor who ultimately may not have the capability to satisfy the needs of the warfighter.

Industry feels so strongly about the requirements issue that 82 percent of the industry representatives recommended that they should be involved more in the requirements process, but only 55 percent of government respondents indicated the need for increased industry involvement. When difficulties arise in a program, the dynamics that force industry partnerships are less than satisfactory. Of the government and industry respondents, 72 percent believe that program requirements are not well-defined, communicated or understood at program initiation.

According to 87 percent of the people interviewed, there is insufficient training for government personnel involved in the requirements process. The absence of systems engineering thinking in the requirements development process results in poor conversion of capability needs into measurable requirements.

Additionally, 73 percent of all respondents believe the "stakeholders" and their accountability roles in the requirements process are not clearly understood by everyone involved. This situation encourages requirements changes after the fact by senior officials in the Department of Defense, who have the authority to influence changes without being accountable for the cost and schedule impacts to the program. It is critical that the requirements, test, and acquisition communities agree on the baseline requirements and the verification test plan prior to contract award.

Budget and Funding Instability

When the respondents were asked to identify areas that are not addressed in the Panel's initial 12 acquisition process study areas of the survey, the area most identified, by a factor of three to one, was "budget and funding instability."

Further, respondents named "funding instability" as one of the top three specific problems with the Acquisition System that, if corrected, would result in significant improvement. Again, this was mentioned second only to the requirements management process.

The respondents indicated that the government starts with inaccurate "should costs" and "unrealistic cost" expectations. Industry follows this trend and concluded that they compete for business with overly optimistic cost and schedule estimates. This phenomenon increases the risk for program execution on cost, schedule and performance. In fact, 73 percent of all respondents believe that industry cost estimates are inaccurate, and yet the

"system" contracts to proposed prices based upon these estimates. This is a major part of the "Conspiracy of Hope." Over 95 percent of the respondents agree that program budget stability and predictability are crucial to maintaining cost, schedule and performance.

Our conclusion from the data is that the Planning, Programming, Budgeting and Execution system causes the Program Manager to baseline program estimates before system design requirements are fully defined, and or understood. In addition, funding delays, cuts, and "taxes" directly impact the ability of the Program Manager to execute the program as originally planned. This results in schedule slippage accompanied by cost growth. The programs become unstable and unpredictable to manage well into the life of a program.

Some respondents indicated that affordability is not emphasized enough in strategy development or is "dropped" as a major consideration when programs experience difficulties or requirements creep. There seems to be no monitoring of unit price and cost ultimately takes a back seat to "better" performance. Capabilities are routinely added to systems without any forethought of the impact on life-cycle costs. On the other hand, some respondents expressed concern about life-cycle management. They noted that the desire to field systems quickly and operate within constrained budgets causes planners to overlook developmental risks and build in too much concurrency. Containment planning and funding for logistics is often overridden by the need to get the program fielded quickly.

Possible solutions to these funding issues offered by the respondents include establishing a single Program Element at the Program Executive Officer level and allowing Program Executive Officers to fund and manage all of the programs within their purview under this single Program Element. Another potential solution is to allow the use of management reserve within government programs and to institutionalize the use of multi-year funding for procurement contracts.

Funding instability was an issue of concern for defense industry union executives. Turbulence in funding and downward changes in production rates translates into turbulence in the work flow with layoffs or moving workers to different jobs, workforce reclassification problems and unattainable learning curve expectations. Predictable production rates translate to job security, which is a very high objective of the aerospace and defense workforce.

Technology Maturity

Incorporating high-risk technology in systems generally leads to significant cost and schedule impacts. Yet most respondents believe that we embark on major programs at technology readiness levels that are too low. In this regard, the government could learn from commercial industry.

A major Department of Defense contractor indicated that in their commercial business,

they follow a ten-step process in the development of a new product. Progressing beyond Step 6, which equates to the Department's System Development and Demonstration Phase, cannot occur until requirements are fixed, development and or production costs are known, and technology is mature. The key to this industry development model is that only modest resources are expended up through Step 6. We should emulate this process.

From this analysis, we determined that defense acquisitions are highly complex and they do not carry management reserves to accommodate the "unknown unknowns" associated with technical immaturity. Defense strives to field state-of-the-art technology. System Development and Demonstration is often driving technology -- but with few balancing or alternative solutions. Technical contingency and "fall back" to an acceptable capability is not established. Contingency plans, technology assessment and exit opportunities must be developed in cases where technologies do not mature as anticipated. If technologies do not mature as expected, then flexible strategies with multiple paths for capability development would provide Program Managers with opportunities to take alternative action or stop efforts altogether, if warranted.

Possible pre-System Development and Demonstration solutions, offered by the respondents, include contractor cost and schedule incentives and fully funded risk mitigation plans for high-risk technologies.

Organization, Responsibility, Authority and Accountability

Respondents stated that Program Manager effectiveness is constrained by influences from people involved in the review and oversight process who do not share responsibility or accountability for success of a program. This is illustrated by a respondent's quote: "...each stakeholder has a 'yes' or 'no' vote. One 'no' vote can stop a program from moving forward." Because the Program Manager does not have enough authority to proceed after these people have had an opportunity to provide their input, a program can be held hostage until an individual "yes" vote can be obtained.

It appears that the acquisition, Integrated Product Teams are not working as intended. In the Office of the Secretary of Defense, staff are not seen to have decision-making authority or timely access to the principal decision makers. Lack of continuity of membership or attendance on these Integrated Product Teams usually results in the re-emergence of issues previously thought resolved and unnecessarily revisiting decisions. A typical example of this is the doubling of the testing effort in a program over what was originally agreed.

Over 80 percent of government respondents and 57 percent of industry respondents felt Program Managers were held accountable for program performance. However, only a minimal number of respondents from industry and government agree that

senior government officials above Program Managers are held accountable for program performance.

Regulation and Policy Interpretation

The matter of legislative regulation is another issue where the respondents believed that restructuring would have the most positive influence on the acquisition processes. Of industry and government respondents, 81 percent agree that some policy and guidance from the Department and the Services hinders efficient program execution.

