

Senate Appropriations Subcommittee on Defense Holds Hearing on Fiscal 2019 Budget Request for the Missile Defense Agency

WITNESS:

LT. GEN. SAMUEL A. GREAVES, DIRECTOR OF THE U.S. MISSILE DEFENSE AGENCY, TESTIFIES

SEN. SHELBY:

The committee will come to order. Good morning. We're pleased today to welcome Lieutenant General Samuel Greaves, the director of the Missile Defense Agency, for a review of MDA's budget request and an update on critical missile defense programs.

The Fiscal Year 2019 budget request for the Missile Defense Agency is \$9.9 billion, a decrease of more than \$1.5 billion from amounts appropriated for Fiscal Year 2018. Last year, under the leadership of Chairman Cochran, this committee led the charge in providing additional resources to Missile Defense -- to the Missile Defense Agency to address the increasing missile threat to our homeland. Today, we will carefully review the budget request to understand the impact of the proposed funding reductions.

The president said that we are committed to expanding and improving our state of the art missile defense, I hope so. General Dunford, the Chairman of the Joint Chiefs of Staff, has warned us that we need to be concerned about ensuring that our ballistic missile defense capability keeps pace with the increasing threat in the world.

General Greaves, in your written testimony you say that, and I quote, "Nearly all of our adversaries are concerned with U.S. missile defenses and have devised various means to complicate missile defense operations." your words. For example, our adversaries are developing missile defense countermeasures, hypersonic glide vehicles and long-range, nuclear-armed missiles that are capable of posing a direct threat to the U.S.

I hope, today, that you will share with this committee your best advice and your concern on how we can advance the state of our missile defenses against this evolving and increasing threat to -- that we face. I look forward to your testimony and the question and answer period. Senator Durbin.

SEN. DURBIN:

Thank you very much, Chairman Shelby. This is our first meeting without our -- our friend from Mississippi, Senator Thad Cochran, who will be missed; he was an extraordinary leader on this committee and in the United States Senate.

But I am pleased to recognize my colleague and friend of many years, Senator Shelby of Alabama, who now chairs the Appropriations Committee and this Defense Subcommittee. He jumped right into his duties, this morning, Senator Shelby, as well as Senator Reed and I had breakfast briefing with Secretary Mattis and General Dunford then hurried back to Capitol Hill for this important testimony on our missile defense program.

General Greaves, thank you for being here. This is your first time before the Defense Subcommittee as director of the Missile Defense Agency, which plays a critical role in defending our nation from many threats. Your job is a challenge, it's technically demanding, but we know you're up to that. Your leadership is vital to ensuring the Missile Defense Agency continues to protect America.

We face a number of threats, as you know better than anyone in the room, at the top of the list currently, North Korea with its pace of testing and progress of its nuclear-armed ICBM. Iran, also increasing its regional ballistic missile capability, though we have an agreement related to the development of nuclear warheads, we are still mindful of the fact that Iran is one of the major threats to stability in the region and in the world.

Emerging technological threats from China and Russia, such as hypersonic weapons mentioned by the chairman, are new challenges. We want to make certain that our allies in the Middle East like Israel continue to have a missile defense program for their safety and the safety of our interests in that region.

Finally, importance of our commitment to the security of Europe with Aegis Ashore sites in Romania and Poland cannot be overstated. These systems are no threat to Russia; but they do serve as a message that America is committed to the security of NATO, at a time when that message is often under attack and garbled in translation.

Last year, Congress increased MDA funding by 45 percent over the budget request. That is a massive increase in expenditure and we are going to see dramatic increases of about 30 percent across the board in the Department of Defense in the -- this fiscal year and the next fiscal year. Because of these increases, this subcommittee and the American people need to know that their taxpayer dollars are being spent well and not wasted, that we are fixing priorities on things that are the most important for the security of our nation.

Secretary Mattis echoed that same concern with a memo to the department on March 26th entitled, quote, "Be peerless stewards of taxpayer's dollars." end of quote. Secretary Mattis is a plain-spoken man and those words are very clear to all of us. The recent budget deal increased defense spending by \$165 billion over two years. That increase, that delta alone, is more than twice the annual defense budget of Russia; just our increase is more than twice the annual budget of Russia.

DURBIN:

Because of these large increases in military budget, we already hear calls for more ambitious, new missile defense programs, like an East Coast missile defense site, accelerated plans for directed-energy weapons. General Greaves, the subcommittee needs to know what you think of these things. We need to know that you're using your judgment, listening carefully to suggestions, but using the reality of technology and the reality of defense in terms of ultimate decisions.

Finally, I would caution that we must be realistic about what missile defense can do and cannot do. Missile defense does add to our security, it provides deterrence value. But we have to be clear that North Korea's testing track record is mixed.

And, more fundamentally, we have to appreciate that a new technology or interceptor is not going to solve North Korea's ongoing threat to the region and to the world. For that, we need a strategy and a capable team, which includes the best national defense in the world, with our Department of Defense, but includes even more. While we talk about dramatic increases in defense, the State Department had its budget cut last year and under this year's budget deal received no increase.

It's true that military capability has an effect on diplomacy, the "big stick" theory of Teddy Roosevelt still applies, but we still need to have active efforts at dialogue and diplomacy. What we do in this area can

impact regional stability in many other areas. Thank you for coming here today, we look forward to your testimony.

SHELBY:

General Greaves, your written testimony will be made part of the record in its entirety. You proceed in risk (ph) at your -- you proceed as you wish. We welcome you to the committee.

GEN. GREAVES:

Thank you, Mr. Chairman. Chairman Shelby, Vice Chairman Durbin, distinguished members of the subcommittee, thank you for this opportunity to testify on the Missile Defense Agency's budget for Fiscal Year 2019.

I would first like to express our sincere appreciation to this committee for its support of the department's Above Threshold Reprogramming request in September of 2017 and the F.Y. 2018 budget amendment, which provided reprogramming approval and emergency funding to enhance the nation's missile defeat and defense capabilities. I'm also very pleased to report that we are executing these funds with the utmost urgency and it's something I track weekly, if not daily.

I would also like to thank the thousands of men and women across government and industry, who work tirelessly every day across the globe in support of our nation's ballistic missile defense system. I truly believe they remain our asymmetric advantage.

Over the past year, we've been given a clear and unambiguous message from the president that we are committed to expanding and improving the state of the art missile defense system. So in my mind, the time for delays, more studies and objections, that time is over. As I continue to say it, the threat has voted, and continues to visibly vote, through the demonstration of its capabilities.

Last summer, I laid out three missile defense priorities to help guide our actions, our behavior and program planning. First, we will continue to focus on increasing system reliability to build warfighter confidence. Second, we will increase engagement capability and capacity. And third, we will address the advanced threat.

