

# **Missile Defense Agency**

## **Report to Congress**



### **Report On Unfunded Priorities For The Missile Defense Agency**

**February 2020**

The estimated cost of this report or study for the Department of Defense is approximately \$5,610 for the 2020 Fiscal Year. This includes \$4,680 in expenses and \$930 in DoD labor.

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## 1. Executive Summary

This report responds to language contained in the National Defense Authorization Act (NDAA) for fiscal year (FY) 2017, as amended. The language requires the Director of the Missile Defense Agency (MDA) “not later than 10 days after the date on which the budget of the President for a fiscal year is submitted to Congress shall submit to the Secretary of Defense and the Chairman of the Joint Chiefs of Staff, and to the congressional defense committees, a report on the unfunded priorities of the Missile Defense Agency.” This report is for FY 2021.

The FY 2021 missile defense program will continue the development, rigorous testing and fielding of reliable, increasingly capable, state-of-the-art defenses for the United States, our deployed forces, and the forces and territories of our allies and partners against current and projected missile threats. MDA will continue to collaborate closely with Combatant Commanders and the Services to support current and future needs for missile defense capabilities. MDA and these key stakeholders will leverage the existing multi-domain Missile Defense System (MDS) to develop integrated architectures and capabilities to counter not only ballistic missiles but also hypersonic and cruise missile threats to the Homeland in the future. This budget request maintains operational missile defense capacity and capabilities for existing homeland and regional defense forces and will continue to increase interceptor inventory while improving existing sensors, command and control, battle management and communications (C2BMC) system, and kill vehicle capabilities to address evolving threats.

Missile defense remains an important priority for the President and Department of Defense leadership. The MDS meets today’s threat but requires additional capacity and advanced capability to stay ahead of the evolving threat. Ballistic missile proliferation continues to grow as countries acquire a greater number of ballistic missiles, increasing their range, incorporating missile defense countermeasures and making them more complex, survivable, reliable and accurate. As a result, The Missile Defense Agency Priorities are focused on the following to:

- Build warfighter confidence through focus on readiness and sustainment
- Increase engagement capability and capacity to outpace emerging threats
- Increase speed of delivery of new capability to address the evolving threat

## 2. Report Scope

Section 1696 of Public Law 114-328, the National Defense Authorization Act for fiscal year 2017, as amended in Section 1677 of Public Law 115-232, the National Defense Authorization Act for fiscal year 2019 requires the Director of the Missile Defense Agency to submit to the Secretary of Defense and the Chairman of the Joint Chiefs of Staff, and to the congressional defense committees, a report on the unfunded priorities of the Missile Defense Agency. Specifically, the language below governs the report:

*(a) REPORTS. Not later than 10 days after the date on which the budget of the President for a fiscal year is submitted to Congress pursuant to chapter 9 of title 10 section 222b, United States Code, the Director of the Missile Defense Agency shall submit to the Secretary of Defense and the Chairman of the Joint Chiefs of Staff, and to the congressional defense committees, a report on the unfunded priorities of the Missile Defense Agency.*

*(b) ELEMENTS.*

*(1) IN GENERAL. Each report under subsection (a) shall specify, for each unfunded priority covered by such report, the following:*

*(A) A summary description of such priority, including the objectives to be achieved if such priority is funded (whether in whole or in part).*

*(B) The additional amount of funds recommended in connection with the objectives under subparagraph (A).*

*(C) Account information with respect to such priority, including the following (as applicable):*

*(i) Line Item Number (LIN) for applicable procurement accounts.*

*(ii) Program Element (PE) number for applicable research, development, test, and evaluation accounts.*

*(iii) Sub-activity group (SAG) for applicable operation and maintenance accounts.*

*(2) PRIORITIZATION OF PRIORITIES. Each report under subsection (a) shall present the unfunded priorities covered by such report in order of urgency of priority.*

*(c) UNFUNDED PRIORITY DEFINED. In this section, the term “unfunded priority”, in the case of a fiscal year, means a program, activity, or mission requirement of the Missile Defense Agency that—*

*(1) is not funded in the budget of the President for a fiscal year as submitted to Congress pursuant to section 1105 of title 31, United States Code;*

*(2) is necessary to fulfill a requirement associated with an operational or contingency plan of a combatant command or other validated requirement; and*

*(3) would have been recommended for funding through the budget referred to in paragraph (1) by the Director of the Missile Defense Agency in connection with the budget if additional resources had been available for the budget to fund the program, activity, or mission requirement.*

### **3. Unfunded Priorities List for the Missile Defense Agency**

MDA fully supports the President’s Budget as submitted. The following table provides a description of other MDA priorities that are not requested in the FY 2021 President’s Budget. This request is intended to outline needs that were not included in the official budget submission but that would be vital to MDA if additional funding were to be made available. The funding profiles provide the FY 2021 unfunded amounts. These programs have out year funding profiles, some of which will be significant.