During the survey, three dominant themes emerged.

Legislative and Regulatory Funding Issues

There was widespread dissatisfaction among respondents with year-to-year congressional appropriations and the inability of Program Managers to quickly reallocate resources within their programs. Furthermore, 75 percent of government and industry respondents indicate that current legislative and regulatory requirements governing profit do not provide the best value for the taxpayer. Nearly 60 percent of respondents asserted that budgetary authority is not aligned with program execution responsibility, authority and execution. The Planning, Programming, Budgeting and Execution System causes the Program Manager to baseline program estimates before the system design requirements are fully understood. Funding delays, cuts and "taxes" directly impact the ability of the Program Manager to execute the program as originally planned.

In addition, it is common for new requirements to be levied by the Office of the Secretary of Defense outside of the Joint Capabilities Integration and Development System process. This causes program cost and schedule upsets. The example most cited was an interoperability Key Performance Parameter for which there is no method of testing.

Socioeconomic Programs

Of government and industry respondents, 87 percent agreed that compliance with socioeconomic programs had a negative effect on program execution and the Acquisition System.

Legislative initiatives such as the Buy American Act, the Berry Amendment and various small business requirements often limit the Program Manager's ability to make decisions that are in the best interest of the program and that reduce competitive options.

Interpretation/Waiver of Regulations

Dissatisfaction was expressed about the sheer volume of laws, regulations, and policies

that apply to the Acquisition System. Forced to comply with an often conflicting array of policy and guidance, Program Managers either ignore them or seek legal advice that results in loss of valuable time.

Respondents felt that the regulations written to implement policy are sometimes more stringent than the statutes upon which they are based and sometimes interpreted more narrowly than originally intended.

Although Department of Defense Directive 5000.1 specifically calls for the tailoring of regulations to each program's particular situation, respondents felt there was an institutional bias against waiving or tailoring regulations or recommending change even when it would be in the best interests of the program. Related to this concern is the tendency by the Office of the Secretary of Defense to standardize the application of policy in contravention of the Department of Defense Directive 5000.1 prescription to tailor policy, documentation, and decision reviews "to fit the particular conditions of the program."

The above survey results were included into the Panel's deliberations and are consistent with the views of the subject matter experts. It is particularly noteworthy that all of the defense industry local union executives expressed gratitude for being included in the survey and commented that this was the first time they had been included in a Department of Defense review of the Acquisition System. The local workforce provided constructive perspectives on the effect of the acquisition processes on the unions' work efforts.

Congressional, Media and Public Communication

The Defense Acquisition Performance Assessment Office Staff scheduled regular consultations with the professional staff in the House and Senate to keep them apprised of developments during the course of the Panel's deliberations and responded to individual inquiries by Members of Congress about the Project. The Chairman briefed Staffers and Industry Representatives on Capitol Hill at a breakfast prior to release of the Executive Summary, in early November. The Staff also responded to media inquiries and hosted a round table interview event with defense journalists.

We established two major venues to communicate with the public and to receive comments and recommendations. The panel announced meetings open to the public in the Federal Register in accordance with Federal Advisory Committee rules (attendance was usually between 50 and 100). In addition, a public comment website was created and maintained with the updated information from the Panel's proceedings. The website will be transferred to Defense Link to maintain the data for the acquisition community.

Open Meetings

Panel meetings were announced to accommodate the public's interest in this assessment review. They had the opportunity to listen to the deliberations of the panel and to hear the experts' briefings. Starting on July 15, 2005, six meetings were open to the public. About 41 percent of the attendees represented the general public. Congressional staffers, General Accountability Office representatives and the media also attended the sessions. Each person attending an open meeting was invited to submit questions and to interact with the Panel. They were also encouraged to provide comment for the Panel's consideration or to request a follow-up office visit with the Executive Director. Observations derived from public comments in open meetings were incorporated into the observation database.

Assessment Website

A public comment website became operational on July 20, 2005. Its purpose was to inform the public concerning Defense Acquisition Performance Assessment Project operations and to obtain public comment. During the course of the Project's work, 119 members of the public provided input to the panel through the website. The home page of the website provided two methods for obtaining input. The Defense Acquisition Performance Assessment website is available at *www.acq.osd.mil/dapaproject.*

Survey and Comment Section

This section of the website contained a seven-question survey for each visitor. The first question offered visitors the opportunity to identify their community of interest. Civilian and military members of the Department of Defense comprised the largest segment of respondents. Industry and small businesses represented approximately 40 percent of the responding population. The remaining 6 questions asked the public to either agree or disagree with broad observations that had been made in earlier reports and studies concerning defense acquisition.

Responses to two questions were particularly significant. That is, 58 percent agreed that the Acquisition System is inherently flawed resulting in cost overruns, schedule slippages and poor performance, and 63 percent asserted that "Government Program Managers are not as well trained, competent and skilled in the acquisition business as their industry counterparts."

This section of the web page also gave visitors the opportunity to provide additional information concerning their own background, expertise and to upload a file containing any additional detailed comments. Visitors electing to provide comments were prompted to consent to have their comments published. If the visitor answered "yes," these observations were entered into the Panel's observation database. Specific observations were entered

into the database and they were only identified as a "public submission." No personal information was included in the database.

"Contact Us" Section

If a visitor to the website clicked on the "Contact Us" button, an email form appeared and prompted them to enter a question for the Panel. A total of 43 questions were submitted via the webpage. The Panel considered these issues during working sessions and answers were provided to the inquirer.

These questions resulted in offers to brief the Panel, questions about the schedule, location, agenda of open Panel meetings and submission of specific information for the Panel's consideration. In response to these requests, the Panel scheduled meetings during open or closed sessions or arranged office visits with the Panel's Executive Director. Requests for specific information concerning open meetings were answered by return email from the Panel's support staff.

There were 119 public comments on the website that resulted in entry of 206 observations into the database. The acquisition process was the focus of 44 percent of public inputs that ranged from recommendations to make the process "more flexible and easier for small business to compete," to suggestions to "keep the current process, but do things better." Requirements issues and the process garnered 15 percent of the public's inputs. The majority of these comments addressed recommendations for changing the process and instability in the Acquisition System.