I can confidently tell you that, today, the current ballistic defense system meets today's threat. However, as a threat increases in both number and lethality, we need to ensure that our systems remain reliable, remain secure from cybersecurity threats, and that the nation's ballistic missile defense capability and capacity keep pace with that threat. We currently have 44 emplaced Ground Based Interceptors for homeland defense; and plan, with your support, to expand that fleet to 64 by 2023.

In addition, improvements in sensor coverage to include the Long Range Discrimination Radar in Clear, Alaska; and the addition of a Homeland Defense Radar in Hawaii, if approved; and planning for a Homeland Defense Radar in the Pacific, as well as advanced discrimination improvements will enable the United States to improve protection of the homeland. The agency will also continue the Redesigned Kill Vehicle development efforts, enhance the Stockpile Reliability Program and expand the GBI battle space.

Integrated space and terrestrial sensors for cueing, tracking, discriminating and targeting ballistic missile threats are critical to improving missile defense, our architecture and its robustness. This budget

will continue to fund the Space-Based Kill Assessment demonstration capability which delivers the capability to confirm intercepts for improved defense of the homeland. We're also continuing concept definition studies for space-based missile defense tracking sensors. If pursued, space sensors will be able to detect and track both traditional as well as emerging, think hypersonic threats -- emerging threats as part of the ballistic missile defense architecture.

The budget request will also increase the number of THAAD Interceptors to improve regional missile defenses for the protection of our forward deployed forces, allies and partners. We will continue to install the Aegis Ballistic Missile Defense Weapon System on Aegis ships and deliver Standard Missile-3 Block IB interceptors.

We are also supporting the European Phased Adaptive Approach, providing coverage and protection of NATO European territory, populations and forces against the increasing ballistic missile threat from the Middle East. Our request will support continued integration of the SM-3 Block IIA missile, which is a co-development with Japan into the Aegis BMD Weapons System.

Currently, there is an operational Aegis Ashore site located in Romania. And while we have experienced delays in the military construction portion of the Aegis Ashore effort in Poland, we remain steadfastly committed to delivery of that capability in support of EPAA Phase 3 as soon as possible.

Finally, this budget request will continue the development of breakthrough technologies for integration into the BMDS, including discrimination improvements, Multi-Object Kill Vehicle technology, hypersonic defense technology, and exploring higher-powered laser technology and interceptors that -- that have potential, a potential use against threat missiles in the boost phase of flight.

Additionally, as we evaluate the elements of the missile defense system, we will actively pursue developing elements that have multi-mission and department-wide utility, and leverage those systems, such as the F-35. The F-35 which has -- likely has sensor communication and shooter capabilities in support of the ballistic missile defense system.

Mr. Chairman and members of the subcommittee, I look forward to your questions. Thank you.

SHELBY:

Thank you, general. As you mentioned in your prepared testimony, North Korea has conducted over 40 missile test launches in just the last two years and recently displayed five ballistic missile systems. As much as you can in this setting here, could you explain how the threat from North Korea is advancing and describe the importance, general, of improving and expanding our homeland missile defenses?

GREAVES:

Yes -- yes, Mr. Chairman.

My bottom-line is it is one of the top three priorities of the agency to -- to address the advanced threat. And when I say, "The threat has voted," that's exactly what I'm referring to, the fact that North Korea has done a lot more than just talk or claim they have demonstrated advanced capability.

And 40 missile launches -- some were failures, some were not failures -- is a clear demonstration, combined with what's been said from the North Korean leadership shows direct intent to do harm to the United States and -- and its allies. So in the -- in addressing the advanced threat, that is the primary

reason, I believe, for the acceleration of the -- the funding requests to help meet that threat in -- in the future, to include the additional capacity, such as the additional missile field up at Greely, the focus on the -- not only the hypersonic threat but moving our sensors to space, the additional THAAD units and everything else we've requested.

SHELBY:

Moving over to Iran now because, down the road, a lot of us believe they pose a -- a missile threat, and probably a nuclear threat. Iran has an ambitious ballistic missile and space launch development program, as you know. This progress suggests to a lot of us that they're on a technical path to develop an intercontinental ballistic missile. Could you, in this setting -- and, if you can't do it here, can you update us on where we're going there or where do you think they're going?

GREAVES:

I -- Mr. Chairman, I entirely agree with you. Iran has direct intent to deliver and make operational, an ICBM capability. And they're doing it not only through their missile launch activity, but through their space launch activity.

Today, the -- as a reminder, the current ballistic missile defense system does protect us, the homeland, from threats from North Korea and Iran. But as the Iranian threat along with the North Korean threat becomes more complex as --as far as what they present to the ballistic missile defense system, our system needs to be upgraded to meet -- meet that challenge.

SHELBY:

You referenced the -- the Aegis Ashore system. Could you give an update on the SM-3 Block IIA interceptor that we've developed -- you've developed with Japan and when is the next planned test? I know you had a -- had a little mishap there, but -- maybe a big one, but a lot of people believe that's a sound system.

GREAVES:

I absolutely -- Mr. Chairman, I absolutely agree, that's a very sound system. And they -- the test experiments, I'll discuss in a few seconds here. But one of many different experiences we've had -- positive experiences we've had with that system. It is an extremely capable interceptor. As part of the Aegis weapon system, it is even more capable than the IB or -- or the -- the IA.

SHELBY:

Was that a mechanical problem? Was that a decoupling problem? Was that what that was, or what?

GREAVES:

The failure review board is ongoing, so I would -- I would not want to preempt the result, but I haven't (ph) got access...

SHELBY:

Sure.

GREAVES:

... To all the data from that review. And we believe that we understand the specific component that did not function as designed. And we are taking steps to correct that.

SHELBY:

The missile itself you believe is very sound, don't you?

GREAVES:

The missile itself has flown successfully...

SHELBY:

Very (ph) (inaudible).

GREAVES:

... Four out of five times.

SHELBY:

Oh, yes.

GREAVES:

It's flown past the point where the -- the incident occurred. We exonerated most of the booster -- booster and kill vehicle stages in -- as far as the -- the flight test. And a number of very, very significant achievements were accomplished during that flight test -- that flight test maritime (ph) 29 test earlier this year.

We were able to demonstrate Engage-on Remote using a -- a separated sensor to collect data and provide engagement quality data back to the Aegis Weapon System to -- to control that missile. We were able to -- to verify that we can launch safely from Aegis Ashore, which is a tremendous item that Romania, Poland, and potentially Japanese if they fall through with their Aegis Ashore purchases (ph) are -- are concerned about, so we -- that was very successful.

The missile -- the component that we're concerned about has flown successfully 9 out of 10 times. So, as of now, I am not concerned that is a -- it is a true design issue. And we're -- we're following through to identify the problem and then correct it.

