



## National Security Update

This National Security Update examines current developments in the U.S. ballistic missile defense (BMD) program including the BMD perspectives of the Trump Administration; homeland defense versus regional defense; the Congressionally mandated Missile Defeat Review; views of other key BMD stakeholders; and the 2018 missile defense budget request.

### ***The Trump Administration and Missile Defense***

To date, the Trump Administration has not provided much detail regarding the direction it will take on ballistic missile defense and the weapon systems needed to support that mission. The administration's first statement on BMD came shortly after Trump's inauguration on January 20<sup>th</sup> in an Issue Brief entitled *Making Our Military Strong Again* posted on the White House website.

It stated: "We will also develop a state-of-the-art missile defense system to protect against missile-based attacks from states like Iran and North Korea."<sup>i</sup> What a "state-of-the-art" missile defense system means in practice is unclear. Since that Issue Brief was released the White House has not publicly elaborated on its missile defense plans.

On the campaign trail, candidate Trump did indicate what BMD weapon systems he would support. In a September 2016 speech in Philadelphia, he promised to build a "state of the art" missile defense system, citing threats posed by North Korea and Iran.

Trump said, "We propose to rebuild the key tools of missile defense, starting with the Navy cruisers (*Aegis*) that are the foundation of our missile defense capabilities in Europe, Asia, and the Middle East."<sup>ii</sup>

The Trump Administration's Missile Defense Agency (MDA) budget for Fiscal Year (FY) 2018 released in May 2017 (more below) does not shed a great deal of light on how it will proceed.

### ***Homeland Defense Versus Regional Defense***

In addition, it is not clear which BMD mission the Trump Administration will focus upon: theater/regional defense or homeland defense. The Obama Administration concentrated more on the former (e.g., regional defense platforms *Aegis* BMD ships, *Aegis Ashore* in Europe, THAAD and *Patriot*) compared with the George W. Bush Administration which placed greater emphasis on the latter (i.e., the homeland defense Ground-Based Missile Defense/GMD System in Alaska and California).

Given that one of President Trump's frequent catchphrases is "America First," coupled with early indications that he wants to step back from international entanglements and conflicts, it may be that the focus in the Trump Administration will shift back to homeland defense.

Events such as the U.S. cruise missile strike in Syria on April 7, 2017 and the escalating tensions with North Korea and the dispatch of the *Carl Vinson* Strike Group to the Korean peninsula may orient this focus toward regional defenses and systems to protect U.S. forward deployed forces and allies such as South Korea (the deployment of the now operational THAAD system, *Aegis*, and *Patriot*) and Japan (*Aegis*, *Patriot*, and in the future, possibly THAAD).

However, Pyongyang's recent slew of ballistic missile tests (even though several were failures<sup>iii</sup>), its preparations for a sixth nuclear-weapon test,<sup>iv</sup> and the display in a North Korean military parade in April 2017 of two new intercontinental ballistic missile-sized canisters which some experts believe could be solid-fueled and capable of reaching the United States, have led many U.S. officials and Members of Congress to call for augmenting our homeland defense capabilities.

On May 30, 2017 for the first time, the U.S. Ground-based Midcourse Defense system intercepted a high-performance, ICBM-range target. MDA Director Vice Admiral James Syring (who is retiring to be replaced by Lt. Gen. Samuel Greaves, Commander, Space and Missile Systems Center, Air Force Space Command) said that the test attempted to replicate a realistic scenario and that the test-target included warhead decoys.<sup>v</sup> This success indicated that the capability of GMD to interdict an eventual North Korean ICBM is moving in the right direction.

A week after assuming office, President Trump directed Secretary of Defense James Mattis to undertake an assessment and review of the U.S. ballistic missile defense policy and requirements which in aggregation with a Congressionally mandated integrated air and missile defense review, the so-called Missile Defeat Review (more below), will provide details on the new administration's BMD goals, direction, and system priorities.

### ***The Congressionally Mandated New Missile Defense Review***

The 2017 National Defense Authorization Act (NDAA) passed by Congress on December 23, 2016 contains a provision mandating "a new review of the missile defeat capability, policy, and strategy of the United States." The Secretary of Defense and the Chairman of the Joint Chiefs of Staff are directed to conduct the so-called "Missile Defeat Review" (MDR), the results of which are to be submitted to the House and Senate Armed Services Committees by January 31, 2018.

