#### Stenographic Transcript Before the

### Subcommittee on Strategic Forces

# COMMITTEE ON ARMED SERVICES

## **UNITED STATES SENATE**

### HEARING TO RECEIVE TESTIMONY ON BALLISTIC MISSILE DEFENSE POLICIES AND PROGRAMS IN REVIEW OF THE DEFENSE AUTHORIZATION REQUEST FOR FISCAL YEAR 2017 AND THE FUTURE YEARS DEFENSE PROGRAM

Wednesday, April 13, 2016

Washington, D.C.

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1	HEARING TO RECEIVE TESTIMONY ON BALLISTIC MISSILE DEFENSE
2	POLICIES AND PROGRAMS IN REVIEW OF THE DEFENSE AUTHORIZATION
3	REQUEST FOR FISCAL YEAR 2017 AND THE FUTURE YEARS DEFENSE
4	PROGRAM
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6	Wednesday, April 13, 2016
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8	U.S. Senate
9	Subcommittee on Strategic
10	Forces
11	Committee on Armed Services
12	Washington, D.C.
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14	The subcommittee met, pursuant to notice, at 2:34 p.m.
15	in Room SR-222, Russell Senate Office Building, Hon. Jeff
16	Sessions, chairman of the subcommittee, presiding.
17	Committee Members Present: Senators Inhofe, Sessions
18	[presiding], Fischer, Sullivan, Lee, Manchin, Donnelly,
19	King, and Heinrich.
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- OPENING STATEMENT OF HON. JEFF SESSIONS, U.S. SENATOR
- 2 FROM ALABAMA
- 3 Senator Sessions: The committee will come to order.
- 4 Senator Donnelly is on the way and will be here in a
- 5 few minutes, but I will go ahead and start with some of my
- 6 opening comments. I do not think there will be anything
- 7 particularly controversial.
- 8 The Strategic Forces Subcommittee meets today to
- 9 receive testimony on ballistic missile defense policies and
- 10 programs in review of the defense authorization request --
- 11 there he is -- for fiscal year 2017 and the future years
- 12 defense program.
- We are joined today by Mr. Brian McKeon, Principal
- 14 Deputy Under Secretary of Defense for Policy, to provide the
- 15 policy and strategy foundation for our missile defense
- 16 programs.
- 17 As Commander of U.S. Northern Command, Admiral William
- 18 Gortney is the principal military officer responsible for
- 19 conducting the defense of the homeland against ballistic
- 20 missile strikes and has done a good job in that, Admiral.
- 21 And thank you for your service. I do not know. Maybe you
- 22 can tell us if you are going to be leaving us, but we
- 23 appreciate your service. It has been tremendous for the
- 24 United States of America.
- Vice Admiral James Syring has been the Director of the

- 1 Missile Defense Agency for the past two and one-half years
- 2 and has done a remarkable job improving the reliability and
- 3 effectiveness of our homeland and regional missile defense
- 4 systems.
- 5 And finally, we are joined by Lieutenant General David
- 6 Mann, the Commanding General of the U.S. Army Space and
- 7 Missile Defense Command and the head of the Strategic
- 8 Command's Joint Functional Component Command for Integrated
- 9 Missile Defense.
- 10 Today the United States and its deployed forces enjoy a
- 11 good measure of protection against ballistic missiles of all
- 12 ranges. However, the Army and Navy service chiefs warned in
- 13 2014 in a letter to the Secretary of Defense that, quote,
- 14 the growing challenges associated with ballistic missile
- 15 threats that are increasingly capable continue to outpace
- 16 our active defense systems and exceed our services' capacity
- 17 to meet combatant commanders' demand. Close quote.
- 18 Likewise, Mr. McKeon, you told Congress that, quote, as
- 19 North Korea and potentially Iran makes progress on ICBM
- 20 class missile technologies, we must be prepared to address
- 21 new, more complex threats in the next decade. Close quote.
- 22 In other words, despite considerable progress, there is
- 23 still more to do with respect to both homeland and regional
- 24 missile defense systems. Yet, while the military need for
- 25 missile defense continues to increase, funding for the

- 1 Missile Defense Agency has been on the decline and is
- 2 projected under this budget request to decline further over
- 3 the next 5 years.
- In fiscal year 2008, MDA funding was \$8.8 billion. I
- 5 believe that is reflected in this chart here that is up with
- 6 the jagged green line. We were at \$8.8 billion, whereas in
- 7 fiscal year 2017, the request for MDA is \$7.5 billion. All
- 8 told, MDA funding has declined 14 percent over the past 10
- 9 years. And I believe that is in constant dollars not
- 10 inflation-adjusted dollars.
- 11 So let us see the next chart. So this I think gives a
- 12 visual, colleagues, if you see it there, of the fact that we
- 13 are seeing a real reduction.
- 14 The next chart, please. The share of MDA funding going
- 15 to research and development has decreased by 28 percent from
- 16 fiscal year 2008 through 2016, with a rising share of the
- 17 funding devoted to procurement and operations and support.
- 18 This means there is less funding available for advanced
- 19 research.
- 20 Colleagues, if you all would look at this chart. I
- 21 think you may have a copy. If you would pull it out, I
- 22 think it is worth taking the time to take a look at it.
- 23 What we are seeing is not only has the budget declined
- 24 14 percent, but the blue, yellow, and red represent funding
- 25 items that MDA is now paying for they did not used to pay

- 1 for. In 2008, their entire budget virtually was research,
- 2 development, test, and evaluation. So you can see the
- 3 erosion of MDA's research and development budget is more
- 4 significant than I had realized, frankly. And I would note
- 5 I am not prepared to criticize, Secretary McKeon, the fact
- 6 that MDA is now doing procurement and other things. It
- 7 might be good. However, it seems to be coming straight out
- 8 of their research budget, which I think is something we need
- 9 to be aware of as we go forward.
- 10 The future years request continues the overall trend of
- 11 reducing both MDA funding and the R&D share of that funding.
- 12 MDA top line for the year 2021 is 8 percent below the fiscal
- 13 year 2016, another 8 percent drop, and the R&D share of that
- 14 funding declines to under 70 percent for the first time.
- 15 So I hope to explore with the witnesses the implication
- 16 of these trends and what they mean for addressing ballistic
- 17 missile threats in the next decade and beyond. Without
- 18 sufficient funding for the advanced technologies and new
- 19 approaches to missile defense, I am afraid the United States
- 20 may not stay ahead ballistic missile threats, at least not
- 21 in a cost-effective manner, which in this budget environment
- 22 is certainly critical.
- In any event, these are issues that the next
- 24 administration will have to address in its review of
- 25 ballistic missile defense policy and funding.

1	So I turn to Ranking Member Donnelly for his remarks.
2	And thank you, Senator Donnelly, for your good work on this
3	committee and the interest and extra time you have taken to
4	stay on top of the many issues we deal with.
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- 1 STATEMENT OF HON. JOE DONNELLY, U.S. SENATOR FROM
- 2 INDIANA
- 3 Senator Donnelly: Thank you, Mr. Chairman. And I want
- 4 to thank Senator Sessions for holding this hearing.
- 5 Let me also thank today's witnesses for testifying. We
- 6 very much appreciate your time and the work you do in the
- 7 service of our Nation.
- 8 Protecting our country, our forward-deployed troops,
- 9 and our allies around the world is of the utmost importance.
- 10 I spent a week in the Middle East last month visiting
- 11 Israel, the UAE, Bahrain, Iraq, and Spain to discuss the
- 12 threat posed by Iran's ballistic missile program and to
- 13 review U.S. and allied missile defense systems in the
- 14 region. In light of the provocative behavior we have seen
- from both Iran and North Korea in the past 6 months, I
- 16 believe our investments in this area are as important today
- 17 as they have ever been.
- I am pleased at the improvements we are making in the
- 19 reliability and effectiveness of our missile defense
- 20 systems. I credit that in large part to both the bipartisan
- 21 support in Congress for robust missile defense funding and
- 22 MDA's committed ability to prioritize investments where they
- 23 are most needed.
- That needs to continue. We need investment in things
- 25 like the redesigned kill vehicle and improved sensor and

- discrimination capabilities to improve the ability of our
- 2 systems to defeat incoming threats. While we must proceed
- 3 with urgency, we have to learn from the mistakes of the past
- 4 and be sure we are conducting smart simulation and testing
- 5 on these systems before we commit to buying and fielding new
- 6 technologies.
- 7 If there is one message that I carried back with me
- 8 from the Middle East last month, it is that while we
- 9 continue to improve our homeland defense systems, we cannot
- 10 take our eye off the ball when it comes to protecting our
- 11 deployed troops and reassuring our allies and partners
- 12 overseas. Our Aegis ships and THAAD and Patriot batteries
- 13 are in high demand from our combatant commanders and our
- 14 allies. We need to consider how best to allocate these
- 15 systems and effectively train the warfighters who will
- 16 operate them to provide the protection that is needed in
- 17 today's budget constrained environment. The critical part
- 18 of that calculus will be how to best build the capabilities
- 19 and capacity of our allies, particularly Israel, and
- 20 maximize the integration and interoperability of our missile
- 21 defenses with partner nation forces.
- 22 Again, thanks for coming today, and we look forward to
- 23 this dialogue.
- 24 Senator Sessions: Very good.
- 25 Secretary McKeon, if you have a statement and your

1	colleagues,	we	would	be	prepared	to	hear	them	at	this	time.
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- 1 STATEMENT OF HON. BRIAN P. McKEON, PRINCIPAL DEPUTY
- 2 UNDER SECRETARY OF DEFENSE FOR POLICY, DEPARTMENT OF DEFENSE
- 3 Mr. McKeon: Thank you very much, Mr. Chairman, Senator
- 4 Donnelly, and other members of the subcommittee. I
- 5 appreciate this opportunity to testify on the fiscal year
- 6 2017 budget request for missile defense and the Department's
- 7 continuing efforts to sustain and modernize our homeland
- 8 missile defense capabilities.
- 9 Let me begin by briefly discussing two key threats that
- 10 are driving our investments. My longer statement for the
- 11 record includes a description of the trends such as a return
- 12 to great power competition with Russia and China that are
- 13 more broadly driving the focus of our planning and
- 14 budgeting.
- North Korea's weapons and missile programs pose a
- 16 growing threat to the United States and to our allies in
- 17 East Asia. North Korea is seeking to develop longer-range
- 18 ballistic missiles capable of delivering nuclear weapons to
- 19 the United States and continues its efforts to bring its
- 20 KN08 road-mobile ICBM to operational capacity. Although the
- 21 reliability of an untested North Korean ICBM is likely to be
- 22 very low, North Korea has used its Taepo-Dong-2 launch
- 23 vehicle to put a satellite into orbit, thus demonstrating
- 24 technologies applicable to a long-range missile.
- 25 Iran has the largest inventory of ballistic missiles in