SHELBY:

Thank you.

GREAVES:

And the next test will be before the end of this calendar year.

SHELBY:

And getting into funding, we already talked about it just a little and you have. Congress appropriated 2018, \$11.5 billion for the Missile Defense Agency, which was greater than five -- greater than \$3 billion above the initial request by the president.

For this year, MDA's request is \$9.9 billion. And -- it's my understanding, you've identified \$1.3 billion in unfunded requirements. General, what technology areas would you recommend, if you want to recommend, this committee consider in prioritizing these (inaudible)?

GREAVES:

Sir, the first thing I will need to say, again, is that I do support the president's budget and that unfunded list was in response to a request to see where I would spend my next dollar. And, in that list, the top priority that I laid out for the agency is to improve our sensor capability and move that sensor capability to space to primarily address the hypersonic threat, which we see as coming, as well as what we refer to as dimmer targets. So the space sensor area, the missile defense tracking system -- the MTS is the number one priority on there.

The second priority is to support the commander in -- in Korea, General Brooks, with a -- an emergency operational need to essentially integrate THAAD and PATRIOT into his Command and Control Battle Management System to optimize use of those interceptors.

And then, things like laser scaling as an example. We're going after -- we are serious about going after the technology to determine if a boost phase intercept is a reality, and one way to do that is through directed energy. And the first thing we need to do is determining whether or not we can successfully scale-up into the half a megawatt to megawatt class, lasers to do that job. So those are the key technology areas, plus cybersecurity and some other areas in -- on that list.

SHELBY:

You believe we're on track, as far as funding, dealing with hypersonic missile defenses?

GREAVES:

I believe we will be. My new boss, Dr. Mike Griffin, the new USD R&E, he's laid that out as his top priority. And I've already had several meetings with him and he's provided clear direction that the department, and he's looking at me as the Missile Defense Agency on the defense side to develop plans and capability to meet that threat. And hypersonics is front-and-center for that -- for that capability.

SHELBY:

Senator Durbin?

DURBIN:

General Greaves, good to see you again.

I mentioned to you at our meeting yesterday, I'd like to, on the record, ask for your response. Clearly, underfunding national defense is a mistake. I worry as well about providing more funds than you can responsibly allocate and spend.

Last year, the FY17 appropriation for the Missile Defense Agency was \$8.2 billion. This year, it's \$11.5 billion. That's almost a 40 percent increase; that's a dramatic increase, for any agency. My experience, many years on appropriations committees in the House and Senate, is that in -- in our haste to spend massive increases, we do foolish things.

And you find yourself many times in a situation where taxpayer's dollars can be wasted, which none of us want to see because it certainly is not fair to those we're responsible for in terms of spending the money; but, it also damages the reputation of your mission. Tell me how you, in fiscal year '18 will spend this dramatic increase in a way that doesn't run into those hazards.

GREAVES:

Vice Chairman Durbin, thank you for the question. I will tell -- let me start with the March memo that Secretary Mattis sent out, where he asked us to be stewards of the taxpayers' dollars and essentially manage every dollar as if it was our own. I made that a mandatory requirement for every single person in the agency on government -- on the government staff to read that and understand this is what direction's coming from the top. It's not business as usual.

The other thing I'd point out is at one of my previous jobs, it was -- as the programmer or the budget guy for Air Force Space Command working for General Shelton, I will tell you that it's been my track record to treat that funding as though it's my own and to ensure that the folks that work for me are spending every dollar the way it should be sent.

And then, I follow up. The -- the example I can provide is the -- the \$2 billion that was provided as part of the budget amendment. I am tracking the obligation and then ultimately the expenditure of that funding by industry weekly, and reporting it up the chain within the Department of Defense.

DURBIN:

Let me ask you this related question to expenditures, there is some support for the notion of building an East Coast ground-based missile defense site. I think it is premised on the belief that that is the only way to adequately protect the United States from a missile attack from Iran. Are the existing GMD sites in California and Alaska capable of protecting the United States from an Iranian ICBM?

GREAVES:

Mr. Vice Chairman, the answer is yes, today. What an East Coast site will bring us is additional capacity and capability if that threat matures to the point where the department decides that we should request funding to proceed with the development of that site.

DURBIN:

So where does this new East Coast-based missile defense site rank, in your priority list?

GREAVES:

Let's see, today it -- it's -- we've done the work to prepare for that decision. If that decision is made, we will review our priorities and rank it appropriately based on the threat.

DURBIN:

Well, given choices, and that's what you have to make in -- in your role here, between \$4 billion on better sensors versus building an East Coast ground-based missile defense, what's your choice?

GREAVES:

Today, without the Iranian threat being where it needs to be for us to recommend the corresponding centers at the site, it will be to improve the sensor layer. We must improve the sensor layer, period, in my opinion.

DURBIN:

Israeli cooperative programs that we've been engaged in is -- provides them with missile defense in their backyard, and please update our committee on the status of Iron Dome, David's Sling, and Arrow programs.

GREAVES:

Sir, I will say that each one of those systems is executing its -- its -- its intended mission. And I will tell you I was over there a few months ago and had a chance to see the Iron Dome operators at work, and it's providing daily defensive capability for -- for the state of Israel.

Arrow-3 and -- and Arrow-2, David's Sling, those are also progressing. Arrow-3 has been delivered to the -- to -- to the field. We are supporting Israel in their testing. I will tell you that we are both learning from each other. They have a much, much higher risk tolerance today than we do for most of our testing, primarily because of where they live and the threat that they're under, which is -- which is very, very, very immediate and close.

DURBIN:

Well, let me tell you one thing we've learned, Iron Dome's Tamir interceptor cost \$96,000. Our Patriot MSE missile costs \$4 million. Is their army, I -- I want to ask you, should we consider integrating Tamir into the Patriot system?

GREAVES:

We should consider it but I will say that those two interceptors have a different requirement space as well the set of capabilities. And the advantage of Patriot today in our system is that it's well-integrated with THAAD to take care of the -- the lower-tier defensive capability. But we should, and -- and I believe we started looking at that a while ago, but we should look at that.

DURBIN:

General Greaves, Aegis Ashore seemed to be progressing well with the successful turnover of the Romanian site to the Navy in 2016. However, construction issues with the site in Poland are delaying the scheduled operational date for two years from 2018 to 2020. Can you tell me the cause of the delays and whether you're concerned about a capability gap in missile defense for Europe as a result of the delay?

GREAVES:

Right. The cause of the concern is what we believe to be less than expected performance from the construction contractor. We are working up through the deputy secretary of defense with the CEO of that company to improve performance. And there was also a contributing of the weather over in Poland the last five months; I've heard it's been the worst it's been, at least in the last 5 to 10 years. That's constant delays, lots of rain.