Congress wants the Office of the Secretary of Defense (OSD) and the Joint Staff to examine U.S. missile defense strategy objectives and provide a comprehensive assessment of present capabilities and future missile defense requirements. The MDR will assess current and emerging missile threats and the role of missile defenses and its contribution to U.S. national security; evaluate the available means to meet missile defense requirements, including technological developments, budgetary resources, acquisition requirements, and organizational relationships, and other policy considerations.

The MDR differs from the DOD's 2010 Ballistic Missile Defense Review (BMDR) in that it directs OSD and the Joint Staff to examine left-of-launch (including cyber and pre-emption) missile defense options as well as the full spectrum of traditional right-of-launch measures. It also stipulates that cruise missiles and the increasing challenge from various air-breathing and hybrid threats, such as boost-glide vehicles and lower-tier unmanned aerial systems or drones, should be included in the analysis.

The missile defense assessment that President Trump directed SECDEF Mattis to undertake last January will be folded into the MDR.

More specifically, the MDR is to examine:

- The ballistic and cruise missile threats facing the United States with an updated assessment of current and emerging threats to be provided to the House and Senate Armed Services and Intelligence Committees no later than 6 months after the enactment of the NDAA (~June 2017);
- Left- and right-of-launch ballistic missile defense for both regional and homeland defense to include active, passive, kinetic, and non-kinetic defense measures across the range of land-, air-, sea-, and space-based missile defense systems/platforms;
- The integration of offensive and defensive forces for defeating ballistic missiles, including hypersonic glide vehicles launched by ballistic missiles; and,
- Homeland defense against cruise missiles.

The MDR is directed to address the following issues/topics:

- The missile defeat policy, strategy, and objectives of the United States in relation to U.S. national security and military strategy;
- The role of deterrence in the U.S. missile defeat policy and strategy;
- The U.S. missile defeat posture, capability, and force structure;
- For a five- and ten-year period (beginning from the start date of the MDR), the planned and desired end-state of U.S. missile defeat programs, including the integration and interoperability of such programs with the joint forces and the integration and interoperability of these programs with allies, and the steps required to reach these end-states;
- The process for determining requirements, force structure, and inventory goals for missile defeat capabilities under such programs, including input from the joint military requirements process;
- The organization, execution, and oversight of acquisition for U.S. missile defeat programs;
- The roles and responsibilities of OSD, defense agencies, combatant commands, the Joint Chiefs of Staff, the military departments, and the intelligence community in missile defense programs and the process for ensuring accountability of each stakeholder;
- Standards for the military utility, operational effectiveness, suitability, and survivability of U.S. missile defeat systems;
- The method in which resources for the missile defeat mission are planned, programmed, and budgeted within the Department of Defense;
- The near-term and long-term costs and cost effectiveness of such programs;
- The options for affecting the offense-defense cost curve;
- The role of international cooperation in the U.S. missile defeat policy and strategy and the plans, policies, and requirements for integration and interoperability of missile defeat capability with allies;

- Options for increasing the co-development of missile defeat capabilities with U.S. allies;
- Declaratory policy governing the employment of missile defeat capabilities and the military options and plans and employment options of such capabilities;
- The role of multi-mission defense and other U.S. assets, including space and terrestrial sensors and plans to achieve multi-mission capability in current, planned, and other future assets and acquisition programs;
- The indications and warning required to meet the U.S. missile defeat strategy and objectives and the key enablers/programs needed to achieve such indications and warning; and,
- The impact of the mobility, countermeasures, and denial and deception capabilities of adversaries on the indications and warning and the consequences on the U.S. missile defeat capability, objectives, and military options and the plans of the combatant commanders.

### ***Views of other Key BMD Stakeholders***

Several stakeholders within Congress, the Missile Defense Agency, the military services, and the policy community have expressed clear thoughts on what the mission focus of the U.S. missile defense program should be and the needed weapon systems to support that mission.

For example, on February 3, 2017, twenty-five Republican and one Democrat House lawmakers sent a letter to President Trump urging him to boost funding significantly in the administration’s FY 2017 defense supplemental request (more below) and the FY 2018 defense budget request for programs meant to develop an earth- and space-based “robust missile defense architecture” capable of protecting the U.S. homeland against “any threat from any nation,” not just Iran and North Korea.<sup>vi</sup>

These House members expressed concern that the Trump Administration is not focusing on the ballistic missile threats imposed by an increasingly belligerent Russia and China which are both modernizing their ballistic missile arsenals and developing hypersonic missile capabilities. The Congressmen’s concern is based in part on the White House Issue Brief noted earlier which talked about a “state-of-the-art” BMD architecture designed to counter the Iranian and North Korean threat.

