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**FUTURE ROLES AND MISSIONS OF THE
MISSILE DEFENSE AGENCY**

HEARING

BEFORE THE

STRATEGIC FORCES SUBCOMMITTEE

OF THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES

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FUTURE ROLES AND MISSIONS OF THE MISSILE DEFENSE AGENCY

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
STRATEGIC FORCES SUBCOMMITTEE,
Washington, DC, Thursday, March 26, 2009.

The subcommittee met, pursuant to call, at 9:33 a.m., in room 2212, Rayburn House Office Building, Hon. Ellen Tauscher (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. ELLEN O. TAUSCHER, A REPRESENTATIVE FROM CALIFORNIA, CHAIRMAN, STRATEGIC FORCES SUBCOMMITTEE

Ms. TAUSCHER. The committee will come to order. The Strategic Forces Subcommittee meets this morning to receive testimony on the future roles and missions of the Missile Defense Agency (MDA). Let me start off by saying this: I strongly support deployment of operationally effective, suitable, and survivable missile defenses to defend the United States, its deployed forces, and its friends and allies against the full range of ballistic missile defense (BMD) threats we face.

In short, that means I support deploying missile defenses that work. That is why it is imperative that we have adequate processes in place at the Department of Defense (DOD) to ensure that we provide our warfighters the right missile defense capabilities in adequate numbers to meet the current threats we face.

Over the past several years, we have seen a rush to deploy an initial national missile defense system that addresses a future threat, but crowds out more urgent priorities that address the current threats. This occurred for a variety of reasons but, fundamentally, the Department of Defense failed to provide adequate oversight and guidance to the Missile Defense Agency. Without such direction, we had a program that did not design, test, and deploy against current threats.

As a result, it took Congress—acting on a bipartisan basis, I would add—to direct the Missile Defense Agency to focus more attention on developing and deploying current missile defense capabilities to meet the warfighters' operational requirements, and to meet the current threats we face. For example, it took congressional action to get the Department to implement the recommendations outlined in the Joint Capabilities Mix Study II (JCM II), which called for doubling the number of Terminal High Altitude Area Defense (THAAD) and Standard Missile 3 (SM-3) interceptors.

After years of this dynamic, where Congress had to be the advocate for the warfighters' current priorities, it became clear to me that the Department of Defense's internal processes for oversight and review of the missile defense program were broken. This largely explains why Congress directed the independent study, the study on the future roles and missions of the Missile Defense Agency in the National Defense Authorization Act (NDAA) for Fiscal Year 2008. The results of this study will form the basis of our discussion this morning.

At the heart of the recommendations outlined in the report is a need to more fully integrate the activities of the Missile Defense Agency with the overall Department of Defense. I agree with that assessment. This is a key issue that Congress and the Department of Defense need to address together.

If we are going to have operationally effective, suitable, and survivable missile defense systems, we must not view missile defense as something isolated from the rest of the Department of Defense. Instead, missile defense must be fully integrated into our overall defense planning and doctrine.

The Department has recently taken a number of steps to better integrate and coordinate Missile Defense Agency activities with other key DOD stakeholders, the most important of these steps being the establishment of the Missile Defense Executive Board (MDEB). While there is still ongoing work that needs to be done in this area, the Department is generally moving in the right direction.

As the Obama Administration reviews the missile defense program, I hope that one of its key priorities will be to ensure that the Department of Defense establishes and maintains adequate processes to provide our warfighters with real capabilities we need to meet the current threats we face. Let me be clear: This is not about slowing things down; this is about getting it right.

The threat of ballistic missiles cannot be ignored. Iran has the largest force of short- and medium-range missiles in the Middle East, and North Korea is poised to launch a long-range Taepodong missile, possibly this week. Addressing the ballistic missile threat, wherever it comes from, will require a combination of systems that work, and a smarter use of diplomacy that engage our allies and some of our adversaries.

Let me now turn the floor over to my distinguished ranking member, my friend from Ohio, Mr. Turner, for his opening comments. Thank you.

Mr. Turner.

STATEMENT OF HON. MICHAEL TURNER, A REPRESENTATIVE FROM OHIO, RANKING MEMBER, STRATEGIC FORCES SUB-COMMITTEE

Mr. TURNER. Thank you, Madam Chairman.

I would also like to extend a warm welcome to our witnesses, all of whom have served our Nation with distinction. In particular, I want to recognize General Welch, who will complete his service as President and Chief Executive Officer (CEO) of the Institute for Defense Analyses (IDA) on April 15th after over 15 years in the position.

The focus of today's hearing is to examine potential improvements to the processes or organization and management structures that could enable further success in missile defense. I respectfully disagree with Madam Chairman that DOD processes were broken, but I do believe that systems can always be improved, and that is why it is excellent that we are proceeding with this hearing.

We have some thorough reports and assessments from the Institute for Defense Analyses and the Government Accountability Office (GAO) to use as a basis for our discussion today. And I want to commend our witnesses and the organizations they represent for their outstanding work.

In 2002, President Bush issued a mandate: Deploy a set of initial missile defense capabilities beginning in 2004. The mandate was met and, seven years later, we have a fielded missile defense capability that our military commanders rely on. The rapid development in deployment of this capability was unique, and it was enabled by the flexibility of special authorities granted to MDA.

However, as noted in the testimony of our witnesses, the success came at the expense of full warfighter involvement, DOD oversight, and transparency. The challenge ahead is balancing MDA's needed flexibility, while providing more structure and enhancing the involvement of DOD stakeholders.

I would appreciate our witnesses' thoughts on how to strike this balance, as well as any areas of concern they may have.

Furthermore, the increasing demands for more inventory, operations, and sustainment of existing assets detract from MDA's primary focus on research and development (R&D). Efforts are underway in the Department to transfer the procurement, operations and sustainment of more mature missile defense assets to the military services. However, because these systems are so integrated and complex, transfer must be done smartly.

A key issue in this process and its timing is transferring the responsibility for operations and management and follow-on procurement. I welcome our witnesses' views on how we can maximize success throughout this transfer process, and any potential pitfalls that might negatively impact this success.

The Department has done a commendable job, to date, recognizing and addressing these challenges. In 2007, the Missile Defense Executive Board was established to recommend and oversee implementation of missile defense policies, programs, and budgets. A few months ago, it developed a disciplined process and set of business rules, the Ballistic Missile Defense System (BMDS) Lifecycle Management Process, to delineate roles and missions, and guide the transfer of missile-defense assets to the services. I look forward to hearing more about these efforts.

Lastly, as we see in intelligence, our adversaries' capabilities are continuously evolving. If we do not invest in long-term R&D or evolve our capabilities as well, they risk becoming obsolete. The IDA report recommends that, within the spectrum of our development, test, and evaluation (DT&E) activities, science and technology (S&T) should receive renewed emphasis and increased funding. I am interested in our witnesses' thoughts on what aspects of S&T should receive more emphasis.

We want and demand success in our missile defense system. Our national security and the security of our allies depends on it. We must, therefore, ensure the Department has the right authorities, tools, resources, and flexibility to be successful. Today's hearing is a step in that direction.

Thank you, again, for being here today.

Madam Chairman, I appreciate this hearing.

Ms. TAUSCHER. Thank you, Mr. Turner.

Let me now turn to our panel of witnesses. Our witnesses today include General Larry Welch, President and CEO of the Institute for Defense Analyses; Mr. John Pendleton, Director of Defense Capabilities and Management team, U.S. Government Accountability Office; and Mr. David Ahern, Director of Portfolio Systems Acquisition, Office of the Under Secretary of Defense (OUSD) for Acquisition, Technology, and Logistics (AT&L). Each of our witnesses have submitted a comprehensive statement, and their formal statements will be entered into the record. And I ask each of you to briefly summarize your remarks. Let me begin by recognizing General Welch.

General Welch, once again, congratulations on your very long tenure at the Institute for Defense Analyses, and your great service to this country. As I said to you when I said hello earlier today, we have counted on you for so long to do so much, and we thank you very much, from the subcommittee, for all the work that you have done to provide us with good analysis.

And the floor is yours.

**STATEMENT OF GEN. LARRY D. WELCH, USAF (RET.),
PRESIDENT AND CEO, INSTITUTE FOR DEFENSE ANALYSES**

General WELCH. Thank you very much, Madam Chairperson. I have submitted my opening statement for the record. I will just make a few comments about it.

I do want to point out that my comments in the statement reflect the consensus of the study group, and where I depart from those or go beyond those, I will make it clear that they are my personal opinion. Otherwise, I am really reporting on the consensus of a group of people who have lots and lots of experience, both in missile defense and in acquisition in general.

You have mentioned the January 2002 directive that required that the Missile Defense Agency begin to deploy a system in 2004. While it was not explicitly stated in the directive, the assumption was that this was to be a mid-course system capable of dealing with a limited attack from Korea—from North Korea. So, with that in mind, what was actually required to do that, and how well they did that is an issue; however, we were not asked to assess the performance of the Missile Defense Agency, and we did not do that.

We did find a very broad consensus within the Department to include the Department of Defense and the contractor community and our study group, that the special authorities and the centralized approach were essential to the rapid deployment that was required by the January 2002 directive. And while it did succeed in meeting that mandate, which was very difficult—and a lot of people, including myself, doubted that they would be able to make that mandate—it was much less successful in fostering the planning

and preparation and the cooperation and the understanding from the service that would eventually inherit those capabilities. And that is one of the major issues in the study and one of the major issues, I understand, of this hearing.

It has been mentioned several times that the development and initial fielding was not subject to the 5,000 Series. It was our view that this set of programs is quite unique. And that is—the task was to integrate into a cohesive, coherent system parts and elements that come from systems from all three of the military departments, systems that were at varying degrees of maturity, and the task of integrating those into an operational system that had to respond in near-time was quite different from any other weapon system procurement that we have seen.

And so we felt that the special authorities, and retaining some of those special authorities, were essential because of the nature of the Ballistic Missile Defense System. And I stress the word “system,” because it is made up of a series, as you know, of sensors, and interceptors, and Command and Control (C2). We have seen a response to the need for more oversight for the Department of Defense, and we are seeing, at least, plans to begin to transfer operational responsibilities to the military departments, and some plans, although not as clear, on transferring follow-on procurement.

I would make a comment about that, Madam Chairperson. You mentioned the difficulty in persuading the Missile Defense Agency to buy more THAAD. I think that is a conflict that you will see until we resolve the issue of who is responsible for research, development, test, and evaluation (RDT&E) and who is responsible for procurement.

Ms. TAUSCHER. That is right.

General WELCH. Because otherwise the Missile Defense Agency will always see the demand for more procurement of what they regard as mature systems as competing with the need for RDT&E.

Ms. TAUSCHER. That is right.

General WELCH. So some clarity as to who is responsible for what, I think, would go a long ways toward satisfying that particular requirement.

We were also asked to comment on whether or not there were things currently in the Missile Defense Agency portfolio that, in whole or part, should be removed, or things that should be added. Our conclusion was that there was nothing that should be added, and we very specifically addressed the issue of cruise missile defense. And while cruise missile defense is a very important subject, adding that to the ballistic missile defense portfolio, we felt, would serve the needs of neither cruise missile defense nor ballistic missile defense. They are very different, and it is very complex.

I would end my opening comments by reiterating what we regard as the three fundamental reasons why there need to be some continuing special authorities within the Missile Defense Agency. And that was, the first issue is the matter of integrating a complex set of capabilities into a cohesive system that has to respond effectively against missiles of all ranges in a very short time period. And that requires a degree of Command and Control integration that we don't see elsewhere.

There will be the long-term issue, as these systems are inevitably upgraded, and most of these systems fulfill multiple purposes—that is, they serve a missile defense purpose, but they also serve a joint purpose within the larger, joint operation. So as these upgrades take place and these changes take place, the need to maintain configuration control over the evolving system to ensure it remains cohesive and coherent is, again, a special requirement.

And finally, I have mentioned and will mention once again, the Command and Control and Battle Management System that brings together a complex set of sensors or complex set of interceptors on a global basis that must respond virtually instantly is a very unusual and demanding task, and that is another reason why there will need to be some special authorities.

Make one last point, and that is, we recommend strongly that the Missile Defense Agency's focus be RDT&E as their primary focus. However, we added a caveat in the definition of RDT&E in this case, in that in order to ensure that the deployed system has, in fact, been integrated into the Ballistic Missile Defense System, we believe RDT&E has to include the deployment of an initial capability, because until an initial capability is actually deployed and operating within the system, you have no assurance that even the first phase of RDT&E has been satisfactorily complete.

Thank you very much.

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

Ms. TAUSCHER. Thank you very much.

Mr. Pendleton, thank you again for your comprehensive statement, and I thank you for your staff's hard work. We will submit your statement for the record. We ask you to summarize, and the floor is yours.

STATEMENT OF JOHN H. PENDLETON, DIRECTOR, DEFENSE CAPABILITIES AND MANAGEMENT, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Mr. PENDLETON. Yes, ma'am.

Madam Chair, Mr. Turner, members of the subcommittee, I am pleased to be here today to discuss GAO's work on the Missile Defense Program.

DOD may well be at a crossroads in missile defense, but no matter what path is taken, our work indicates that DOD will need to overcome serious management challenges. A better balance is needed between flexibility and oversight. Before describing the challenges, however, I want to acknowledge DOD's progress.

Since MDA was created in 2002, the United States has filled in several interconnected elements, ranging from radars in California and Japan to interceptors in Alaska, among others. Going forward, DOD will need to focus as much on management fundamentals as it does on harnessing new technologies.

Our work over the past few years, much of it at this subcommittee's request, has revealed problems in setting requirements, testing and buying systems, and in planning for long-term operations and support (O&S). I will briefly discuss each of these challenges.

The first is associated with the process for determining what missile defense capabilities are needed. A key stakeholder should

be the geographic combatant commands, who specialize in various parts of the world and understand the threats in the region. However, we reported in 2008 that DOD does not yet have an effective process to ensure that the priorities of those combatant commands are considered when making development and investment decisions.

A bit of history is important, though, to put this into context. During the first three years of MDA, from 2002 to 2005, no formal process existed to consider combatant command views. So the creation of such a process, called the Warfighter Involvement Process (WIP), in 2005 was certainly a step in the right direction.

The second major challenge is the continuing difficulty in measuring progress on cost, schedule, and testing. In the absence of baselines, it has not been possible to measure the performance of most MDA programs. For example, MDA has not established baselines for cost, and such baselines are critical to assess progress. Furthermore, MDA's difficulties in meeting testing baselines have sometimes caused production and fielding decisions to get ahead of testing and modeling, which leaves lingering concerns about the efficacy of some parts of the system.

A third challenge is associated with the lack of planning for the long-term operations and support of the systems once they are developed. This is critical because two-thirds or more, at least historically, of the system's costs are associated with operating and supporting it over a lifecycle. As systems come online, the question of who will operate and support them becomes more urgent.

Typically, this function has been performed by the military services, but many questions about how this transition and transfer will occur remain unanswered. This is attributable primarily to uncertainty about cost. DOD has not required that full cost estimates for operations and support be developed, and since these costs are likely to be significant, the military services have been reluctant to take on an unknown liability, especially in today's budget environment.

A common thread through all of these challenges is the need for better oversight in the development of ballistic missile defenses. The creation of a Missile Defense Executive Board, or MDEB, in 2007 has served to improve oversight some by reviewing and making recommendations on MDA's acquisition strategy, plans, and funding, as well as bringing top-level leaders together from across the Department. The board's adoption of a Lifecycle Management Process has served to clarify roles, but that process is still in its early stages and lacks important details, like how it will implement the new defense-wide funding accounts for ballistic missile defense, including allocating funds to the various players.

In sum, Madam Chair, whether or not DOD continues to acquire, operate, and maintain missile defenses outside traditional DOD processes, the challenges we have found in our work will need to be addressed. Sustained DOD leadership will be needed to coordinate the divergent needs of the combatant commands, ensure that billions of dollars are spent wisely, and that MDA and the services work together in their planning long-term operations and support of these expensive and extraordinarily complex systems.

That concludes my statement. I would be happy to answer any questions. Thank you.

[The prepared statement of Mr. Pendleton can be found in the Appendix on page 46.]

Ms. TAUSCHER. Thank you, Mr. Pendleton.

Mr. Ahern, thank you again for your comprehensive statement, and your statement has been submitted for the record. And the floor is yours.

STATEMENT OF DAVID G. AHERN, DIRECTOR, PORTFOLIO SYSTEMS ACQUISITION, OFFICE OF THE UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY AND LOGISTICS, U.S. DEPARTMENT OF DEFENSE

Mr. AHERN. Good morning, Madam Chairperson Tauscher, Ranking Member Turner, distinguished members of the subcommittee. Thank you for the opportunity to appear before you today. As noted, I serve as the Director for Portfolio Systems Acquisition in the Office of Under Secretary of Defense for Acquisition, Technology and Logistics. Among my duties, of course, is responsibility for developing insight and supporting oversight of the Missile Defense Agency.

I would like to take a moment to address the importance of the Ballistic Missile Defense System. Ballistic missile threat is evolving. Not only have the number of countries holding short- and medium-range ballistic missiles increased over the last 30-plus years, but also the range, sophistication, and accuracy of those missiles has improved. The Missile Defense Agency has achieved important successes in the development and employment of missile defense systems.