But, combination of a slow ramp-up in manpower and resources as well as the weather, I believe, has contributed to it. But we are as actively engaged as we can with that contractor to -- through -- through the Corps of Engineers, to improve performance.

DURBIN:

But are you concerned...

GREAVES:

I am very...

DURBIN:

... About any capability gap...

GREAVES:

... oh

DURBIN:

... in missile defense for Europe, as a result of this?

GREAVES:

Based on the threat, I am not as concerned as I would be if the threat was a little higher.

DURBIN:

Thank you very much. Thanks, Mr. Chairman.

SHELBY:

BLUNT:

Thank -- thank you, chairman. Let me join Senator Durbin in welcoming you to chair this committee. I think particularly on this topic, Mr. Chairman, the Alabama role in missile defense and space issues important, and your understanding of what happens at Redstone and Huntsville at a time when, I think it's obvious from the conversation today, this is going to be a more critical discussion of this committee and our defense capabilities.

And, General Greaves, good to have you here. On the deployment of the Thermal (sic) High Altitude Area Defense system, the THAAD system that was announced in 2016 in Korea, we have support there from the South Korean Government still but it's met with some questions. What -- what -- what is the -- your view of the timeframe right now for a deployment of THAAD in -- on the peninsula?

GREAVES:

Senator, it's -- it's deployed today.

BLUNT:

It is deployed today and still supported by the host government?

GREAVES:

Yes, sir.

BLUNT:

And will that be -- do you have any reason to believe that's going to be part of any ongoing discussion about what happens on the peninsula with weapons?

GREAVES:

I do not personally know.

BLUNT:

On the -- well, while we're on Korea, still believe that there is a constant working relationship between North Korea and Iran on the missile programs?

GREAVES:

I have read press reports to that effect, sir, yes.

BLUNT:

Well, I have too and it appears that they rely on North Korea for at least some of the production for what they're doing in missiles. Your comment earlier, I think, was that we would believe that Iran is clearly on a path toward having a nuclear weapon unless somehow that government would dramatically change?

GREAVES:

Sir, Mr. Senator, absolutely yes. And my concern, based on a mission of -- the current mission of the agency is primarily towards rogue nations, North Korea and Iran; but it also extends to technology, which I -- as I call it, may -- that may leak into those two countries and then produce capability that's leapfrog or significantly an advance of what they currently have today. So, it's a combination of those two concerns.

BLUNT:

So, on -- on another topic, in the context you could discuss here, China is making an incredible investment in artificial intelligence. What concerns should that create for our weapons systems, generally, and the weapon systems you're responsible for, specifically?

GREAVES:

I believe it's a significant concern in that the more they can automate and have machine recognition of defensive architectures, defensive capability, the faster their decision speed is and the more capable their systems are. So we are also looking at options for integration of artificial intelligence capability into our defensive systems. But it is a significant concern of what the Chinese are doing and what products from that technological effort could leak in to rogue nations like North Korea and Iran, for which our agency's set up to defend against.

BLUNT:

And maintaining an advantage in both encryption, and protecting encryption, and penetrating other systems would continue to be one of our goals?

GREAVES:

Yes, sir.

BLUNT:

Well, I think it's something we're going to, in other settings, talk even more about. And on Iron Dome, David's Sling, and the Arrow systems, if I understood your earlier response to Senator Durbin's question that the Patriot system intercepts at a different and higher level, would that mean we shouldn't consider, also, adding to our system THAAD, Patriot, an interceptor more like -- more like what we're seeing in our cooperative efforts with Israel?

GREAVES:

Mr. Senator, we should always review and assess additional capabilities that we can integrate into the Ballistic Missile Defense System. The -- the Israelis have their layered concept, we have our layered concept, which -- and our layered concept, I'll speak on that. Patriot, THAAD, Aegis, BMD, they overlap for a reason; to provide redundancy at those inflection points, between those systems. But we should be looking to see, based on resources and priorities, whether or not we -- we could integrate some of those capabilities into our Ballistic Missile Defense System.

BLUNT:

Would that system, in -- in your view, compete with the Patriot system, or add yet another level of defense in addition to the Patriot system?

GREAVES:

It -- it, as a minimum (ph), will compete. And -- and if you take its capability out a little further, it will contribute. It'll be another layer, another redundant system that we can use to provide BMD capability.

BLUNT:

And just to remind us once again of the value of that cooperative effort with Israel, is there any similar way we could learn what we've learned in that cooperative effort that we've had with Israel on that level of missile defense?

GREAVES:

Not in my opinion, senator. It's...

BLUNT:

Thank you. Thank you, Mr. Chairman.

SHELBY:

REED:

Thank you very much, Mr. Chairman. Thank you, general, for your service. And you are in the process of now trying to accelerate the fielding of the Redesigned Kill Vehicle, the RKV. And in the defense bill, the defense act of 15 we put in a "fly before you buy." That has become fly before you field because you're trying to move this along quickly.

Can you describe what the difference is, how we can assure reliability for the system? We've had a lot of experiences in MDA, prior to your arrival, of systems that were very expensive and ultimately not deployable because they just didn't work very well. So can you give us a sense of how you're going to handle this RKV issue?

GREAVES:

Yes, Mr. Senator. I will start out by saying that we paid special attention to that language...

REED:

Thank you.

GREAVES:

... To -- to adequately assess and test elements of the BMD, before final -- final decisions to deploy and -- and operate. And it is -- it is an engineering task. It is a acquisition task, to balance the capability that you plan to deliver with the threat situation at the time, and credibly -- and, I am sincere about this -- credibly deliver an acquisition strategy that meets both, if you can do it.

In this case, for the -- the RKV effort, what we've worked with the department is a gated, it is a milestone-driven, it is a multi -- it's just -- it's a sequential decision point based on achievement acquisition strategy. So we have not been given carte blanche to go spend every single dollar and deliver the RKV as soon as we can.

As an example, the first decision point was to get support and authorization to spend \$56 million to do long lead for the first set of -- of boosters. What we did was look at what that \$56 million would buy us and what percentage of the articles covered by that \$56 million were either -- had either flight experience, lab experience, ground test experience. And what we found out is of that \$56 million, I think it was \$1.8 of that \$56 million was -- was new.

So -- so after the engineering team, to include me, after we looked at whether or not it was the right thing to do, I decided and received support from the department to move ahead with that. Same thing is going to happen when we get to decision points two and three, they're going to be gated by flight tests.

GREAVES:

The first is the control test vehicle 03+ (ph), where we will fly the RKV against a target, and purposely not intercept because intercept tests only give you a point solution, point experience. We will fly it into the box and then exercise against the larger performance box to gain performance experience on the round itself, and on the system. And that will guide the second decision, and -- and likewise, the next intercept test later, so.