- 1 the Middle East and today can potentially reach targets
- 2 throughout the region and into southeastern Europe. Iran is
- 3 seeking to enhance the lethality and the effectiveness of
- 4 existing systems with improvements in accuracy and warhead
- 5 designs. Iran also has an anti-ship ballistic missile that
- 6 can potentially threaten maritime activity in the Persian
- 7 Gulf and the Strait of Hormuz. Although we judge that Iran
- 8 does not yet possess an ICBM, its progress on space launch
- 9 vehicles provides Iran with the potential means and
- 10 potential motivation to develop longer-range missiles,
- 11 including an ICBM.
- 12 Currently the United States homeland is protected
- 13 against potential ICBM attacks from states like North Korea
- 14 and Iran, were either to develop an ICBM that could reach
- 15 the United States. To ensure that we stay ahead of the
- 16 threat, we are continuing to strengthen our homeland defense
- 17 posture and invest in technologies to enable us to address
- 18 emerging threats more effectively over the next decade.
- Our 2017 budget request also continues to deploy
- 20 missile defenses that are tailored to the security
- 21 circumstances in Europe, the Middle East, and the Asia-
- 22 Pacific region. We are continuing to implement the European
- 23 phased adaptive approach, and we have reached technical
- 24 capability of phase II, which includes the Aegis Ashore site
- 25 in Romania last December. Our focus is on developing and

- 1 fielding missile defense capabilities that are mobile and
- 2 relocatable, which allows us to address crises as they
- 3 emerge. Systems such as Patriot, THAAD, and our Aegis BMD
- 4 ships allow us to have flexible layered missile defense
- 5 capabilities.
- Additionally, we are seeking to invest in our cruise
- 7 missile defense architecture, especially as it relates to
- 8 the National Capital Region.
- 9 Given the threat facing the U.S. homeland, we require
- 10 persistent surveillance and detection of cruise missiles.
- 11 To that end, we are working with the North American
- 12 Aerospace Defense Command headed by Admiral Gortney and
- 13 others to identify technologies that give us this persistent
- 14 surveillance and detection.
- We are also working closely with our Canadian partners
- 16 to examine future technologies to cover the northern
- 17 approaches.
- 18 Thank you very much for having us, and we appreciate
- 19 and urge your support for our President's budget.
- [The prepared statement of Mr. McKeon follows:]

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- 1 STATEMENT OF ADMIRAL WILLIAM E. GORTNEY, USN,
- 2 COMMANDER, U.S. NORTHERN COMMAND, AND COMMANDER, NORTH
- 3 AMERICAN AEROSPACE DEFENSE COMMAND
- 4 Admiral Gortney: Senator Sessions, Ranking Member
- 5 Donnelly, and distinguished members of the committee, it is
- 6 an honor to be with you here today.
- 7 North America is increasingly vulnerable to a vast
- 8 array of evolving threats to include highly capable national
- 9 powers. This complexity and volatility of our strategic
- 10 environment demands that we advance and sustain the
- 11 capabilities to protect our homeland.
- 12 At NORAD and NORTHCOM, we look at threats to the
- 13 homeland from those most dangerous to most likely. On the
- 14 most dangerous, the nation states, Russia, China, North
- 15 Korea, where on North Korea, the peninsula is more unstable
- 16 than it has ever been since the armistice, and of course,
- 17 Iran.
- Many of our potential adversaries are pursuing advanced
- 19 weapons development not seen in decades. Individually they
- 20 pose serious threats to our national security and the
- 21 international community. Collectively they represent a vast
- 22 spectrum of complex and volatile threats that I believe will
- 23 only continue to grow and threaten the homeland if we
- 24 hesitate to act decisively.
- 25 Our BMD architecture is designed primarily to defend

- 1 against limited long-range ballistic missiles from North
- 2 Korea and Iran. In light of an evolving threat and the
- 3 increasingly unpredictable nature of North Korea's dictator,
- 4 I believe it is imperative that the U.S. continue to develop
- 5 more capable forces and broader options for effective
- 6 ballistic missile defense.
- 7 I agree with and support the modernization priorities
- 8 set by Vice Admiral Syring and his team at MDA, including
- 9 improvement of our discrimination sensors, lethality of our
- 10 kill vehicles, sustainment of the BMD architecture, and
- 11 development of our kinetic and non-kinetic options.
- 12 In addition, I believe investments in new technologies
- 13 for the BMDS architecture such as directed energy should
- 14 remain a priority to help us stay ahead of the advancing
- 15 threats. The laser technology that Vice Admiral Syring and
- 16 his team are pursuing will enhance our boost phase
- 17 capability against both theater and ballistic missile
- 18 defense against the homeland.
- 19 Thank you for giving me the opportunity to speak, and I
- 20 look forward to your questions.
- 21 [The prepared statement of Admiral Gortney follows:]

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- 1 STATEMENT OF VICE ADMIRAL JAMES D. SYRING, USN,
- 2 DIRECTOR, MISSILE DEFENSE AGENCY, DEPARTMENT OF DEFENSE
- 3 Admiral Syring: Thank you, Chairman Sessions, Ranking
- 4 Member Donnelly, distinguished members of the subcommittee.
- 5 It is an honor again to testify before you today.
- 6 We request support of our fiscal year 2017 budget which
- 7 is necessary, as I will speak to in detail, to increase the
- 8 capacity and capability of fielded homeland and regional
- 9 defense systems.
- 10 With the escalation of the threat from North Korea and
- 11 Iran, to include increasingly aggressive ballistic missile
- 12 testing, we are working hard to find more cost-effective
- 13 ways to do the missile defense mission. We need your
- 14 continued strong support to improve the reliability of our
- 15 homeland defense systems and modernize our ground systems.
- 16 We are moving forward with the redesigned kill vehicle
- 17 program. All the ground-based interceptor upgrades and
- 18 emplacements remain on track to achieve 44 interceptors by
- 19 2017. In fiscal year 2017, we plan to conduct two intercept
- 20 flight tests to more fully demonstrate performance of the
- 21 GMD system against ICBMs.
- 22 Among our planned homeland defense improvements to
- 23 identify and track lethal objects, we will begin
- 24 construction in 2017 of the long-range discrimination radar
- 25 in Alaska. To stay on schedule, it is critical that we

- 1 receive full funding for the phase 1 of the military
- 2 construction in fiscal year 2017 for the radar equipment
- 3 shelter.
- 4 On the regional defense side, in fiscal year 2017, we
- 5 continue to enhance the capability of the Aegis BD system
- 6 and deliver additional SM-3 IBs. We delivered Romania to
- 7 the warfighter at the end of 2015, and we remain on track to
- 8 deliver the Aegis Ashore site in Poland by the end of 2018
- 9 to improve European NATO defenses against medium and
- 10 intermediate range missiles.
- 11 Finally, on the advanced technology front, we need to
- 12 stay ahead of the threat by discriminating and killing
- 13 reentry vehicles with a higher degree of confidence in all
- 14 phases of flight.
- Today we are focusing on directed energy, which I
- 16 believe is a game-changer. Our work on laser scaling to
- 17 achieve greater efficiency and lighter weight will enable a
- 18 low-power laser demonstrator in 2021 to determine the
- 19 feasibility of destroying enemy missiles in the boost phase
- 20 of flight.
- 21 And finally, equal to any threat we face around the
- 22 world, we are very aware of the growing cyber threat and
- 23 working aggressively to ensure the Nation's missile defenses
- 24 are resilient and able to operate in this highly contested
- 25 environment. We are taking steps to ensure the

Τ	cybersecurity infrastructure and the latest security
2	upgrades and everything else that needs to happen with the
3	system, supplier level and our acquisition processes, is
4	accounted for. We have rigorous cyber and supply chain risk
5	management inspection programs. We have red team efforts
6	ongoing to examine everything about our system from the
7	trusted supply chain to the fielded operational capability.
8	I cannot underscore the importance of this more.
9	Thank you, Mr. Chairman. I look forward to the
LO	committee's questions.
1	[The prepared statement of Admiral Syring follows:]
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Senator Sessions: Thank you. General Mann, thank you. And you will be leaving us before long too. This may be your last day here. So thank you so much for your work. It would please me if Alabama came home. General Mann: Yes, sir. Senator Sessions: Good. Senator Donnelly: I will vote for Indiana. [Laughter.] 2.3 

- 1 STATEMENT OF LIEUTENANT GENERAL DAVID L. MANN, USA,
- 2 COMMANDING GENERAL, U.S. ARMY SPACE AND MISSILE DEFENSE
- 3 COMMAND/ARMY FORCES STRATEGIC COMMAND AND JOINT FUNCTIONAL
- 4 COMPONENT COMMAND FOR INTEGRATED MISSILE DEFENSE
- 5 General Mann: Well, good afternoon, Chairman Sessions,
- 6 Ranking Member Donnelly, and the other members of the
- 7 subcommittee. Thank you for your continued support of our
- 8 soldiers, our civilians, and our families.
- 9 This is again my third appearance before the
- 10 subcommittee, and it is indeed an honor to testify before
- 11 you today to discuss the importance of missile defense to
- 12 our Nation and the need to maintain these capabilities in
- 13 the face of a threat that continues to grow both in
- 14 complexity and unpredictability.
- Today I wanted to briefly discuss global missile
- 16 defense operations and how Space Missile Defense Command,
- 17 Army Forces Strategic Command executes its role as a force
- 18 provider in support of our Nation and our combatant
- 19 commands.
- 20 We have three core tasks: number one, to provide
- 21 trained and ready global missile defense forces today;
- 22 secondly, to build future missile defense forces and
- 23 capabilities for tomorrow; and third, to evaluate emerging
- 24 technologies to address future requirements.
- Today we have approximately 300 full-time National

- 1 Guard soldiers located at Fort Greely, Alaska and at
- 2 Vandenberg Air Force Base who operate our ground-based
- 3 midcourse defense system. And as you know, this is the
- 4 Nation's only defense against a limited intercontinental
- 5 ballistic missile attack. These trained and ready soldiers
- 6 fully understand the importance of the mission that they
- 7 execute, and in fact, they like to refer to themselves as
- 8 the 300 protecting the 300 million plus.
- 9 I also represent the Joint Functional Component Command
- 10 for Integrated Missile Defense in support of U.S. Strategic
- 11 Command. Specifically, this component command synchronizes
- 12 operational level planning, supports ongoing operation,
- 13 integrates training exercises and testing globally. It also
- 14 provides recommendations on the allocation of our limited
- 15 missile defense assets in support of our combatant commands.
- 16 And finally, it evaluates future missile defense
- 17 requirements.
- 18 This committee's continued support of missile defense
- 19 and of our soldiers, sailors, marines, airmen, and civilians
- 20 who develop, deploy, and operate our systems is essential.
- 21 Again, I appreciate the opportunity to speak on the
- 22 value of integrated missile defense for our Nation, and I
- 23 look forward to addressing any questions that you may have.
- 24 Thank you.
- 25 [The prepared statement of General Mann follows:]

