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Sep 26, 2024

Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW



Modernized Selected Acquisition Report (MSAR) Missile Defense System (MDS)

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

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(U) Common DoD Abbreviations

\$B	Billions of Dollars
\$K	Thousands of Dollars
\$M	Millions of Dollars
ACAT	Acquisition Category
Acq O&M	Acquisition-Related Operations and Maintenance
ADM	Acquisition Decision Memorandum
APA	Additional Performance Attribute
APB	Acquisition Program Baseline
APPN	Appropriation
APUC	Average Procurement Unit Cost
BA	Budget Authority or Budget Activity
Blk	Block
BY	Base Year
CAE	Component Acquisition Executive
CAPE	Cost Assessment and Program Evaluation
CARD	Cost Analysis Requirements Description
CCE	Component Cost Estimate
CCP	Component Cost Position
CDD	Capability Development Document
CLIN	Contract Line Item Number
CPD	Capability Production Document
CY	Calendar Year or Constant Year
DAB	Defense Acquisition Board
DAE	Defense Acquisition Executive
DAES	Defense Acquisition Executive Summary
DAVE	Defense Acquisition Visibility Environment
DoD	Department of Defense
DSN	Defense Switched Network
EMD	Engineering and Manufacturing Development
EVM	Earned Value Management
FD	Full Deployment
FDD	Full-Deployment Decision
FMS	Foreign Military Sales
FOC	Full Operational Capability
FRP	Full-Rate Production
FY	Fiscal Year
FYDP	Future Years Defense Program
ICD	Initial Capabilities Document
ICE	Independent Cost Estimate
Inc	Increment
IOC	Initial Operational Capability
IT	Information Technology
JROC	Joint Requirements Oversight Council
KPP	Key Performance Parameter
KSA	Key System Attribute

LRIP	Low-Rate Initial Production
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Program
MILCON	Military Construction
N/A	Not Applicable
O	Objective
O&M	Operations and Maintenance
O&S	Operating and Support
ORD	Operational Requirements Document
OSD	Office of the Secretary of Defense
PAUC	Program Acquisition Unit Cost
PB	President's Budget
PE	Program Element
PEO	Program Executive Officer
PM	Program Manager
POE	Program Office Estimate
R&MF	Revolving and Management Funds
RDT&E	Research, Development, Test, and Evaluation
SAR	Selected Acquisition Report
SCP	Service Cost Position
T	Threshold
TBD	To Be Determined
TY	Then Year
U.S.	United States
U.S.C	United States Code
UCR	Unit Cost Reporting
USD(A&S)	Under Secretary of Defense (Acquisition and Sustainment)

(U) Program Description

Full Name Missile Defense System	Short Name MDS
PNO 362	Decision Authority Defense Acquisition Executive
Lead Component Missile Defense Agency	Program Executive Office Director, Missile Defense Agency
Joint Program No	Acquisition Type Major Defense Acquisition Program
Adaptive Acquisition Pathway Major Capability Acquisition	Acquired Systems MDS
Acquisition Category ID	
Acquisition Status Active Acquisition	

Mission

Mission and Description To develop and deploy a layered Missile Defense System (MDS) to defend the United States, its deployed forces, allies, and friends from hypersonic and missile attacks of all ranges and in all phases of flight. Following guidance from the President, the Secretary of Defense approved the 2019 Missile Defense Review (MDR) Report (dated January 2019), which established the following principles and elements governing U.S. Missile Defense:

- The U.S. homeland missile defense will stay ahead of rogue states' missile threats
- The missile defense will defend U.S. forces deployed abroad and support the security of allies and partners
- The United States will pursue new concepts and technologies
- Comprehensive missile defense capabilities will support a broad, multi-layered approach to preventing and defeating missile attacks
- Flexibility and adaptability will enable the United States to tailor its missile defense strategy to potential adversaries
- Tighter offense-defense integration and interoperability will leverage the full range of assets available
- A focus on the importance of space will provide a more effective, resilient, and adaptable missile defense posture

(U) Responsible Office**Program Executive Officer**

Director, Missile Defense Agency

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Program Manager

Ballistic Missile Defense System PMO

No Data

(U) Executive Summary

Program Highlights Since Last Report

Introduction

The Missile Defense Agency (MDA) took significant steps in 2023 to develop cutting-edge technologies and deliver advanced missile defense weapon systems to our Nation's Warfighters. MDA continued its ongoing sustainment and development activities.

Highlights since the previous SAR

Dec 2023 Chief of Naval Operations formally accepted Aegis Ashore Poland on 15 December 2023.

Dec 2023 Flight Test Ground-based Midcourse Defense (GMD) Weapon System-12 (FTG-12), conducted on 11 December 2023, was a successful intercept of an Intermediate Range Ballistic Missile with countermeasures using an upgraded GMD GBI. This test of the homeland defense system was the first intercept flight test of a three-stage GBI operating in two-stage mode, meaning the third stage was commanded not to ignite, allowing earlier release of the kill vehicle, thereby, providing increased battlespace with closer range engagements.