REED:

And just because (ph) this raises the question of, if you reach your point where the -- the system's not performing, what is your obligation to go forward and -- and abide the system? I mean, that's usually the problem we face.

GREAVES:

Right.

REED:

We have a system that doesn't work but we have contract, we've got to buy the thing anyway. Are you in that position?

GREAVES:

No, sir. In fact, the RKV is 62 percent by the way we've -- we calculate it, reuse experience with -- with new components making up the rest. We were successful in getting administration support for acceleration of the qualification program for those new components, the ground testing for those new components, to reduce that risk.

So, it's -- it's not the -- and this is really important, it's not the Missile Defense Agency being given dollars and say, "Go off, spend it. Come tell me when you're done." Dr. Griffin, Ms. Lord, up at that level as a minimum DOT&E, others will be reviewing what we're doing.

REED:

Let me shift gears, cyber is the number one topic at -- at every conversation I have with anyone in the building. So that raises the question, what are you doing with respect to hardening your systems with respect to cyber, working with DOT&E -- because they've been somewhat critical of the cyber-capabilities of MDA, so can you give us an idea of what you're doing? And also, for how you're cooperating with the Navy in terms of Aegis and the Army in terms of Patriot, and THAAD, and other systems, so it's not just the ground-based system which is being cyber-proofed, it's everything?

GREAVES:

Let's see, the agency is working very closely with General Behler over at DOT&E, Mitch Crosswait over there, the entire staff, to assess our cyber-preparedness and the actions we need to take in the future.

One of the major things we're doing, we developed these cyber systems (ph) teams that the agency took the initiative one or two years ago to send these teams into our major primes (ph) and assess their readiness -- their cyber-readiness and make recommendations on how to change.

We're also working very closely with DOT&E on our cyber-vulnerability testing that we're doing, our adversarial testing that we're doing. And I will tell you, this is a learning process for, I think the nation, as well as the Missile Defense Agency on the importance of addressing this cyber threat.

I -- I remember, you know, 2008, 2009 you really could get anyone to -- to do a password that was strong, I mean, people didn't really take it seriously. Today, it's very different. Today, it -- it -- it's one of the top priorities within the agency to assess our cyber-readiness, test for vulnerabilities, and -- and request resources to fix them.

REED:

Let me follow up quickly, because yesterday we had your colleague in the Air Force, the TRANSCOM commander. And he was very eloquent about how the civilian components, the aircraft, the shipping industry, some of them are very sensitive to cyber and some are totally dismissive -- and I won't -- I'll be -- or at least not as appropriate. Are you finding in your contractor base, your private contractors and subcontractors, the kind of sensitivity to cyber issues protecting intellectual property, you know, searching their systems constantly for intrusions, are you finding that or are you finding something less enthusiastic?

GREAVES:

I'd say the top tier, absolutely, they're -- they're serious about defending their -- their systems from cyber-intrusions. Second tier, third tier, that's where the concern is and it gets into the expense, from their perspective, of adhering to the maturing cyber-requirements within the department and -- versus working with us or going somewhere else to do their business.

REED:

Yes, a problem, of course, is our adversaries recognize that the back doors is usually open, and that's the second tier and they're...

GREAVES:

Yes.

REED:

... They're probably there.

GREAVES:

Yes, sir.

REED:

You'll have to watch them.

GREAVES:

But that is not precluding us from digging deep within the second and third tier contractors to identify where that risk is, and -- and make recommendations, and stronger action if required through the primes (ph) to get things fixed.

REED:

Thank you, general. Thank you, Mr. Chairman.

SHELBY:

Senator Moran.

MORAN:

Mr. Chairman, thank you. Let me join my colleagues in congratulating you on your ascension and I look forward to working with you here (ph) --

REED:

I forgot to congratulate you, sir.

MORAN:

I didn't hear what Senator Reed said.

REED:

I said, I forgot to congratulate you -- I'm sorry, your -- your honor, your reverence, your.

MORAN:

I -- any words that you didn't use, I would use, Mr. Chairman. We're delighted to work with you on this subcommittee and on the full committee and I look forward to it. One of my goals has been to make sure that we do everything we can to get the United States Senate to function. The appropriations process is key to that, and I know you are committed to doing that, and I want to be your ally.

General, thank you for the time that you -- generous time that you devoted to me and my staff yesterday. Many of my questions, we addressed in that setting. Senator Durbin raised one of the topics, my staff tell me, in my absence.

He asked about the Aegis Ashore site in Poland and I just would add my concern. This is a bit of my past role as chairman of MILCON and the ability to get these projects done on time. Two years down the road, that's a problem I assume, in Europe, but if it was elsewhere it may be even more of a problem.

And I would encourage you to tell us and for you to pursue every opportunity to get the Army Corps of Engineers and others to do their work in a way that brings these projects in on time. And I will, having not heard Senator Durbin but trusting his judgment, I associate myself with what he had to say about this comment -- about this topic. Thank you.

Let me turn to the F-35 Ballistic Missile Defense mission. General, how does MDAs Ballistic Missile Defense mission benefit from the F-35 platform and the Air Force's F-35 Distributed Aperture System?

Are there opportunities for synchronizing this concept with other platforms and industry partners in developing technologies for the F-35 today?

GREAVES:

Thank you, Mr. Senator. We -- we see that deployed capability as a -- a, if not a game changer, a significant contributor to future Ballistic Missile Defense capability. As I was talking with the Undersecretary for Policy, Secretary Rood, we -- he suggested -- and I immediately agreed with him that just about any AOR that we would need to deploy to, to mitigate a conflict, platforms such as the F-35 will be present.

For platforms with significant capability, you mentioned the DAS, and our job is to look outside of the classic missile defense system, the THAADs, and the LRDRs, and the UEWs, and the COBRA DANE radars, and look for sensors or shooters that would be able to contribute when integrated into the -- into the BMDS. And we see the F-35 as one such platform.

And we've been working with the Air Force for the last -- at least the last few months, and then we did a test with them a few years ago on that platform to demonstrate that capability. The concept is any shooter or any sensor connected with our Command and Control Battle Management System to -- to mitigate some or part of the threat.

So those platforms are likely going to be where the conflict is in significant numbers, large numbers. And the -- the -- the opportunity we have is to leverage, as an example, that sensor capability, integrate it with other sensors and -- and BMDS sensors, and then provide engagement-quality information to our interceptors. So it's -- it's a tremendous potential that we're going after.

MORAN:

If we -- if we looked at a timeline, how you see things develop over the -- the future?