- 1 Senator Sessions: Thank you.
- 2 I believe in order here -- let us see. I think Senator
- 3 Donnelly was first on this side. Because he is ranking, he
- 4 would be next. Senator Inhofe and Fischer, Lee -- I think
- 5 you were at the beginning of the hearing -- and Senator
- 6 Sullivan. But Senator Lee has a conflict, so I am going to
- 7 yield my time to him and we will otherwise be on the same
- 8 path unless there is some suggestion of a change. I know he
- 9 has got something he has got to go to. Thank you for being
- 10 with us, Senator Lee.
- 11 Senator Lee: Thank you very much, Mr. Chairman.
- 12 Thanks to all of you for being here. We are honored by your
- 13 presence and grateful for all you do for us to keep us safe.
- 14 As we look across the array of threats that we face
- 15 around the world, there are two threats that stand out and
- 16 that cause a lot of us to worry. One is ballistic missile
- 17 attacks and the other one is cybersecurity-related threats.
- 18 So I am glad all of you are here because you do a lot
- 19 of work in this area, and I am grateful for that.
- 20 Secretary McKeon and Admiral Gortney, I would like to
- 21 ask the two of you some questions about the cost, the cost-
- 22 benefit analysis that we have in this area.
- The United States has spent many tens of billions of
- 24 dollars over the last 3 decades on missile defenses. It is
- 25 a large sum. It is a sum that has drawn some criticism, and

- 1 it is a sum that, regardless of how you feel about that
- 2 criticism, is one that we have to pay attention to.
- 3 But in much the same way that other technologies like,
- 4 for example, drone technology cost us a lot of money to
- 5 develop -- it cost us a lot of money to develop at the
- 6 outset, but in the end has saved us and has even more
- 7 potential to save us down the road a lot of money because
- 8 compared to other aircraft systems, manned aircraft systems,
- 9 for example, in the long run, we can actually save money.
- In the same respect, how and in what respect, to what
- 11 extent could having a reliable missile defense system help
- 12 us save money, save money for the military and for the
- 13 government over the long haul?
- 14 Admiral Gortney: I guess when you look at the
- 15 ballistic missile threat, there are actually two types of
- 16 ballistic missile threats. And it is the theater ballistic
- 17 missile threat that we have service members and service
- 18 members' families that live underneath that threat today.
- 19 And then we have the ballistic missile threat, limited
- 20 ballistic missile threat, that we have designed for the
- 21 homeland.
- 22 I think what is important where MDA is moving on the
- 23 technologies is where is there efficiencies to get us on the
- 24 correct side of the cost curve, not just engage in midcourse
- 25 for both those threats, but keeping them on the ground, left

- 1 of launch, having a surveillance to be able to strike them,
- 2 provided we have the rules of engagement to do that, killing
- 3 them in boost phase and then through the midcourse phase.
- 4 And a lot of those technologies that you all have provided
- 5 the funding for for the research and development MDA is
- 6 using. A lot of it we will be able to apply to both those
- 7 particular threats. And I think that is where we have to
- 8 really view that is where the savings will be because they
- 9 are different. They differentiate by range of a threat, but
- 10 the technologies to counter them can be the same or the
- 11 necessary technologies can be.
- 12 Senator Lee: Thank you.
- 13 Mr. Secretary?
- Mr. McKeon: The only thing I would add, Senator, I
- 15 think the way we would think about missile defense in a very
- 16 broad sense, both regionally and our homeland missile
- 17 defense is it is a deterrent against roque states or nations
- 18 engaged in activity that we disagree with. And so in
- 19 addition to our own missile defenses, we are encouraging a
- 20 lot of partners in the Middle East and in Asia to acquire
- 21 missile defenses in the theater.
- 22 So, for example, in Iran, we are working to counter
- 23 Iran and its missile capabilities. We are working very
- 24 closely with our partners in the Gulf to encourage their
- 25 acquisition of missile defense systems, as well as knitting

- 1 them together in terms of the early warning. And so that is
- 2 a deterrent that over the long term will save, we believe,
- 3 money in other respects.
- 4 Senator Lee: Thank you.
- 5 Admiral Gortney, let us talk about North Korea for a
- 6 minute. I would love to get your assessment of where North
- 7 Korea's ballistic missile technology is headed in the next
- 8 few years and then evaluate our ability to keep up with it
- 9 and respond to that.
- 10 Admiral Gortney: The intel community assesses North
- 11 Korea's ability to successfully shoot an ICBM with a nuclear
- 12 weapon in range of the homeland is low. But as the
- 13 commander in charge that is responsible for defending that
- 14 homeland who owns the trigger to shoot that down, we do not
- 15 base our readiness levels upon that low probability. We
- 16 assess -- it is the prudent course of action as the
- 17 commander. We assess that he has the ability to do that,
- 18 and we are prepared to engage that particular threat today
- 19 and in the future 24 hours a day, 365 days out of the year.
- 20 Eventually we assess that his low probability will
- 21 increase, and that is why the investments to have us outpace
- 22 that technology, his ability to field that capability is
- 23 absolutely critical.
- 24 Senator Lee: Thank you, Admiral.
- Thank you, Mr. Chairman.

- 1 Senator Sessions: Thank you.
- 2 Senator Donnelly?
- 3 Senator Donnelly: Thank you, Mr. Chairman, and thank
- 4 you all for your service.
- 5 Admiral Syring, based on the current and anticipated
- 6 threat to the homeland, how would you prioritize where to
- 7 locate additional sensor capabilities to enhance the GMD
- 8 system?
- 9 Admiral Syring: Sir, we have an ongoing AOA in the
- 10 Department that is looking around the world on exactly that
- 11 question. We will look at areas like Hawaii. We will look
- 12 at areas like the east coast or the Atlantic region has gaps
- 13 that we see in the future based on where the threat goes
- 14 with both Iran and North Korea. But I have testified to
- 15 this committee that sensoring is where we need to be, and
- 16 certainly there are gaps not in tracking and classification,
- 17 but where I see the need for discrimination in the future
- 18 against the much more complex threat that may come.
- 19 Senator Donnelly: Thank you.
- 20 Admiral Gortney, in regards to the prioritization in
- 21 this area, how do you see the threat picture and where do
- 22 you see the necessity for this?
- 23 Admiral Gortney: I am completely in line with my
- 24 shipmate on the other end of the table. You know, we need
- 25 to make that which we have the best we can possibly make it.

- 1 We need improvements in our sensors. We need to continue to
- 2 test so that we have confidence in our weapon system, that
- 3 the operators have confidence in their weapon system, and
- 4 our leadership has confidence in the weapon system. And
- 5 then we need to make those necessary investments to get us
- 6 on the correct side of the cost curve so that we get the
- 7 best value for it, not just the very expensive midcourse
- 8 solution. And that is where MDA is moving, and we
- 9 appreciate your support on that.
- 10 Senator Donnelly: Admiral Gortney, in your view why is
- 11 it important that NORTHCOM have the responsibility for
- 12 providing ballistic missile defense for our country?
- 13 Admiral Gortney: Because I am assigned as the
- 14 commander to defend the homeland, and with that, that comes
- 15 with the job.
- 16 Senator Donnelly: Okay.
- Secretary McKeon and Admiral Syring, over the past 10
- 18 years we have made significant investments in U.S.-Israeli
- 19 cooperative missile defense programs, including Iron Dome,
- 20 David's Sling, Arrow. I was in Israel last month to review
- 21 a number of these, and I was wondering -- and we will start
- 22 with you, Secretary McKeon -- how you assess the importance
- of these programs and what benefits we gain from our
- 24 cooperation with Israel on these systems.
- 25 Admiral Syring: Senator Donnelly, our cooperation with

- 1 Israel is part and parcel of a very broad and deep security
- 2 relationship with the state of Israel, and our
- 3 administration, like many before it, has stood with Israel
- 4 in providing the necessary security assistance so that it
- 5 can protect itself against -- in a pretty dangerous
- 6 neighborhood.
- With the R&D work that we do together with them, we
- 8 obviously get some benefit that I think Admiral Syring can
- 9 speak to in a little bit more detail. But we think it has
- 10 been essential -- our cooperation with them, and we have
- 11 seen the success of the Iron Dome in some recent conflicts
- 12 that has protected the Israeli people.
- 13 Senator Donnelly: Has it been the concept of this
- 14 effort with the three different system, in effect, layering?
- 15 So, Admiral, if you would just discuss that for a second.
- 16 Admiral Syring: Senator, thank you.
- I will just pile on to what the Secretary said. The
- importance of those systems, the protection of Israel every
- 19 day just with Iron Dome, and then the fielding soon of
- 20 David's Sling and then Arrow after that will provide them an
- 21 umbrella that I think will be unparalleled in the region and
- 22 absolutely necessary.
- We have had a close partnership and relation with them
- 24 on all their programs with missile defense over the last
- 25 really -- you know, beyond several years, way back to Arrow

- 2 in terms of the relationship that we have had with Israel
- 2 and MDA specifically.
- I will, if I can, just transfer now to the maturity of
- 4 the programs. We have worked very closely with them on
- 5 David's Sling in particular. This is the mid-tier level.
- 6 And they were very successful. We were very successful
- 7 together in testing last year, and we fully support their
- 8 readiness for production this year. Arrow 3, which is the
- 9 exosystem, similar to where we are with that and Aegis in
- 10 the upper tier, successfully intercepted as well last year.
- 11 So they are progressing at a great pace with high success
- 12 rates.
- 13 What benefit do we get as the United States? We get
- 14 tremendous benefit. In terms of the Iron Dome procurement
- 15 dollars that we and you have appropriated, we have asked for
- and you have appropriated and then added to even, have
- 17 resulted in significant work share for U.S. companies. 35
- 18 percent of the procurement in 2014, 55 percent of the
- 19 procurement dollars in 2015 go to U.S. companies. To me
- 20 that is of great value to them.
- 21 We also learn a lot from what they have done in terms
- 22 of choosing components and the engineering they have done on
- 23 their interceptors. They have done a fantastic job of
- 24 achieving good performance.
- 25 Senator Donnelly: Are we picking up tips, in effect --

- 1 Admiral Syring: Yes, sir.
- 2 Senator Donnelly: -- of better defense of our country
- 3 from the challenges they face?
- 4 Admiral Syring: We absolutely are in the regional area
- 5 and have learned a lot from the performance and the design
- 6 of their interceptors, which is critically important for why
- 7 you hear us say we need the technical data package, for
- 8 example, for David's Sling so we can take that information
- 9 and use it to our advantage for our systems and our
- 10 interceptors.
- 11 Senator Donnelly: Thank you.
- 12 Thank you, Mr. Chairman.
- 13 Senator Sessions: Senator Inhofe?
- 14 Senator Inhofe: Admiral Syring, I think that is a
- 15 great answer. I am glad that we are -- there are so many
- 16 people out there and they think that we are just -- that
- 17 Israel is always the beneficiary of everything that goes on.
- 18 That is not true at all. We have ourselves benefited a
- 19 great deal, along with where would we be in that part of the
- 20 world if we did not have Israel? So I am glad we are
- 21 talking about that, and I think it is necessary for all of
- 22 us to do that continuously.
- 23 Senator Donnelly asked the question, Admiral Gortney,
- 24 about why NORTHCOM -- now, your answer is accurate. You
- 25 said we are assigned that and we will get it done. I think