Currently, our Nation's missile defense capability includes Ground-based Mid-course (GMD) interceptors, Standard Missile 3 sea-based interceptors, Aegis Ballistic Missile Defense engagement aboard destroyers and cruisers, various radars, including a Sea-Based X-band (SBX) Radar, and a forward-based transportable radar. As both the threat and BMDS capability have evolved, so too has the Department's involvement in overseeing and directing MDA activity.

The Honorable John Young, Under Secretary of Defense for Acquisition, Technology and Logistics, testified before this committee a year ago, stating his intention to use the Missile Defense Executive Board to provide all stakeholders visibility into the MDA programs, and to give them voice in the agency plans. He said he would "ensure that there is appropriate, independent DOD oversight of missile defense programs."

He met his goals by conducting eight Missile Defense Executive Board meetings over the last 12 months, making decisions on MDA programs and the budget, and on missile defense policy, requirements, and deployment plans. I mention the number of meetings just to give you a sense that we are actively engaged in overseeing MDA's activities, meeting more often, frankly, than the Defense Acquisition Boards (DABs) do when reviewing other major defense acquisition programs.

As part of the increased level of MDA oversight, Mr. Young led the development of the Ballistic Missile Defense System Lifecycle

Management Process, which the Deputy Secretary endorsed. The new process mandates the participation of the MDA, the Office of the Secretary of Defense, the Strategic Command commander, other combatant commanders, the Joint Staff, the military departments in an annual, collaborative process to identify capability and support requirements, balance resources and technical capabilities, and prepare a program plan and budget. This process was exercised during the development of fiscal year 2010 budget and will have full effect as we develop the Department's fiscal year 2011 budget.

I would like to mention examples of recent Missile Defense Executive Board reviews: A comprehensive program assessment of THAAD—the THAAD program—and a Joint Staff study on requirements for upper-tier missile defense interceptors. The purpose of the THAAD review is to determine program progress, maturity of planning, and preparation for acquisition and for operation and support by the Army as a designated lead in the military department.

The board's Joint Staff study—review of the Joint Staff study—involved capabilities balanced against available assets, and indicated a need for additional upper-tier interceptors. That is under consideration, and the program planning and budget processes are ongoing.

I would also like to address the increasing importance of combatant commander involvement in determining the Nation's missile defense posture. Strategic Command's Warfighter Involvement Process ensures that desired operational capabilities are properly considered by MDA, the material developer.

A significant output of this proposal is a Prioritized Capability List (PCL) that documents operator capability requests. MDA provides a formal response which, in turn, facilitates our assessment of MDA program plans against desired capabilities. This is another example of how the Department is ensuring warfighter involvement in the development of missile defense programs.

I am grateful to the members of this committee for your support of the Defense Department's missile defense program and look forward to your questions.

[The prepared statement of Mr. Ahern can be found in the Appendix on page 69.]

Ms. TAUSCHER. Thank you, Mr. Ahern.

I will begin with a question to General Welch. One of the key issues that the Department of Defense and the Congress have been grappling with over the past several years is how to get the services to take full ownership of the missile defense mission. And we have had—Mr. Pendleton and others have talked about, and you certainly have, sir, about the need to bring the combatant commanders into a planning function, and I read “buy-in” also there.

Besides the issue of funding, which is nontrivial—I mean, if you don't have the money you are not going to find a way to cut something that you know you have to have, or something that you might have to have, and that is part of the problem that we have. Besides the issue of funding, what have been other impediments that have stood in the way of the services from fully embracing the missile defense mission, and what is your current assessment of

the services' attitude toward the missile defense mission? And what can be done, assuming you have a sense that there is a negative, what can be done to improve these attitudes?

General WELCH. I think that answer is different for individual pieces of the Ballistic Missile Defense System. In the case of the Patriot, for example, the Army always regarded the Patriot as part of their integrated maneuver battalion and so, therefore, they had an intense interest in the Patriot from the beginning, and it was easy to transfer it over. I think you will find a similar situation on the Aegis SM-3, simply because they use their ship as part of the Navy's normal operations. SM-3 is operated by sailors on Navy ships, and so there is simply the matter of agreeing on what constitutes something as mundane as a Milestone C, because there are different test requirements.

The THAAD has a different history. As you will recall, the THAAD was an Army program. It is funded by the Ballistic Missile Defense Organization (BMDO), but it was developed by the Army as part of the Army's set of capabilities included under the joint operation. That program had some very difficult times, and it was transferred to the Missile Defense Agency. Again, while there are questions about what is the funding approach, and how do you actually transfer those responsibilities, we really don't see any reason why the Army can't assume full responsibility for the THAAD. It was an Army system; it is still painted green.

But probably the most complex issue has to do with the Ground-based Interceptor (GBI), because the Ground-based Interceptor was never part of any of the service programs, and it is the mid-course system. So to try to make a blanket statement about what the difficulties are, I don't think you can do that. You have to address each of these individually. And that is the reason why, in our report, we suggested one approach to transferring O&S responsibility to include funding and a more complicated approach to transferring the responsibility for follow-on procurement.

All of this, of course, is complicated by how we come to agreement on who has the authorities for upgrades and configuration control, and maintaining the coherence of the system after it is transferred. We recommend the Joint Program Office (JPO). Currently, General O'Reilly is standing up Hybrid Program Office.

There are some differences, but the Hybrid Program Office does get the military department involved from the outset; it gives them a set of responsibilities that are enduring; it gives them a set of accountabilities that are enduring. I think that is a huge step toward bringing MDA and the service interests together.

Ms. TAUSCHER. Thank you.

I have one follow-on question about the report that talks about the need for MDA to maintain its capabilities-based acquisition approach with modifications, and you had just referred to it. My concern with a capabilities-based approach is that it does not fully take into account critical factors such as suitability and survivability, and may not have been fully synchronized with the overall DOD acquisition process.

Can you talk a little bit about how you can ensure that the capabilities-based acquisition fully takes into account such important factors such as suitability and survivability? How do you do these

synchronizations of capabilities approach with the normal acquisition system that the rest of the Department of Defense operates under?

And then, if I could ask both Mr. Pendleton and Mr. Ahern to comment on those questions after you finish, General Welch.

General WELCH. The suitability and the issues surrounding with logistics and the other mundane issues that create such a major part of the things that military departments have to deal with is explicitly addressed in the Hybrid Program Office approach. And, in fact, I would say that is probably the central feature of the hybrid approach, so that as far as our recommendation for Joint Program Offices was that the responsibilities would transfer from MDA to the service—at a point in time.

The hybrid approach retains the requirements from the very beginning. That is, the service element in the Hybrid Program Office has responsibility for the things you described as a part of the program office from the outset.

The issue, of course, is how do we establish those things and get them up and running and make them effective for systems that are already quite mature. And that is part of the handover issue; that is part of how you actually transfer responsibility for O&S to the military departments.

Again, though, when you look at it system-by-system, I think that is really only a major understanding issue with GBI. The other systems, there will be issues about, how do I know what the O&S costs are? And there has been a recommendation that there be a transition period whereby O&S is funded from a defense-wide account; I think that will work as a transition.

Ms. TAUSCHER. How long do you think that would take?

General WELCH. Well, we heard expert opinions that varied from a year to two years. I have no basis for arguing with a year to two years. I would state, though, that the idea that over the long term you can fund O&S from a defense-wide account would run into huge problems.

For example, I don't know how one decides how much of the Aegis cruiser O&S is due to SM-3, and how much is due to all the other things that you do with that cruiser or that destroyer.

So in the first place, I think it is just impractical, but the transition period is probably necessary, simply for the military department to get their arms around, what is the additive cost? How does this impact our overall O&S cost program?

Ms. TAUSCHER. Thank you.

Mr. Pendleton.

Mr. PENDLETON. That was a pretty comprehensive answer, but I would echo and agree with many of the things the General said. I think the hybrid offices will be important. Obviously, it provides a forum to bring together folks and talk about the details, because the devil is going to be in the details on this.

Another thing that is happening is MDA and the services are hammering out Memoranda of Agreement (MOA), basically sort of laying out who is going to do what, and that kind of thing. But the annexes that go along with that that would describe a number of the things you are talking about are yet to be determined. So

again, I think that how well that is carried out is going to be real key over time.

And I think in terms of breaking ties, a lot is going to be riding on the MDEB. If someone needs a reclama, if someone needs to cry foul, the MDEB is going to be probably where they go. And the MDEB can go to the Deputy Secretary's desk. So I think that system can work, but there is a lot yet to be determined.

Ms. TAUSCHER. Mr. Ahern.

Mr. AHERN. Yes, ma'am. You have hit on two perfect issues, and we have spent an awful lot thinking about it. And the first issue is the service involvement. And that starts with the Lead Service designation, and it has been done for 100 percent of the elements that we have right there. All the services are represented in the MDEB. Then transferring over to the lifecycle management plan paradigm, they are all involved both in the establishment of the requirements in the first portion of it, working with Strategic Command (STRATCOM), then they get involved in the budgeting and planning subcommittee, and then, of course, in the MDEB as we develop the annual budget.

And so they are 100 percent involved in that whole process with their own specific element at the beginning, and then through the annual process to put together the budget that addresses the standard Planning, Programming, Budgeting System (PPBS) kind of thinking—what should we do within the requirements and the technology that we have that is affordable? And so we work through that process, as I said. We exercised it in 2010, we are going to live in 2011, informed by the Warfighter Improvement Committee.

But when we get to the elements themselves, that is the real challenges, as both the General and Mr. Pendleton have mentioned. We have the Lead Service designated, but then the devil is in the details, as Mr. Pendleton said.

We do have the overarching MOAs, and there are MOAs developed for each one of the elements. For instance, the SBX, which we expect to have that transfer in the next couple of years, that annex is either under development or developed. They will recognize how the service plans to support that entity within its boundaries—the way it does its business, the way it operates.

And that is going to be a—as was mentioned, again, by the General and Mr. Pendleton, there will be a learning period there of informing the MDA and the service beginning to work with something that they didn't develop and that they have not had practice with, or the experience with, before. So that is why there is that transition period of a couple of years, or it could be possibly as long as five years, depending upon the maturity of the system as we go forward. But by using the defense-wide fund, we have taken that issue of money competition within the services off the table for that period of time, where they are developing that transition plan and beginning to bring it into their service.

And I will finish in one note, I mentioned that we did a THAAD review recently. One of the things that we worked very hard on in that particular review was a joint review between the MDA and the Army of what are the criteria that the Army has established to—what processes did the Army expect this system to go through

before they will accept it? And the MDEB will absolutely monitor that as we go forward.

Ms. TAUSCHER. Thank you.

Mr. AHERN. I realize that that is a long answer, but this is a passionate part of the job that I do. And I think we have set up a process; with discipline, we will make it work.

Ms. TAUSCHER. I am going to turn to Mr. Turner, but Mr. Ahern, I want to come back to you on the second round and ask, how do you accommodate the combatant commands (COCOMs).

Mr. AHERN. Yes, ma'am.

Ms. TAUSCHER. We understand now we have got these MOAs with the services, but now there is another intersection with the COCOMs, and I am going to come back in the next round and ask you about that.

Mr. Turner.

Mr. TURNER. Thank you, Madam Chairman.

I have been on this committee now for slightly over six years, and in this committee we have had discussions over evolving threats that are now major topics in the news. Iran has launched a satellite; North Korea now has a missile that has grabbed the topic of the news, where people's major questions now are, you know, what are they doing? What is the threat? But then, more importantly, the next question, which is, what do we have to defend ourselves from this evolving threat?

General Welch and Mr. Ahern, I had an opportunity to speak to you before this hearing, and one of the things that I thought was really important about the discussions that we had was the way that you so clearly described the uniqueness of this whole assignment that MDA has; that, in this process, we are inventing something that didn't exist, either in pieces of a system or in integrating systems, in order to ensure that as Iran and North Korea grab the news, that we actually have some answer.

In looking at the directive from the Administration in 2002, you know, Iran didn't have a satellite, North Korea was not grabbing our thoughts as it is at this very moment, as we are assessing what it is that North Korea is doing. Could you speak a moment to that uniqueness of the inventive process?

General WELCH. I guess I would start with, without giving you a threat briefing, which would be inappropriate and outside the classification of the hearing, the one thing I think we can all agree on, and that is, you can develop offensive ballistic missile capabilities much faster than you can develop defenses against them. You may remember when the Rumsfeld Commission did the study on the ballistic missile threat to the United States, in which I participated. We said any nation who decides they want to do it can field a ballistic missile capability within five years from the time they decide it, and you will not know when they decided.

There is a lot of skepticism about that, but 90 days after we published the report, then North Korea fired a ballistic missile that nobody knew they had. So it tended to add to the credibility. We did not have a relationship with North Korea, by the way.

But my point is that we know for each of these systems where our vulnerabilities are to development within the kinds of countries that we are concerned about, that on the mid-course system we are

well aware of what counter measures can do to the effectiveness of that system. And we certainly know how to improve our capability to deal with that, but it is not currently funded. That is, we currently do not have the resources allocated to that particular issue.

On other parts of the system, like the THAAD or the Patriot, I think we are all quite confident that those systems are, in fact, effective, and there is no reason that they won't be effective for sometime, but they still will require continued upgrades.

The complex issue is, every time you do something to one of those systems, every time you add any upgrade to one of those systems, you have to understand what it does to the whole system, because none of those operate as an individual element alone from the others within the Ballistic Missile Defense System. And that is part of the reason why we think it is absolutely essential that configuration control and, in fact, control of any upgrade that affects the Ballistic Missile Defense System, has to remain in a centralized form.

Did I address your question?

Mr. TURNER. Yes, you certainly have. Yes. Thank you.

Mr. Ahern.

Mr. AHERN. Yes, sir.

It is a portfolio; it is a system of systems. I pulled out my picture, and I look, and I can't do any better than General Welch's, I would only amplify what he said, because we need the tip-off at the beginning from whatever sensors are available; we need to track it across its flight; we need to, of course, shoot it down—engage it and shoot it down. We have no time in which to do that, and it is way away from the United States, basically, and we want to keep it way away from the United States.

So it does require that integrated end-to-end system of a number of elements—two, three, four, five elements acting simultaneously and perfectly, in order to affect that defense that we need, all orchestrated by that Command and Control system that the MDA has developed, with the communication system that they have also developed. So that integrated network that will evolve over time as the technology evolves and as the threat evolves is unique across the military department, as I see it.

Developing that capability from nothing, and continuing to evolve it as we go forward requires that continued, I think, special authorities—not a lack of discipline; not a focus on what we are doing and cost, schedule, and performance—but a recognition that the capabilities across the portfolio have to be monitored very carefully so that we maintain that integrated capability as we go forward.

Mr. TURNER. Well, General Welch, you started with, "Missiles can be developed faster than defenses," and then went on to the second area that my question was going to go into. In recognizing the uniqueness of the processes of invention and the timeline being longer for creating defenses, as opposed to systems that can be created more quickly by adversaries, and looking at if what we have now is sufficient as deployed for our current threats, the evolution, as you were discussing, of those threats means that we are going to still have to have a system that permits that uniqueness of the invention for defenses to thrive.

You have talked about that future and how we tried to address it—what are some of your concerns? What could we do, as Congress, to screw it up that would make it more difficult for that uniqueness to thrive? Because we want to make sure that we don't do that.

General WELCH. I will answer your question explicitly, but I think that when we stop talking about "theater" and "national" and begin to talk about them as if they were the same thing, there is value to that but there is also a problem with that, because they are not the same thing. That is, the state of our needs and capabilities for many of the theater defense systems are quite different than the mid-course intercept system that is designed to deal with Intercontinental Ballistic Missiles (ICBMs) that are intercontinental, or even long-range missiles.

But having said that, I guess the thing that I would think would do the greatest damage to the ability to respond in an agile fashion to technological opportunities and to respond to technological disappointments, which always occur, the thing I would worry about the most if we pressed this system into the standard mold of the 5000 Series and the Joint Capabilities Integration and Development System (JCIDS)—it is not a criticism of the 5000 Series and JCIDS, although I might do that at another hearing. It is not a criticism in this hearing. It is, instead, a recognition that that system is designed to carefully define what you want an individual weapon system to be able to do, it is to get complete agreement among the joint users and the services as to what those characteristics should be, what they should cost, when they should be delivered; it does not lend itself to adapting technological opportunity or dealing with technological disappointment. It is just not designed for that.

And if you tried to do what has been done so far in either of the theater systems—that is, Patriot, or THAAD, or the intermediate, the Aegis SM-3 or the GBI—if you tried to develop those systems within the constraints that I just described, you wouldn't be nearly as far along as you are in any of those systems. So I think that would just be highly damaging—press this into that mold it works fine, but what is it designed for? It is not designed for this system of systems integrated kind of demand.

Mr. TURNER. Mr. Ahern.

Mr. AHERN. Thank you, sir.

I cannot do any better than General Welch. And my concern would be any activity that broke it up as a system. You have a right to expect us to develop the Ballistic Missile Defense System as a system. The capabilities that we have right now, the authorities that we have right now, make that achievable. Our job, I think, is to utilize the discipline that we have, develop the processes through the MDEB and through the Life Cycle Management Plan so that we are responsive to the warfighter, address evolving technologies, are affordable, do the right thing by the services, but always maintain that focus on the need for the integrated system that is evolving toward the capability.