GREAVES:

Let's see, I'd say six to seven years to essentially work the concept of operations, which is not my area, that -- that's for the combatant commander. The -- the resource -- dedication for those resource to some or part of the -- of the BMDS mission, that's a service issue to go work (ph). But working with them to not only develop the capabilities if it's sensor-based or if it's a new fast missile that's hung on the end of a -- the bottom of an F-35 to -- to do the BMDS mission, integrate those capabilities, test them and deliver them into the theater (ph) for operations.

MORAN:

General, thank you. I'm going to submit to you for your written response, issues related to MDAs need for, or your evaluation for need for future-based launch services. And we had a bit of that conversation yesterday. And I'll just submit that in writing and ask that you respond to me and the subcommittee.

GREAVES:

Yes, Mr. Senator.

MORAN:

Thank you, for your service. And thank you, for your testimony. Thank you, Mr. Chairman.

SHELBY:

General, just to follow up on a thought, a concentrated -- area of concentrated energy, lasers and so forth. There's a lot of research going on all over the world, especially with us, too. But that's -- that's a very promising area, is it not, dealing with defense?

GREAVES:

Yes, Mr. Chairman. And there's a lot of research going on in the directed energy laser area. But, the question I -- the next question I always ask when that discussion comes up --- which power region are you in? Are you in a low power of 5, 10 watts, you know, 1 kilowatt? Or are you on the right end of the --

SHELBY:

You've got to have the power.

GREAVES:

You've got -- you've got to have the power, sir.

SHELBY:

So it's not an abstract concept, is it?

GREAVES:

No, sir. We've done the studies. We know how much laser energy on target we need to affect for both liquid versus solid missiles and it's a -- it's a different power level. But we've got to do the technology work, in my opinion, to demonstrate that capability.

SHELBY:

But we've -- we've seen a lot of hope and promise in that area, have we not?

GREAVES:

Yes. And the concepts in the past were somewhat limited by technology; take the Airborne Laser program, 40,000 feet in the atmosphere, massive beam control issues or challenges with that program, as well as how many shots it could take and its flexibility. Technology has progressed. We're now working with Fiber Combined Lasers, Diode Pumped Alkali Lasers, working also, at a lower-level, on the platforms that would have to deploy these lasers, higher altitude.

SHELBY:

Platform's the key, isn't it?

GREAVES:

It's one of the keys, beam stability at 60,000 foot plus level.

SHELBY:

Do you believe you have enough resources to continue in that area? Is that an area that's underfunded, or is funded adequately, or what do you want to get back with us on it or what?

GREAVES:

Would love to get back with you, Mr. Chairman, but the bottom-line is we will need additional funding if that remains a priority for the USD R&E, which I believe it is. And I believe we should see that as --

SHELBY:

When you're doing R&D, you -- you want to put your forces -- I mean, your resources in areas where there's promise though, don't you?

GREAVES:

Yes, Mr. Chairman.

SHELBY:

Because you've got to prove it.

GREAVES:

Yes, Mr. Chairman.

SHELBY:

Senator Durbin, do you have anything?

DURBIN:

Since we have a minute here and Senator Shelby's opened this door about new technology, could you comment on the hypersonic -- use of hypersonic vehicles and other craft, and...

GREAVES:

Yes.

DURBIN:

... Whether that is the future or whether we have defenses we are considering against it, as much as you can say in an open setting.

GREAVES:

Yes, Mr. Vice Chairman. I will tell you that I'm not a fortune teller, but I know the future. I know that hypersonic, that threat is real and it's coming. Just the open press reports on what the Russians and Chinese have been doing in that area for the last 5 to 10 years should be cause for concern. And so, it's - it's just a matter of time before they have fully developed that capability and -- and operationalize it.

And although we in the Missile Defense Agency are not designed -- set up, mandated, to defend against, you know, throngs of missiles coming from Russia and China, the concern is that technology leaking into the -- the space that we have to deal with, rogue nations, and North Korea and -- and -- and Iran.

And it starts with sensing, it starts with birth to death tracking of that maneuvering target. For a ballistic missile, it flies pretty much from the ground into space and then back onto the ground. The hypersonic threats that we're -- we're envisioning, will fly at a much lower altitude, closer to the real atmosphere, maneuver in the atmosphere, and then get to the target.

So, unlike a ballistic missile where you can -- or, a threat missile where you can fairly with certainty predict -- depending on where it's launched from, what direction it's going in, how high it gets -- where it's going to land, with these maneuvering threats, you must maintain custody from -- from birth to death. Plus, with the concern with more complex countermeasures that these threats will produce to confuse our defensive systems, the ability to maintain that custody becomes even more important.

So once you've developed an acceptable, robust -- if you want to call it, sensing architecture, then the other side of the equation, the -- the interceptor piece, do we need a new, faster interceptor to -- to combat the -- the hypersonic threat? There's a command and control system, do our CONOPS (ph) need to change? Which is -- the answer's yes, force projection needs to change, the answer is yes. So that's all doable, but the longer we wait the harder it gets.

DURBIN:

Thank you.

SHELBY:

Senator Daines.

DAINES:

Thank you, Mr. Chairman, and congratulations on assuming the -- the duties of the chair, both here and on the full committee. Lieutenant General Greaves, I thank you for your testimony today. And thank you, again, for your service to our great nation. I was just in South Korea the week before last, had an excellent brief from General Brooks.

We also had a chance to peer North Korea from the Yalu River. We were up there in Shenyang and then came down to Dandong. And I had four other senators with me, and just, again, the -- the sobering view and reminder of the threats we face today, and why we're here today, this very important topic.

Last year, as you know, North Korea made significant advances in its ballistic missile technology, including two ICBM missiles that are capable of hitting the United States and testing a nuclear warhead that's reportedly 10 times stronger than what we dropped on Hiroshima. Congress responded by providing \$2 billion in additional funding to expand our defensive options and to accelerate new technologies. I appreciate the opportunity to discuss how those funds are being used to improve the safety of the American people.

Perhaps our strongest deterrent against military action by North Korea is America's robust nuclear triad. As of July 2017, our entire ICBM force is now within North Korea's reach. That's a sobering thought, speaking as somebody who has a third of those ICBMs that we have in our nation in my home state of Montana. And although a strike on our homeland would result in the assured destruction of his regime, who can say when Kim Jong-Un might take a shot.

General, I understand that many of the investments Congress is making today may not result in stronger defenses until 2023. Are we keeping pace with North Korea's threat? Or are we too saddled by regulation and institutional inertia?

GREAVES:

Senator, I'll answer those two questions. I believe we are keeping pace and it's due to support that this mission area has received within the Department of Defense, within the administration, and especially over here within the Congress.