- 1 the thrust of his question was there are a lot of options
- 2 out there to protect the United States. NORTHCOM is one.
- 3 Is that the best one? The question was, I think, you know,
- 4 why NORTHCOM.
- 5 Admiral Gortney: Because it is attached to a
- 6 longstanding NORAD mission, which is ITW/AA, which is from
- 7 the Soviet Union days, make a declaration of an attack from
- 8 the homeland from an ICBM against, in this case, the Soviet
- 9 threat. And we still make that assessment today and use
- 10 that architecture to help assess against the rogue nation
- 11 for the ballistic missile defense of the homeland.
- 12 So it nests very well with the headquarters for us to
- 13 make those assessments and to be able to hold the trigger,
- 14 and we are manned, trained, and equipped to do it. We do
- 15 not have the personnel. Soldiers, guardsmen predominantly,
- 16 run those particular things, but they answer to me for the
- 17 shot decision.
- 18 Senator Inhofe: I was not saying it critically. I
- 19 just wanted to hear so I can answer the question when I am
- asked.
- 21 Admiral Gortney: Yes, sir.
- 22 Senator Inhofe: And Admiral Gortney, you wrote in your
- 23 statement that, quote, our potential adversaries are
- 24 pursuing advanced weapons development not seen in decades.
- 25 I agree with that. We can go on and quote James Clapper and

- 1 Admiral Stewart on their assessments of the threat. It is
- 2 greater than any threat that we have faced before. We have
- 3 had them countless times in our committee hearing.
- 4 But at the last one, when General Stewart ended up
- 5 assessing the threat that we have, General Stewart called it
- 6 the new normal. That bothered me when I heard that. I kind
- 7 of put the interpretation of that on there that do not
- 8 expect anything better. What is your interpretation of it
- 9 being the new normal?
- 10 Admiral Gortney: I think we live in the world we live
- in, not the world we would like to live in. And with return
- 12 to great power competition, as described by the Secretary,
- 13 the resurgence of Russia, the evolvement of China, the
- 14 capabilities that both are developing -- in the case of
- 15 Russia, advanced, very accurate cruise missiles that can be
- 16 either conventional or nuclear warheads that they have
- 17 employed conventional from aircraft into Syria and from
- 18 ships and submarines TLAM-like weapons from ships and
- 19 submarines into Syria, when they had no operational or
- 20 tactical utility on the battlefield, according to General
- 21 Austin. And so they were messaging us that they are
- 22 fielding these capabilities. They are weapons that we have
- 23 been successfully employing for the last 20-25 years. They
- 24 see great value in them. And it changes the dynamics.
- 25 Russia today, if they chose -- and I think a very low

- 1 likelihood. Whereas before they developed these weapons for
- 2 long-range aviation, they had to come into our battle space
- 3 in order to employ their weapons.
- 4 Senator Inhofe: So they are catching up or in some
- 5 areas even passing us. I got the interpretation of that, we
- 6 better get used to it because that is still happening.
- Now, due to the proliferation of technology and the
- 8 number of countries possessing the ballistic missile
- 9 capability, it continues to increase.
- 10 Admiral Gortney: That is correct.
- 11 Senator Inhofe: And we know that. And yet, while that
- 12 is increasing, our budget from 2007 to, I think -- here, I
- 13 have got it down here -- has declined 14 percent between
- 14 fiscal year 2008 and 2017. With the threat that is
- 15 increasing like that, can all of you say that this is
- 16 adequate? We need to be doing a better job in terms of the
- 17 budget. That is kind of what we are talking about in this
- 18 hearing.
- 19 Admiral Gortney: Clearly, sir. There are tradeoffs
- 20 between the near-term threat and the long-term threat,
- 21 current threat, future threat. And that is the choices that
- 22 we have been forced to make given the size of the budget.
- 23 Senator Inhofe: We do not need to elaborate on that.
- I was going to get into something else, but I want to at
- 25 least do this.

- 1 When we were initially starting, the first Obama budget
- 2 in 2009, it cut missile defense by \$1.4 billion. Now, that
- 3 was when they actually addressed the Czech Republic, which
- 4 had the radar, and Poland in terms of the equipment. I can
- 5 remember being with Vaclav Klaus during that time, and I
- 6 remember prior to that -- it would have been the year before
- 7 this new administration -- he said, you know, we are willing
- 8 to do all this, but if we do, we are taking a lot of risk in
- 9 terms of alienating even further Russia. And he said can
- 10 you tell me that you are not going to pull the rug out from
- 11 under you. And I said absolutely, and of course, that is
- 12 what happened.
- 13 Now we are looking at a new setup. Now, something had
- 14 to replace what we had that down for, which was to protect
- 15 Western Europe and eastern United States, along with
- 16 increasing from 30 to 44, I understand, ground-based
- 17 interceptors. What else is being done particularly to take
- 18 the place of what that was designed to protect at the time
- 19 before it was pulled away?
- 20 Mr. McKeon: Senator Inhofe, you are correct that that
- 21 decision was made in 2009, but the context was that we were
- 22 seeing that the Iranian ICBM threat had not materialized in
- 23 the way that people had anticipated. And the near-term
- 24 threat to Europe and our European partners and our deployed
- 25 forces was an expansion of their medium-range ballistic

- 1 missile programs.
- 2 Secretary Gates has spoken to some of this in his book,
- 3 his own skepticism that the Czechs and the Pols were going
- 4 to be able to -- at least the Czechs -- carry it forward in
- 5 their own government. And we replaced it, as you know, with
- 6 the European phased adaptive approach with a radar in
- 7 Turkey, some ships that are home-ported in Rota, Spain, and
- 8 then two Aegis Ashore sites, one in Romania and one in
- 9 Poland. The one in Romania, as Admiral Syring said, is
- 10 essentially technically capable and will be fully
- operational this year, and the site in Poland we are going
- 12 to break ground on. So we have kept the commitment that we
- 13 made to our European partners.
- Senator Inhofe: Mr. Secretary, my time has expired
- 15 some time ago. So I am not going to ask you a question
- 16 except for the record from the three uniforms that are here.
- 17 Do you feel that we adequately replaced what we were
- 18 attempting to do before the change was made in Poland and
- 19 the Czech Republic? For the record, all right? Later, not
- 20 now.
- 21 [The information follows:]
- 22 [SUBCOMMITTEE INSERT]

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- 1 Senator Inhofe: Thank you, Mr. Chairman.
- 2 Senator Sessions: Senator Heinrich?
- 3 Senator Heinrich: Thank you, Mr. Chair.
- 4 Admiral Syring, to follow up on the question from
- 5 Senator Donnelly and talk a little bit more about our
- 6 efforts with our partner in Israel, we have made significant
- 7 investments to protect our ally Israel from ballistic
- 8 missile threats in the region. And when you look back at
- 9 the last decade, I think our contribution has been over \$3
- 10 billion to those efforts.
- I was very pleased to see a co-production agreement
- 12 signed for Iron Dome. That is allowing American companies
- 13 here in the U.S. to help manufacture that very important
- 14 capability. I was wondering what the status is of the co-
- 15 production arrangement on Iron Dome and what progress might
- 16 be being made to potentially co-produce other systems in the
- 17 future, for example, David's Sling.
- 18 Admiral Syring: The co-production agreement is in
- 19 place with Iron Dome, and we are achieving the savings that
- 20 were laid out in that agreement. I am confident that any
- 21 additional dollars like the Iron Dome request that we have
- this year and 2017 will follow that agreement.
- David's Sling is -- those negotiations and drafts are
- 24 ongoing, discussions ongoing with Israel. And our objective
- 25 is to achieve the similar outcome with Iron Dome production.

- 1 Senator Heinrich: Great. Glad to hear that.
- 2 Admiral Syring: I am sorry. With David's Sling
- 3 production. Correction.
- 4 Senator Heinrich: I understood what you meant, not
- 5 what you said.
- 6 So moving on to another issue that I know that Senator
- 7 Inhofe cares a lot about -- I do as well -- directed energy.
- 8 Last year, we saw the appropriators cut technology
- 9 maturation funding to MDA, effectively delaying further
- 10 progress of a laser demonstrator which would have finally
- 11 gotten the work out of the lab and into flight test of that
- 12 technology. How important is it that that funding be
- 13 restored in this upcoming year's appropriations?
- 14 Admiral Syring: Sir, the critical issue that I have
- 15 spoken privately and publicly to members about over the last
- 16 few months is the support for that demonstration. And the
- 17 ability for us to get a low-power laser at, we are thinking,
- in the 100-kilowatt range up at altitude to prove the
- 19 coherency and the physics part of the problem, as you are
- 20 well aware, and to see if there is a feasible design, a
- 21 feasible material solution for a boost phase intercept
- 22 capability.
- 23 We are asking for \$278 million, if you look at the out-
- 24 year budget, for that demonstrator between now and 2021. We
- are not asking for a \$5.5 billion airborne laser program.

- 1 We are asking for a prototype to go prove the feasibility to
- 2 give confidence to the warfighter that they believe it is
- 3 feasible and to the Department that we believe it is
- 4 fiscally affordable.
- 5 Senator Heinrich: Well, I think as we see the
- 6 ballistic missile threats that we have all heard talked
- 7 about here today, multiply the number of potential missiles
- 8 that we could face either in theater or intercontinentally
- 9 continue to increase, I think it is going to be more and
- 10 more important that we look at long-term solutions that are
- 11 actual game-changers like directed energy to solve some of
- 12 those issues.
- 13 Admiral Syring: I agree, sir.
- 14 Senator Heinrich: One last question. This can be
- 15 either for Admiral Gortney or you, Admiral Syring. Two of
- 16 our foremost military leaders, former Chief of Naval
- 17 Operations, Admiral Greenert, former Army Chief of Staff,
- 18 General Odierno, said in a memo that our missile defense
- 19 strategy was, quote/unquote, unsustainable and that
- 20 ballistic missile threats, quote, continue to outpace our
- 21 active defense systems, unquote.
- 22 Do you agree with that assessment? What do you make of
- 23 it? And what needs to either change or what has changed in
- 24 our capabilities, if you do not agree with that?
- 25 Admiral Gortney: Senator, I was in the meeting that

- 1 generated that particular article. At the time, I was the
- 2 force provider for the United States Navy at Fleet Forces
- 3 Command down in Norfolk.
- 4 And the fundamental issue is because of our current
- 5 strategy, we are wearing out our Patriot, soon to be THAAD,
- 6 and our Aeqis capable platforms, low-density, high-demand.
- 7 The threat is increasing, and we are on an unaffordable
- 8 path. Very expensive rockets to shoot down maybe not so
- 9 expensive rockets. And so that is why the necessary
- 10 investments, the laser being one of those, to get us on the
- 11 correct side of the cost curve, not just relying on
- 12 midcourse kinetic engagement. The whole trying to knock
- down the threats throughout the entire spectrum is
- 14 absolutely critical.
- 15 Senator Heinrich: That is very helpful. Thank you
- 16 very much.
- 17 Senator Sessions: Senator Fischer?
- 18 Senator Fischer: Thank you, Mr. Chairman.
- 19 If I could follow up a little on what the Senator was
- 20 just asking about specifically with the R&D. As we look at
- 21 the R&D budget, it continues to decrease. Yet, I think all
- 22 of us realize the need we have for these capabilities in the
- 23 future. If you are going to look long-term, the next 20
- 24 years, we are going to need these capabilities. Yet, we
- 25 continue to cut back on that R&D budget.