Mr. TURNER. You would concur with General Welch—

Mr. AHERN. I cannot say it any better than he did. I tried a couple minutes, but that is exactly what I say. We need to keep it as

a system. You have a right to expect us to do it the right way within what we have.

Mr. TURNER. Thank you, Madam Chairman. I will go to Mr. Pendleton when we go to the second round.

Ms. TAUSCHER. I am happy to go to the gentleman from Washington, Mr. Larsen, for five minutes.

Mr. LARSEN. I personally don't think we can screw it up for you, because I think it took a lot of questions from this committee to help you all get it—not you all, but for MDA to get it right. So I think the record over here is pretty good, from the oversight perspective.

But getting on to MDEB, Mr. Ahern, is MDEB—is that going to be an interim step, or is this now permanent? Or will you all be experimenting with MDEB and let it evolve, or should it evolve in its oversight role? It has been a positive step, I think, toward it, but is that an—is it an interim step to something much more permanent within the Pentagon?

Mr. AHERN. Yes, sir.

I have served under two under secretaries now, and both of them have—Mr. Kreig initiated the MDEB and Mr. Young has certainly used it. I think it is a good forum; I think it will evolve in the level of attention to the individual elements I discussed, the work that we have done with the THAAD. I think we will be doing progressively more of that oversight—insight and then oversight on the individual elements.

I think it will stay, essentially, with the composition that it is, where we have this senior under secretary and assistant secretaries from across the board, representation from all the stakeholders, plus the uniformed services, the JCS, STRATCOM. Though it will probably change, sir, I think right now I don't have any specific changes in mind. Our job is to run the agenda for that MDEB so that we do get that insight and the opportunity for oversight that is required.

Mr. LARSEN. This gets at a question for Mr. Pendleton.

On page 10 of your report, the last full sentence: "Until DOD establishes a transition and transfer process that adheres to key principles for lifecycle management, DOD will be unable to ensure that individual elements will be sustained in the long term, and DOD's long-term support planning will continue to face challenges." Based on what Mr. Ahern has testified to both in writing and his last comment, does GAO—is this report a little late, or do you still see some challenges with the transition and transfer process for the management of the program?

Mr. PENDLETON. Sir, I think only time is going to tell. The Lifecycle Management Process was adopted in September of 2008, so it is relatively new. A lot of things are happening right now, and so I think the important issue as I look to the future is whether the attention is going to be sustained.

MDEB—there is a lot of personalities involved, lots of very senior people, and ballistic missile defense has gotten a lot of attention lately. If that were to wane and not as much focus on this, you might not see the follow-through to handle what I am talking about here.

Now having said that, there are steps in place. That is from a report that we did last year and, we, later in the testimony talk about some of the steps that they are taking. But only time is going to tell if, in fact, they follow through and sustain their efforts.

Mr. LARSEN. Can you talk a little bit more about your comment in your oral testimony about a better balance needed between balance and flexibility? The MDEB process, again, I think is a positive step. The WIP program is very positive.

But a gnawing thing in the back of my head is that, so long as there is a multibillion dollar pool of money for missile defense, the services themselves, if they have the responsibility for what they wanted, where would these—where would missile defense capabilities for those particular services fit in their entire world of priorities? I just don't know where they would, you know.

I am missing a Seapower hearing right now about ship building, and, you know, if the Navy had to pick between building ships and investing just in Aegis, where would they go with it? If the Army had to choose between Future Combat Systems (FCS) and Patriot, where would they go? So, I can see where having MDA and MDEB in a place to help the services fund and then field those capabilities is important, but by the same token, moving forward in the sustainment part of it, it seems that it could easily fall apart as well. Can you talk about that balance and the—

Mr. PENDLETON. Yes, absolutely. And I think you are putting your finger on one of my concerns, again, looking forward, and I mentioned it in my oral statement, and that is how the defense-wide accounts are going to be implemented. In the Lifecycle Management Process, there was an agreement that the services' O&S could be funded out of these central accounts, and I think it is fair to say that has helped get them to the table to talk about this, because someone else would, potentially, be paid someone else's money.

But over the long term, how that works is going to, I think, tell the tale here. I mean, under the current plan, as I understand it, MDA will still have responsibility for pulling the budget together.

But one of the key things that is changing is that it is not all one color of money. You are going to have different pots of money within this central account, so that will help improve transparency. But I think it is an open question, as we talked about, how long that would last. Is it just a year or two, or is it in perpetuity?

And where this would fall in service priorities may be different today than it was yesterday, because I understand they are going through a pretty vigorous budget drill over there. So that would probably be dependent on what their top lines were.

So that part of the question is hard to answer. And I think it is a philosophical question about—and it could be made to work either way, whether the services ought to have this money or to have to compete within the services, because that creates peril, too, potentially.

Mr. LARSEN. Thank you.

Thank you, Madam Chair.

Ms. TAUSCHER. Mr. Larsen, I think that is where the combatant commanders come in, too.

I am happy to yield five minutes to the gentleman from Arizona, Mr. Franks.

Mr. FRANKS. Thank you, Madam Chair. And Madam Chair, I think the first thing I would like to do is just associate myself with some of the perspective and insightful questions that Mr. Turner put forward, and take up, if I could, where Mr. Larsen left off.

One of the critical concerns I have is, if we place some of these critically important missile defense systems into the Lead Services, it sort of puts them in the difficult position of making some of the hard choices that Mr. Larsen spoke of, and I don't fault them at all, I think we put them in extremely hard positions sometimes, in a tight budget, to try to make it all work.

And I am concerned that they may use some of the missile defense—these may become bill-payer programs. And how does the DOD plan to approach the integration of these large systems into the budget cycle, and how are you going to assure that the appropriate funding will follow? You know, these funding strings are in place now for missile defense; will they follow the Lead Service so the new system doesn't become a burden on them and they don't have to essentially pay for the system at the cost of other priorities?

Mr. Ahern.

Mr. AHERN. Yes, sir. I would be glad to answer that question, or address that question.

The Lead Service is designated at the birth when we decide, or when the Department decides, we are going to field that component, as I said. But in the beginning, and for a number of years, they have no fiscal responsibilities in the funding of the RDT&E up through, and including, the initial procurement and the fielding of it. But they will be operating it, and that is the neat transition, I think, that we have been talking about this morning.

And by going with the defense-wide funding in RDT&E, military construction (MILCON), procurement, and O&S, particularly as we migrate to the O&S, what the vision is, or what the thought process is, is establish what the O&S requirement for that system is under the defense-wide umbrella, so it is not fighting within the service for resources as it is being birthed at the beginning of the fielding; develop that experience in the service and with MDA, because MDA is budgeting—it is part of the MDA budget, the O&S for the first couple of years, actually for all—through the fit-up, for those like the SBX; and then at the appropriate time, when the service and MDA have agreed, through the MOA process, through the annex, that the system is ready to be deployed; and that is a DOT&E call on effectiveness, survivability, and suitability, the service's call on, yes, you have met my criteria for all the things that I want, then the TOA will be transferred from the money, the funding in O&S would be transferred—

Mr. FRANKS. I am sorry.

Madam Chair, TOA?

Mr. AHERN. TOA, I am sorry. Yes, sir. TOA, the Total Obligation Authority, a budget for that period of time.

Ms. TAUSCHER. The money.

Mr. AHERN. For a year. The money. Thank you, ma'am.

The money will be transferred to the service. In the beginning, of course, the money would be sent over to the service on an annual basis. But when that handshake is done and the service has accepted, the transfer is complete, then whatever money is in the books goes over to the service, and from there on out the service will be funding, will be budgeting, for the lifecycle support.

Will there be tension in the service? Will that activity have to compete with, as mentioned, Aegis ships in the future—yes, sir. But I think that it will always have the visibility that it deserves.

And as we go forward, I want to be sure to make the point that the RDT&E for the Ballistic Missile Defense System, the improvement part of it, the evolving part of it—that is always going to be with the Missile Defense Agency.

Mr. FRANKS. Sure. I understand. Well, thank you.

You know, I also understand that the upcoming 2010 budget, the President's Budget (PB), has constraints that may lead to pretty hard decisions by the Department for funding far-term BMD programs, such as, you know, our Satellite Tracking Surveillance System (STSS), Airborne Laser (ABL), Kinetic Energy Interceptor (KEI), Multiple Kill Vehicle (MKV), and I kind of prefer to call these systems sort of national security investment programs, because I believe that is exactly what they are.

You know, if we had not been able to turn on our GMD when North Korea began to field missiles—we called that a far-term program even at the time. And I think we have to start investing in these programs now to ensure that we stay ahead of these very clearly evolving threats.

So my question is, once the mature BMD programs like Aegis BMD, THAAD, and GMD are fielded, what will the future hold for MDA? You know, how will we begin to focus on some of these emerging threats and what we are—I think should more likely be calling these investment programs, and we need to start now, so that we will be prepared to answer the threats in the future.

And Mr. Ahern, I will go ahead and pick on you again.

Mr. AHERN. It is a continuing part of the process, sir. STRATCOM, as I mentioned earlier, is part of the lifecycle management. STRATCOM puts together their priority lists, their Integrated Priority List (IPL)—it is passed, too. And that is not just done by STRATCOM. It is STRATCOM as well as the other combatant commanders, the services, the Integrated Priority List.

It is passed to the MDA, and again, the services, and the PPBS kind of a system, and those requirements are addressed, then, by the MDA from a standpoint of technology to begin with and affordability. There is a dialogue back and forth, and it has been noted by GAO, as a matter of fact, that the process that we have been working on, of having the IPL come in and MDA respond to it, has had an impact on what MDA is working on and brings forward in a budgeting sense, and we will continue in that process in addressing the warfighters' needs as identified in their IPL on an annual basis as we move forward in the budget.

Mr. FRANKS. Well, thank you.

Madam Chairman, my light is pretty red.

Ms. TAUSCHER. Yes, it is. Thank you.

I am happy to yield to the gentleman from New Jersey, Mr. Andrews, for five minutes.

Mr. ANDREWS. Thank you, Madam Chairman.

And thank the witnesses. I apologize for not hearing your oral testimony, but I read what you submitted, and I appreciate the work that you have done.

This morning is an echo of a decision made seven years and \$56 billion ago to exempt this agency and this procurement process from the general rules that apply to just about everything else, and I wanted to walk through the consequences of those exemptions so the committee may learn how to avoid some of the problems that we are talking about here today.

Mr. Pendleton, the summary of the report that you have issued touches on the three perennial problems we have in this program: the inadequate input from the combatant command structure; the inadequacy of metrics or meaningful criteria to measure how well or how poorly the systems are doing, perhaps by design, perhaps by accident; and then the, what I think we could characterize as inadequate preparation by the services to actually use these systems once they are fieldable.

General Welch, I want to ask, if we could go back to 2002, which we can't, and not do the pre-Milestone C exemption that Secretary Rumsfeld then created, what would have been different with respect to the interaction with this agency and the combatant commands in the last seven years? How different would the interaction have been with those combatant commanders?

General WELCH. I think to address that you have to take your three points individually, because they are quite different in the response. As for the inadequate input from the combatant commands, there was no combatant commands assigned any responsibility for ballistic missile defense.

Mr. ANDREWS. Right.

General WELCH. It wasn't assigned before 2002; it wasn't assigned in 2002.

Mr. ANDREWS. And that would have been different had we not had this Milestone C exemption, correct?

General WELCH. No, I don't believe that would have been different at all. I think it would have been different if someone had simply assigned it to a combatant command, because it was eventually assigned to a combatant command with a Milestone C exemption. So I really don't believe there is a connection there.

Now, once it was assigned to a combatant command, USSTRATCOM, then we began the process by which USSTRATCOM collects the other combatant command input. It is an imperfect, immature process that is currently evolving, but the key to getting the combatant command inputs was to assign the responsibility to someone to collect those inputs.

Mr. ANDREWS. Why wasn't that done?

General WELCH. I have no idea.

Mr. ANDREWS. We don't know either.

General WELCH. I can't imagine why it wasn't done. But, and I can say—I can give you a stack of studies about that high recommending that it be done.

Mr. ANDREWS. Had it been done, where do you think we would be today that would be different? I know it is impossible that—you can't tell us with certainty, but what is a probable prediction? Where would we be today if that assignment had been made?

General WELCH. I don't know that we would be in a great deal different—a much different place regarding the current physical capabilities. I think we would be in a lot better place in terms of integration within the theaters.

Mr. ANDREWS. I would think so.

General WELCH. But on your second point, the metrics. Again, we fall into this issue of lumping all of these systems as if they were one, and they are not. They are a system of systems.

Mr. ANDREWS. Right.

General WELCH. And there are metrics for a number of the systems. There are metrics for Aegis SM-3 and for THAAD and—

Mr. ANDREWS. But how about GMD?

General WELCH. For GBI, GMD, I remember the description of the initial desire for the initial deployed capability was that it should be better than nothing. So that was the metric. And it is.

Mr. ANDREWS. \$56 billion for—or part of the \$56 billion for better than nothing.

General WELCH. Well, that money was spent on a lot of things—

But as for the service preparation, the initial direction, you may recall, in the 2002 directive that established MDA, directed that MDA do RDT&E and that the services fund both O&S and procurement. It turned out that was simply impractical. Now, the first evidence of the impracticality was the initial deployment of the GBI in Alaska because, remember, those missiles were deployed to give you an operational capability, but they were also the test assets.

Mr. ANDREWS. I appreciate that. If I may, because my time is about to expire, I appreciate your answers and the written testimony of all three of you.

I think where this leads us is that, you know, fact-based decision-making was in place in the regular process. It was imperfect; our panel is trying to perfect it. But when you exempt something from that fact-based decision-making, you are inviting trouble. And I think that is what we have here, and it is why we are sitting here this morning and hearing from these gentlemen.

Thank you.

Ms. TAUSCHER. Thank you, Mr. Andrews.

I am now happy to yield five minutes to the gentleman from Colorado, Mr. Lamborn.

Mr. LAMBORN. Thank you, Madam Chairman.

Some have expressed concern that, once missile defense assets and budget authority are transferred to the military services, the services may use missile defense resources to support other mission areas. What processes or specific recommendations do you have to address this concern? And we will start with Mr. Ahern first.

Mr. AHERN. As I indicated earlier, we do have the Lifecycle Management Plan process in place, where we develop the budget that does include the operations and support. Currently it is in the defense-wide funding, but as we go forward and one or more of the elements are—in addition to the Patriot Advanced Capability-3

(PAC-3)—are transferred to the services, it hasn't happened yet, sir, but I expect that the process will look at the support of that element and factor it in; again, because the Ballistic Missile Defense System is a portfolio, a system of systems, where the MDEB, which is made up of senior stakeholders from the services and the operating forces, including STRATCOM, have to ensure that the level of support for the activity for all the elements is valid. I am sure that the insight and oversight of the support of the elements, as they are fielded and go into O&S, will be robust. It has to be.

Mr. LAMBORN. Do either of you other gentlemen have something to add to that?

Mr. PENDLETON. Well, we don't have any specific recommendations about how to keep the services from moving money in the future, but what we have called for is for the systems, as soon as you can, to estimate what it will cost to support them, have that independently verified, and then decide how it is going to be funded. Then you monitor the execution. So, I mean, that is kind of where we focused our work to deal with, I think, the concern that you are raising.

General WELCH. And while it has been a long time, I was once a service programmer and service chief, and I remember funding a lot of things that I didn't think were very important, but the Secretary of Defense did think they were important, and therefore, they were funded. Now, if that is not the case in the Department of Defense anymore, we are in very serious trouble, but I believe it is.

So the priorities are not set by the services. The services have their priorities, and there are other priorities set by the Secretary of Defense and the President, and those are overriding and should be overriding.

I would also add, I don't think you should have an institutionalized priority. If there are priority conflicts between the Army funding of a piece of the missile defense system and the Army funding of other things that the Army thinks are very important, I think that is a very natural tension, and that needs to be sorted out above the Army, not within the Army, and the process exists to do that.

Mr. LAMBORN. Okay. Thank you. And by the way, congratulations on your award last night. I was there to see you receive that.

My second question has to do with a statement that President Obama made during the State of the Union—so-called State of the Union address. He said that we need to reform our defense budget so that we are not paying for Cold War-era weapons systems we don't use—Cold War-era weapons systems we don't use. And I am trying to figure out what that means. I think we will have more guidance—we all will—in a few weeks or a couple of months, even, when we get his proposed budget for defense, we will know better what he means by that, but I would not characterize missile defense as anywhere near a Cold War-era system that we don't use.

It is cutting-edge technology; it has been deployed just in the last few years. It still needs to be improved, but we are working rapidly on that, and when I think of Cold War-era systems, I think of some things from the 1960s or 1970s. But would any of you characterize missile defense as a "Cold War-era weapons system we don't use"?

General WELCH. Well, in a way I would, and I would say that is a very positive statement. The whole purpose of most of the Cold War weapons is to not to ever have to use them. And in fact, the greatest outcome of all would be if we have an effective missile defense system that we never use. I think that is the objective.

Mr. LAMBORN. I don't think we could improve on that, so I am going to yield the rest of my time.

Ms. TAUSCHER. Thank you, Mr. Lamborn.