These members point to the FY 2017 NDAA which included an amendment to eliminate the word “limited” from Section 2 of the National Missile Defense Act of 1999, which declares the purpose of U.S. missile defense is to provide “a limited missile defense against rogue states” such as Iran and North Korea, as opposed to defenses against the much larger – and, as noted – an expanding Chinese and Russian nuclear and ballistic missile inventory.

The BMD systems championed in the letter were directed energy programs (to “leapfrog” the ballistic missile threat), multi-mission space sensors, the Multi-Object Kill Vehicle (MOKV) program, a new booster for ground-based interceptors (GBI), and an East Coast GBI site.

Even before the recent deteriorating situation on the Korean Peninsula, Senator Dan Sullivan (R-Alaska), a member of the Senator Armed Services Committee, has been vocal in his concern about North Korea’s growing nuclear and ballistic missile capabilities. He believes the United

States should increase the number of GBI interceptors deployed in Alaska and enhance tracking and sensor systems for detection and discrimination to defend against the “inevitable” North Korean intercontinental ballistic missiles (ICBM) threat. He also believes there is bipartisan support for ballistic missile defense, particularly for systems to counter the North Korean and Iranian ballistic missiles.

The escalating tensions with North Korea and its aggressive ballistic missile testing regime and indications (in its April 2017 military parade) that Pyongyang is moving rapidly toward an ICBM capability, have led those Members who authored the February 3<sup>rd</sup> letter to President Trump and members of the Senate, together with other U.S. officials and experts to call again to accelerate the corrective measures to the GMD kill vehicle, develop the MOKV, and procure additional GBIs among other fixes.

To illustrate, on May 22, 2017 several senators introduced a bipartisan bill to bolster missile defense funding in the Trump Administration’s 2018 defense budget request. Entitled the Advancing America's Missile Defense (AAMD) Act of 2017, the proposed bill highlights the growing ballistic missile threat posed by North Korea and consequent requirement to augment U.S. missile defense capabilities.<sup>vii</sup>

The key features of the proposed AAMD bill include:

- Integrated Missile Defense: Promotes an integrated, layered ballistic missile defense system incorporating THAAD, *Aegis* Ballistic Missile Defense, *Aegis* Ashore, and *Patriot* Systems;
- Space Based Sensors: Accelerates the development and deployment of a space-based sensor layer;
- Missile Defense Technology Development: Accelerates the development and deployment of advanced interceptor technologies (RKV, MOKV, and the GBI C3 booster);
- Additional Interceptors: Authorizes an additional 28 GBIs;
- East Coast/Midwest Site: Accelerates the completion of the environmental impact statement for an interceptor site on the East Coast and in the Midwest of the United States;
- Missile Defense Testing: Authorizes additional missile defense testing and expresses the need to change current test culture at the Missile Defense Agency; and,
- Future Investments: Mandates a DoD report on additional interceptions distributed across the U.S., requires specifics on their optimal locations, and studies the possibility of transportable GBIs.

In addition, in its June 20, 2017 proposals for the FY 2018 NDAA, the House Committee on Armed Services Subcommittee for Strategic Forces required the Director of the Missile Defense Agency to begin the development of a space-based sensor layer for ballistic missile defense (more on the space-sensor layer below).<sup>viii</sup>

### ***Aegis BMD Ships, Aegis Ashore, and Standard Missiles***

President Trump has supported (both on the campaign trail and in his FY 2017 supplemental budget – more below) increased procurement of *Aegis* BMD ships. The dispatching of the *Carl Vincent* Strike Group to the Korean Peninsula noted earlier includes several *Aegis* ships. U.S. *Aegis* ships in the area are capable of intercepting North Korean ballistic missiles. In addition, Japan also has *Aegis* BMD ships and is developing with the United States the Standard Missile (SM)-3 IIA interceptor with greater velocities and interdiction capabilities than the current SM-3 versions.

Depending on their proximity to the launch site, *Aegis* SM-3s may be able to destroy North Korean ballistic missiles during the boost/ascent phase. The faster and more capable SM-3 IIA would provide an even greater likelihood of boost-ascent-phase interception.

Moreover, the SM-3 IIA may have the capability to intercept ICBMs headed toward the United States during the midcourse phase of its flight. On April 26, 2017 during a hearing of the House Armed Services Committee, Admiral Harry Harris, Commander of U.S. Pacific Command, in response to a question from Congressman Trent Franks, said that the SM-3 IIA should be evaluated as a candidate system to protect Hawaii against North Korean ICBMs.