Conclusion

The methodology of our assessment project allowed us to reach out to a broad spectrum of experts, stakeholders and customers. All the participants in this review were keenly dedicated to help us to identify issues and propose solutions. Office visits were extremely beneficial in maintaining openness and transparency throughout the review. As a panel, we were able to deliberate over timely and first-hand information and analyze the perspectives gleaned from actual experiences. The contributions brought all the factors into a manageable focus and we benefited from the opportunity to hear supportive and conflicting views. The Panel achieved consensus regarding this assessment and we are confident of the validity of our findings. The conclusions are based on the research, observations, experts' presentations and consultations, interview surveys and public contacts through the website and the public meetings and office visits.

Section VI

Next Steps

Implementation and Integration

We have concluded that the present system needs "bold new ideas" and we are recommending sweeping changes to the Acquisition System and all of its processes. These conclusions are based on the actual identification of problems presented by the stakeholders and validated and documented by internal and external recommendations from key players in the Acquisition System. The assessments and major findings of the Defense Acquisition Performance Assessment Panel will not come as a surprise to the acquisition community. However, some of the recommendations will be new and dynamic because they are all comprehensive, integrated and focused. It is clear from our review of historical records that the acquisition community continuously struggles to "get it right." The customer is the warfighter and as a great nation we pride ourselves on delivering the right equipment, in the right time, to the best and the brightest military personnel in the world. We must meet the challenge of the future -- a future with new significant security challenges. Today there is consensus in the acquisition community, as well as throughout the legislative and executive branches of government, that we need a new roadmap. The time is ripe for meaningful and substantial change to the established acquisition processes -- not marginal improvement -- or change for the sake of change. (Figure 36)

THE PROCESS OF CHANGE

"Simply tinkering with the present "acquisition" process will not provide adequate response to future needs. The reluctance to develop bold and innovative concepts is rooted in the risk aversion that is deeply imbedded throughout the process. New, innovative concepts inherently pose many uncertainties of development outcomes (cost and performance of the system) and uncertainties of operation effectiveness. Today's process virtually demands that major uncertainties be resolved before starting major system development, thus essentially denying the start of novel concepts, or at least demanding a long, careful program of demonstration and risk reduction before starting development of the weapon system itself."

"An Acquisition Strategy, Process, and Organization for Innovative systems"
John Birkler, Giles Smith, Glenn A. Kent and Robert V. Johnson.
National Defense Research Institute, Page xi. RAND 2000

Improvement requires systemic change (Figure 36)

Significant recommendations are included in this report to ignite the change process. We have provided specific implementation criteria and timeframes for the Department to adopt our performance improvement recommendations. We encourage the leadership to view this as a total plan that must integrate all the processes within the Acquisition System in order to be effective. In fact, the detail of the implementation criteria is rich in specifics to explain and direct the "how" of the recommendations. Some of these initiatives will require legislation, new policies and new directives or instructions.

Past practices are replete with examples demonstrating that if you adjust one part of the system with corrective measures, challenging issues surface in other parts of the system. When untested corrective action is taken, over time it can result in unintended consequences.

Our assessment process has reaffirmed that all of the processes in the Acquisition System are interrelated and, therefore, any changes in the acquisition process will affect the entire System. (Figure 37)
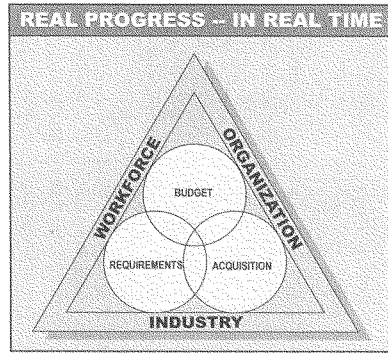
Implementation criteria will deliver real performance improvement in the near term (Figure 37)

Each of the elements must be considered. Transformation of these key elements of the Acquisition System will reduce cost, enhance acquisition performance and accelerate key capabilities by years.

It is one thing to establish vision and to recommend change. Is quite another to expect that the stakeholders understand what is actually written and said, not to mention what the Panel "meant to write and say." Effective communication is the key to any successful venture. In particular, the implementation of these initiatives rests initially with communicating the proper message to the decision makers, process owners, stakeholders, our workforce, congress and industry. We tried to be as clear and unambiguous as time and talent allows, recognizing that this subject is extremely complex. There will be a need to clarify, interpret, engage in dialogue and continue to explain our effort to keep the momentum that we have created.

The value of this assessment will be measured by the change it produces. We recognize that change is an extremely difficult process. It is a journey that requires metrics and milestones to identify objectives and goals and to manage implementation. It also requires leadership. We are committed to this assessment and the value it will bring to each of the acquisition processes. In addition, the Panel firmly believes that implementing these recommendations will provide the Department with a high probability of achieving desired capabilities on cost and on schedule. (Figure 38)

DEPARTMENT-WIDE ASSESSMENTS

"Changing the culture of the Department starts with the Secretary and Deputy Secretary of Defense, but leaders at all levels are responsibile for changing the way DoD does business. Transformation requires direction and focus from senior leaders within the Office of the Secretary of Defense and at the Component level to realize transformation objectives."

Department of Defense Business Transformation.
Volume I. Page 3. September 30, 2005

The Department must change its culture as well as its processes (Figure 38)

"As we prepare for the future, we must think differently and develop the kinds of forces and capabilities that can adapt quickly to new challenges and to unexpected circumstances."

Donald Rumsfeld
Secretary of Defense

Appendix A

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Appendix B

Glossary

Acquisition

The conceptualization, initiation, design, development, test, contracting, production, deployment, logistics support, modification, and disposal of weapons and other systems, supplies, or services (including construction) to satisfy DoD needs, intended for use in, or in support of, military missions.

Acquisition Environment

Internal and external factors that impact on, and help shape, every defense acquisition program. Often these factors work at opposite extremes and contradict each other. These factors include political forces, policies, regulations, reactions to unanticipated requirements, and emergencies.