## FY21 MDA Unfunded Priorities

Priority	Project Name	Project Description	Program Element / LIN#	Estimated Funding Needed in FY21 (\$000)
1	SM-3 Block IIA Missiles	Additional cost to procure 10 additional SM-3 BLK IIA missiles to achieve delivery of 24 a year, including canisters. 24 is the maximum sustainable production rate per year without further investment.	<b>Procurement</b> <b>PE: 0208866C</b> <b>Line#: MD09 SM-3 Block IIA</b>	<b>231,000</b>
2	THAAD Battery #8	Procure 8th THAAD Battery. Synchronized with KSA FMS case to include AN/TPY-2 Radar.	<b>Multiple Lines (see below)</b>	<b>319,595</b>
			Procurement PE: 0208866C Line#: MD07 THAAD	76,325
			Procurement PE: 0208866C Line#: MD11 Radars	243,270
3	THAAD A2 Heavy Expanded Mobility Tactical Trucks (HEMTT)	Oshkosh A2 Heavy Expanded Mobility Tactical Trucks (HEMTT) must be procured in 1QFY2021 due to the production line shutting down. A "life buy" of 30 HEMTT trucks is required to support the THAAD weapon system.	<b>Procurement</b> <b>PE: 0208866C</b> <b>Line#: MD07 THAAD</b>	<b>30,108</b>
4	Cruise Missile Defense for Homeland - Indications and Warning	Develop technology and advanced command and control to integrate networked sensors to detect and track advanced cruise missiles threats. Leverage BOA to track and report on advanced threats, establish new suite for 24/7 testing of new ground processing algorithms to detect and report on long range Cruise Missiles.	<b>Multiple Lines (see below)</b>	<b>39,200</b>
			C2BMC PE: 0603896C	36,200
			Enabling PE: 0603890C	3,000
5	Hypersonic Defense - Regional Glide Phase Weapon System (RGPWS)	Accelerates development of weapon system of a regional glide phase weapon system. Includes three major efforts as follows:	<b>Multiple Lines (see below)</b>	<b>224,000</b>
		<i>Glide Phase Weapon System. Increases scope to include fire control and launcher integration. Includes two vendors in FY21.</i>	Hypersonic PE: 0604181C	194,000
		<i>Leverage and Upgrade Existing Systems (Engineering Enablers). Focused on kinetic kill lethality testing, wind tunnel and aero optics testing, end game guidance and performance M&amp;S anchored in aero and aero optical test data, mid term and long term Hypersonic defense architecture analysis.</i>		15,000
		<i>HD Weapon System Technologies. Technology development efforts on advanced long term seeker windows, on-demand propulsion for axial/lateral divert, thermal protection system testing, and lethality testing of non-kinetic systems.</i>		15,000
6	Cybersecurity	Planning, analysis, and assessment to provide cybersecurity assessments of BMDS critical infrastructure. Advances Agency's compliance with DOD Cybersecurity Discipline Implementation Plan, to protect MDA IT systems in the highly- contested cybersecurity threat environment.	<b>Multiple Lines (see below)</b>	<b>103,519</b>
			AEGIS PE: 0603892C	6,527
			Enabling PE: 0603890C	64,622
			Sensors PE: 0603884C	22,632
			Space PE: 1206895C	550
			Advanced Concepts PE: 0603176C	4,220
			C2BMC PE: 0603896C	4,968
7	Non-Kinetic weapons development	Enable Microwave system architecture and system level design reviews to support non-kinetic alternatives for missile defense against hypersonic and other threats. Produce lethality Vulnerability Modules (VMs) of directed energy prototypes. Leverage Navy technology development in beam control to extend technologies for missile defense needs. Validate maturity of DPAL technology and prepare technology to enter the OUSD(R&E) Directed Energy roadmap.	<b>Technology Maturation Initiatives PE: 0604115C</b>	<b>90,000</b>
8	Classified #1	Classified	<b>C2BMC PE: 0603896C</b>	<b>50,000</b>
9	Classified #2	Classified	<b>Special Programs</b> <b>PE: 0603891C</b>	<b>40,000</b>
<b>Total FY21 UFR RTC</b>				<b>1,127,422</b>

## Acronyms

BMDS	Ballistic Missile Defense System
BOA	BMDS Overhead Persistent Infra-Red Architecture (BOA)
C2BMC	Command and Control, Battle Management, and Communications
DoD	Department of Defense
FMS	Foreign Military Sales
FY	Fiscal Year
HEL	High Energy Laser
HDR-H	Homeland Defense Radar - Hawaii
HPM	High Power Microwave
KSA	Kingdom of Saudi Arabia
MDA	Missile Defense Agency
MILCON	Military Construction; Military Construction funding
MDS	Missile Defense System
SSL	Space Sensor Layer
PE	Program Element
PB	President's Budget
SECDEF	Secretary of Defense
SM-3	Standard Missile 3
THAAD	Terminal High Altitude Area Defense
U.S.	United States
USINDOPACOM	United States Indo-Pacific Command