Harris' comments suggest that the SM-3 IIA on *Aegis* ships patrolling near the United States or as part of an *Aegis* Ashore battery deployed in the United States could protect against North Korean and potential Iranian ICBMs. The increasing capabilities of *Aegis* and the SM-3 family of interceptors will expand the areas of defended coverage and at the same time begin to blur the distinctions between homeland and regional defense systems.

### ***Space Sensors to Increase Intercept Capabilities***

Several DOD officials have also weighed in on what BMD capabilities/systems are needed. For example, Lt. Gen. James Dickinson, Commander, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command and Joint Functional Component Command for Integrated Missile Defense, and Brig. Gen. Ronald Buckley, Deputy Director of Operations, U.S. Northern Command have (at the U.S. Army Missile Defense Conference on February 7, 2017) underscored the pressing need for a space-based sensor layer.

Dickenson stated that space is fundamental for every military operation and that this domain is a crucial part of the missile-defense-kill chain. Buckley stated that the U.S. reliance solely on ground-based radars for BMD sensing leaves gaps/seams in coverage which our adversaries are actively seeking to exploit.

BMD space sensors would provide launch detection, birth-to-death tracking, discrimination, intercept, and kill assessment of ballistic missiles, warheads, and countermeasures, features that would significantly improve the capabilities of current and future BMD interceptors. For example, space sensors could provide fire-control-quality tracking data to *Aegis* SM-3 interceptors allowing for launch-on-remote and engage-on-remote operations greatly increasing the battlespace and range of the SM-3s. It would also enhance their ability to conduct boost-ascent phase intercepts (if the *Aegis* ship is positioned close enough to the ballistic-missile-launch site).

Rear Admiral Jon Hill, MDA Deputy Director, is even more emphatic about the need for space-based BMD sensors. At a recent Washington, D.C. roundtable, Hill said the United States “must get to space to enable full persistence coverage of the threat. This will help us get to a boost-phase intercept capability.” He described two options for the space sensor layer: a follow-on constellation to the two Space Tracking and Surveillance System demonstrators currently in orbit; and a smaller, distributed, and less-costly system based on cube satellites.

The high cost of developing and deploying space systems is always a concern. However, the missile defense space-sensor layer would support several national security communities and diverse missions beyond BMD to include tactical intelligence, space situational awareness, treaty verification, and detection of direct-ascent anti-satellite weapons which should help garner political – and possibly funding – support for a space sensor constellation from the communities responsible for those non-BMD missions.

### ***Defense and Ballistic Missile Defense Budgets***

The Trump Administration’s FY 2018 defense budget request, submitted to Congress on May 23, 2017, was \$639.1 billion: \$574.5 billion in the base budget and \$64.6 billion for Overseas Contingency Operations (OCO).

The Missile Defense Agency received \$7.9 billion which represents a 6.4% increase or \$471 million more than the Obama Administration projected for 2018 in its final Future Years Defense Program (FYDP). However, the \$7.9 billion request is \$334 million or 4% less than the amount Congress appropriated for MDA funding in FY 2017.<sup>ix</sup>

A key focus of the budget request is the Ground-based Midcourse Defense program designed to interdict North Korean ICBMs which garnered \$821 million. This includes an additional four ground based interceptors in Alaska for a total of 44 deployed GBIs by the end of 2017. The budget also includes \$465 million for the Redesigned Kill Vehicle for the GBI and \$6.5 million for the Multi-Object Kill Vehicle or MOKV.

Funding for *Aegis* missile defense totals approximately \$1.77 billion. This includes \$852.1 million for *Aegis* BMD research, development, testing, and engineering including the integration of the SM-3 IIA interceptor into BMD weapon systems; \$134.5 million for *Aegis* testing; \$624.1 million for *Aegis* BMD procurement including \$425 million for 34 SM-3 IB missiles in FY18 along with 287 SM-3 Block IB missiles with 182 delivered to the fleet by the end of FY18, and \$59.7 million for the *Aegis* Ashore site in Poland; and \$96.3 million for operation and maintenance.

As directed in the FY 2017 NDAA, the 2018 budget also includes a new program element for Hypersonic Defense funded at \$75.3 million.

Although the Trump procurement request of \$1.2 billion – especially for *Aegis* SM interceptors – is more than the approximately \$1 billion Obama requested for FY 2017, this figure is \$200 million less than the \$1.4 billion set forth in Obama’s projection for FY 2018.