And I mentioned earlier that the demonstration of that commitment was no clearer than the F.Y. '17 Above Threshold Reprogramming as well as the -- the budget amendment that -- that you mentioned. That was a clear indication of the seriousness of which this Congress is taking this mission area.

We are keeping pace but it will require continued focus by all the elements I mentioned to deal with the advanced threat that we see, now projected within that '24, '25 area. We can defend the nation from a North Korean threat and Iranian threat today; but, as their capability becomes more lethal, and more numerous, and more complex we need to do the things that -- that we've laid out in the budget to include increasing our sensor capability, increasing our Command and Control capability (ph).

You mentioned -- you mentioned Korea, THAAD and Patriot share the Terminal Defense portion of the layered missile defense. Doing things to increase the interoperability between those -- those two systems --

DAINES:

General, we stopped on the way over. We had to have some crew rest and refueling at Elmendorf-Richardson on the way over. And I had a chance to chat a little what's going on at Fort Greely as well. Can you just comment around how important, what's happening at Fort Greely there, overall to our -- our -- our defense of our country?

GREAVES:

It is extremely important, the fact that we are increasing our capacity as well as our capability with the additional 20 GBIs that's going into Missile Field-4 (ph). Not only are we going from 44 GBIs to 64, but those GBIs will be tipped with the higher reliability RKVs. And that will be a significant enhancement to our -- our GMD capability.

DAINES:

Well, just shifting gears, while certainly these rogue states post the most eminent risk, peer competitors such as Russia are testing the United States' mettle (ph) by openly violating weapons treaty obligations and flaunting new technologies designed to evade U.S. air defense systems. Given Putin's recent claims of an operational hypersonic cruise missile, how will this budget advance the fielding of space-based sensors and interceptors?

GREAVES:

This budget will allow us to continue to the discussion of the need for space-based sensors, and hopefully get to a decision very quickly on requesting the funding to make that a reality. And as far as

Mr. Putin's comments, those are alarming. Those have caused us to provide additional emphasis on the capability we need, to defend against such things as he mentioned, the hypersonic threat.

DAINES:

As I mentioned, just the week before last, I led my third annual code of ethics to China, where I lived and worked, actually, for nearly six years in the private sector back in the 1990s. Many of my colleagues are often surprised by the pace of innovation in technology in China, which rivals our own here in the United States.

We should not underestimate how this innovation is being applied to the modernization of China's nuclear arsenal. General, are the U.S. missile defenses in disputed territories, such as the South China Sea, adequate to defend our global interest and assure our regional allies?

GREAVES:

Mr. Senator, the answer is yes, for today's threat. And as we look at the alarming rate of modernization in countries such as China and the resources that they're applying to improving their offensive capability, we will need to improve our defensive capability to provide that offset to have confidence that we can defend against that capability, not necessarily in the numbers coming out of China, that's not what we're -- we're set up to go do. But that technology and capability, as I call it, leaking in to, or being used, or being provided to these other rogue nations.

DAINES:

And building on my colleague Senator Reed's earlier question, cyber has become a central mission to China, for China to advance its own interest around the world. How are you defending current missile defense systems against China's threat and building resiliency into emerging capabilities?

GREAVES:

Senator, through -- beginning with the design, but most importantly for the systems that we've got today, the cooperative vulnerability penetration assessments as well as adversarial assessments. Getting our own red teams, not only from within the Missile Defense Agency, but from outside the Missile Defense Agency to assess the -- the capability of our systems to defend themselves, or to be resistant or -- or -- or preventing, you know, intrusions. So that's a very serious area for us.

DAINES:

Thank you, general. Thank you, Mr. Chairman.

SHELBY:

Senator Collins.

COLLINS:

Thank you very much, Mr. Chairman. General, yesterday when we talked in my office, we discussed the development of hypersonic missile technology by China and Russia. Today, I'd like to ask you another question about that, and that is, what do you assess as the risk of this technology proliferating to countries like North Korea or Iran?

GREAVES:

Senator Collins -- Senator Collins, I assess that risk as extremely high. I -- I don't see what will prevent it from happening. And that is why, with my boss Dr. Mike Griffin, I believe that the hypersonic threat is something that we need to address expediently. And it's the primary reason driving our thoughts on the need to move our sensor -- our sensor capability to space, to work with the ground sensors to help mitigate that threat. So, it's a very serious threat.

COLLINS:

How much should we orient our missile defense systems towards North Korea and Iran as -- at the expense of focusing our efforts toward more capable threats such as Russia and China? How do -- how do we weigh where we put our resources, given the number of serious threats that we face?

GREAVES:

Yes, senator. That specific question is being debated, and discussed, and integrated into the ongoing missile defense review. And the -- those results from that review will shape the priority and -- the -- the answer to the priority question that -- that -- that you're -- you're asking.

I -- I would say that, solely based on demonstrated performance from those two -- those two countries, Russia and China, it will absolutely drive a -- a -- a significant look at those capabilities and the risk of proliferating those capabilities into rogue nations. So, as a minimum, we will be -- we will need to address that technology and that capability, even if we're looking solely at the classic North Korea and Iran threat. But depending on what's produced -- or -- or guidance, direction, policy changes that come out of the missile defense review, that can -- that can expand.

COLLINS:

And finally, we also talked about the success of the Iron Dome Program that has helped to protect so many Israeli citizens from missile attacks. What do you see as other opportunities to increase our missile defense cooperation with Israel, building on the -- the success of Iron Dome, Arrow, David's Sling?

GREAVES:

Senator Collins, I -- I absolutely believe that we should be assessing the integration of those capabilities where possible, where feasible, to either augment or if they are better capability make decisions on whether or not we should integrate them wholly into our -- into our Ballistic Missile Defense System.

You know, as I walked around Tel Aviv and other places within the last three to four months, that threat is real. They live with that every day. It's -- it's something that I think the closest we've come to it recently is the unfortunate incident out in Hawaii where -- where it was not a real threat but it felt like it for 38 minutes. They live with that every single day.

And they are very aggressive on -- on their technology development, their tests approach. They -- they test fail, fail, fail tests, success move on, which I think is something that will benefit us as we look at how we approach fielding our systems, so, yes.

COLLINS:

Thank you. Mr. Chairman, I know that it's already been asked about the Eastern site for a missile defense, and I just want to weigh in that that's obviously important that we protect the entire country. Thank you.

SHELBY:

Senator Murkowski.

MURKOWSKI:

Thank you, Mr. Chairman. Mr. Chairman, I -- I want to congratulate you. I look forward to working with you as you ably lead this -- this very important Appropriations Committee, so looking forward to that.

SHELBY:

I look forward to working with all the members.