- So, Admiral Syring, I would ask you how do we get on
- 2 the right side of this? You are saying, well, it is in the
- 3 budget for this. It is in the budget for that. But looking
- 4 ahead 20 years, you and I both have to say it is not in the
- 5 budget. So what do you propose to us? Do we stay headed in
- 6 this direction? How much do you really need?
- 7 Admiral Syring: Ma'am, it is a great question. If I
- 8 can, can I point back to the chart that the chairman showed
- 9 on MDA top line?
- 10 Senator Fischer: Of course.
- 11 Admiral Syring: I came into this job in fiscal year
- 12 2012/fiscal year 2013 time frame. I have been here almost 4
- 13 years now.
- 14 So if I can just talk about what -- let us lift up just
- 15 a second, if we can, in terms of what the R&D is being
- 16 budgeted to and requested for and what we are not doing. I
- 17 think that is the point, Mr. Chairman, of what you are after
- 18 here in this discussion, if I may.
- 19 So we came in and everybody knows the sequestration
- 20 reduction that happened, and that is annotated on the chart.
- 21 But what is not shown on the chart in words here is that we
- 22 made the decision in the 2013 time frame to pivot back to
- 23 the GMD program and increase the capacity and capability
- 24 really of that program that had already been fielded several
- 25 years before. The investment here that you see ramping up

- 1 over these years, ma'am, is to that point in terms of
- 2 improving the GMD reliability, getting the radar going in
- 3 Alaska, improving our discrimination capability, and
- 4 redesigning the kill vehicle, which we are not satisfied
- 5 with its reliability today. That is that increase of
- 6 capability here.
- 7 There was a big, nonrecurring investment actually in
- 8 2016 to add money into the GMD program that had been cut
- 9 from before. I think I have talked to you about this in the
- 10 past in terms of modeling, reliability, stockpile
- 11 reliability programs, things like that that needed to be
- done to increase the warfighters' confidence in the system.
- 13 All of that got going in 2016.
- Now let us go to 2017. We actually requested in 2016
- 15 \$7.8 billion. And when the budget agreement was signed late
- 16 last year, the Department was shorted -- not short -- it was
- down \$22 billion from the top line. My share of that was
- 18 \$300 million. So that is why you see a request of 7.5.
- 19 Ma'am, if I can just make the point. The last point
- 20 is, okay, what are you not doing? I am continuing
- 21 essentially four new start programs here under this top line
- 22 and will field them in 2020. Now, does that mean that we
- 23 are done? Absolutely not. There are gaps in the system
- 24 still with radars, sensors, directed energy, R&D programs
- 25 that we are trying to feed at a much lower level of funding

- 1 to go prove whether they are feasible or not. And I think
- 2 once we prove that, you will see a ramp-up in the request
- 3 for R&D if we can make the case that it is feasible and
- 4 affordable.
- 5 It is a much different way of looking at it, as let us
- 6 go prove it first and prove to the warfighter, prove to the
- 7 community, prove to the Department that it can be done,
- 8 prove to you that it is feasible before we come forward with
- 9 a big R&D program. There was not one POM 18 issue, meaning
- 10 above the line, that I -- I am sorry -- POM 17 issue above
- 11 the line that I submitted to the Department. Not one. And
- 12 to me, that is us being good stewards of the taxpayer dollar
- 13 and being careful on how far we lean into advanced
- 14 technology if it is truly not ready to go.
- 15 Senator Fischer: And as we look at our adversaries, if
- 16 we look at China, if we look at Russia and the arsenals that
- 17 they have, if we look at the developing capabilities of the
- 18 Iranians and the North Koreans, how are we going to stack up
- 19 against them when we look out in 20 years?
- 20 Admiral Syring: Do you want me to take that or maybe
- 21 Admiral Gortney from the warfighter standpoint?
- 22 Senator Fischer: That would be good. Admiral Gortney?
- 23 Admiral Gortney: We are designed against the rogue
- 24 nation right now, ma'am, limited capability against North
- 25 Korea today, Iran, should Iran have the capability today.

- 1 That is what we are designed against. And I see the
- 2 investments designed to outpace that particular threat. It
- 3 is not targeted at Russia. It is not targeted to China.
- 4 Senator Fischer: Should it be?
- 5 Admiral Gortney: I will defer to the policy --
- 6 Senator Fischer: I knew you would say that. Thank
- 7 you, sir.
- I see my time is up. Thank you, Mr. Chairman.
- 9 Senator Sessions: Thank you. Good questions.
- 10 Let us see. It is now Senator Manchin.
- 11 Senator Manchin: Thank you, Mr. Chairman.
- 12 I thank all of you for your service and thank you for
- 13 being here.
- 14 To General Mann, I am a strong supporter of the
- 15 National Guard and its versatile role in supporting national
- 16 homeland security especially in the area of missile defense.
- 17 Knowing that one of your responsibilities is missile
- 18 defense, what is your assessment of the National Guard's
- 19 performance in the missile defense operations for the
- 20 Pacific theater? How are they performing?
- 21 General Mann: Sir, you are referring to Fort Greely
- 22 and from Vandenberg, the GBI support that we are providing?
- 23 Senator Manchin: Correct.
- General Mann: Quite frankly, I am extremely pleased.
- 25 Those soldiers who have been doing that mission now for

- 1 many, many years are extremely competent and confident. And
- 2 they take this mission very, very seriously. And quite
- 3 frankly, when we talk about the ground-based midcourse
- 4 defense program, that is different from THAAD and Patriot.
- 5 That is a unique system.
- 6 Senator Manchin: Right.
- General Mann: And so they bring to the table a unique
- 8 skill set that they have been able to develop over time, and
- 9 they are constantly raising the bar in terms of the level of
- 10 sophistication, the difficulty of the scenarios that they
- 11 train against every day. So I am very, very pleased with
- 12 what the National Guard is doing.
- I would also like to say that we are very, very pleased
- 14 with the way the National Guard is supporting a lot of other
- 15 activities in terms of air missile defense over in Europe, a
- 16 lot of different rotations, training rotations that are
- 17 taking place over there, as well as throughout the Pacific.
- 18 So I am very, very pleased with them.
- 19 Senator Manchin: I would follow up by saying what is
- 20 your assessment of the future missile defense needs for the
- 21 east coast.
- 22 General Mann: I agree with Admiral Syring very clearly
- 23 that I think what is really key is that we maintain a level
- 24 of predictability in terms of our resources, whether it is
- 25 this administration or going into the future. I think the

- 1 level of predictability is extremely important and making
- 2 sure that we maximize that current capability.
- 3 So it is more than just how many arrows that we have in
- 4 our quiver. It really is, at the end of the day, making
- 5 sure that we maximize current capabilities, increasing the
- 6 reliability of those current capabilities as we look into
- 7 the future. So the sensor piece is critically important to
- 8 making sure that the numbers that we have, 30 going to 44
- 9 GBIs, that we maximize that capability to the fullest extent
- 10 possible. And that is what that sensor will do for us.
- 11 Senator Manchin: And, Admiral Gortney, you previously
- 12 assessed that North Korea has the ability to miniaturize a
- 13 nuclear weapon and put it in a KNO8, intercontinental
- 14 ballistic missile, and shoot it to the homeland.
- 15 Based on recent reporting, the South Korean government
- 16 has assessed that North Korea is capable also of mounting a
- 17 nuclear warhead on a medium-range Rodong ballistic missile,
- 18 which could reach all South Korea and most of Japan. So do
- 19 you share the South Korean government's views on North
- 20 Korea's capabilities?
- 21 Admiral Gortney: Yes, sir, I do.
- 22 Senator Manchin: And that is a threat that you said
- 23 that we are prepared to deal with?
- 24 Admiral Gortney: That is correct. Yes, sir, it is.
- 25 I would also like to reinforce the General's comment

- 1 about the great work that the Guard are doing in defense of
- 2 the mission and also the quardsmen who are protecting up at
- 3 Fort Greely. It is the Puerto Rican National Guard that has
- 4 the security force up there.
- 5 Senator Manchin: Are you constricted at all by using
- 6 the Guard or asking for that Guard to --
- 7 Admiral Gortney: No, sir. We have worked through
- 8 those authorities. It works seamless.
- 9 Senator Manchin: It is all seamless now?
- 10 Admiral Gortney: Yes, sir.
- 11 Senator Manchin: So thank you. That is all my
- 12 questions.
- 13 Senator Sessions: Senator Sullivan?
- 14 Senator Sullivan: Thank you, Mr. Chair.
- 15 And, gentlemen, thank you for all the hard work that
- 16 you are doing for our Nation.
- 17 Admiral Gortney, I just want to follow up and commend
- 18 you on the way you are laying out the threat with regard to
- 19 North Korea. You mentioned low probability with regard to
- 20 the ability to miniaturize a nuclear weapon and hit the
- 21 continental United States. But it is prudent and smart to
- 22 make to sure that as the warfighter, you are ready.
- 23 Let me ask two questions on that. Is it low
- 24 probability to be able to range Alaska or Hawaii, or is it a
- 25 higher probability from the threat assessment? Do you know

- 1 if there is a difference there?
- 2 Admiral Gortney: We do not treat it any differently.
- 3 They are all States. And I am accountable to defend them,
- 4 and we have the ability to defend them.
- 5 Senator Sullivan: Great. I am glad that we do not
- 6 treat the noncontiguous States different from the lower 48
- 7 States.
- 8 But you mentioned the low probability right now. But
- 9 in your assessment that is unlikely to stay low. Is that
- 10 not correct? It seems like almost every day we are seeing a
- 11 news story about ICBM engines and other things being
- 12 developed. Is it not prudent to assume that that low
- 13 probability is going to morph into moderate or maybe even
- 14 high within the next 5 to 10 years?
- 15 Admiral Gortney: Yes, sir. And the reason the intel
- 16 community assesses this as low probability of success is
- 17 they have not seen the tests occurring. However, as the
- 18 Secretary talked about, the TD-2 shows that they have the
- 19 capability. And so you put that capability with a road-
- 20 mobile capability with the right engines with designing a
- 21 reentry vehicle with a nuclear weapon and a miniaturization,
- 22 it is only a matter of time before they put it together.
- 23 That is why we watch their test efforts so closely because
- 24 although they have not done the end-to-end test, which we
- 25 would do, they may not be compelled to wait for that end-to-

- 1 end test.
- 2 Senator Sullivan: Let me ask actually, since you
- 3 brought up the issue of testing, with regard to the GMD,
- 4 Admiral Syring, General Mann. In your testimony, you
- 5 actually emphasized the importance of testing our system.
- 6 How often do we test our system, and what are the benefits?
- 7 And do we need to budget more resources to testing our
- 8 system?
- 9 Admiral Syring: Sir, we are on about an annual test
- 10 cadence, and that can be 10 months. That could be 14 or 15
- 11 months depending when the range is available and when it
- 12 fits in. And more importantly, when do we need to test to
- 13 field a capability? A GMD test is very expensive, very
- 14 intrusive. We take up the entire Pacific with the targets
- 15 that we need to launch and the interceptor that is launched
- 16 from Vandenberg. We are testing at a rate that --
- 17 Senator Sullivan: Given importance, though, I think
- 18 most Americans would recognize that a little bit of
- 19 inconvenience in that regard is okay.
- 20 Admiral Syring: Yes, sir, and they do. And we are
- 21 never hindered by that.
- 22 But there is a lot of engineering and analysis that you
- 23 do before a test, and then you execute the test and then
- 24 there is post-analysis.
- The test sequence and cadence that we have in our test

- 1 plan that will be signed and has been signed in the past by
- 2 me and Dr. Gilmore has this very detailed mapping to what
- 3 requirements do we need to test and when. And we will test
- 4 against an ICBM this year. We will actually salvo test
- 5 against an ICBM next year, and then we will start testing
- 6 the new kill vehicle in a controlled flight and then an
- 7 intercept flight the following year. So given the
- 8 development that is going on specifically with RKV, we are
- 9 absolutely at the right cadence for that testing between now
- 10 and 2020.
- 11 Senator Sullivan: Do you agree with that, General
- 12 Mann?
- 13 General Mann: Yes, Senator. We work very, very
- 14 closely with MDA. And in fact, the master test plan is
- 15 coordinated with all the services to make sure that we are
- 16 in agreement. We feel that the test cadence right now is
- 17 appropriate. And also, I would like to commend MDA for the
- 18 fact that we are really looking at opportunities where we
- 19 can test out multiple platforms, whether it is Aegis or
- 20 THAAD or Patriot. So there is a lot of very, very close
- 21 coordination that goes on between the services, as well as
- 22 with MDA.
- 23 Senator Sullivan: Thank you.
- 24 Admiral Syring, you know, I have often talked about my
- 25 State being the cornerstone of America's missile defense.