We are going to start round two questioning. I want to get back to the issue of the combatant commanders. Last year, the GAO reported that DOD had failed to establish an effective process for identifying, adjudicating, and addressing the combatant commanders' priorities for ballistic missile defense capabilities.

What role have the combatant commands played in shaping the development of Ballistic Missile Defense Systems? Are we meeting the COCOMs' requirements? If not, can we provide specific examples, and what needs to be done? And I guess I would like to have—since GAO has already spoken up, I would like to have General Welch and Mr. Ahern address that.

General WELCH. Well, again, I think to address that you have to look at the individual systems, and I won't go through them all but, for example, clearly the missile defense capabilities that are in the Aegis SM-3 are systems that came from combatant command requirements. Clearly, the Patriot came from combatant command requirements. So, most of the sensors and, certainly all of the warning systems, came from combatant command requirements.

So the issue is this set of new capabilities that were introduced with the increased emphasis, and they are—once the WIP program was underway, after the responsibility was assigned to USSTRATCOM, immediately they came up with the Priority Capabilities List, and then how the Priority Capabilities List became the Achievable Capabilities List (ACL). I think, initially, that was a one-circuit process and the combatant commanders weren't happy with it, because they didn't see their PCLs adequately reflected in the ACL.

Now it has become an integrative process, and I think over time will much better reflect what the combatant commanders believe they need. And it is a fact of life that before combatant commanders get very serious about saying they want something, they have to have some indication that they could actually have it—that is, it actually exists.

Ms. TAUSCHER. Mr. Ahern.

Mr. AHERN. Yes, ma'am. I think we have set up the process. And again, as many times I have said this morning, now it is our job to make that process work. STRATCOM has issued an instruction in June, I think it is, organizing the WIP. We have sent out—Secretary England sent out that paper on how we will do the planning. We exercised it in 2010; we are going to get started shortly for 2011.

And then I would say, finally, if the COCOMs don't feel that they are being heard, my experience in the building is that they are not reluctant to call him directly. Though I do think—and I am not being facetious—that the PCL, to the ACL, to the dialogue where we have the operations committee, we have the planning and budg-

et committees, they are going to be responsive to the COCOMs' needs as organized by STRATCOM and, as General Welch said, affordable and that technology is available to answer their requirement. I think we have the process to make it work.

Ms. TAUSCHER. Mr. Pendleton, in the past, GAO has been critical of DOD's approach to management and oversight of the Missile Defense Agency, claiming that the flexibility MDA has enjoyed has come at the cost of oversight and accountability. And, you know, I think that the issue of making sure that we don't break the systems up and all of that, you know, is almost a red herring. I think the real question is, how do we have the environment for very aggressive innovation at the same time that we can have accountability and responsibility?

They are not mutually exclusive. We have done it before; we can do it again. And I think that that is what this subcommittee's record is. The record is that we understand what the challenges of the science and the technology, and especially the need to integrate systems of systems, that you also have to—because we are the United States Government, have responsibility fiducially to the American people. You have to also have accountability. And so I think that what has happened over the time that we have created the—that the MDEB has been created, that it has the real potential to improve DOD oversight.

How does the MDEB, Mr. Pendleton, compare to the previous missile defense oversight body, such as the Missile Defense Support Group? What is your current assessment of the MDEB's ability to provide oversight sufficiently? Do you have any recommendations—and actually, these recommendations on how you make MDEB better can be in writing; you don't have to talk about them unless you integrate them.

Mr. PENDLETON. We have talked some about it, and it does look promising. You have got senior-level leaders, and as I have said before, efforts are going to have to be sustained. MDEB has been more active than the previous group. They have, as Mr. Ahern indicated, had several meetings.

And what I saw in reviewing the documents—I requested, and they provided, a number of documents that laid out the results of all the meetings. There were no minutes kept, and the agendas seemed to be fairly fluid, but I did see a number of decisions taken. And so you saw a—I saw an evolution even from the early days of the MDEB where MDA seemed to be dominating the agenda—they were documenting the results—to Mr. Young—Dave, you can correct me if I have got this wrong—became very active—

Ms. TAUSCHER. I agree.

Mr. PENDLETON [continuing]. And started taking actions.

In terms of recommendations about the MDEB itself, other than the sort of obvious transparency—you know, I am in the oversight business, so, you know, I am always in favor of transparency. I think the acid test for me is going to be: Over time, does the MDEB ensure that the kind of structural, basic management problems that we have laid out in our reports, and that we have been talking about here today, get dealt with? That it is not the issue of the day, it is not an *ad hoc*, you know, kind of deal, and that attention is paid to making sure that all the various stakeholders have their

say, that costs are managed and acquisitions managed appropriately, and that planning is done for where the real costs of some of these systems are going to be, and that is in the back end.

Ms. TAUSCHER. Right.

Mr. Ahern, do you have—

Mr. AHERN. I would add a couple of points. We talked earlier about the hybrid, or the Joint Program Offices, that are initiated right as the Lead Service has designated, and that is an important way to begin to cast that light on the O&S.

The other thing we haven't talked about this morning is the Missile Defense Agency has established a vigorous set of meetings, on a quarterly basis, with each one of the services, called their board of directors, so that the Navy board of directors and Air Force board of directors. I go to them—

Ms. TAUSCHER. That is relatively new.

Mr. AHERN. Very new. And it focuses on every program and every detail of interest to the service when they are there. So we do get that track on where we are, and it is a great thing to see, because it is not DOD or OSD looking over their shoulder, it is the two getting together and exchanging information and status.

Ms. TAUSCHER. That is an innovation of General O'Reilly's.

Mr. AHERN. Yes. Well, I think they were there, but he certainly has upped the game. So I recognize what Mr. Pendleton is saying, and it is like the rest of the programs across the Department of Defense: We have to walk the walk that we talk. And that is what my job is. We have the support, the MDEB, the stakeholders, we have the rules, and now we have to make them work.

Ms. TAUSCHER. Thank you.

Mr. Turner.

Oh, you are not Mr. Turner.

Mr. FRANKS. He is much more handsome than I am.

Ms. TAUSCHER. Well, I am not too sure about that.

Mr. FRANKS. Most people are.

Ms. TAUSCHER. Mr. Franks.

Mr. FRANKS. Thank you, Madam Chair.

General Welch, I want to just, if I could for a moment, to touch on something you spoke to Mr. Lamborn about. Obviously, you know, I agree with you completely: The best system—the best missile defense system is one that impresses upon a potential adversary its efficacy to the degree that they simply don't challenge it, and you hope that it never has to be used. I have said many times, you know, that if the day comes when we have to stand before the American people to apologize for building an expensive missile system that we never had to use, I would be happy to stand in the front of that line and humbly apologize. But, God save us from the day when we face a tragedy that could have been averted if we had built a system that was within our priority to build.

But isn't it true, I mean—and again, I don't challenge your fundamental statement at all, in fact, I agree with you completely—but in a sense, strategic weapons might be considered relics of the Cold War. We use them every day because they, just by existing, are a very critical part of our defense. And of course, I am concerned that, you know, if we don't have equal insight into the future, that we may face some perfect challenges.

Now, let me just say in significant deference to everyone on the committee here, my next statement indicts Republicans as much as it does Democrats, but I am concerned now that we didn't move quickly enough in the European missile defense site, and that we should have made more progress quicker, and it could have put downward pressure on Iran's nuclear ambitions in a much more effective way. And now we face the situation where I am very afraid that this Administration may either cancel or delay or put that system where it is so far out that it will not have any effect on Iran's program, and that that may change the paradigm of our future in a pretty profound way.

So let me try to get to my question here. In terms of what are called far-term systems and sciences that we need to emphasize, let me just quote the report the IDA report recommends. It says, "Within the spectrum of MDA RDT&E activities, science and technology should receive renewed emphasis and increased funding." What MDA science and technology efforts do you believe require particular emphasis and funding, especially as it relates to future threats that we may face?

General WELCH. Among the more critical issues, of course, are dealing with countermeasures. And while staying at the unclassified level, there are clearly understood capabilities that we need to deal with those countermeasures, some of which we are quite confident in the technologies, and some of which we are not, some of which require increased S&T—to provide those capabilities. That would be at the top of my list.

There are actually some almost—I guess I would characterize them S&T issues—that have to do with Command and Control and battle management. Simply moving the information around and integrating the information and moving it at the pace it needs to be moved.

Again, it is fairly unique to the demands of the global missile defense issue. So I think those would be the two on the top of my list, but they are pretty big issues.

Mr. FRANKS. Well, maybe I would just follow up, General, because I think you are absolutely right. You know, there was a time when those were strong missile defense advocates had to try to break through the argument that we could never hit a bullet with a bullet, you know, the technology itself was impossible to achieve.

And now we kind of face that same paradigm when we are talking about countermeasures. You know, there is just no way we will ever be able to come up with a system that will deal with the potential adversary's advantage, because it is a lot easier to create countermeasures than it would be to create a system to deal with them. But I still think that is the equation in front of us, and of course I, again, at the non-classified level, believe that we are moving in some very positive directions in that area and believe that we will prevail there.

One example would be, you know, our boost-phase programs. I believe Airborne Laser is another thing that I—again, this might be a little bit more controversial, but I am very concerned about Airborne Laser. I am concerned that we may see that system cancelled under this Administration, and I think that is an extremely dangerous thought because the laser technology, I believe, is to

missile defense what the computer chip was to the computer industry. It travels at Mach 870,000. I mean, it gives us the ability to, essentially, do away with most of the countermeasure arguments because they are never deployed in the first place if Airborne Laser is taken.

That will be my last question, Madam Chair.

Do you think, General, that systems like Airborne Laser are important to the debate related to the countermeasure challenge that we face? I am putting you on the spot, and I am sorry.

General WELCH. That is okay. That is why I am happy to answer. I think there are, because it is very much related to the way you started this conversation. There are huge technological issues associated with effective laser systems. And while the Airborne Laser, in my view, is something that we need to have, we need to be flying, and we need to be learning about it, but there are also advanced technologies that would make a system order of magnitude more effective, and we need to be making investments in those technologies.

Mr. FRANKS. Well, I would agree with that completely.

Thank you, Madam Chair.

Ms. TAUSCHER. Thank you, Mr. Turner—you are not Mr. Turner. I am happy to yield to the gentleman from Washington, Mr. Larsen.

Mr. LARSEN. Thank you, Madam Chair.

Mr. Pendleton, on page 12 of your testimony you discuss one of three concerns and challenges you have. I won't read the whole paragraph there; it is fairly lengthy. But again, the last sentence—you guys seem to put all your main statements in the last sentence, not the first. I write differently than you all.

"As a result of these limitations, DOD and the services would face unknown financial obligations for supporting ballistic missile defense fielding plans, and that most of these costs would not be reflected in DOD's future years' spending plan for fiscal years 2010 through 2015." And the basis of that conclusion is some of the research you have done, but also it certainly relates to the Lifecycle Management Process that the DOD has established.

I am going to do a little switch here. The question is actually for Mr. Ahern on there. But I am curious on how the Lifecycle Management Process looks beyond, say—will look beyond the next year's budget and into years three, four, five, six, seven, and so on? It seems to me that the basis of the criticism and the challenge that GAO is reporting here is that you may not have a good enough handle looking farther out in this process. Can you talk a little bit about how this process looks a little further out than this?

Mr. AHERN. Yes, sir. As it looks to me, there are going to be fixed and variable costs in the O&S regime, in the same way we do with any standard system. And I think the way we are looking at it right now is, as we can—for some of the fixed sites, we will be able to get the fixed cost fairly quickly, I think, and then the variable costs will be the operations, the sustainment, the manpower, that sort of thing that I mentioned earlier we need to gain some experience on before we are able to lock it down.

So I think the first budget inflow, when asked for the elements, it will be in the Program Objective Memorandum (POM) 10 and in

O&S. It is going to be refined, improved upon when we get to 2012, and refined again when we get to 2014. And I would say, analogous to what we do with the other weapons systems as we move forward and gain experience moving from initial deployment to full-rate production and forward on.

I hope I have answered your question. That is nontrivial; it is going to be something that we will start with based on the lifecycle-estimating expertise that we have and then, as we gain that experience, inform the budget in the subsequent POM cycles, which I think is one of the reasons why starting to do this with defense-wide is attractive, so that we do nail it down before the services are responsible for that funding.

Mr. LARSEN. To put a little different light, or a little different spin, just for myself, this would be like interpreting TOA into money for me.

Mr. AHERN. I am sorry. I am sorry I did that to you earlier.

Mr. LARSEN. I am going to interpret this a little bit to say that the reality is, you are doing this as a pilot in 2010; you are testing it in 2010. 2011 becomes more firm, and 2012 more firm, and 2014 more firm; and you are going to learn along the way how to better incorporate these longer-term costs into the program.

Mr. AHERN. Yes, sir. For every one of the systems. Some of them aren't yet ready to go out into field, so the O&S cost for the Ballistic Missile Defense System will be an event in every budget, as was mentioned here in the room earlier, really, of—I think General Welch mentioned it again—of the priorities in the system. And every year we will be able to establish a baseline for the system, there is no doubt about that, as we have done with the other weapons.

But then it will, every year, based on utilization, one thing or another, there will be whether it is 2010, 2012, 2014, as we add more systems, move more Aegis, and have that capability go up. So every year, just as with every other weapons system, we will be going through the O&S.

Mr. LARSEN. And then, Mr. Pendleton, in the short time I have, then is that on your work plan, then, over the next several years—GAO?

Mr. PENDLETON. Yes. We have an annual mandate to look at the progress of the program. We have done the work for this subcommittee under individual requests, so certainly the subcommittee can continue to have us look at that operations and support, how that is managed in the budget, and we would be happy to do that. I certainly think that would be worthwhile.

Mr. LARSEN. Yes, great. Thank you.

Thank you, Madam Chair.

Ms. TAUSCHER. Mr. Franks, do you have any further questions?

Mr. FRANKS. No, ma'am. Thank you.

Ms. TAUSCHER. Well, gentlemen, thank you very much for appearing before the committee today. I just want to, for the record, set some parameters for what I think it is important for us to be talking about. And I know that there is sensitivity among significant promoters of missile defense that President Obama's budget is going to trim some of the investments that are being made and, considering the fact that we have raging deficits and debt and

other things, I think that the President is going to make the right decisions on what these investments will be, and I think that missile defense will not be singled out to take any cuts. I think that there will be cuts across the board, and that is a decision that Congress will be part of, and that the American people will weigh in on as we go through the budgetary process.

But I think the question really isn't whether the long-range system that was proposed in Europe, whether that is going to be funded or not. The Congress has made very clear what their parameters for that is.

The Congress, in the last defense bill, said that there will be no further deployment of the long-range system in Europe until three things happen. The first is that we had a study to make sure that the system proposed was the appropriate system; the second was that the Secretary certify that the system was tested sufficiently; and that the system, having everybody agreeing that it hasn't been tested sufficiently, be tested sufficiently. So I think that that is the status of things.

But I think, most importantly, regarding Europe, the question really shouldn't be whether we are going to deploy the long-range system in Europe any time soon. The question is, why haven't we deployed the short-range system to protect our allies, our assets, and our forward deployed troops, against existing threats?

The largest holder of short- and medium-range missiles in that theater, in the Middle East, are the Iranians. Right now, we currently have no missile defense system deployed to protect our forward deployed troops, our warfighters, our assets. And that is, I think, the real question.

So I think it is important for us to look at the long-range threat from Iranian missile; they certainly have not abated. As they have watched us build a long-range system, they certainly—extensive system—they certainly have not abated, in my opinion, in their ambitions either for a ballistic missile capability or for, perhaps, a nuclear weapon, which we certainly cannot tolerate. But the real question is, why haven't we deployed short- and medium-range systems to defeat their existing threat?

And so, we thank you very much for appearing before us today. We depend on your work and your patriotism. The subcommittee thanks you, and the hearing is adjourned.

[Whereupon, at 11:12 a.m., the subcommittee was adjourned.]

A P P E N D I X

MARCH 26, 2009

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

MARCH 26, 2009

Statement by Larry D. Welch, General, USAF (Ret)
President, Institute for Defense Analyses
for the
Hearing on the Missions, Roles, and Structure of the Missile Defense Agency

I am currently serving as President and CEO of the Institute for Defense Analyses (IDA). The Institute for Defense Analyses is a non-profit corporation whose only business is running Federally Funded Research and Development Centers for the federal government. IDA has provided objective, independent analytical and technical support to the Department of Defense and other government agencies since our founding in 1956.

We were tasked by the Department of Defense to conduct a Congressionally mandated independent study to examine and make recommendations with respect to the long-term missions, roles, and structure of the Missile Defense Agency (MDA). IDA formed a study group with broad experience specifically in missile defense and more generally in acquisition. The Congressional language included additional specific direction to address the MDA's relations with other parts of the DoD, as relates to missile defense, improving the MDA interface with other parts of DoD, support for the warfighter, and whether there are functions and responsibilities that, in whole or in part, should be added to or removed from the MDA portfolio. The study group report includes discussion, findings and recommendations on each of these issues.

My comments in this statement reflect the consensus of the study group. If, in following discussion, I depart or move beyond the study group deliberations, I will identify the opinions as my own.