Acquisition Life Cycle

The life of an acquisition program consists of phases, each preceded by a milestone or other decision point, during which a system goes through Research, Development, Test and Evaluation (RDT&E) and production. Currently, the five phases are: 1) Concept Refinement (CR); 2) Technology Development (TD); 3) System Development and Demonstration (SDD); 4) Production and Deployment (P&D); and 5) Operations and Support (O&S).

Acquisition Management

Management of any or all of the activities within the broad spectrum of "acquisition," as defined above. Also includes training of the defense acquisition workforce and activities in support of the Planning, Programming, Budgeting and Execution (PPBE) Process for defense Acquisition Systems and programs. For acquisition programs this term is synonymous with program management.

Acquisition Planning

The process by which the efforts of all personnel responsible for an acquisition are coordinated and integrated through a comprehensive plan for fulfilling the agency need in a timely manner and at a reasonable cost. It is performed throughout the life cycle and includes developing an overall acquisition strategy for managing the acquisition and a written Acquisition Plan (AP).

Acquisition Process (little "a")

The acquisition process that tells us "how to buy." It requires the program to balance cost, schedule and performance. It considers available technology versus performance, cost and the time-to-need. There are multiple career fields to provide expertise in this process. This creates fundamental disconnects in the big "A" acquisition with the budgeting and requirements processes and competing values and objectives. These processes lack acquisition expertise.

Industry, the workforce, leadership and legislators deal with a disconnected community and come to their own conclusions.

Acquisition Program

A directed, funded effort that provides a new, improved, or continuing materiel, weapon, or information system or service capability in response to an approved need. Acquisition programs are divided into categories that are established to facilitate decentralized decision making, execution, and compliance with statutory requirements. (DoDD 5000.1) See Acquisition Category (ACAT).

Acquisition Strategy

A business and technical management approach designed to achieve program objectives within the resource constraints imposed. It is the framework for planning, directing, contracting for, and managing a program. It provides a master schedule for research, development, test, production, fielding, modification, postproduction management, and other activities essential for program success. The acquisition strategy is the basis for formulating functional plans and strategies (e.g., Test and Evaluation Master Plan (TEMP), Acquisition Plan (AP), competition, systems engineering, etc.) See Acquisition Plan.

Acquisition System

Believed to be a simple construct; efficiently integrating the three interdependent processes of budget, acquisition and requirements (termed "Big A").

Acquisition Systems Commands (Four-Star Acquisition)

Responsible for aligning the acquisition workforce to include requirements and acquisition budget personnel, by establishing appropriate certification requirements based on formal training education and practical experience . Provides advocacy for the acquisition workforce and will institute formal and informal mentoring of program managers. Oversees day-to-day integration of the acquisition workforce from program initiation at Milestone 0 up to the end of series production. Directs and manages the preparation of Service Materiel Solution proposals and advocates for the future technology requirements of the Services.

Best Value

The most advantageous trade off between price and performance for the government. Best value is determined through a process that compares strengths, weaknesses, risk, price, and performance, in accordance with selection criteria, to select the most advantageous value to the government.

Beyond-Low Rate Initial Production (BLRIP) Report

The Director, Operational Test and Evaluation submits this report on all oversight systems to congressional committees before the full rage production decision, approving the system to proceed beyond low rate initial production, is made.

Budget

A comprehensive financial plan for the Federal Government, encompassing the totality of federal receipts and outlays (expenditures). Budget documents routinely include the on budget and off budget amounts and combine them to derive a total of federal fiscal activity, with a focus on combined totals. Also a plan of operations for a fiscal period in terms of estimated costs, obligations, and expenditures; source of funds for financing including anticipated reimbursements and other resources; and history and workload data for the projected program and activities.

Budgeting

The process of translating resource requirements into a funding profile.

Capability

The ability to achieve a desired effect under specified standards and conditions through combinations of ways and means to perform a set of tasks. It is defined by an operational user and expressed in broad operational terms in the format of a Joint Capabilities Document or an Initial Capabilities Document (ICD) or a joint Doctrine, Organization, Training, Materiel, Leadership, Personnel, and Facilities (DOTMLPF) change recommendation. In the case of materiel proposals, the definition will progressively evolve to DOTMLPF performance attributes identified in the Capability Development Document (CDD) and the Capability Production Document (CPD). (CJCSI 3170.01E)

Capital Budgeting and Execution

Capital Budgeting and execution is the total process of generating, evaluating, selecting and following-up on capital expenditures that are expected to have a significant impact on financial performance. Capital Budgeting means a budget process that identifies large capital outlays that are expected to be made in future years, together with identification of the proposed means to finance those outlays and the expected benefits of those outlays. Major Acquisition Programs would be fully funded at a level that would cover the program for Milestone A through delivery of low-rate production.

Combat Developer

Command or agency that formulates doctrine, concepts, organization, materiel requirements, and objectives. May be used generically to represent the user community role in the materiel Acquisition Process. (Army and Marine Corps).

Combat Development

Covers research, development, and testing of new doctrines, organizations, and materiel for early integration into the structure. (Army and Marine Corps).

Concept Development and Design

Process of brainstorming sessions, developing new ideas, creating prototypes, and refining presentations.

"Conspiracy of Hope"

Introduces instability at the very beginning of acquisition programs and occurs when industry is encouraged to propose unrealistic cost, optimistic performance and understate technical risk estimates during the acquisition solicitation process and the Department is encouraged to accept these proposals.

Contract Requirements

In addition to specified performance requirements, contract requirements include those defined in the Statement of Work (SOW); specifications, standards, and related documents; the Contract Data Requirements List (CDRL); management systems; and contract terms and conditions.

Contractor Performance Assessment Reporting

Documents contractor performance on systems and non-systems contracts including Services, Information Technology, Operations Support, Systems, Ship Repair & Overhaul.

Cost Analysis Improvement Group (CAIG)

Organization that advises the Defense Acquisition Board on matters concerning the estimation, review, and presentation of cost analysis of future weapon systems.