This funding level for *Aegis* Standard Missiles is somewhat surprising given Trump’s support noted earlier both as a candidate and president of *Aegis* BMD ships (and their SM interceptors) and their potential – especially the SM-3 IIA – for homeland defense applications on either *Aegis* BMD ships or in an *Aegis* Ashore configuration.

For example, on March 16, 2017, the Trump White House sent Congress a request for an additional \$30 billion in the FY 2017 supplemental defense appropriations. \$15.5 billion of this request was for the procurement of weapons including several missile defense systems such as the *Patriot* missile (\$228 million), Arleigh Burke *Aegis* destroyers (\$433 million), Standard Missiles (\$43 million), and THAAD (\$151 million).<sup>x</sup>

However, the FY 2017 omnibus appropriations bill passed by the House and Senate and signed by President Trump on May 5, 2017, which keeps the government funded through September 2017, contains less than half of the president's initial \$30 billion defense supplemental request.

A likely explanation for the level of funding for the SM-3 interceptor in the FY 2018 request is that the Trump Administration is waiting for the results of the Ballistic Missile Defense Review, initiated in early May by Defense Secretary Mattis at the direction of President Trump, and the Missile Defeat Review mandated by Congress before determining its missile defense goals, mission focus (i.e., homeland defense/regional defense), R&D/procurement and program priorities, and required funding levels. Both reviews are due to be completed by the end of this year.

Consequently, the FY 2019 budget will surely more clearly delineate the national security and defense plans and priorities of the Trump Administration since it will have incorporated the findings of the missile defense reviews and the new National Defense Strategy that the Defense Department is currently developing.

Trump's FY 2018 budget request has halted the trend in recent years of declining MDA budgets. For example, in FY 2017 the Obama Administration requested \$7.5 billion, down from the \$8.3 billion appropriated in 2016 – and well below MDA's high-water mark of \$9.4 billion in FY 2007.

However, the proposed FY 2018 defense budget request exceeds the ceiling imposed by the 2011 Budget Control Act (BCA) and sequestration requirements by \$52 billion. It is hoped that the Trump Administration will substantially increase MDA's budget, particularly in the FY 2019 budget and FYDP projections, to address not only the North Korean and Iranian nuclear/ballistic missile threat but also the growing ballistic and hypersonic missile capabilities of Russia and China.

Unless BCA/sequestrations restrictions are removed or the limits on defense spending are raised, however, significant increases in the overall defense budget and MDA funding will be problematic.

## **Endnotes**

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<sup>i</sup> *Making Our Military Strong Again*, White House Issue Brief. See <https://www.whitehouse.gov/making-our-military-strong-again>.

<sup>ii</sup> See <https://www.donaldjtrump.com/press-releases/donald-j.-trump-military-readiness-remarks>.

<sup>iii</sup> Some of the North Korean ballistic missile test failures have been attributed to U.S. cyber attacks. "Trump Inherits a Secret Cyberwar Against North Korean Missiles," *The New York Times*, March 4, 2017. See <https://www.nytimes.com/2017/03/04/world/asia/north-korea-missile-program-sabotage.html>.



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<sup>iv</sup> North Korea has conducted five nuclear tests, in 2006, 2009, 2013 and twice in 2016. These nuclear tests have grown steadily more destructive, and Pyongyang continues to pursue its goal of putting a nuclear warhead on an ICBM capable of reaching targets in the United States.

<sup>v</sup> See <http://breakingdefense.com/2017/05/missile-defense-test-realistic-syring-insists/>.

<sup>vi</sup> See <http://freebeacon.com/wp-content/uploads/2017/02/Ltr-to-Trump-missile-defense-policy-signed-FINAL.pdf>.

<sup>vii</sup> See <http://missiledefenseadvocacy.org/wp-content/uploads/2017/05/AAMD-bill.pdf>.

<sup>viii</sup> See <https://armedservices.house.gov/news/press-releases/mark-release-subcommittee-strategic-forces>.

<sup>ix</sup> For an overview of the FY 2018 MDA budget request see <https://www.mda.mil/global/documents/pdf/budgetfy18.pdf>.

<sup>x</sup> See [http://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2017/marchAmendment/FY2017\\_Budget\\_Request.pdf](http://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2017/marchAmendment/FY2017_Budget_Request.pdf), slide 8.

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Founded in 1976, the Institute for Foreign Policy Analysis (IFPA) is an independent, nonpartisan research organization specializing in national security, foreign policy, and defense planning issues.