- 1 And I know you were recently up in Alaska, and I apologize
- 2 for not having the opportunity to accompany you. But I am
- 3 wondering if you could provide any insights or observations
- 4 from your time at Clear and Fort Greely and some other
- 5 locations. I would love to, in another setting, get a
- 6 download from you on your trip. But any that you care to
- 7 offer the committee and educate all of us on Alaska would be
- 8 welcome right now.
- 9 Admiral Syring: Yes, sir. We went to all three. We
- 10 went to three areas. We went to Kodiak. We went to Clear
- 11 and we went to Fort Greely. And I talked to the community
- 12 about the radar that is coming to Clear, which will be
- 13 fielded by 2020, took their questions. Very supportive of
- 14 what we are doing.
- But more importantly for me and the military and
- 16 Admiral Gortney is the strategic importance of that radar in
- 17 the middle of the State and what it will provide him in the
- 18 future for this discrimination capability that is absolutely
- 19 required to stay ahead and keep our advantage against the
- 20 threat that we see coming. And the strategic location of
- 21 Alaska is why we are there. Very important.
- 22 I think General Mann talked about Fort Greely. I am a
- 23 material developer, support part of that with Admiral
- 24 Gortney and General Mann. Great work going on there.
- 25 And then finally, down at Kodiak we visited the range

- 1 facility down there for future test opportunities that we
- 2 might see coming and is there a way to more affordably test
- 3 in the future there, for example.
- 4 Senator Sullivan: Thank you.
- 5 Thank you, Mr. Chairman.
- 6 Senator Sessions: Thank you.
- 7 Very briefly, Admiral Syring, for Senator Sullivan's
- 8 benefit perhaps, but why is geographically Alaska a special
- 9 place for missile defense?
- 10 Admiral Syring: Sir, I will try to keep it
- 11 unclassified, if I can. I will get kicked under the table.
- 12 But the trajectories that we are concerned about make it an
- ideal spot for the threats to Alaska and to the United
- 14 States and to Hawaii.
- 15 Senator Sessions: Thank you.
- 16 Senator King?
- 17 Senator King: Thank you, Mr. Chairman.
- 18 Admiral Syring and perhaps for the Secretary as well,
- 19 would we be adding capabilities that would be significant by
- 20 deploying THAAD in South Korea and/or Aegis? And, Mr.
- 21 Secretary, the policy implication is how would China react
- 22 to such?
- Mr. McKeon: Senator King, as I think you probably
- 24 know, we have announced that we have opened consultations
- 25 with our Korean partners about deploying THAAD to the

- 1 peninsula. We will engage in discussions about a possible
- 2 site before we reach an announcement. The purpose of the
- 3 THAAD battery would be to protect our deployed forces in
- 4 Korea and our partners in Korea. It is not about China. It
- 5 is not a threat to China, and we have made that plain to
- 6 them and offered to explain it to them.
- 7 Senator King: Have we had any reaction from China?
- 8 Mr. McKeon: They are not happy about it, but we have
- 9 tried to reinforce the point that it is not about them. It
- 10 is about our deployed forces.
- 11 Senator King: I wanted to go back. We have talked
- 12 about directed energy. I am really disappointed that that
- 13 seems to be falling off the budget table when to me it is
- 14 pennywise and pound foolish. Directed energy would be a lot
- 15 cheaper, if it works, than sending a rocket up every time.
- 16 You are nodding.
- 17 Admiral Syring: And we have been trying to get the
- 18 directed energy program ramped up in past budget requests,
- 19 and I just ask for the support this year.
- 20 Senator King: Well, you will certainly have it from
- 21 myself and I think others because that is the next
- 22 technological development, and it would be a lot less
- 23 expensive and perhaps even more effective.
- What about sensors? When we have had these meetings
- 25 before, that has been a high priority. Is that on track?

- 1 Do we have sufficient sensor technology, and is it placed in
- 2 the right place? And is that something that needs to be
- 3 upgraded?
- 4 Admiral Syring: The first step in that discussion was
- 5 what we did in Alaska, Senator, in terms of your support for
- 6 that and that radar and its strategic importance for the
- 7 threat from North Korea and a much more complex threat than
- 8 they even have today that we are planning for.
- 9 There are other gaps in the sensor architecture that we
- 10 are looking at, and the Department has looked at many
- 11 different alternatives for both radar sensor locations and
- 12 space sensor options. It is both radars and space that will
- 13 be required for the future.
- 14 Senator King: I cannot help but notice. The reason I
- 15 was late to this hearing, we had a Seapower Subcommittee
- 16 going on in the next room where I am sure if Senator Wicker
- 17 were here, he would also want to point out that the Aegis is
- 18 one of the key elements of this whole system, which happen
- 19 to be -- we are very proud -- built in Maine and
- 20 Mississippi. Do you see more deployment of the Aegis Ashore
- 21 capabilities, or where does that stand? We are sort of
- 22 testing it in several places. Is that right, Mr. Secretary?
- 23 Mr. McKeon: Senator, we have just completed the site
- 24 for Aegis Ashore in Deveselu, Romania, and that will be
- 25 operational later this year. And we are going to break

- 1 ground in Poland and finish that by the end of 2018. We do
- 2 not have any other plans or requirements for Aegis Ashore at
- 3 the moment, nor have we had any requests for it from foreign
- 4 partners.
- 5 Senator King: But it is a nice capability.
- 6 Mr. McKeon: It is a nice capability and it is
- 7 advancing. We will put a more advanced missile in the site
- 8 in Poland that is still under co-development with our
- 9 partners in the Government of Japan.
- 10 Senator King: You mentioned the Government of Japan
- 11 and Poland. How are our allies contributing to this
- 12 process, much of which is designed to defend them? Are we
- 13 getting cooperation and money from our allies on these
- 14 systems?
- 15 Mr. McKeon: Well, in Japan, they are investing quite a
- 16 bit on the co-development of the standard missile 3-2-A, and
- 17 they have got their own Aegis capable ships. And we have
- 18 put a couple of radars there, the TPY-2 radars. In Europe,
- 19 Romania and Poland are, obviously, offering and contributing
- 20 the sites. Turkey is hosting a TPY-2 radar. The Spanish
- 21 Government is hosting our Aegis BMD ships in Rota. And then
- 22 other governments are contributing in different ways. The
- 23 French have their own system. Other NATO partners have
- 24 Patriots and have deployed them in Turkey. So I cannot say
- 25 that all 28 NATO partners are contributing to NATO missile

- 1 defense, but many of them are.
- 2 Senator King: Admiral Syring, I could not hear the
- 3 full exchange with Senator Heinrich. Is the Iron Dome
- 4 completely built here or is it partially? What is the deal
- 5 with Israel on Iron Dome and David's Sling?
- 6 Admiral Syring: The co-production agreement had 35
- 7 percent work share for the United States in fiscal year 2014
- 8 and 55 percent in 2015.
- 9 Senator King: So a growing share of the work is to be
- 10 done here.
- 11 Admiral Syring: That is correct, sir.
- 12 Senator King: And that system has been effective. Has
- 13 it not?
- 14 Admiral Syring: Very effective. I will not go to the
- 15 percentage, but very effective.
- 16 Senator King: Yes. I had a son in Israel during the
- 17 war two summers ago, and I appreciate the effectiveness. He
- 18 was in Ashkelon right adjacent to where those rockets were
- 19 coming from. And I know from his observation that it was an
- 20 effective system. I congratulate you and thank you for
- 21 that.
- 22 Admiral Syring: Yes, sir. As will David's Sling and
- 23 Arrow as well, the follow-on systems after Iron Dome. So
- 24 far, their testing has been extremely successful.
- 25 Senator King: And is it fair to say that we are

- 1 gaining important insights and experience from that
- 2 relationship on those weapon systems?
- Admiral Syring: Yes, sir, absolutely, not just the
- 4 weapon interceptor itself, but we have learned a lot on what
- 5 they are doing with targets as well.
- 6 Senator King: Thank you, Mr. Chairman.
- 7 Senator Sessions: Thank you, Senator King.
- 8 On the Israel question, what was the President's
- 9 request this year? What did we do last year? How many
- 10 million? What was the President's request this year and the
- 11 President's request this year?
- 12 Admiral Syring: Sir, I will talk about numbers I think
- 13 from the top of my head. So I asked for -- if I am not
- 14 right, I will correct it for the record. But last year, it
- 15 was roughly \$150 million we requested. What was
- 16 appropriated and enacted was \$488 million.
- 17 This year, we requested just under \$150 million, and
- there are requests on the Hill that total almost \$600
- 19 million.
- 20 Senator Sessions: Well, that is quite a contribution
- 21 to the effort. So I hope we are working together to gain
- 22 benefit from that. I know we are some.
- 23 With regard to the question of -- Secretary McKeon, I
- 24 think it was a good question about contributions of Japan.
- 25 They have got a big economy. The European economy is bigger

- 1 than ours, and their population is bigger than ours. In
- 2 Rota, Spain, they host our ships but it is quite an
- 3 advantage to them economically. I would like to have that
- 4 fort in Alabama. It would be good for our economy.
- 5 So there is no doubt about it. There is a growing
- 6 feeling that our allies need to contribute more to the
- 7 mutual defense of what used to be called, I guess, the free
- 8 world. How do you think about that?
- 9 Mr. McKeon: Senator, in a broad sense, we certainly
- 10 agree with you. Our NATO partners have made new commitments
- 11 to increase their defense spending at the Wales Summit in
- 12 2014 and set targets on both percentage of GDP that they are
- 13 supposed to try to hit and investments in R&D. And many of
- 14 them are lagging. That is a fact. I am not going to try to
- 15 sugar-coat it. There is only a handful that have reached
- 16 the 2 percent of GDP target. The important thing is the
- 17 trend lines are going in the right direction in terms of
- 18 NATO spending by countries, although the financial stress is
- 19 hitting many of them because different countries,
- 20 particularly in southern Europe, have been undergoing
- 21 significant economic disruption like Greece and Italy.
- 22 I should have also said in response to Senator King's
- 23 question, there are a lot of countries in the Middle East
- 24 that are investing in missile defense, the Saudis, the
- 25 Emiratis, the Kuwaitis. And so they are doing their share