Defense Acquisition Guidebook

Replaced DoD 5000.2-R. Provides expectations, notional document formats (e.g., Test and Evaluation Master Plan (TEMP)), best practices, and lessons learned.

Defense Acquisition Performance Assessment Project

An integrated assessment of all aspects of the Department of Defense processes and procedures for acquisition directed by Acting Deputy Secretary of Defense Gordon England on June 7, 2005.

Defense Acquisition System

Management process by which DoD provides effective, affordable, and timely systems to the users. (DoDD 5000.1).

Defense Acquisition University (DAU)

Authorized by Title 10, United States Code 1746, and chartered by Department of Defense (DoD) Directive 5000.57, the Defense Acquisition University provides practitioner training, career management, and services to enable the DoD Acquisition, Technology and Logistics community to make smart business decisions and deliver timely and affordable capabilities to the warfighter. DAU provides a full range of basic, intermediate, and advanced curriculum training, as well as assignment-specific and continuous learning courses to support the career goals and professional development of the DoD.

Development

The process of working out and extending the theoretical, practical, and useful applications of a basic design, idea, or scientific discovery. Design, building, modification, or improvement of the prototype of a vehicle, engine, instrument, or the like as determined by the basic idea or concept. Includes all efforts directed toward programs being engineered for Service use but which have not yet been approved for procurement or operation, and all efforts directed toward development engineering and test of systems, support programs, vehicles, and weapons that have been approved for production and Service deployment.

DoD 5000 Series

Refers collectively to DoDD 5000.1 and DoDI 5000.2. See DoD Directive 5000.1 and DoD Instruction 5000.2.

DoD Directive (DoDD) 5000.1, The Defense Acquisition System

The principal DoD directive on acquisition, it states policies applicable to all DoD acquisition programs. These policies fall into five major categories: 1) Flexibility, 2) Responsiveness, 3) Innovation, 4) Discipline, and 5) Streamlined and Effective Management.

DoD Instruction (DoDI) 5000.2, Operation of the Defense Acquisition System

Establishes a simplified and flexible management framework for translating mission needs and technology opportunities, based on approved mission needs and requirements, into stable, affordable, and well-managed acquisition programs. Specifically authorizes the Program Manager (PM) and the Milestone Decision Authority (MDA) to use discretion and business judgment to structure a tailored, responsive, and innovative program.

Export Administration Act (EAA)

The Department of Commerce manages an export control list to identify sensitive U.S. dual-use technologies.

Export Controls

Protect the cutting edge technologies for the warfighter by imposing controls on end-use and end-users of critical technologies. The Department of Defense does not issue licenses, rather the role of the Department is to review and recommend licensing provisions to the Department's of State and Commerce.

Federal Acquisition Regulations (FAR)

The regulation for use by federal executive agencies for acquisition of supplies and services with appropriated funds.

Four-Star Acquisition Commands

A dedicated Four-Star Acquisition Systems Command within each Service, as program execution agent for the Army and Air Force Chiefs of Staff, and the Chief of Naval Operations, prior to Milestone B. The major responsibilities of this command are to integrate decision responsibilities for budget, requirements and acquisition; serve as technology advocates for the future objectives of each Service; advocate and manage the acquisition workforce; and provide day-to-day program execution and oversight.

Goldwater-Nichols

Name given to the Defense Reorganization Act of 1986 that restructured certain aspects of DoD management. Named for co-authors Senator Barry Goldwater and Representative Bill Nichols.

Government-Induced Cycle of Instability

Actions taken without considering the impact the actions will have on the entirety of the system so that senior leaders in the Department of Defense and Congress are unable to anticipate or predict the outcome of programs as measured by cost, schedule, and performance.

Initial Operational Capability (IOC)

In general, attained when some units and/or organizations in the force structure scheduled to receive a system 1) have received it and 2) have the ability to employ and maintain it. The specifics for any particular system IOC are defined in that system's Capability Development Document (CDD) and Capability Production Document (CPD).

Initial Operational Test and Evaluation (IOT&E)

Dedicated Operational Test and Evaluation (OT&E) conducted on production, or production representative articles, to determine whether systems are operationally effective and suitable, and which supports the decision to proceed Beyond Low Rate Initial Production (BLRIP).

Integrated Product/Process Team (IPT)

Team composed of representatives from appropriate functional disciplines working together to build successful programs, identify and resolve issues, and make sound and timely recommendations to facilitate decision making. There are three types of IPTs: Overarching IPTs (OIPTs) that focus on strategic guidance, program assessment, and issue resolution; Working-level IPTs (WIPTs) that identify and resolve program issues, determine program status, and seek opportunities for acquisition reform; and Program-level IPTs (PIPTs) that focus on program execution and may include representatives from both government and industry after contract award.

International Traffic in Arms Regulations (ITAR)

The regulations to control the transfer of firearms, explosives, aircraft and parts, protective equipment (pressure suits, helmets, gas masks, etc.), electronics (including communications or navigation equipment), software and many chemicals is within the jurisdiction of the Department of State. The Department of Defense reviews license applications and recommends disposition of end-use and end-users.

Joint Capabilities Acquisition and Divestment (JCAD)

Identifies CoCom capabilities and requirements gaps with materiel and non-materiel solutions.

Joint Capabilities Integration and Development System (JCIDS)

Supports the Chairman of the Joint Chiefs of Staff, and the Joint Requirements Oversight Council in identifying, assessing, and prioritizing joint military capability needs as required by law.

Joint Requirements Oversight Council (JROC)

Assists the Chairman, Joint Chiefs of Staff, in identifying and assessing the priority of joint military requirements to meet the National Military Strategy.