MURKOWSKI:

Thank you. Thank you. And, general, thank you. I appreciated our conversation yesterday and a little bit of a precursor, talking about some of the initiatives that the agency has up in Alaska that are providing not only for that -- that robust defense from places like North Korea, Iran, but also making sure that we've got everybody covered. And I think that whether you're in Alaska, or you're in Maine, or parts in between, we want to make sure that we're covered here.

I had an opportunity over this -- this past work recess to be out in -- in Kwajalein (ph) and see our assets that we have placed there, that are on the other end. We've got Alaska up to the north and -- and then down in the middle of, just an awful lot of water out there, the -- the -- the facilities there at Kwajalein (ph) that -- that allow us to do the level of testing that we need to do for -- for our missile defense. It was -- it was very, very important to see and to be able to kind of put all those pieces together.

But I appreciate the -- the administration and their focus on -- on what we're doing within the F.Y. '19 MILCON as it relates to -- to Fort Greely and the expansion there, with the missile fields and making sure that we not only have robust assets there that are in the ground, but making sure that we're able to -- to ensure that we're able to maintain additional silos, that we're able to keep the required 44 operational.

And so, the effort to increase the GBI availability through -- through additional assets, I think is important. And we're certainly supportive of that, as we are with all the efforts that are underway with the Long Range Discrimination Radar out there in -- in Clear with its ability to -- to really be the -- the -- the eyes, the sensors in -- in terms of understanding what may, or -- or may not be coming at us from the threat.

I think we are keenly aware in Alaska with our geography, that with regards to -- to recent events in -- in North Korea, the rising tension with -- with Russia, to make sure that we are -- are amply prepared is a -- a national security priority. And the focus that has been placed in ensuring that we place this priority is -- is significant and, again, appreciated.

So, I guess, general, I'd ask you this morning to just stare briefly a synopsis of the capabilities that you believe that -- that the Long Range Discrimination Radar site in Alaska, along with -- with what we have in place in Greely and what we are building out, what it provides to the defense of the nation. Because I

think for colleagues such as Senator Collins who wants to make sure that -- that there is a level of protection, I think it's important that we understand that we have expanded, and I think appropriately expanded, our -- our defense in these areas. So, if you could just quickly address that, I'd appreciate it.

GREAVES:

Senator Murkowski, thanks -- thanks for the question. And let me frame the response in terms of the priorities we got within the agency. The top priority being to increase the reliability of the systems we've got -- that we have deployed today, to include the GMB system as example, Ground-based Midcourse Defense. So increasing reliability, building confidence in the warfighter, those systems will work.

The second priority is increasing our capacity and capability. So the additional 20 GBIs going into the ground in Missile Field-4 (ph) at Fort Greely, that expands the arrows in the quiver, as we call it, as well as they will be tipped with the Reliable (ph) Kill Vehicle, the RKV, to increase our capability.

As far as the radar at Clear, that will be a tremendously important asset for it. Because what it does is it provides -- it will provide what we call midcourse discrimination as well as tracking. And the goal is to make the job as easy as we can make it on the kill vehicle, so it has less chaff and countermeasures to try to discern on its own. And the more we can do that during the flight of the threat missiles towards the target, the easier it is and the higher confidence we'll have in intercepting the -- the threat vehicle. So the LRDR will be looking far out to execute both of those -- those very important missions, the tracking mission and most importantly the discrimination mission.

Plus, we hope that we're not doing that mission too often, but it'll be there when ready, but when it's not executed in the Ballistic Missile Defense mission, it is a -- will be a magnificent asset to do Space Situational Awareness for the United States Air Force as part of their mission. So it will have dual mission capabilities, primary mission being Ballistic Missile Defense and secondary (ph) mission to support SSA for the Air Force.

MURKOWSKI:

Very important. I -- I think we recognize that the Missile Defense Agency has been -- has been tasked with not only an extraordinarily important mission of -- of defense of the nation, we are asking you to do things quickly, moving in a -- in a -- in a direction that anticipates what the next threat will be. And in doing so, we've entrusted you with a -- a fair amount of -- of taxpayer dollars to do what you feel is -- is important to the authorities within your agency.

With regards to the priorities of the organizational structure and your ability to -- to effectively meet the mission with the dollars that you have been given, are you comfortable with your ability to -- to carry out these responsibilities, to -- to utilize the -- the -- the significant influx of -- of a funding that you're seeing to help you do this? Operationally, are you satisfied with where you are? Do you foresee any changes?

GREAVES:

Thank you, Senator. The answer is, based on the organizational construct laid out in DOD Directive 5134.09, that's where it lays out my responsibilities, my authorities, and my accountability as well as the remainder of the department. I will say the Missile Defense Agency is built to do exactly what you're concerned about in the questions you're asking.

It's built for speed, it's built for rapid decision-making in -- in positions of authority that have the requisite experience to make those decisions. So my concern today is the interface with the remainder of the department to ensure they can operate at the speed that we can operate, to deliver the capability that this nation needs in the timeframe that it needs it.

I will tell you, I am very encouraged with both Ms. Lord as the A&S (ph) and -- and Dr. Mike Griffin as the new R&E, and what they've stated as far as their priorities to ensure that -- and the deputy secretary of defense, actually -- looking at where the bureaucracy is the department to weed it out and streamline it. So that we can make these decisions and make it by -- make the decisions with people who know what the heck they're doing.

Not everyone gets a vote, but the bureaucracy, from my 35 plus years of experience within the department, there are number of entities within the department that think that they get a vote every time we need to make a decision. But I am very encouraged with the authorities that I've got today, the responsibility I've got today, the accountability that I've got -- that I'm responsible for today with the leadership that exists that we're going to drive that out.

And that will be the key, I believe, to ensuring that we follow the processes we've got in place. We've got some very robust processes. I -- I -- I mentioned the fact that the \$2 billion that was in the -- the budget amendment, we are tracking that. I am tracking the obligation and execution of those dollars, as a minimum on a weekly basis, if not on a daily basis, to ensure that we remain credible with you all on -- on the funding that you've provided that we are actually providing capability with that funding.

So we've the processes in place, we just need to execute it. And we need to move the chaff out of the way and trust the folks who have been placed in positions of authority to make the decisions and move out. I hope that answers the question.

MURKOWSKI:

It -- it does, and I thank you for that. And I know that we all look forward to working with you to accomplish this mission. Thank you, Mr. Chairman.

SHELBY:

Thank you. General, we appreciate your appearance here today, your candor with us. And we look forward to working with you.

Some of the senators are in other committees today, but they might have additional questions for you. And I would request you respond to them, as you always have, in a reasonable timeframe, maybe 30 days or so. Now the Defense Subcommittee will reconvene on Tuesday, April the 17th at 10:00 a.m. here to receive testimony from the National Guard and Reserve leadership.

The subcommittee now stands in recess.

Source: CQ Transcripts