The MDA charter and mission, as defined in the January 2002 directive, is to provide centralized management to develop and integrate programs of sensors, interceptors, command and control, battle management, and communications (C2BMC) into a ballistic missile defense system (BMDS).

The specific direction to the MDA included; "... to deploy a set of initial missile defense capabilities beginning in 2004." Though not specified in the directive; the objective was understood to be an initial capability to defend against a limited launch of ballistic missiles from North Korea to the U.S. homeland.

Congress did not ask the study to assess the performance of the MDA or the need for a ballistic missile defense, and the study group did not do so except to note that the MDA has met the guidance to deploy an initial capability. Further, the group noted that there has been an enduring national commitment to some level of ballistic missile defense, including direction currently embodied in law. The objectives have been pursued in a centralized organization (the MDA and its predecessors) over seven administrations and 13 congresses.

The study group also found a broad consensus within the Department of Defense, defense contractors, and the study group members that an organization like the MDA, with its special

authorities and a centralized approach to management and oversight of the missile defense program, was essential to rapidly develop and deploy the current set of ballistic missile defense capabilities.

The approach that allowed the MDA to rapidly develop and deploy an initial set of capabilities has been less successful in fostering the planning and preparation needed to adequately address future operations of deployed systems and follow-on procurement and sustainment. The mission of the MDA has evolved to include research and development, procurement, testing, initial fielding, and operating elements of the Ballistic Missile Defense System (BMDS). The Military Departments that will eventually assume responsibility for operating and sustaining the BMDS have not been adequately preparing to assume these responsibilities. This has made it difficult to incorporate Service perspectives and to transfer individual systems within the BMDS to the Lead Services as directed by the Department of Defense earlier this decade.

The BMDS development and initial fielding has not been subject to the traditional 5000 series acquisition directives or the Joint Capability Integration and Development System (JCIDS) and Joint Requirements Oversight Council (JROC) approval processes. The MDA's processes for both requirements generation and acquisition have evolved over time. As currently practiced in the MDA, the capability-based approach defines a specific increment of capability to be developed and establishes criteria to determine that an increment of capability has been achieved and is available to be deployed. These increments of capability are aggregated into blocks of mission capability. The study group recommended that the capability-based and block approach as now practiced by the MDA be retained.

With the assignment of specific responsibilities for BMDS in the Unified Command Plan, USSTRATCOM has initiated and continues to develop the Warfighter Involvement Process (WIP) to better represent the combatant commands' priorities for ballistic missile defense capabilities.

To increase the involvement of other parts of DoD and to ensure appropriate oversight of BMDS development, acquisition, and procurement, the Department established the Missile Defense Executive Board (MDEB) to make recommendations to the Deputy Secretary of Defense on implementation of policies and plans, program priorities, and investment decisions. Although the MDA continues to function with special authorities, the evolution of the Department's management approach has increased control and oversight to better predict and control progress in developing, fielding, and supporting the BMDS.

While the study group agrees that there is a need to move toward more normal acquisition processes, the need for continuous evolution of the BMDS will require that the approach to setting requirements for increments of capability and developing and fielding those increments remain as special authorities with oversight by the Missile Defense Executive Board. In considering the future roles and missions of the MDA, the three most fundamental needs for an organization like the MDA with special authorities are the challenges of:

- integrating a complex set of capabilities into a cohesive system capable of responding effectively within the short timelines required to intercept ballistic missiles,

- maintaining configuration control over evolving systems provided by multiple services, and,
- providing the C2BMC system required to perform the ballistic missile defense mission.

A continuing challenge for the ballistic missile defense mission is the continuing growth of adversary capabilities using technologies available to a wide range of potential adversaries. For this reason, there needs to be a better balance between deploying more of current capabilities and research and development to meet future challenges. This is particularly true of mid-course intercept capabilities where countermeasures can greatly impact intercept engagement effectiveness. Hence the study group recommended that, with a caveat regarding the definition, the continuing primary function of the MDA should be on research and development with responsibility for follow-on procurement and operation of most ballistic missile defense systems transferring to a Lead Service. The caveat is that for a complex integrated system of systems like the BMDS, research and development for any new capability is not complete until an initial deployment demonstrates that the capability is integrated effectively into the system of systems to include effective C2BMC. Hence, research and development must include procurement and initial deployment of an increment of capability.

To provide for transition from initial deployment by the MDA to follow-on procurement and operation with continuing configuration control and integration activity, the study group recommended that a Joint Program Office (JPO) be established for each element of the BMDS. As used by the study group, examples of an element of the BMDS include the individual interceptor, sensor, and C2BMC systems. The JPO would be jointly manned by the MDA and the designated Lead Service for the system element. The JPO would report to the Director of the MDA until completion of the initial deployment, and then the JPO would report to the Lead Service Acquisition Executive. Given the evolutionary nature of the BMDS and its elements, the JPO needs to be a continuing entity for the life of the element and the MDA should retain responsibility within the JPO for the funding and conduct of research and development activity for the life of the element of the system. The MDA would also retain responsibility for C2BMC since that activity cuts across all the other elements of the BMDS. The study group had specific recommendations for the conditions and the timing for transfer of responsibility for elements of the BMDS to the Lead Service.

As noted earlier, the tasking for the study group included identifying any functions that should be removed from or added to the MDA. To reiterate, the study group recommended that the responsibilities for follow-on procurement and operation of elements of the BMDS other than C2BMC be transferred to the Services. The study group found no additional responsibilities appropriate for the MDA. As part of this latter consideration, the group recommended that the responsibility for developing and deploying defenses against cruise missiles not be assigned to the MDA. Adding this challenge to the current portfolio would not likely benefit progress in either ballistic or cruise missile defense.

Curriculum Vitae
Larry D. Welch, General, USAF (Ret)
President and CEO, Institute for Defense Analyses

General Welch is serving, for the second time, as President and CEO of the Institute for Defense Analyses (IDA). Following his retirement from the U.S. Air Force in 1990, he served for 13 years as President and CEO of IDA. He then served as a Senior Fellow at IDA from November 1, 2003 to September 11, 2006 when he returned to the position of President and CEO. He is the former Chief of Staff, U.S. Air Force.

IDA is a Federally Funded Research and Development Corporation providing independent analytical support to the Department of Defense and other government agencies in the national security community.

During his 38 years in the Air Force, General Welch served in operational and staff assignments in training organizations and tactical fighter units worldwide to include combat in Vietnam. He was the Commander of the Tactical Air Command's, Central Commands air component and 9th Air Force; Deputy Chief of Staff, Programs & Resources, Headquarters, USAF; Vice Chief of Staff, USAF; and Commander of the Strategic Air Command prior to becoming Chief of Staff, USAF.

He received a Bachelor of Science in Business Administration from the University of Maryland, a MS in International Relations from George Washington University and is a graduate of the Armed Forces Staff College and National War College. He also is a graduate of the Harvard National Security Seminar.

General Welch is a Director of the Aerospace Education Foundation, the Air Force Academy Foundation, the Henry L. Stimson Center, and the Sandia National Laboratory. He is Chairman of the Defense Science Board Permanent Task Force on Nuclear Weapons Surety, the AF Space Command Independent Strategic Advisory Group, the US Strategic Command Strategic Advisory Group, the Missile Defense White Team, and the Sandia National Laboratories Mission Committee. In addition, he is a member of the Missile Defense Agency Advisory Committee, the US Joint Forces Command Transformation Advisory Group, the Council on Foreign Relations, the Atlantic Council, the Lawrence Livermore National Laboratory Director's Review Committee, and the Los Alamos National Laboratory Mission Committee.

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
See Attached			

FISCAL YEAR 2007			
Federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
See Attached			

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: _____.

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: _____.

Schedule 30
Institute for Defense Analyses
Expenditures on Federal Awards (A-133)
Fiscal Year Ended September 30, 2006
(after year end adjustments)

Federal Agency Program Title	Contract Number	Obligated Amount	Funded Amount	FY 06 Expenditures
FFRDC Department of Defense :				
Contracting Center of Excellence (Studies & Analyses FFRDC)	DASW01-86-C-0057	-	-	-5,749.00
Contracting Center of Excellence (Studies & Analyses FFRDC)	DASW01-04-C-0003	130,818,108	130,818,108	133,803,865
Maryland Procurement Office (Communications & Computing FFRDC)	MDA904-01-C-0901	-	-	8,303,621
Maryland Procurement Office (Communications & Computing FFRDC)	H96230-08-C-0381	51,500,000	51,500,000	44,079,897
CARC Contract DCI	2006-1017427-000	537,895	537,895	34,032
SFRD DCI Contract DCI	2006-1226211-000	149,094	149,094	-
OTH-DDNIA (Deputy Director of Nat'l Intelligence for Analysis)	MOA dated 06/04/06	76,898	76,898	-
OSTP/NSF-FFRDC (Office of Science and Technology Policy Institute/National Science Foundation)	OIA-0408601	6,748,448	6,748,448	3,776,030
IPA Costs	N/A	-	-	2,416,880
M40 (IDA Project No.)	N/A	355,000	355,000	207,022
U03 (IDA Project No.)	N/A	-	-	170
U09 (IDA Project No.)	N/A	10,000	10,800	60,932
Total Federal Awards		189,996,641	189,996,641	192,478,396
Non-Federal Awards:				
M35 (IDA Project No.)	N/A	581,014	581,014	348,147
R01 (IDA Project No.)	N/A	7,500	7,500	5,610
OTH-University of Pittsburgh	N/A	184,429	184,429	113,303
OTH-University of Massachusetts	N/A	75,285	75,285	47,759
Total Cost Per Schedule 2		196,823,269	196,823,269	192,993,119

NOTES:

- These numbers represent the individual contract numbers with the Federal sponsors indicated. As such, these awards are not separately identified in the Catalog of Federal Domestic Assistance (CFDA).
- FFRDC - Federally Funded Research and Development Centers.
- Total obligations on DASW01-86-C-0057 were \$ 487,091,806 prior to FY 06
- Total obligations on MDA904-01-C-0901 were \$ 232,365,200 prior to FY 06
- Total obligations on DASW01-04-C-0003 were \$ 244,818,067 prior to FY 06
- Total obligations on OIA-0408601 were \$ 7,962,100 prior to FY 06



Schedule 30
Institute for Defense Analyses
Expenditures on Federal Awards (A-133)
Fiscal Year Ended September 28, 2007 (after year end adjustments)

Federal Agency Program Title	Contract Number	Obligated Amount	Funded Amount	FY 07 Expenditures
Contracting Center of Excellence (Studies & Analyses FFRDC)	DASW01-98-C-0067	-	-	1,206
Contracting Center of Excellence (Studies & Analyses FFRDC)	DASW01-04-C-0003	140,495,119	140,495,119	138,344,359
Maryland Procurement Office (Communications & Computing FFRDC)	H98230-06-C-0381	57,400,000	57,400,000	56,535,677
CARC Contract DCI	2006-1017427-000	558,975	558,975	497,350
SFRD DCI Contract DCI	2006-1226211-000	-	-	121,438
E03 Agency Contract	2007-0550702-000	81,136	81,136	81,545
OTH-DDNIA (Deputy Director of Nat'l Intelligence for Analysis)	MOA dated 08/04/06	-	-	83,700
OTH-SBInet (Sandia National Lab)		21,846	21,846	14,794
OSTP/NSF-FFRDC (Office of Science and Technology Policy Institute/National Science Foundation)	OIA-0408601	5,192,298	5,192,298	5,806,589
IPA Costs	N/A	2,450,048	2,450,048	2,450,048
F01 (Oak Ridge-IDA Project No.)	N/A	-	-	53,900
M40 (IDA Project No.)	N/A	221,500	221,500	257,663
U00 (IDA Project No.)	N/A	-	-	15,263
Total Federal Awards		206,420,920	206,420,920	294,241,220

Notes to be included with the SEFA.

Summary of Significant Accounting Policies

The above Schedule of Expenditures of Federal Awards (the "Schedule") includes the Institutes Federal contract activity and is presented on the accrual basis of accounting. The information in this Schedule is presented in accordance with the requirements of OMB Circular A-133, Audits of States, Local Governments and Non-Profit Organizations.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

NOTES:

1. These numbers represent the individual contract numbers with the Federal sponsors indicated. As such these awards are not separately identified in the Catalog of Federal Domestic Assistance (CFDA).
2. FFRDC - Federally Funded Research and Development Centers.



Schedule 30
Institute for Defense Analyses
Expenditures on Federal Awards (A-133)
Fiscal Year Ended September 30, 2008 (after year end adjustments)

Federal Agency Program Title	Contract Number	Obligated Amount	Funded Amount	FY 08 Expenditures
FFRDC Department of Defense:				
Contracting Center of Excellence (Studies & Analyses FFRDC)	DASW01-04-C-0003	145,131,826	145,131,826	142,446,758
Maryland Procurement Office (Communications & Computing FFRDC)	H96230-06-C-0381	59,500,000	59,500,000	59,874,853
CARC Contract DCI (E01)	2006-1017427-000	976,279	974,734	571,115
SFRD DCI Contract DCI (E02)	2006-1226211-000	-	-	27,669
ITSD Agency Contract (E03)	2007-0550702-000	-	-	421
OTH-DONIA (OD-8003) (Deputy Director of Nat'l Intelligence for Analysis)	MOA dated 08/04/06	-	-	3,159
OSTP/NSF-FFRDC (Office of Science and Technology Policy Institute/National Science Foundation)	OIA-0408601	6,010,593	6,929,131	5,030,846
IPA Costs	N/A	1,852,610	1,852,610	2,746,321
Oak Ridge OR-6-7500F01	N/A	344,462	344,462	314,856
Oak Ridge OR-2-7510F02	N/A	24,500	24,500	14,439
DRMEC (M40)	N/A	110,211	110,211	187,538
Institute of Peace (U09)	N/A	-	-	27
Total Federal Awards		213,950,481	214,867,474	211,216,960

Notes to be included with the SEFA.

Summary of Significant Accounting Policies

The above Schedule of Expenditures of Federal Awards (the "Schedule") includes the Institutes Federal contract activity and is presented on the accrual basis of accounting. The information in this Schedule is presented in accordance with the requirements of OMB Circular A-133, *Audits of States, Local Governments and Non-Profit Organizations*.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

NOTES:

1. These numbers represent the individual contract numbers with the Federal sponsors indicated. As such these awards are not separately identified in the Catalog of Federal Domestic Assistance (CFDA).
2. FFRDC - Federally Funded Research and Development Centers.

Non-Federal Awards:

MITRE Agreement (M35)	N/A	6,652	6,652	9,188
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RCSR (R01)	N/A	8,000	8,000	6,878
Johns Hopkins (JH1.8007)	N/A	3,551	3,551	2,822
GMU MUJ-20-8008	N/A	19,300	19,300	13,237
RAND RD-55-8008	N/A	7,689	7,689	5,132
Carnegie Mellon UC-20-8002	N/A	175,118	175,118	94,432
Total Cost Per Schedule 2		<u>214,170,791</u>	<u>215,067,784</u>	<u>211,348,449</u>

United States Government Accountability Office

GAO

Testimony

Before the Strategic Forces
Subcommittee, Committee on Armed
Services, House of Representatives

For Release on Delivery
Expected at 9:00 a.m. EDT
Thursday, March 26, 2009

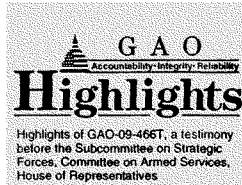
DEFENSE MANAGEMENT

Key Challenges Should be Addressed When Considering Changes to Missile Defense Agency's Roles and Missions

Statement of John H. Pendleton, Director
Defense Capabilities and Management



GAO-09-466T



Why GAO Did This Study

To more quickly field ballistic missile defenses, the Missile Defense Agency (MDA) has been exempted from traditional Department of Defense (DOD) requirements development, acquisition, and oversight processes since its creation in 2002. Instead, MDA has unique roles and missions to develop and field weapon systems that address a variety of ballistic missile threats. To date, MDA has spent about \$56 billion and plans to spend about \$50 billion more through 2013 to develop an integrated Ballistic Missile Defense System. The system consists of a layered network of capabilities that includes defensive components such as sensors, radars, interceptors, and command and control. In reviews of DOD's approach to acquire, operate, and maintain ballistic missile defense systems, GAO has previously reported on several challenges that have stemmed from the broad flexibilities provided to MDA.

This testimony summarizes the challenges facing DOD in acquiring and operating its ballistic missile defense systems and describes DOD's efforts to improve transparency and accountability. This statement is based primarily on previously issued GAO reports and testimonies. GAO also reviewed documents and interviewed key officials to update past work and identify DOD and MDA efforts to address previous recommendations.

View GAO-09-466T or key components. For more information, contact John H. Pendleton at (202) 512-3489 or pendletonj@gao.gov.