Key Performance Parameters (KPPs)

Those attributes or characteristics of a system that are considered critical or essential to the development of an effective military capability and those attributes that make a significant contribution to the key characteristics as defined in the Joint Operations Concept. KPPs are validated by the Joint Requirements Oversight Council (JROC) for JROC Interest documents, and by the DoD Component for Joint Integration or Independent documents. The Capability Development Document (CDD) and the Capability Production Document (CPD) KPPs are included verbatim in the Acquisition Program Baseline (APB). (CJCSI 3170.01E)

Low Rate Initial Production Report (LRIP)

The first effort of the Production phase. The purpose of this effort is to establish an initial production base for the system, permit an orderly ramp-up sufficient to lead to a smooth transition to Full Rate Production, and to provide production representative articles for Initial Operational Test and Evaluation and full-up live fire testing.

Make-or-Buy Program

That part of a contractor's written plan for the development or production of an end item that outlines the subsystems, major components, assemblies, subassemblies, and parts the contractor intends to manufacture, test-treat, or assemble (make); and those the contractor intends to purchase from others (buy).

Materiel Solution

Correction of a deficiency, satisfaction of a capability gap, or incorporation of new technology that results in the development, acquisition, procurement, or fielding of a new item (including ships, tanks, self-propelled weapons, aircraft, etc.) and related software, spares repair parts, and support equipment (but excluding real property, installations, and utilities) necessary to equip, operate, maintain, and support military activities without disruption as to their application for administrative or combat purposes. (CJCSI 3170.01E)

Milestone (MS)

The point at which a recommendation is made and approval sought regarding starting or continuing an acquisition program, i.e., proceeding to the next phase. Milestones established by DoDI 5000.2 are: MS A that approves entry into the Technology Development (TD) phase; MS B that approves entry into the System Development and Demonstration (SDD) phase; and MS C that approves entry into the Production and Deployment (P&D) phase. Also of note are the Concept Decision (CD) that approves entry into the Concept Refinement (CR) phase; the Design Readiness Review (DRR) that ends the System Integration (SI) effort and continues the SDD phase into the System Demonstration (SD) effort; and the Full Rate Production Decision Review (FRPDR) at the end of the Low Rate Initial Production (LRIP) effort of the P&D phase that authorizes Full Rate Production (FRP) and approves deployment of the system to the field or fleet.

Militarily Useful Capability

A capability that achieves military objectives through operational effectiveness, suitability, and availability, which is interoperable with related systems and processes, transportable and sustainable when and where needed, and at costs known to be affordable over the long term. (CJCSI 3170.01E)

Military Operational Requirements (MOR)

The formal expression of a military need, responses to which result in development or acquisition of items, equipment, or systems.

New Start

An item or effort appearing in the President's Budget (PB) for the first time; an item or effort that was previously funded in basic or applied research and is transitioned to Advanced Technology Development (ATD) or engineering development; or an item or effort transitioning into procurement appearing in the PB for the first time in the investment area. Often confused with "program initiation," an acquisition term that describes the milestone decision that initiates an acquisition program.

Non-Materiel Solution

Changes in doctrine, organization, training, leadership and education, personnel or facilities, to satisfy identified functional capabilities.

Operational Requirements

User generated validated needs are developed to address mission area deficiencies, evolving threats, emerging technologies, or weapon system cost improvements. Operational requirements form the foundation for weapon system-unique specifications and contract requirements.

Operational Test and Evaluation (OT&E)

The field test, under realistic conditions, of any item (or key component) of weapons, equipment, or munitions for the purpose of determining the effectiveness and suitability of the weapons, equipment, or munitions for use in combat by typical military users; and the evaluation of the results of such tests.

Operational Test Plan (OTP)

Documents specific operational test scenarios, objectives, Measures of Effectiveness (MOE), threat simulation, detailed resources, known test limitations, and the methods for gathering, reducing, and analyzing data.

Operationally Acceptable Test

Systems will be evaluated as Operationally Acceptable when the system performance is not fully adequate when tested against criteria established by the Director of Operational Test and Evaluation but the Combat Commander has determined that the system, as tested, provides an operationally useful capability and the Combatant Command desires immediate fielding of the "as tested" capability.

Packard Commission

The President's 1986 Blue Ribbon Commission on Defense Management. It made a number of significant recommendations on re-organizing the Joint Chiefs of Staff (JCS), the defense command structure, and the defense acquisition process. Many of these recommendations were enacted into law or instituted within DoD.

Planning, Programming, Budgeting and Execution (PPBE) Process

The primary Resource Allocation Process (RAP) of DoD. It is one of three major decision support systems for defense acquisition along with Joint Capabilities Integration and Development System (JCIDS) and the Defense Acquisition System. It is a formal, systematic structure for making decisions on policy, strategy, and the development of forces and capabilities to accomplish anticipated missions. PPBE is a biennial process wherein the On-Year produces a Strategic Planning Guidance (SPG), Joint Programming Guidance (JPG), approved Program Objectives Memoranda (POMs) for the Military Departments and Defense Agencies covering 6 years, and the DoD portion of the President's Budget (PB) covering 2 years. In the Off-Year, adjustments are made to the Future Years Defense Program (FISCAL YEARDP) to take into account "fact of life changes," inflation, new programmatic initiatives, and the result of congressional enactment of the previously submitted PB based on guidance from the Under Secretary of Defense (Comptroller) and the Director, Program Analysis and Evaluation.

Preliminary Design Review (PDR)

A multi-disciplined technical review to ensure that a system is ready to proceed into detailed design and can meet stated performance requirements within cost (program budget), schedule (program schedule), risk, and other system constraints. Generally, this review assesses the system preliminary design as captured in performance specifications for each configuration item in the system (allocated baseline), and ensures that each function in the functional baseline has been allocated to one or more system configuration items. Normally conducted during the System Development and Demonstration (SDD) phase.

Procurement

Act of buying goods and services for the government.

Program

1. A DoD acquisition program. 2. As a verb, program means to schedule funds to meet requirements and plans. 3. A major, independent part of a software system. 4. A combination of Program Elements (PEs) designed to express the accomplishment of a definite objective or plan.

Program (Acquisition)

A defined effort funded by Research, Development, Test and Evaluation (RDT&E) and/or procurement appropriations with the express objective of providing a new or improved capability in response to a stated mission need or deficiency.