- 1 in contributing to the regional missile defense. And we are
- 2 working to try to encourage both them acquiring systems but
- 3 also cooperating together, and that will be the topic of a
- 4 meeting next week in the Middle East. The President is
- 5 convening a second round of what he called the Camp David
- 6 Summit last year. And Secretary Carter will have a meeting
- 7 with his counterparts the day before, and missile defense
- 8 will be one of the issues on the docket.
- 9 Senator Sessions: Well, just to summarize that, we
- 10 have heard this song before. When I have asked questions
- 11 for the last decade and others have, they say the Europeans
- 12 are getting better and they are going to do better. But
- 13 basically the trend line has been negative. Germany is at
- 14 1.1 percent I think of GDP. They have the strongest economy
- in Europe. So it is a very problematic thing.
- 16 And it goes beyond even money. It goes beyond how do
- 17 you have a right to demand that we defend Europe when Russia
- is not on our border? And you want us to pay two-three
- 19 times as much as you do.
- 20 Anyway, we have discussed that with the NATO leader
- 21 last week, and I thought it was a healthy discussion and
- 22 exchange. But it is not a little matter, and it is not
- 23 going to go away anytime soon.
- Let me ask you maybe, Admiral Syring -- any others that
- 25 would like to comment. The President's budget includes

- 1 money to build a long-range discrimination radar in Alaska.
- The Missile Defense Agency analyst also concludes that,
- 3 quote, additional missile defense sensor discrimination
- 4 capabilities are needed to enhance the protection of the
- 5 United States homeland against the potential long-range
- 6 ballistic missiles from Iran. Close quote.
- 7 And Congress in 2016 directed deployment by December
- 8 31st, 2020 of a long-range discrimination radar or other
- 9 appropriate sensor to support the defense of the homeland
- 10 against Iran. So that is in a mandate.
- And while MDA is examining locations best suited for
- 12 future deployment of this advanced discrimination radar,
- 13 there is no funding in that whole 5-year spending plan
- 14 budgeted for such a development and deployment, nor has
- 15 Congress received a plan from MDA to meet the deployment
- 16 deadline as directed in section 1684 of the act.
- 17 The administration opposed an east coast ground-based
- 18 interceptor site, and we had a big discussion about that and
- 19 acquiesced in that determination. I think it was your
- 20 recommendation we did not need another site. But we did, I
- 21 think, agree that we needed an increased discrimination on
- 22 the east. If we need it for Alaska, do we not need it for
- 23 the east coast?
- So how would you respond to that?
- 25 Admiral Syring: Sir, I will respond that we are,

- 1 obviously, very well aware of language that came in the NDAA
- 2 last year. And we have started the work on siting and
- 3 looking at the options in terms of where SBX, for example,
- 4 can be home-ported. And in the follow-on analysis, where
- 5 are the sites on the east coast that could help in terms of
- 6 sensor capability? Sir, that work is going on in parallel
- 7 with the Department's work that has gone on the sensor AOA
- 8 worldwide, and I can tell you this point of what are we
- 9 going to do with an Atlantic radar is part of that
- 10 discussion.
- And it is true today that there is no money in the 2017
- 12 budget, but I think you will see the Department come through
- 13 this question before 2018 comes over on what are we going to
- 14 do to meet the intent of the language to include a
- 15 discussion, sir -- I will let Admiral Gortney jump in here
- 16 -- on what is his ability to surge SBX if the Iranian threat
- 17 did escalate.
- 18 Senator Sessions: It is problematic that there is no
- 19 money in the whole 5-year plan. Admiral Gortney?
- 20 Admiral Gortney: Yes, sir. We have the ability to
- 21 move SBX if we need it. But the higher priority right --
- 22 Senator Sessions: Now, the move of SBX -- this is not
- 23 the Alaska --
- 24 Admiral Gortney: No, sir.
- 25 Senator Sessions: This will be a new system. This

- 1 will be the one that was in Hawaii.
- 2 Admiral Gortney: This is what is on a very large oil
- 3 platform that was built in Texas and we moved on a heavy-
- 4 lift ship to Hawaii. And should we need, if the threat
- 5 demanded that we needed a site before the study is completed
- 6 and we put a site in, we would be able to maneuver -- move
- 7 SBX to the other coast. But right now, the priority is to
- 8 keep it where it is focused on North Korea today.
- 9 Senator Sessions: Senator King, you wanted to follow
- 10 up.
- 11 Senator King: Yes. We have learned in hearings over
- 12 the past year of a growing anti-satellite capability. And I
- 13 guess the question I wanted to ask is to what extent do all
- 14 these systems rely upon satellites because in a war or a
- 15 hostility situation, one of the first things that is going
- 16 to happen is there is going to be a diminution of our
- 17 satellite capability. So you understand the question is if
- 18 satellite capability is compromised, does that compromise
- 19 the underlying effectiveness of these various systems or are
- 20 there alternatives? Admiral Gortney, do you want to take a
- 21 crack at that?
- 22 Admiral Gortney: Sir, I am afraid to do it in this
- 23 forum. I need to come to you in a classified forum and talk
- 24 to that.
- 25 Senator King: That is fine. Thank you.

- 1 Mr. McKeon: Senator king, the one thing I would say
- 2 about that is, as you may recall, in last year's budget we
- 3 significantly increased our investment in protection of our
- 4 satellites and other investments in the space domain. And
- 5 we are very focused -- the Secretary and the Deputy -- in a
- 6 big way about these investments, and we have sustained them
- 7 in fiscal year 2017. So we are well aware of the issues
- 8 that you are raising and making the right investments for
- 9 it.
- 10 Senator King: I am aware of what you are talking
- 11 about. I just want to be sure -- for want of a nail, the
- 12 shoe was lost. For want of a shoe, the horse was lost. You
- 13 know where that ends. So we will discuss that in another
- 14 setting. Thank you.
- 15 Senator Sessions: Thank you, Senator King. I think
- 16 that is critical.
- I believe we have got Senator Donnelly and Sullivan.
- 18 We will not go in a full round, just ask questions as you
- 19 feel appropriate.
- 20 Senator Donnelly: Two real quick questions.
- 21 Admiral Syring, are you comfortable with the level of
- 22 risk MDA is balancing in order to meet deadlines set in law
- 23 for programs like MOKV or an additional sensor to deploy off
- 24 the east coast?
- 25 Admiral Syring: Sir, an MOKV -- we are putting those

- 1 gates together in terms of where do we think the knowledge
- 2 points are over the next year to prove where we need to be
- 3 for a full program. We do not have a full program requested
- 4 for an MOKV yet. Until I work through that and see where
- 5 the companies are at level of maturity over the next 12 to
- 6 18 months, that will help me get my mind around when are we
- 7 ready and what is the schedule for it.
- 8 Senator Donnelly: Then lastly, Admiral Gortney, when I
- 9 talked to the Chinese, they talked about how little
- 10 influence they have over North Korea, that it seems to be
- 11 getting less in their mind. And I am wondering how much of
- 12 that is fluff and how much of that is real. And I was
- 13 wondering if you could fill us in a little bit.
- 14 Admiral Gortney: I think it is safe to say that the
- influence that China used to have they no longer have with
- 16 the current leader. At this level, I would like to leave it
- 17 at that.
- 18 Senator Donnelly: Thank you.
- 19 Senator Sessions: Senator Sullivan?
- 20 Senator Sullivan: Thank you, Mr. Chair. Just two
- 21 quick follow-up questions.
- 22 One is kind of a broader on really education for the
- 23 committee and those watching. We talk a lot in acronyms and
- 24 technology.
- 25 Admiral Syring or Admiral Gortney, can you describe,

- 1 particularly given the North Korean evolving threat and even
- 2 the ICBM pursued by the Iranians, why the LRDR makes sense
- 3 and why that is so important strategically for the country,
- 4 what that is doing in really kind of a follow-up to the
- 5 chairman's question on that issue? That is one.
- 6 And then I will ask a final one after that.
- 7 Admiral Gortney: It is absolutely critical, and it is
- 8 why Admiral Syring's investments in sensors is so important.
- 9 One of the ways we are going to achieve getting on the
- 10 correct said of the cost curve is to drive our effectiveness
- 11 up. So with better sensor discrimination, I may have the
- 12 ability to shoot fewer missiles, or as the threat evolves, I
- 13 will have a better idea to discriminate what the threat is
- 14 doing, what a maneuvering warhead is doing to then drive the
- 15 probably of kill of our existing warheads. So you cannot
- 16 kill what you cannot see, and we need to see better.
- 17 Senator Sullivan: So it drives up our ability to kill
- 18 any incoming missile?
- 19 Admiral Syring: Both simple and complex.
- 20 Senator Sullivan: Looking at the budget request, from
- 21 what I can see, there seems to be about a \$74 million
- 22 shortfall in the BMD midcourse defense account where last
- 23 year, the President's budget was expected and where PB-17 is
- 24 today. Am I reading that correctly? And if so, what
- 25 accounts for that shortfall?

- 1 Admiral Syring: The request was down slightly from
- 2 last year from what we were expecting in 2017. Part of that
- 3 was driven by part of the share of the \$300 million cut that
- 4 flowed down. It took part of that in that line.
- 5 Also, I would say, sir, there were refined estimates
- 6 from the companies on what it would take to do what they are
- 7 going to do. Obviously, we do not do 100 percent of
- 8 everything that is offered. This is a matter of what do we
- 9 need to do to do the mission-critical work that is important
- 10 for the program.
- 11 Senator Sullivan: So that budget shortfall is not
- 12 something that you or we as the oversight committee should
- 13 be concerned about?
- 14 Admiral Syring: No, sir. We and you have adequately
- 15 funded the GMD program with a big nonrecurring spike last
- 16 year, and all of those efforts are ongoing this year. I am
- 17 comfortable with where we are.
- 18 Senator Sullivan: Thank you, Mr. Chairman.
- 19 Senator Sessions: Mr. Secretary, so the first chart
- 20 again shows a 14 percent overall decline in funding for MDA.
- 21 If you will put back the second chart there. This
- 22 chart reflects an additional troubling trend in that in
- 23 2008, 98-99 percent of the budget went to R&D, whereas in
- 24 2016, that number had dropped -- 2015 it went up a little in
- 25 2016 and begins to drop again in the 5-year submission we