March 26, 2009

DEFENSE MANAGEMENT

Key Challenges Should be Addressed When Considering Changes to Missile Defense Agency's Roles and Missions

What GAO Found

While MDA's exemption from traditional DOD processes allowed it to quickly develop and field an initial ballistic missile defense capability, this approach has led to several challenges. DOD now has an opportunity to better balance the flexibility inherent in MDA's unique roles with the need for effective management and oversight of ballistic missile defense programs. Furthermore, the start of a new administration and the appointment of a new MDA Director offer DOD the chance to more fully address the challenges identified in GAO's prior work. These include the following:

- **Incorporating Combatant Command Priorities:** While DOD established a process in 2005 to address the combatant commands' needs for ballistic missile defense capabilities, GAO reported in 2008 that the process was evolving and had yet to overcome key limitations to its effectiveness, including the need for more effective methodologies to clearly identify and prioritize the combatant commands' needs. Additionally, when developing ballistic missile defenses, MDA lacked a departmentwide perspective on which of the commands' needs were most significant.
- **Establishing Adequate Baselines to Measure Progress:** MDA's flexible acquisition approach has limited the ability for DOD and congressional decision makers to measure MDA's progress on cost, schedule, and testing. Specifically, as GAO reported in March 2009, MDA's baselines have been inadequate to measure progress and hold MDA accountable. However, GAO also reported that new MDA initiatives to improve baselines could help improve acquisition accountability.
- **Planning for Long-Term Operations and Support:** DOD has taken initial steps to plan for ballistic missile defense support, but efforts to date are incomplete as difficulties in transitioning responsibilities from MDA to the services have complicated long-term planning. Additionally, although operation and support costs are typically 70 percent of a weapon system's life cycle costs, DOD has not required that full cost estimates for ballistic missile defense operations and support be developed and validated, and DOD's 6-year spending plan does not fully reflect these costs.

DOD has recently taken some steps to improve transparency and accountability of ballistic missile defense programs, such as the creation of a Missile Defense Executive Board to provide top level oversight and a life cycle management process that established defensewide funding accounts. Although these are positive steps, they do not yet provide comprehensive information for acquisition oversight; and have not yet clearly defined the roles and responsibilities of MDA and the services, including how the defensewide account will be used to fund the ballistic missile defense program over the long term. As DOD seeks to improve transparency and accountability, sustained top leadership will be needed to build upon this recent progress.

Madam Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss the challenges facing the Department of Defense (DOD) regarding its process for acquiring, developing, and fielding ballistic missile defenses. Funded at \$8 billion to nearly \$10 billion per year, the effort to develop and field ballistic missile defenses is the largest research and development program in DOD. Since its creation in 2002, the Missile Defense Agency (MDA) has expended almost \$56 billion to develop and field an initial ballistic missile defense capability, and plans to spend about \$50 billion more through 2013, while being exempt from traditional DOD requirements development, acquisition, and oversight processes. This exemption provided MDA with flexibility to quickly develop and deliver an initial capability to defend the United States, deployed U.S. forces, friends, and allies from the threats posed by ballistic missiles. However, the new administration and Congress are now reconsidering the approach with which DOD acquires, operates, and maintains ballistic missile defense weapon systems. Such reconsiderations are occurring against the backdrop of other efforts to more broadly reform DOD's traditional acquisition processes.

My remarks will discuss several key challenges that DOD has yet to overcome as it has acquired ballistic missile defense capabilities outside traditional DOD requirements and acquisition processes. Specifically, my statement will address challenges in incorporating combatant command priorities, providing information needed for acquisition accountability, and planning for long-term operations and support, as well as describing the department's efforts to date to establish greater oversight. My statement is based primarily on findings and recommendations from our previously issued reports and testimonies in these areas. We also interviewed DOD and MDA officials and reviewed documents to update our past work and identify DOD and MDA efforts to address our previous recommendations. A selected list of our previously issued reports and testimonies on these issues is provided at the end of this statement. We conducted our work in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

MDA's mission is to develop an integrated and layered Ballistic Missile Defense System to defend the United States, its deployed forces, friends, and allies against ballistic missile attacks. This mission requires complex coordination and the integration of many and varied defensive components—space-based sensors; ground- and sea-based surveillance and tracking radars; advanced ground- and sea-based interceptors; and battle management, command, control, and communications. Prior to MDA's establishment in 2002, the services, along with the support and coordination of the Ballistic Missile Defense Organization, separately managed the development and acquisition of ballistic missile defense weapon systems as major defense acquisition programs.¹

In 2002, the President established ballistic missile defense as a national priority and directed DOD to proceed with plans to develop and put in place an initial capability beginning in 2004. To expedite the delivery of an operationally capable Ballistic Missile Defense System, in 2002 the Secretary of Defense re-chartered the Ballistic Missile Defense Organization as MDA and directed MDA to manage all ballistic missile defense systems then under development and transferred those systems controlled by the military services to the agency.² The systems transferred from the services and the new systems whose development MDA initiates are all considered to be "elements" of the Ballistic Missile Defense System.³ The Secretary also directed MDA to manage the Ballistic Missile Defense System as an evolutionary program, and to develop and field increasingly effective ballistic missile defense capabilities. To do so, he directed that systems developed by MDA would not be subject to DOD's traditional joint requirements determination and acquisition processes until a mature ballistic missile defense capability had been developed and

¹The Ballistic Missile Defense Organization was established in 1968 to manage and direct DOD ballistic missile defense acquisition programs with the services playing major roles in system development.

²When this organization was re-chartered as MDA, its responsibilities were reoriented around a concept for a globally integrated, layered ballistic missile defense.

³Ballistic missile defense elements include: Ground-based Midcourse Defense; Aegis Ballistic Missile Defense; Upgraded Early Warning Radar; AN/TPY-2 Forward-based Radar; Cobra Dane Radar Upgrade; Sea-Based X-Band Radar; Terminal High-Altitude Area Defense; Command, Control, Battle Management, and Communications; European Interceptor Site; European Midcourse Radar; and Adjunct Sensor.

was ready to be handed over to a military service for production and operation.⁴

MDA's mission is to develop and field ballistic missile defenses against threats posed by adversaries from all regions, at all ranges, and in all phases of flight. At the direction of the Secretary of Defense and in order to meet a presidential directive, the MDA began fielding in 2004 a limited capability to defend the United States against long-range ballistic missile attacks. This Ground-based Midcourse Defense system, which is intended to protect the U.S. homeland against incoming long-range ballistic missiles launched from Northeast Asia and the Middle East, was first made operational in 2006. MDA has added to this limited capability since it was first fielded by upgrading additional Air Force early warning radars, developing and fielding land- and sea-based radars, and fielding an initial capability for command and control, battle management, and communications. Additionally, to provide sea-based defenses against regional threats for deployed U.S. forces, friends, and allies, MDA has upgraded software and radar systems on 18 Aegis destroyers and cruisers, and delivered interceptors for use on these vessels, to defend against short- and medium-range threats. Early in the next decade, MDA plans to field an additional radar in the Czech Republic and ground-based interceptors in Poland to defend Europe and North America from ballistic missile threats originating in the Middle East. Over the long term, MDA also is developing interceptor payloads that would be capable of defeating more advanced threats—such as the use of multiple warheads or decoys—and “boost-phase” capabilities to enable DOD to shoot down ballistic missiles shortly after liftoff.

To incorporate the views of the combatant commands—which is critical in determining and prioritizing needed capabilities—the President made the U.S. Strategic Command responsible in 2003 for advocating for desirable missile defense characteristics and capabilities on behalf of all combatant commands to MDA. To fulfill this responsibility, U.S. Strategic Command and the MDA created the Warfighter Involvement Process in 2005. A key output of this process is the Prioritized Capabilities List, which is intended

⁴DOD's traditional requirements process is described in Chairman, Joint Chiefs of Staff Instruction 3170.01F, *Joint Capabilities Integration and Development System*, May 1, 2007. DOD's traditional acquisition process is described in DOD Directive 5000.01, *The Defense Acquisition System*, May 12, 2003, and DOD Instruction 5000.02, *Operation of the Defense Acquisition System*, Dec. 8, 2008.

to specify how the combatant commands collectively prioritize the full range of capabilities needed to perform ballistic missile defense missions.

To operate and support ballistic missile defense elements over the long term, DOD plans to transition the responsibility for supporting ballistic missile defense elements from MDA to the services. Transitioning involves designating lead military service responsibilities for providing personnel, force protection, operations and support, and for developing doctrine, organization, and facilities requirements for its respective element. The transition process may culminate in a transfer—which is the reassignment of the MDA program office responsibilities to the lead service.

Oversight of MDA is executed by the Under Secretary of Defense for Acquisition, Technology, and Logistics. Because MDA is not subject to DOD's traditional joint requirements determination and acquisition processes, DOD developed alternative oversight mechanisms. For example, in 2007 the Deputy Secretary of Defense established the Missile Defense Executive Board,⁹ which is to provide the Under Secretary of Defense for Acquisition, Technology, and Logistics, or Deputy Secretary of Defense, as necessary, with a recommended ballistic missile defense strategic program plan and feasible funding strategy for approval. In September 2008, the Deputy Secretary of Defense also established a life cycle management process for the Ballistic Missile Defense System. The Deputy Secretary of Defense directed the Board to use the process to oversee the annual preparation of a required capabilities portfolio and develop a program plan to meet the requirements with Research, Development, Test, and Evaluation; procurement; operations and maintenance; and military construction in defensewide accounts.

⁹The Missile Defense Executive Board is chaired by the Under Secretary of Defense for Acquisition, Technology, and Logistics. The Board's members are: Director, Defense Research and Engineering; Under Secretary of Defense for Policy; Director, Program Analysis and Evaluation; Assistant Secretary of the Army for Acquisition, Logistics, and Technology; Deputy Under Secretary of Air Force Space Programs; Under Secretary of Defense for Intelligence; Commander, U.S. Strategic Command; Assistant Secretary of State for International Security and Nonproliferation; Director, Operational Test and Evaluation; Vice Chief for Naval Operations; Director, Missile Defense Agency; and Vice Chairman, Joint Chiefs of Staff.

Key Management Challenges Have Not Been Fully Addressed

MDA's exemption from traditional DOD processes allowed it the flexibility to quickly develop and field an initial ballistic missile defense capability; however, we have previously reported that DOD's implementation of this approach has resulted in several management challenges that have not been fully addressed. These challenges include immature processes for incorporating combatant command priorities, inadequate baselines to measure progress, and incomplete planning for long-term operations and support. With the start of a new administration and the appointment of a new MDA Director, DOD now has an opportunity to better balance the flexibility inherent in MDA's unique roles and missions with the need for effective management and oversight of ballistic missile defense programs, and to more fully address the challenges that affect its ability to plan and resource ballistic missile defenses.

Warfighter Involvement Process Has Helped MDA Address Some Combatant Command Capability Needs, but the Process Faces Limitations

DOD has taken some steps to address combatant command capability needs through the Warfighter Involvement Process, but this process faces key limitations to its effectiveness. For example, based on combatant command inputs received through the Warfighter Involvement Process, MDA initiated new programs in fiscal year 2008 to develop and deploy sea-based defenses against short-range missiles. However, when the Secretary of Defense created MDA in 2002, the agency initially lacked a mechanism for obtaining and considering the combatant commands' priorities as it developed ballistic missile defenses. The lack of such a mechanism made it difficult for MDA and the combatant commands to be sure that MDA was addressing the commands' highest priority capability needs.

Although U.S. Strategic Command and MDA established the Warfighter Involvement Process in 2005, we reported in July 2008 that this process is still evolving and had not yet yielded a clear and effective approach for MDA to follow when making investment decisions.⁴ Our report identified several shortcomings that inhibited the process' effectiveness. For example:

- U.S. Strategic Command's and MDA's roles and responsibilities for implementing the process were not fully documented, which left the combatant commands without an agreed-upon method for influencing MDA investments and for holding MDA accountable. U.S. Strategic

⁴GAO, *Ballistic Missile Defense: Actions Needed to Improve the Process for Identifying and Addressing Combatant Command Priorities*, GAO-08-740 (Washington, D.C.: July 31, 2008).

Command has since issued guidance that documents how the process operates, but this guidance is not binding on MDA and will require updating as the process evolves. As of March 2009 MDA had drafted but not yet issued similar guidance. As a result, the combatant commands continue to lack both transparency into the agency's decision-making process and assurance that MDA will implement the process in a manner that addresses their needs.

- The process has not yet resulted in effective methodologies for the combatant commands to clearly identify and consistently prioritize their capability needs. For example, in preparing the 2007 Prioritized Capabilities List—intended to give combatant commanders input into development priorities—combatant commands used differing criteria for assessing capabilities, and not all commands clearly distinguished among their top priorities. As a result, the list did not provide MDA with clear information about how to best address the combatant commands' needs. DOD agreed with our recommendation that U.S. Strategic Command improve the methodologies for identifying and prioritizing capabilities, but has not yet completed the 2009 Prioritized Capabilities List.
- Senior civilian DOD leadership has not been involved in the Warfighter Involvement Process to adjudicate potential differences among the combatant commands' priorities and provide perspective on how to invest resources against priorities as the leadership would under traditional DOD processes. Lacking such senior-level involvement, MDA has not benefited from receiving a broader perspective on which of the commands' needs is the most significant. To address this shortcoming, we recommended that senior civilian leadership review the commands' priorities before they are sent to MDA. DOD partially agreed with our recommendation, but it did not clearly identify the steps it would take to implement the recommendation.

A congressionally mandated independent review, released in August 2008,⁷ of MDA's roles, missions, and structure also identified the need to improve the Warfighter Involvement Process. Although the independent review found that the Warfighter Involvement Process provided a potential mechanism for the combatant commands to influence Ballistic Missile Defense System developments, the review made several recommendations

⁷Institute for Defense Analyses, *Study on the Mission, Roles, and Structure of the Missile Defense Agency (MDA)*, IDA P-4374 (Alexandria, VA: Aug. 2008).

to make the process more effective. In particular, as our July 2008 report recommended, the independent review recommended that DOD improve the methodologies used to develop and prioritize the combatant commands' capability needs so that the Prioritized Capabilities List provides more adequate guidance to MDA.

Since our July 2008 report was issued, U.S. Strategic Command has responded to our recommendation that the combatant commands compare their priorities with MDA's long-term funding plans and provide an assessment—called the Capability Assessment Report—to MDA. U.S. Strategic Command expects the first assessment to be completed by the end of April 2009. The assessment represents the combatant commands' official assessment of MDA's response to the 2007 Prioritized Capabilities List, and is also intended to provide a basis for MDA to make capability trade-offs and programmatic adjustments to ensure acquisition of the warfighters' desired capabilities. U.S. Strategic Command provided MDA with a preliminary overview of the assessment in June 2008 so that MDA and the Missile Defense Executive Board could use the information during the formulation of the fiscal year 2010 budget. However, until the MDA's fiscal year 2010 budget is presented to Congress, we are unable to assess the extent to which the agency's investments are reflective of the commands' priorities.

MDA's Approach Limits Decision Makers' Ability to Measure Progress on Cost, Schedule, and Testing, but New Initiatives Could Improve Acquisition Accountability

MDA's approach to establishing baselines has limited the ability for DOD and congressional decision makers to measure MDA's progress on cost, schedule, and testing; however, new DOD initiatives could help improve acquisition accountability. Baselines are starting points that are used to measure progress on cost, schedule, and testing. Tracking progress against a baseline can signal when a program is diverting from its planned budget and schedule. Overall, the Ballistic Missile Defense System does not have baselines that are useful for oversight. Specifically, cost baselines have not been established, test baselines remain relatively unstable, and production and fielding are outpacing testing and modeling.

MDA has not yet established cost baselines that are useful to hold the agency accountable for how it expends resources, but has indicated that it is taking steps to do so. Baselined total costs and unit costs are fundamental markers most programs use to measure performance. However, MDA's unique roles and missions exempted the agency from a

requirement to establish baselines for total or unit costs.⁹ As a result, in March 2009 we reported for the sixth consecutive year that we were unable to assess MDA's actual costs against baseline costs.⁹ However, in response to recommendations in our March 2009 report, MDA agreed to provide total cost baselines for its block structure, which describes the agency's approach to acquiring and delivering new increments of ballistic missile defense capabilities to the services and combatant commands for operational use. While Block 1 capabilities (to defend the United States from a limited, long-range North Korean attack) will not be baselined, MDA has agreed to submit cost baselines for Block 2 capabilities (to defend U.S. forces and allies from short- to medium-range threats in one theater) and portions of Block 3 capabilities (to expand the defense of the United States to include limited threats from Iran) as part of its submission to the President's fiscal year 2010 budget, expected in Spring 2009. MDA also stated that it will submit total cost baselines for the rest of Block 3 and all of Block 5 capabilities (to expand the defense of U.S. forces and allies) by the spring of 2010.¹⁰

MDA also has made some progress with developing a schedule baseline for its blocks and their associated capabilities, but has faced challenges in meeting this baseline. MDA identifies its schedule baseline as the fiscal year dates for early, partial, and full capability deliveries of hardware and functionality for a block; as a result, schedule changes and their effects on the Ballistic Missile Defense System's development can be determined by comparing the changes with the original schedule. However, by trying to conform to the schedule baseline, production and fielding decisions have outpaced testing and modeling. Specifically, MDA determines the

⁹Section 2435 of Title 10 of the U.S. Code requires a baseline description for major defense acquisition programs and generally the baseline description must be approved before funds may be obligated to the program. The Ballistic Missile Defense System program meets the definition of a major defense acquisition program, which is defined at 10 U.S.C. § 2430; however, the requirement to establish a baseline is not triggered until entry into system development and demonstration. Under the Secretary of Defense's 2002 program guidance for ballistic missile defense, ballistic missile defense system elements do not return to standard acquisition processes until they transfer to the military services. As of March 2009, only the Patriot Advanced Capability-3 and Cobra Dane Radar Upgrade have transferred from MDA to the services.