Program Executive Officer (PEO)

A military or civilian official who has responsibility for directing several Major Defense Acquisition Programs (MDAPs) and for assigned major system and non-major system acquisition programs. A PEO has no other command or staff responsibilities within the Component, and only reports to and receives guidance and direction from the DoD Component Acquisition Executive (CAE).

Program Initiation

The point at which a program formally enters the Acquisition Process. Under DoDI 5000.2, program initiation normally occurs at Milestone B, but may also occur at other milestones/decision points depending upon technology maturity and risk. At program initiation, a program must be "fully funded" across the Future Years Defense Program (FISCAL YEARDP) as a result of the Program Objectives Memorandum (POM)/budget process, that is, have an approved resource stream across a typical defense program cycle, for example Fiscal Year (FISCAL YEAR) 2006-2011. Concept Refinement (CR) and Technology Development (TD) phases are typically not "fully funded" and thus do not constitute program initiation of a new acquisition program in the sense of DoDI 5000.2. This term is often confused with the financial management term "new start."

Program Instability

The condition imposed on a program due to problems and/or changes in requirements, technology, and funding.

Program Management

The process whereby a single leader exercises centralized authority and responsibility for planning, organizing, staffing, controlling, and leading the combined efforts of participating/assigned civilian and military personnel and organizations, for the management of a specific defense acquisition program or programs, throughout the system life cycle.

Program Manager (PM)

Designated individual with responsibility for and authority to accomplish program objectives for development, production, and sustainment to meet the user's operational needs. The PM shall be accountable for credible cost, schedule, and performance reporting to the Milestone Decision Authority (MDA). (DoDD 5000.1)

Quadrennial Defense Review (QDR)

A comprehensive examination of America's defense needs to include potential threats, strategy, force structure, readiness posture, military modernization programs, defense infrastructure, and information operations and intelligence that is conducted by law every 4 years at the beginning of a new administration. See Quadrennial Defense Report.

Re-baslining

In effect, a new project. All work not done is rescheduled, resource loaded and budgets assigned. What's already done is history.

Requirements

The need or demand for personnel, equipment, facilities, other resources, or services, by specified quantities for specific periods of time or at a specified time. For use in budgeting, item requirements should be screened as to individual priority and approved in the light of total available budget resources.

Requirements Creep

The tendency of the user (or developer) to add to the original mission responsibilities and/or performance requirements for a system while it is still in development.

Requirements Scrub

A review of user/government comments received in response to the announcement of an operational requirement. The scrub is used to validate and prioritize suggested or requested system functions and capabilities before release to industry. Review of a draft requirements document, such as a Capability Development Document (CDD), by the acquisition and user communities to determine adequacy and clarity of performance specified in the document.

Research and Development Costs

Those program costs primarily associated with research and development efforts including the development of a new or improved capability, to the point where it is appropriate for operational use. These costs are funded under the Research, Development, Test and Evaluation appropriation.

Risk

A measure of the inability to achieve program objectives within defined cost and schedule constraints. Risk is associated with all aspects of the program, e.g., threat, technology, design processes, or Work Breakdown Structure (WBS) elements. It has two components: the probability of failing to achieve a particular outcome, and the consequences of failing to achieve that outcome.

Selected Acquisition Report (SAR)

Standard, comprehensive, summary status report of a Major Defense Acquisition Program required for periodic submission to Congress. It includes key cost, schedule, and technical information.

Service Acquisition Executive

Carries out all powers, functions, and duties of the Secretary concerned with respect to the acquisition workforce within the military department concerned and ensures that the policies of the Secretary of Defense are implemented in that department.

Source Selection Authorities (SSA)

The official designated to direct the source selection process, approve the selection plan, select the source(s), and announce contract award.

Stable Program Funding Account

A single account appropriated by the Congress that funds all Acquisition Category I Programs at the beginning of the fiscal year and is managed through a Capital Budgeting process. Capital Budgeting and execution is the total process of generating, evaluating, selecting and following-up on capital expenditures that are expected to have a significant impact on financial performance. Capital Budgeting means a budget process that identifies large capital outlays that are expected to be made in future years, together with identification of the proposed means to finance those outlays and the expected benefits of those outlays. Major Acquisition Programs would be fully funded at a level that would cover the program for Milestone A through delivery of low-rate production.

Subject Matter Expert

Executives who are accountable for a portion of the operation, performance or oversight of the Department's acquisition processes or nationally recognized leaders, commentators or critics who possess substantial domain knowledge and expertise.

System Design and Development (SDD)

1. The third phase of the life cycle beginning after Milestone B and consisting of two efforts, System Integration and System Demonstration. 2. Budget Activity 5 within a Research, Development Test and Evaluation appropriation account.

System Requirements Review (SRR)

A review conducted to ascertain progress in defining system technical requirements. This review determines the direction and progress of the systems engineering effort and the degree of convergence upon a balanced and complete configuration. It is normally held during the

Technology Development phase, but may be repeated after the start of System Development and Demonstration phase to clarify the contractor's understanding of redefined or new user requirements. (Defense Acquisition Guidebook).

Technology System Deployment Budget

Established in the office of the Director, Defense Research and Engineering to expand the current Advanced Concept Technology Demonstration program so that systems deployed will meet Combatant Commanders' emerging needs without having to get a single Service to take ownership under a new or existing program of record.

Technology Transition

Process of inserting critical technology into military systems to provide an effective weapons and support system in the quantity and quality needed by the warfighter to carry out assigned missions.

Test and Evaluation Master Plan (TEMP)

Documents the overall structure and objectives of the Test and Evaluation (T&E) program. It provides a framework within which to generate detailed T&E plans and documents schedule and resource implications associated with the T&E program. The TEMP identifies the necessary Developmental Test and Evaluation (DT&E), Operational Test and Evaluation (OT&E), and Live Fire Test and Evaluation (LFT&E) activities. It relates program schedule, test management strategy and structure, and required resources to: Critical Operational Issues (COIs), Critical Technical Parameters (CTPs), objectives and thresholds documented in the Capability Development Document (CDD), evaluation criteria, and milestone decision points. For multi-Service or joint programs, a single integrated TEMP is required. Component-unique content requirements, particularly evaluation criteria associated with COIs, can be addressed in a Component-prepared annex to the basic TEMP.