- 1 got this year. It dropped down to 19 to a little over \$5
- 2 billion there, which is a little more than half. So you
- 3 drop about 40-45 percent of your R&D spending.
- 4 Tell us what is happening. First of all, MDA
- 5 originally, Admiral Syring, was not designed to be a
- 6 procurement agency. It was designed to produce the
- 7 technology that would be paid for by the services who would
- 8 use it. Is that correct?
- 9 Admiral Syring: That is correct.
- 10 Senator Sessions: And so now you are purchasing some
- 11 of it.
- 12 What I had not ascertained fully was a lot of that is
- 13 coming out of your R&D budget. So that is a pretty
- 14 troubling thing. What does that put us on track for for the
- 15 next several years, the next 5 years?
- 16 Admiral Syring: Mr. Chairman, I was just thinking the
- 17 answer. Let me just provide, I think, some context because
- 18 I have studied the exact problem in terms of we are
- 19 absolutely spending more on procurement than R&D, and there
- is certainly much less than there used to be.
- 21 What I have done, for historical context, is gone back
- 22 and looked at the 2005-2010 time frame when everything in
- 23 MDA was R&D, including the fielding of the entire ground-
- 24 based midcourse defense system. And what we have done with
- 25 that and Aegis in particular is done the R&D and now shifted

- 1 those to procurement. So that is why you see --
- 2 Senator Sessions: So now you would say that you
- 3 probably incorrectly included the deployment on the system
- 4 in Alaska as R&D when it really was procurement?
- 5 Admiral Syring: Sir, I was not here. We had a mandate
- 6 and had the charter to deliver capability as soon as
- 7 possible from the President to get this in the ground at
- 8 light speed.
- 9 Senator Sessions: I remember that. The deal was,
- 10 Senator Sullivan, that North Korea proposed a threat, and we
- 11 decided to accelerate the process to actually get these
- 12 things in the ground. We believed they would work and we
- 13 would prove it as time went by. And I think it would have
- 14 worked had we had to use it at that time. And I think it is
- 15 probably more effective today than then.
- But anyway, so how do you explain this now?
- 17 Admiral Syring: So there was also a big airborne laser
- 18 program in that R&D as well that never fielded. It did its
- 19 mission. It proved that we could shoot down a ballistic
- 20 missile with a laser. But that did not become a program.
- 21 So that was R&D.
- 22 So there are some big drivers here in terms of where
- 23 that R&D went prior to when you start seeing the blue. What
- 24 you see here is you see us finishing the design, finishing
- 25 the testing of the SM-3 and now procuring it quickly because

- 1 there is a regional combatant commander requirement that
- 2 they need ships, they need missiles, they need batteries,
- 3 they need missiles for THAAD. And that is what has
- 4 happened. Certainly the programs that I spoke about are
- 5 going to be negotiated with the services on when do I
- 6 transfer -- which is the question. When do I transfer these
- 7 programs to the services similar to what I did with Patriot?
- 8 That is the question.
- 9 General Mann: Senator, I would like to add, speaking
- 10 for the Army, we are in consultation with MDA on the
- 11 transfer of some of these different programs just to make
- 12 sure that MDA is able to get after exactly the emphasis that
- 13 you alluded to. So we are working closely with MDA on how
- 14 we can transfer some of this, when appropriate, to the Army.
- 15 Senator Sessions: Briefly before I go to Senator
- 16 Sullivan, what programs are on track to be transferred from
- 17 MDA to the Army or other services?
- General Mann: Right off the top, THAAD is one of the
- 19 programs that we are looking at and also --
- 20 Senator Sessions: THAAD is included in the MDA budget
- 21 now?
- 22 Admiral Syring: That is correct.
- General Mann: Yes, sir. As well as the TPY-2, those
- 24 sensors that we have globally we are looking at. Right now,
- 25 some of those are manned by contractors, and as we put in

- 1 place life support capabilities, we will transfer that to
- 2 soldier-run. And that will also be assumed by the Army.
- 3 Senator Sessions: Senator Sullivan?
- 4 Senator Sullivan: Let me just ask one more follow-up
- 5 question related to the chairman's question. In that chart,
- 6 very simple, which is should our missile defense budgets be
- 7 flat or really going down when there is no doubt that the
- 8 threat is going up. I will pose that to all four of you.
- 9 It seems to me we have no doubt the threat is increasing.
- 10 And I appreciate what the administration was focused on with
- 11 kind of a rapid deployment. But right there, you are
- 12 looking at either a declining budget or at best a flat
- 13 budget, which does not seem to make sense.
- 14 You know, Admiral Gortney, your testimony, which I
- 15 really appreciate -- you were talking about staying in front
- 16 of the curve. But I am not sure that is staying in front of
- 17 the curve when we know the threat side is going like this.
- 18 Senator Sessions: Could I just follow up with that?
- 19 The fiscal year 2017 MDA budget request is \$300 million
- 20 below what the President anticipated last year in the 2016
- 21 5-year budget. So this is about \$300 million, Secretary
- 22 McKeon, less I believe than what we anticipated last year
- 23 would be the President's request.
- 24 Admiral Gortney, I will let you answer that question.
- 25 Admiral Gortney: I am out of my lane a little here

- 1 since I am lucky enough to only own the trigger.
- 2 But I think what you are seeing up there is reluctance
- 3 of investing dollars against the capability using the
- 4 current technology that we are using, that even though we
- 5 are investing in it and we are investing dollars,
- 6 capability, platforms, burning up OPTEMPO, PERSTEMPO of the
- 7 low-density, high-demand, it is not able to outpace the
- 8 threat.
- 9 Senator Sullivan: But if that were the case, would we
- 10 not still want an increased budget and maybe have you
- 11 weighted towards R&D? Right there, that is just all --
- 12 Admiral Gortney: I am in vehement agreement with you,
- 13 sir. But I am just trying to explain why I think we are
- 14 seeing what we are seeing because on our current process,
- 15 our current strategy, the current technology lacking the R&D
- 16 investments that MDA is making to see if we can get on the
- 17 correct side of the cost curve, reliability, better sensors,
- 18 multi-object kill vehicle, an airborne laser that really
- 19 works would make those dollars more effective. I am just
- 20 saying I think reluctance to fund a program correctly, given
- 21 the technology that we are using. And I am not sure if I am
- 22 articulating it clearly.
- 23 General Mann: Senator, if I could just add to this.
- In addition to new technologies in R&D investments and
- 25 whatnot, I think it is important that we note that we are

- 1 also looking at current capabilities and what can we do to
- 2 maximize the current fleet that we have on the team, whether
- 3 it is Patriot, the Patriot modernization plan. So it is
- 4 more than just leap-ahead technologies. Yes, we are focused
- 5 on that, but we are also trying to make sure that we are
- 6 looking at the current capabilities and how can we make that
- 7 even more effective. And we talked about the sensors, the
- 8 sensor upgrades, the discrimination side of the equation.
- 9 So I think it is important that we recognize the fact that
- 10 it is more than just new R&D programs. It is also how can
- 11 we be more effective with what we have already.
- 12 Senator Sullivan: Mr. Secretary, Admiral, any final
- 13 thoughts on a declining or flat budget and a clear,
- 14 increasing threat?
- 15 Mr. McKeon: I would say a few things, Senator
- 16 Sullivan.
- 17 First, stepping back and looking at the overall DOD
- 18 budget over the last 6 to 8 years, there has been a decline
- 19 due to the change in the fiscal environment and the limits
- 20 of the Budget Control Act. I do not know the number off the
- 21 top of my head, but I think the last budget Secretary Gates
- 22 submitted around 2011 or 2012 projected an over \$600 billion
- 23 budget for the Pentagon in fiscal year 2016. And our base
- 24 budget last year was \$520 billion.
- 25 Senator Sullivan: I think there is no doubt that the

- 1 Congress and the BCA were part of the issue. But I do not
- 2 think that is what is driving that chart right there.
- 3 Mr. McKeon: Well, sir, in terms of the overall top
- 4 line, I think across the Department, every program has
- 5 suffered a little bit because of the BCA limits and we are
- 6 still staring at them out in the out-years of our current
- 7 FYDP. You all have given us a couple years of relief under
- 8 last year's agreement, but in 2018 to 2021, we have got \$100
- 9 billion in our program that is \$100 billion above the BCA
- 10 limits. So we are very worried about that in a broad sense.
- 11 Senator Sullivan: Some of us are as well too.
- 12 Mr. McKeon: Yes. No, I appreciate that.
- 13 Secondly, I would say we are not only thinking about
- 14 terminal defense of our ground-based midcourse systems or
- 15 THAAD, as we have talked about, we are looking at new
- 16 technologies and other capabilities militarily in addition
- 17 to missile defense to deal with the threat of missiles from
- 18 either North Korea or Iran. Some of that we would have to
- 19 talk to you in a different venue about.
- 20 And then the last thing on the procurement I would talk
- 21 about a little is MDA has different procurement authorities
- 22 to buy things faster than the services. Now, you could
- 23 obviously give the services acquisition authority for
- 24 missile defense that would speed things up if we were to
- 25 shift procurement to the services, but I think part of the

- 1 reason you see a lot of that procurement that MDA has done
- 2 is because they have got this faster acquisition authority
- 3 that was a demand signal from both the President and the
- 4 Congress.
- 5 Admiral Syring: Senator, I would just reiterate that
- 6 this is today, and we are into some very important concept
- 7 studies right now with directed energy in particular and the
- 8 importance of that demonstrator to get going to inform a
- 9 much wider, more expansive R&D program. That is one
- 10 example. MOKV, the multiple-object kill vehicle, is very
- important for us to get through the next 12 months on
- 12 feasibility from the contractors, and then the R&D requests
- 13 will go up. There are things here on the technology side
- 14 that you will see come. The last one would be a space-based
- 15 system of some sort to help us with tracking and
- 16 discrimination worldwide.
- 17 There are R&D programs that are not shown here yet that
- 18 we will, through the Department, work and come forward with
- 19 as they compete with everything else in the Department. But
- 20 this is not the end. I do see the R&D requests for the
- 21 future of MDA ramping up once I am to the point of proposing
- 22 mature concepts that I know will deliver on time and within
- 23 the budget that we have.
- 24 And, sir, I think it is a shift for us in terms of --
- 25 Mr. Chairman, you made the point of deliver a capability

- 1 very fast with what we were given back in the 2000-2005 time
- 2 frame, and we did that. And they put interceptors into the
- 3 ground.
- 4 Today I do not -- and I endorse entirely the threat on
- 5 where it is going. At the same time, we as the program
- 6 executors must be very careful about just throwing money at
- 7 the problem and must be very deliberate on maturity of the
- 8 technology and the progression of the system engineering and
- 9 the architecture and the component testing and analysis that
- 10 supports a program before I bring it forward and ask for
- 11 billions of dollars. That is where we are at. And it is
- 12 not decades away, sir. It is in this FYDP that we will be
- 13 to the point to make the case to the Department and make the
- 14 case over here on the next technology in many of the areas
- 15 that we talked about.
- 16 Senator Sessions: All right. Well, thank you.
- One more question on the airborne laser system. Will
- 18 you have sufficient money this year to do what you would
- 19 like to do with regard to advancing that program?
- 20 Admiral Syring: Sir, the request that we have on the
- 21 low-power laser demonstrator, if supported, will get us
- 22 started down that path to do a competition for that platform
- 23 in 2017. And then some partner will win. Two partners will
- 24 win. We will down-select one eventually, and we will get to
- a flight in 2020 with a final demonstration in 2021.

1	Senator Sessions: All right.
2	Thank you very much. It has been an excellent
3	afternoon, and we value your insight and professionalism.
4	We are adjourned.
5	[Whereupon, at 4:07 p.m., the hearing was adjourned.]
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