⁹GAO, *Defense Acquisitions: Production and Fielding of Missile Defense Components Continue with Less Testing and Validation Than Planned*, GAO-08-338 (Washington, D.C.: Mar. 13, 2009).

¹⁰Block 4 capabilities are to defend allies and deployed forces in Europe from limited Iranian long-range threats and to enhance protection of the United States.

capability levels of individual elements through a formal declaration process that is based on a combination of models, simulations, and ground tests that are all anchored to flight test data. However, flight test cancellations and delays have resulted in MDA revising and reducing the basis it uses to declare when missile defense capabilities can be considered for operational use. As a result, recent fielding decisions have been made with a more limited understanding of system effectiveness than planned.

MDA's testing baselines also have not been effective for oversight, but a new MDA initiative to review its testing program could lead to improvements. In our March 2009 report, we found that MDA's officially approved test baseline, the Integrated Master Test Plan, changes frequently, often because MDA has changed the substance of a test, the timing of a test, or added new tests to the baseline. For example, based on its September 2006 plan, MDA had expected the Ground-based Midcourse Defense element to conduct seven interceptor flight tests from the start of fiscal year 2007 through the first quarter of 2009. However, MDA was only able to conduct two of these flight tests. As a result of these frequent changes, we concluded that MDA's test baseline is therefore not effective for oversight. Recognizing the challenges to the testing program, in February 2009, the Director, MDA testified before this Subcommittee that the agency is undertaking a review of its program. This review, according to MDA, will identify critical variables that have not been proven to date, determine what test scenarios are needed to collect the relevant test data, and develop an affordable and prioritized schedule of flight and ground tests. If MDA's review accomplishes its intended goals, then it could both improve oversight and help close the gaps that exist between testing, modeling, and simulation.

In our March 2009 report, we made several recommendations to MDA that would improve its preparation of cost, schedule, and testing baselines, which are needed to help decision makers in DOD and Congress to exercise oversight of MDA's acquisition approach. For example, in the area of cost we recommended that MDA complete total cost baselines before requesting additional funding for Blocks 2 and 3. Regarding schedule baselines, we recommended that MDA synchronize the development, manufacturing, and fielding schedules of Ballistic Missile Defense System assets with the testing and validation schedules to ensure that items are not fielded before their performance has been validated through testing. In the testing area, we recommended that MDA reassess its flight tests scheduled for the end of fiscal year 2009 to ensure that they

can be reasonably conducted. DOD generally concurred with all 11 of our recommendations.

Planning for Long-Term Operations and Support Is Underway, But Efforts Are Incomplete

DOD has taken some initial steps to plan for long-term operations and support of ballistic missile defense operations, but planning efforts to date are incomplete because of difficulties in transitioning responsibilities from MDA to the services and in establishing operation and support cost estimates. Our prior work has shown that clear roles and responsibilities can improve outcomes by identifying who is accountable for various activities. However, in September 2008,¹¹ we reported that DOD had not identified clear roles and responsibilities among MDA and the services for long-term support planning.

In our September 2008 report we recommended that DOD establish a process for long-term support planning that adheres to **key principles for life cycle management**. This includes establishing **timelines for planning** that must be completed before each element is fielded, **involving services** in support and transition planning and deciding when support responsibilities will be transitioned to the services, specifying roles and responsibilities for MDA and the services for life cycle management, and identifying who is accountable for ensuring these actions are accomplished. Since our September 2008 report was issued, DOD has made some progress in planning for transition of some ballistic missile defense elements. For example, in January 2009 MDA and the Army agreed on the overarching terms and conditions for the transition and transfer of elements from MDA to the Army, including Ground-based Midcourse Defense, Terminal High Altitude Area Defense, and the AN/TPY-2 Forward-based Radar. However, the agreement neither identifies when these elements are expected to transfer to the Army, nor addresses the specific details on how operations and support costs will be funded following the transfer. Until DOD establishes a transition and transfer process that adheres to key principles for life cycle management, DOD will be unable to ensure that individual elements will be sustained in the long term, and DOD's long-term support planning will continue to face challenges.

¹¹GAO, *Missile Defense: Actions Needed to Improve Planning and Cost Estimates for Long-Term Support of Ballistic Missile Defense*, GAO-08-1068 (Washington, D.C.: Sept. 25, 2008).

Moreover, DOD has established limited operation and support cost estimates for ballistic missile defense elements, and the estimates that have been developed are not transparent to DOD senior leadership and congressional decision makers. DOD has not required that full cost estimates for ballistic missile defense operations and support be developed, validated, and reviewed. As a result, the Future Years Defense Plan—DOD's 6-year spending plan—does not fully reflect these costs. Prior GAO work has shown that operations and support costs are typically 70 percent of a weapon's life cycle costs.¹² Specifically, our work found that DOD has not addressed ballistic missile defense operation and support costs in the following three ways:

- First, in our September 2008 report, we found that MDA and the services have jointly developed and agreed on cost estimates for only two of the seven elements we examined.¹³ Joint cost estimates for the other five elements are not yet complete and are likely to change over time, perhaps significantly, because MDA and the services are still determining key assumptions, such as how support will be provided—by contractor, the service, or a combination of the two—and where some elements may be fielded and operated. These determinations will affect military construction and operation and support costs, such as maintenance, base operating support, and facilities.
- Second, in September 2008 we found that DOD did not plan to independently verify the operation and support cost estimates for all the ballistic missile defense elements we reviewed. Independently validated cost estimates are especially important to formulating budget submissions because, historically, cost estimates created by weapon system program offices are lower than those that are created independently. In January 2009, MDA and the Army agreed in principle that full, independently verified life cycle cost estimates may be among the criteria for transferring elements to the Army. However, as of February 2009, DOD had not developed plans to prepare these estimates. Table 1 shows whether, as of February 2009, the joint

¹²GAO-08-1068.

¹³The seven elements reviewed were Aegis Ballistic Missile Defense, Ground-based Midcourse Defense, Terminal High Altitude Area Defense, AN/TPY-2 Forward-based Radar, Sea-Based X-Band Radar, Upgraded Early Warning Radar, and European Midcourse Radar. Our criteria for selecting elements specified a sample of at least two elements from each of the services and that the elements already be fielded or planned for fielding between fiscal years 2008 and 2015. For more details about our scope, methodology, and selection criteria, see GAO-08-1068.

operation and support cost estimates have been completed, whether the cost estimates have been independently verified, and the status of the joint estimates.

- Third, we reported in September 2008 that decision makers' visibility of ballistic missile defense operation and support costs was further hindered because MDA and the services had agreed only on which organization is responsible for funding operation and support costs after fiscal year 2013 for two of the seven elements we reviewed—Aegis Ballistic Missile Defense and Upgraded Early Warning Radar. It is still unclear how DOD intends to fund long-term operations and support costs. Although the MDA and Navy agreed in January 2009 on how to fund operation and support costs for the Sea-Based X-Band Radar through 2013, the agreement does not specify whether these costs will be funded through the defensewide fund or through a transfer of MDA's appropriated funds to the Navy after that time. Additionally, in February 2009 Army and Air Force officials told us that the services had not reached agreements with MDA about how to fund operation and support costs beyond 2013 for four of the seven elements we reviewed. As a result of these limitations, DOD and the services would face unknown financial obligations for supporting ballistic missile defense fielding plans and that most of these costs would not be reflected in DOD's future years' spending plan for fiscal years 2010 through 2015.

Table 1: Status of Joint Cost Estimates and Plans for Independent Verification of Operation and Support Cost Estimates for Selected Ballistic Missile Defense Elements as of February 2009

Element	Status of joint operation and support cost estimate	Status of independent verification of the cost estimate by the Cost Analysis Improvement Group
Aegis Ballistic Missile Defense	Completed—MDA and the Navy agreed on the operation and support costs through a Memorandum of Agreement.	Completed
Ground-based Midcourse Defense	In Process—Joint MDA/Air Force estimate has not been reviewed and approved by the Army Cost Review Board.	No independent estimate
Terminal High Altitude Area Defense	In Process—Joint MDA/Air Force estimate has not been reviewed and approved by the Army Cost Review Board.	No independent estimate
AN/TPY-2 (Forward-based)	In Process—Joint MDA/Air Force estimate has not been reviewed and approved by the Army Cost Review Board.	No independent estimate
Sea-Based X-Band Radar	In Process—Joint MDA/Navy estimate is expected to be completed by March 31, 2009.	No independent estimate
Upgraded Early Warning Radar	Completed—MDA and the Air Force jointly agreed on cost estimates through the transition plan.	No independent estimate
European Midcourse Radar	In process—The Air Force and MDA began to develop a joint estimate for the European radar in August 2008.	In process

Source: GAO summary of DOD information.

Note: Our sample selection did not include Patriot Advanced Capability-3, which transferred to the Army in 2003, and the Cobra Dane Radar Upgrade, which was transferred to the Air Force in January 2009. See GAO, *Missile Defense: Actions Needed to Improve Planning and Cost Estimates for Long-Term Support of Ballistic Missile Defense*, GAO-08-1068 (Washington, D.C.: Sept. 25, 2008), for a more detailed discussion of our scope and methodology for identifying the elements covered in our review.

To address these cost transparency challenges, we recommended that DOD establish a requirement to estimate ballistic missile defense operation and support costs, including detailing when credible estimates are to be developed, updated, and reviewed, and requiring periodic independent validation of operation and support costs for each element. In its response to our recommendations, DOD stated that it has established a new ballistic missile defense life cycle management process to oversee the annual preparation of a required capabilities portfolio and a program plan to meet those requirements through defensewide accounts. This process is intended in part to provide decision makers with clear, credible, and transparent cost information.

**DOD Is Taking
Actions to Establish
Greater Oversight, but
Obstacles Remain**

DOD has recently taken some steps to improve oversight of the development of the Ballistic Missile Defense System, such as the creation of both the Missile Defense Executive Board and its life cycle management process, but obstacles remain. For example, DOD's actions do not yet provide comprehensive information for acquisition oversight; and have not yet clearly defined the roles and responsibilities of MDA and the services, including how defensewide accounts will be used to fund the ballistic missile defense program over the long term. Additionally, as DOD seeks to improve transparency and accountability, sustained top leadership will be needed to build upon this recent progress.

Establishment of a new Missile Defense Executive Board in 2007 has been a step forward in improving transparency and accountability. The board is chartered to review and make recommendations on MDA's acquisition strategy, plans, and funding. One step the board has taken to improve transparency and accountability was its adoption of its life cycle management process, a process designed to clarify the ballistic missile defense roles of MDA, the services, combatant commands, and Office of the Secretary of Defense. Additionally, the Under Secretary of Defense for Acquisition, Technology, and Logistics has directed MDA to take actions based on Missile Defense Executive Board recommendations. For example, the Under Secretary directed MDA to incorporate into its budget proposal the interceptor inventory recommended by a Joint Staff study and endorsed by the Missile Defense Executive Board.

Although the establishment of the Missile Defense Executive Board represents progress, this new board does not yet provide comprehensive acquisition oversight of the ballistic missile defense program. As we reported in March 2009,¹⁴ the Under Secretary of Defense for Acquisition, Technology, and Logistics plans to hold program reviews for several Ballistic Missile Defense System elements to further increase acquisition oversight of the Ballistic Missile Defense System. According to DOD officials, these reviews are designed to provide comprehensive information that will be used as the basis for Missile Defense Executive Board recommendations for the Ballistic Missile Defense System business case and baseline process—a process which, according to these officials, is similar to the traditional Defense Acquisition Board process for reviewing other major acquisition programs. However, it is unclear whether the information provided to the Missile Defense Executive Board

¹⁴GAO-09-338.

will be comparable to that produced for other major acquisition program reviews, as most of the information appears to be derived or presented by MDA as opposed to independent sources as required for traditional major defense acquisition programs.¹⁵

Additionally, the Missile Defense Executive Board's life cycle management process is intended to facilitate more detailed agreements between MDA and the services to clearly establish their respective roles and responsibilities; however, these efforts are still in their early stages. For example, although MDA is developing memorandums of agreement with the services, the annexes that would lay out the specific responsibilities for such things as planning, programming, budgeting, execution, and life cycle management for each ballistic missile defense element have yet to be completed. Further, the annexes are expected to provide details about the how the services and MDA will work more closely together to manage the elements through joint program offices. The MDA Director told us that these new program offices would provide the services greater influence in the design of ballistic missile defenses. We have previously reported that early involvement by the services is important, because weapons design influences long-term operations, support, and costs—responsibilities likely borne by the services, not MDA.

A potential area of concern between MDA and services could be centered around how DOD will use the defensewide accounts established in the life cycle management process to fund the ballistic missile defense program over the long term. The defensewide accounts are intended to pay for ballistic missile defense costs other than those already agreed to be paid by the services, including research and development, procurement, and operations and support costs. In September 2008,¹⁶ we reported that the Missile Defense Executive Board's life cycle management process lacked

¹⁵Before a program can enter the system development and demonstration phase of the acquisition cycle, statute requires that certain information be developed. 10 U.S.C. § 2366b. In 2002, the Secretary of Defense deferred the application of some of DOD's acquisition processes to the Ballistic Missile Defense System. Therefore, MDA has not yet entered System Development and Demonstration, which would trigger the statutes requiring the development of information that the Defense Acquisition Board uses to inform its decisions. Most major defense acquisition programs are also required by statute to obtain an independent verification of program cost prior to beginning system development and demonstration, and/or production and deployment. 10 U.S.C. § 2434. Statute also requires an independent verification of a system's suitability for and effectiveness on the battlefield before a program can proceed beyond low-rate initial production. 10 U.S.C. § 2399.

¹⁶GAO-08-1068.

concrete details for implementation and was not well defined. In theory, the defensewide accounts would allow all costs to be clearly identified and would alleviate the pressure on the services' budgets to fund operation and support for ballistic missile defense programs. However, MDA and the services have not yet determined the amount and duration of funding for the individual ballistic missile defense elements that will come from the defensewide accounts.

While DOD has recently been taking positive steps to improve transparency and accountability for ballistic missile defense programs, long-term success will require sustained involvement by top DOD leadership. Leadership and oversight of missile defense has been sporadic in the past. DOD had a senior-level group, called the Missile Defense Support Group, dedicated to the oversight of MDA since the agency's founding that met many times initially; however, it did not meet after June 2005. This leadership vacuum was not filled until the Missile Defense Executive Board was established 2 years later. The Missile Defense Executive Board has a more robust charter than its predecessor, and an additional strength of the board is that its chair, the Under Secretary of Defense for Acquisition, Technology, and Logistics, used it as his primary oversight tool over the last year.

In sum, whether or not DOD continues to manage missile defense outside its customary acquisition processes, the management challenges we have found in our work will need to be addressed. Sustained DOD leadership will be required to ensure that the needs of combatant commands are considered, that acquisition is adequately managed and overseen, and that planning occurs for the long-term operations and support of these multi-billion dollar systems.

Madam Chairman and Members of the Subcommittee, this concludes my prepared remarks. I would be happy to answer any questions you or other Members of the Subcommittee may have.

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Related GAO Products

Defense Acquisitions: Production and Fielding of Missile Defense Components Continue with Less Testing and Validation Than Planned. GAO-09-338. Washington, D.C.: March 13, 2009.

Defense Acquisitions: Charting a Course for Improved Missile Defense Testing. GAO-09-403T. Washington, D.C.: February 25, 2009.

Defense Acquisitions: Sound Business Case Needed to Implement Missile Defense Agency's Targets Program. GAO-08-1113. Washington, D.C.: September 26, 2008.

Missile Defense: Actions Needed to Improve Planning and Cost Estimates for Long-Term Support of Ballistic Missile Defense. GAO-08-1068. Washington, D.C.: September 25, 2008.

Ballistic Missile Defense: Actions Needed to Improve the Process for Identifying and Addressing Combatant Command Priorities. GAO-08-740. Washington, D.C.: July 31, 2008.

Defense Acquisitions: Progress Made in Fielding Missile Defense, but Program Is Short of Meeting Goals. GAO-08-448. Washington, D.C.: March 14, 2008.

Missile Defense: Actions Needed to Improve Information for Supporting Future Key Decisions for Boost and Ascent Phase Element. GAO-07-430. Washington, D.C.: April 17, 2007.

Defense Acquisitions: Missile Defense Acquisition Strategy Generates Results, but Delivers Less at a Higher Cost. GAO-07-387. Washington, D.C.: March 15, 2007.

Defense Management: Actions Needed to Improve Operational Planning and Visibility of Costs for Ballistic Missile Defense. GAO-06-473. Washington, D.C.: May 31, 2006.

Defense Acquisitions: Missile Defense Agency Fields Initial Capability but Falls Short of Original Goal. GAO-06-327. Washington, D.C.: March 15, 2006.

Defense Acquisitions: Actions Needed to Ensure Adequate Funding for Operation and Sustainment of the Ballistic Missile Defense System. GAO-05-817. Washington, D.C.: September 6, 2005.

Defense Acquisitions: Status of Ballistic Missile Defense Program in 2004. GAO-05-243. Washington, D.C.: March 31, 2005.