Time Certain Development

Development program that is assigned a specific length of time in which milestone events will be accomplished by contract

Under Secretary of Defense (Acquisition, Technology and Logistics) (USD(AT&L))

The USD(AT&L) has policy and procedural authority for the defense Acquisition System, is the principal acquisition official of the Department, and is the acquisition advisor to the Secretary of Defense (SECDEF). In this capacity the USD(AT&L) serves as the Defense Acquisition Executive (DAE), the Defense Senior Procurement Executive, and the National Armaments Director — the last regarding matters of the North Atlantic Treaty Organization (NATO). For acquisition matters, the USD(AT&L) takes precedence over the Secretaries of the Services after the SECDEF and Deputy SECDEF. The USD(AT&L) authority ranges from directing

the Services and Defense agencies on acquisition matters, to establishing the Defense Federal Acquisition Regulation Supplement (DFARS), and chairing the Defense Acquisition Board (DAB) for Major Defense Acquisition Program (MDAP) reviews.

Office of the Under Secretary of Defense (Acquisition, Technology and Logistics (OUSD(AT&L))

The OUSD(AT&L) is organized around services, Research and Development (R&D), and materiel acquisition. Several organizational elements report directly to the USD(AT&L) including the Principal Deputy USD (PDUSD(AT&L)); the Director, Defense Research and Engineering (DDR&E); the Deputy USD (Logistics and Materiel Readiness) (DUSD(L&MR)); and the Director, Missile Defense Agency. Also, reporting to staff elements within OUSD(AT&L) are a number of Defense agencies such as the Defense Logistics Agency (DLA) and the Defense Advanced Research Projects Agency (DARPA).

User

An operational command or agency that receives or will receive benefit from the acquired system. Combatant Commanders (COCOMs) and their Service Component commands are the users. There may be more than one user for a system. Because the Service Components are required to organize, equip, and train forces for the COCOMs, they are seen as users for systems.

The Chiefs of Services and heads of other DoD Components are validation and approval authorities and are not viewed as users. (CJCSI 3170.01E)
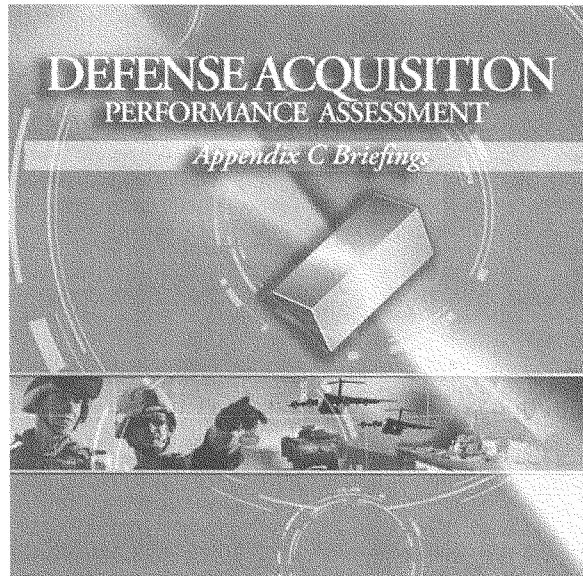
Weapon System

Items that can be used directly by the Armed Forces to carry out combat missions.

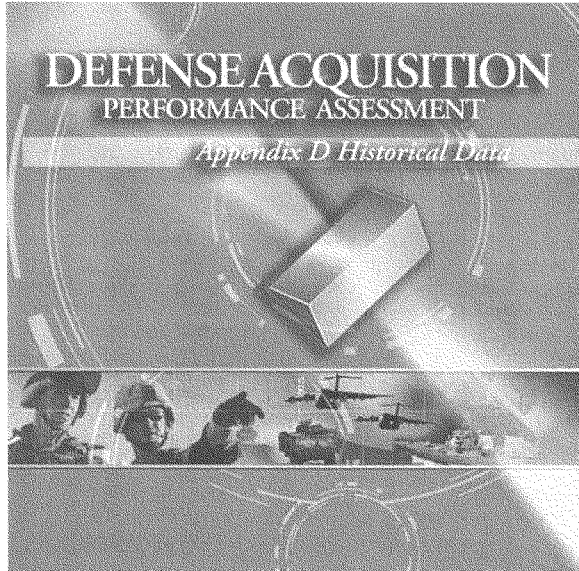*Appendix C*

Panel Presentations (link)

Appendix D

Monitor Historical Data (link)

Appendix E

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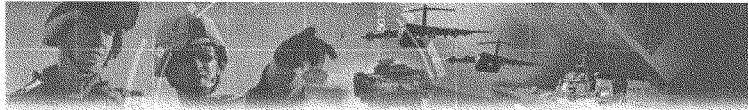
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WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING

JUNE 3, 2009

RESPONSE TO QUESTION SUBMITTED BY MR. ANDREWS

Mr. ENGLAND. The current system provides a series of checks and balances, allowing appropriate military advice to be provided to the civilian leadership while allowing the civilian leadership to define strategy and allocate resources consistent with the President's policy and budget priorities. There is a large staff which supports the JROC in the requirements review and approval process. The Office of the Deputy Secretary of Defense is not staffed for comprehensive review of the JROC requirements. Further, the Deputy Secretary already must address a broad spectrum of issues, and this additional workload would be very difficult to manage within the Office of the Deputy Secretary of Defense. As importantly, the current system established by the Congress through Goldwater Nichols legislation provides checks and balances in the systems while also allowing for independent military advice to be provided to the Nation's civilian leadership. It may not be appropriate for the Deputy Secretary of Defense to approve or disapprove individual requirements sequentially. The Deputy Secretary of Defense already indirectly provides a role in this process by balancing the JROC requirements against the President's policy and strategy objectives, making these decisions in the context of the President's budget process. It is not clear that the process would be improved by requiring the Deputy Secretary to personally approve JROC memoranda. [See page 23.]

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