Missile Defense: Actions Are Needed to Enhance Testing and Accountability. GAO-04-409. Washington, D.C.: April 23, 2004.

Missile Defense: Actions Being Taken to Address Testing Recommendations, but Updated Assessment Needed. GAO-04-254. Washington, D.C.: February 26, 2004.

Missile Defense: Additional Knowledge Needed in Developing System for Intercepting Long-Range Missiles. GAO-03-600. Washington, D.C.: August 21, 2003.

Missile Defense: Alternate Approaches to Space Tracking and Surveillance System Need to Be Considered. GAO-03-597. Washington, D.C.: May 23, 2003.

Missile Defense: Knowledge-Based Practices Are Being Adopted, but Risks Remain. GAO-03-441. Washington, D.C.: April 30, 2003.

Missile Defense: Knowledge-Based Decision Making Needed to Reduce Risks in Developing Airborne Laser. GAO-02-631. Washington, D.C.: July 12, 2002.

Missile Defense: Review of Results and Limitations of an Early National Missile Defense Flight Test. GAO-02-124. Washington, D.C.: February 28, 2002.

Missile Defense: Cost Increases Call for Analysis of How Many New Patriot Missiles to Buy. GAO/NSIAD-00-153. Washington, D.C.: June 29, 2000.

Missile Defense: Schedule for Navy Theater Wide Program Should Be Revised to Reduce Risk. GAO/NSIAD-00-121. Washington, D.C.: May 31, 2000.

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STATEMENT OF

MR DAVID G. AHERN

DIRECTOR, PORTFOLIO SYSTEMS ACQUISITION

**OFFICE OF THE UNDER SECRETARY OF DEFENSE
(ACQUISITION, TECHNOLOGY, AND LOGISTICS)**

BEFORE THE

HOUSE ARMED SERVICES COMMITTEE

SUBCOMMITTEE ON STRATEGIC FORCES

March 26, 2009

Ballistic Missile Defense Program Progress
Mr. David G. Ahern
Director, Portfolio Systems Acquisition
Office of the Under Secretary of Defense
(Acquisition, Technology, and Logistics)

Good morning Madam Chairman, Congressman Turner, and Members of the Committee. Thank you for the opportunity to appear before you today to discuss the Department of Defense management and oversight of the Missile Defense Agency (MDA). One year ago, the Honorable John Young, Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)), appeared before this subcommittee to testify on the Department's Ballistic Missile Defense program and budget submission. At that time, Mr. Young discussed the establishment of the Missile Defense Executive Board (MDEB) and its role in overseeing and guiding our missile defense program.

Today, I am pleased to update you on the Department's plans and procedures for the management and oversight of the MDA, including the MDEB and its recent activities, the Ballistic Missile Defense System (BMDS) Life Cycle Management Process (LCMP), and the Department's process for determining missile defense force structure and inventory requirements. In the process, I will also address key issues facing the missile defense program and look forward to answering any questions you may have.

Plans and Procedures for the Management and Oversight
of the Missile Defense Agency

The USD(AT&L) currently has full authority and responsibility necessary to exercise comprehensive and effective oversight of the MDA and its programs. The

MDEB was established “to recommend and oversee implementation of strategic policies and plans, program priorities, and investment options to protect our Nation and allies from missile attack.” The MDEB authorities and responsibilities extend to comprehensive oversight of all of the MDA's activities including those outside the scope of the traditional milestone review process for individual programs (e.g., assessments and potential influence on policy, threat assessments, capability requirements, budget formulation, and fielding options).

Supporting the MDEB are four committees: Policy, Test and Evaluation, Operational Forces, and Program Acquisition and Budget Development (PA&BD). In accordance with the MDEB Charter, the Policy Committee “advises the Board on strategic missile defense policy direction to ensure full consistency with DoD policy, conducts and oversees international activities and represents the Department in inter-Agency matters.” The Test and Evaluation Committee “oversees the T&E planning and resource roadmap as it relates to MDA test requirements and test program.” It “provides technical recommendations and oversight for the conduct of an integrated T&E program and investment strategy”. The Operational Forces Committee “oversees fielding schedules and deployments to ensure consistency with planned schedules and DoD objectives.” The Operational Forces Committee also “oversees agreements, documentation, and requirements between MDA, the DoD components, and the fielding organizations for ensuring appropriate funding policies for operational and support resources.” The PA&BD Committee “ensures that Missile Defense (MD) program and budget development is integrated effectively into the Board’s oversight role and that

missile defense programs are properly aligned with missions, taking appropriate account of relevant risk factors.” The PA&BD Committee “oversees implementation of missile defense acquisition guidance to include transition and transfer of responsibilities/authorities of the BMDS elements from MDA to the Services and provides oversight of BMDS procurement, operation and support”.

The Committees supporting the MDEB examine topics in their respective areas of interest. USD(AT&L) is then able to pursue an agenda in the MDEB that examines detailed topic areas and any other that enhances BMDS development and fielding.

Since inception, the MDEB has conducted fourteen meetings and USD(AT&L) has issued five Acquisition Decision Memorandums. Thus, it meets more frequently than a Defense Acquisition Board (DAB) would meet for a typical program. The MDEB will continue to conduct reviews of each MDA program including establishment of a baseline agreement with defined cost, schedule and performance parameters to allow continuous evaluation of program execution. By performing these reviews the MDEB maintains early and continued visibility into MDA programs and is able to provide the necessary guidance to achieve Missile Defense priorities within cost and schedule constraints.

One oversight focus area is the Department’s assessment of a BMDS element’s maturity for production and Lead Service operation. The Department’s current criteria for missile defense element production decisions includes: an assessment of the depth and breadth of preparation including element progress; performance validated by testing results; reports by the Director, Operational Test and Evaluation; funding to support program plans; and an executable plan for operation and support. MDA, in conjunction

with the designated Lead Military Department makes the recommendation for a production decision. The USD(AT&L) is responsible for the production review and decision.

I fully expect that the MDEB will remain a force for Missile Defense prioritization, planning and execution. With broad interest across the Department and the involvement by a broad range of stakeholders, the MDEB relevance and influence on BMDS operations will continue to grow.

Recent activities of the Missile Defense Executive Board

Having discussed the MDEB's structure and role in Department oversight of the BMDS, I would like to discuss recent MDEB activities in order to highlight its role in providing oversight of the MDA and the BMDS.

The MDEB recently conducted a comprehensive and detailed pre-production review of the Terminal High Altitude Area Defense (THAAD) program to determine the maturity of the program and readiness for operation and support by the Army. All aspects of THAAD program status were assessed. As an outcome of the review and evaluation of the program performance parameters, USD(AT&L) authorized near term contract actions for acquisition for long lead items for THAAD Batteries (which include launchers, interceptors, a fire control and communications component, a radar, and a battery support center) and expectations for annual reviews of THAAD in the next two years. As part of the same review, criteria were endorsed for subsequent production-related BMDS element reviews. The MDEB also assessed the options and made a determination of the Foreign Military Sales Implementing Agent for THAAD.

Last summer, the MDEB reviewed the Institute for Defense Analysis report on MDA Future Roles and Missions, and committed to incorporate the recommendations when appropriate.

The MDEB reviewed the MDA Fiscal Year 2010 budget several times last year, providing direction for option development. The MDEB and its Committees reviewed BMDS requirements and achievable capabilities, the resulting program plan and associated budget. The MDEB articulated resource priorities and endorsed the budget prior to Deputy Secretary review. The MDEB has also been involved in the recent review process for revisions to the proposed Fiscal Year 2010 budget.

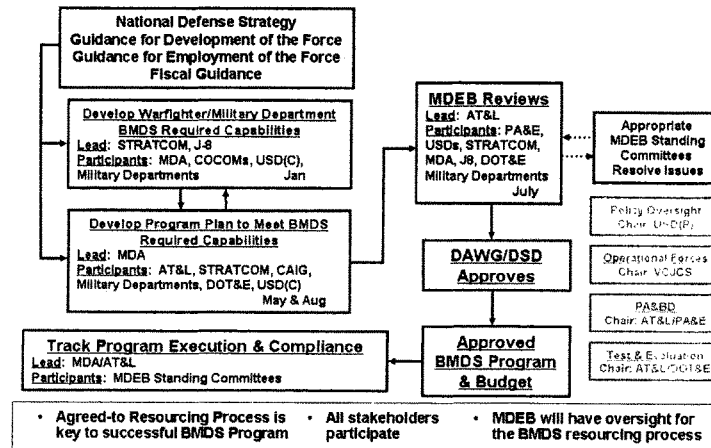
MDEB recommendations to the Deputy Secretary included Lead Service determination for the European Mid-Course Radar and Interceptor Site and approval of the BMDS Life Cycle Management Process (LCMP), described later on in more detail, which will facilitate future collaborative BMDS budget development and transition of operation and support responsibilities to the Services.

Another example of the MDEB's oversight of and influence on missile defense programs was the decision to acquire capabilities recommended by the Joint Staff-performed Joint Capability Mix study. The Joint Capability Mix assessed the mix of upper tier missile defense weapons and sensors required for near simultaneous Major Combat Operations. The Joint Requirements Oversight Council and the MDEB endorsed the results of the study, which served as foundation for MDA's plan for Terminal High Altitude Area Defense and Standard Missiles.

The Ballistic Missile Defense System Life Cycle Management Process

On September 25, 2008, the Deputy Secretary signed the BMDS LCMP guidance which for the first time describes the roles of the Missile Defense Agency; the Office of the Secretary of Defense; the Commander, Strategic Command; other Combatant Commanders (COCOMs); the Joint Staff and the Military Departments in an annual program plan and budget preparation process to build the BMDS budget. The LCMP, depicted below, synchronizes the MDA budget process with the Department's annual resource and planning cycle and provides an opportunity for OSD, the Military

Ballistic Missile Defense System Life Cycle Management Process



Departments and COCOMs to identify capabilities and operation and support requirements and to influence the BMDS annual budget formulation and program plan to ensure resources are available for development, fielding and sustainment. The BMDS

LCMP allows development of the missile defense budget as a portfolio, ensures input by all participants into resource formulation and allocation at the Department level, uses a Defense Wide account with multiple appropriations, and undergoes MDEB review prior to final approval.¹

The BMDS LCMP starts with Departmental guidance - the development of capability and operational support requirements - led by the Joint Staff and STRATCOM with Service participation which is provided for the MDA-led planning and budgeting process. The resultant draft plan and budget are reviewed by the MDEB and, when endorsed, forwarded to the Deputy Secretary for approval. The final product reflects Department-level involvement and decisions.

The BMDS LCMP initiative was implemented on a trial basis during Fiscal Year 2010 budget preparation and will fully influence Fiscal Year 2011 and subsequent budget reviews. The Military Departments provided their requirements to support MDA-developed programs during the Fiscal Year 2010 budget review. In particular, the Military Departments provided specific near-term support requirements for the Missile Defense Complexes at Fort Greely and Vandenberg; the AN/TPY-2 Radar Site at Shariki, Japan; Terminal High Altitude Area Defense Battery Sustainment; Patriot Advanced Capability-3; AEGIS BMD; Standard Missile-3; COBRA DANE Radar; European Midcourse Radar; and Upgraded Early Warning Radar sustainment. This input established the foundation for capability and support requirements for use in future

¹ Deputy Secretary of Defense Memorandum, Ballistic Missile Defense System Life Cycle Management Process, September 25, 2008

budget submissions. For future budget reviews, the BMDS LCMP will result in budget submissions aligned closely with Military Department inputs and COCOM requirements.

Continued use of the MDA Defense Wide account will enable the MDEB to execute oversight of BMDS resources and facilitate management of BMDS as a portfolio, with allocations across the four appropriations and annual distribution to the Services for operation and support.

One of the key challenges associated with transition and transfer is early lead Service involvement, which develops understanding and confidence in operation and support planning and budgeting, and realistic scheduling to execute plans. The BMDS Life Cycle Management Process establishes responsibilities and expectations for the Services and MDA relative to resources, decision authority, program management, and testing. It involves joint planning by MDA and the Military Departments for fielding BMDS elements and their operational support and will facilitate the transition and transfer process from MDA element development to Military Department operation and support.

The Department has made significant progress in transition and transfer over the past two years. With the Lead Military Department assignment of the European Mid-course Radar to the Air Force (2007) and the Sea Based X-Band (SBX) Radar to the Navy (2008), all Lead Military assignments have now been made. We have completed MDA/Service Memorandum of Agreements for Sea Based X-Band Radar (2008), and COBRA DANE Radar Upgrade (2008); and initiated transition for the Sea Based X-Band Radar to the Navy (2008) and for Upgraded Early Warning Radars (UEWR) and the

COBRA DANE Radar Upgrade to the Air Force (2008).

Under the BMDS LCMP Business Rules and the MDEB's guidance, the MDA and each of the Services are establishing an overarching Service-specific memorandum of agreement (MOA) construct that will move the BMDS Transition & Transfer Plan details and annex content into Element MOAs. As of March 1, 2009, the MDA and Army have signed an overarching Service MOA and are staffing Element MOAs for THAAD, GBI, and AN/TPY-2. PAC-3/MEADS will be included as a new agreement under the MDA-Army Overarching MOA. The Navy and Air Force are in discussions and staffing for overarching Service MOAs with MDA. The Navy and MDA have previously existing Element MOAs for Aegis BMD and SBX. The Air Force and MDA have an Element MOA for the COBRA DANE Radar Upgrade and are staffing Element MOAs for the Space Tracking and Surveillance System, Air Borne Laser, UEWRs, and the European Midcourse Radar.

As BMDS elements are fielded, Military Department participation in BMDS operations is of increasing importance. The MDEB and the LCMP provide access for Military Department and COCOM involvement in the BMDS resource prioritization, planning and execution. The BMDS LCMP initiative combined with MDEB oversight provides the Military Departments a venue and process to ensure their requirements are properly addressed. The success of the BMDS LCMP's implementation will be better defined as current plans reach the years of execution.

**Department of Defense Process to Determine Missile Defense
Force Structure and Inventory Requirements:**

The overarching process to determine missile defense force structure and inventory requirements is the Life Cycle Management Process described above that is overseen by the MDEB. As previously discussed, the MDEB recommends and oversees implementation of strategic policies and plans, program priorities and investment options related to missile defense. The BMDS LCMP is the venue for the annual review of desired BMDS portfolio capabilities, a program plan to achieve them, and a comprehensive funding strategy to implement the program.

As part of the LCMP, in September 2008, the Deputy Secretary established “business rules” that outline the institutional roles and relationships between the Missile Defense Agency and the Services. As noted previously, the Services and MDA have been developing overarching Service Memoranda of Agreement (MOAs). These MOAs define and align MDA’s responsibilities (research, development, testing and manufacturing) with the Services’ Title 10 responsibilities. These MOAs will enable each Service to develop doctrine, training, logistics, force structure and facility planning needed to field BMDS elements.

In addition to the LCMP, DoD uses other avenues to provide MDA and Service leadership opportunities to assess future force structure requirements. The Army, Air Force and Navy each individually conduct periodic Board of Director (BoD) meetings with MDA. Representatives from OSD and STRATCOM attend each BoD meeting.

To accomplish their mission of advocating desired global missile defense capabilities and characteristics for all COCOMs, STRATCOM established the Warfighter Involvement Process (WIP). The WIP process is a multi-phased collaborative process linking COCOMs, international partners, Services, Defense Agencies, and the Joint Staff to ensure that warfighters' desired operational capabilities are considered by the materiel developer, MDA. A significant output of the WIP analytical process is the Prioritized Capability List (PCL) that documents operator capability requests. MDA provides a formal response to the PCL, known as the Achievable Capabilities List, which facilitates assessment of MDA program plans against the desired warfighter capabilities.

Finally, to guide missile defense investment portfolio planning, the Department is conducting a number of studies, including the latest iteration of the Joint Capability Mix (JCM) Study. The JCM II Study was to explore and assess aggregate BMDS capabilities and provide analysis in support of determining the appropriate BMDS weapon and sensor mix to address the ballistic missile threat in the 2015 timeframe. The MDEB received this warfighter analysis and recommended that MDA address requirements during the formulation of its POM10 budget submission.

In addition to the JCM analysis efforts, STRATCOM is coordinating an employment strategy of the AN/TPY-2 Radar to enhance global and regional missile defense capabilities and will provide the strategy to the MDEB through the Operational Forces Committee. This employment strategy considers various aspects of military utility and geopolitical concerns to inform leadership toward a decision. Other efforts that

impact force structure and inventory requirements include various war games and exercises to define the future operational concepts, including war games with our Allies.

Conclusion

The Missile Defense Executive Board and the BMDS Life Cycle Management Process show that the Department has made significant progress in ensuring proper management and oversight of the Missile Defense Agency as it has developed the Ballistic Missile Defense System and fielded individual elements. We are taking prudent steps to transition and transfer individual elements to the Lead Military Departments at the appropriate time for operation and support. Continued cooperation between the MDA, OSD, the Military Departments, the Joint Staff, and COCOMs will be critical to long-term success of the BMDS.

We are grateful for the continued support of Congress which has been critical to the success to date in developing and fielding missile defenses. Thank you for this opportunity to testify on our management and oversight of the Department's missile defense program. I look forward to answering any questions you might have.