Nov 2023 Standard Missile - 6 (SM-6) Dual II 1.8.8 and SM-6 Dual II Software Upgrade (SWUP) 2.2.10 were added to the Missile Defense System (MDS) Operational Capability Baseline on Nov 2, 2023. The SM-6 Dual II substantially increases capability against the SM-6 Dual I threat set providing larger operating areas and higher performance, expands on the Sea-Based Terminal (SBT) Increment 1 threat set capability, and adds in capability against a hyper-sonic threat. SM-6 Dual II supports MDS Increment 5 Phased Implementation Plan functionality

Oct 2023 In one of the largest Integrated Air and Missile Defense events ever conducted by the U.S. Navy and MDA, a Navy Aegis Destroyer demonstrated the successful engagements of two short-range ballistic missile targets and simultaneous successful engagements of two subsonic anti-ship cruise missile drone targets. Flight Test Aegis Weapon System-48 (FTM-48) realistically demonstrated a concurrent ballistic missile defense and anti-air warfare raid and an ability to integrate classic air defense with new discrimination and tracking capabilities to defend against coordinated, simultaneous missile attacks.

Oct 2023 The USG formally accepted the 800th THAAD Missile Round on behalf of the US Army. Lockheed Martin, the Prime contractor for the THAAD Weapon System, delivered its first Missile Round for the US Army in March 2011. This cumulative total includes interceptors produced for the US Army, the United Arab Emirates, and the initial delivery for the Kingdom of Saudi Arabia under a Foreign Military Sales case.

Sep 2023 Flight Test Other (FTX)-49 was successfully executed on 2 September 2023 when the Long Range Discrimination Radar (LRDR) at Clear Space Force Station, Alaska, conducted its first track and discrimination of a medium-range ballistic missile target. MDA subsequently completed Conditional Acceptance of LRDR.

Sep 2023 Aegis Ashore Poland added to Operational Capability Baseline (OCB). This second land-based interceptor site increases the defended area in Europe as part of European Phased Adaptive Approach Phase 3, a U.S. contribution to NATO missile defenses. The OCB is a configuration-controlled document that lists all approved Missile Defense System-level hardware and software that is consistently available for the Warfighters' use in their mission to defend the United States, deployed forces, friends, and allies.

Jun 2023 The USG formally accepted the first three Kingdom of Saudi Arabia (KSA) Foreign Military Sales (FMS) THAAD interceptors on 29 June 2023. Lockheed Martin delivered the

missile rounds ahead of schedule.

Mar 2023 MDA, in cooperation with the U.S. Navy, successfully conducted retest of Flight Test Aegis Weapon System (FTM)-31 Event 1 at the Pacific Missile Range Facility, located on Kauai, Hawaii. FTM-31 E1a demonstrated the capability of a ballistic missile defense (BMD)-configured Aegis ship to detect, track, engage, and intercept a medium range ballistic missile (MRBM) target in the terminal phase of flight utilizing the SM-6 Dual II with Software Upgrade (SWUP) in a single salvo of two interceptors.

(U) History of Significant Developments Since Program Inception

Date	Description
November 2022	Flight Test Aegis Weapon System (JFTM)-07. JFTM was a four-event Japanese funded Foreign Military Sales (FMS) flight test campaign. All four (JFTM) test events were successful. JFTM-07 successfully tracked and intercepted a Medium Range Ballistic Missile (MRBM) T4-E Target with a Standard Missile (SM)-3 Block IIA missile launched from the Japanese Ship (JS) MAYA. JFTM-07 Events 1 and 2 both successfully simulated engagements to include a live MRBM and a simulated Anti-Air Warfare (AAW) from the JS HAGURO. JFTM-07 Event 3 involved a MRBM launched from Pacific Missile Range Facility (PMRF) in which the JS MAYA demonstrated the ability to detect, track, and forward track messages to the JS HARGURO. The JS HARGURO successfully executed a simulated Engage-on-Remote (EoR) with a simulated SM-3 Block IIA. JFTM-07 Event 4 included a live concurrent engagement of a Short Range Ballistic Missile (SRBM) T4-B and an air breathing target with an SM-3 Block 1B Threat Upgrade (TU) and an SM-2 Block IIIB missile respectively launched from the JS HAGURO operating in Integrated Air and Missile Defense Priority Mode. JFTM-07 Event 2 was the first mission for the new High Altitude Observatory (HALO)-IR aircraft used to collect Electro-Optical/Infrared (EO/IR) truth data that will confirm critical test information and provide calibrated EO/IR data used in modeling and simulation.
October 2022	Sea-Based X-Band Radar (SBX) arrived at Joint Based Pearl Harbor-Hickam to begin the in-port maintenance period after setting a new record of 661 continuous days at sea
August 2022	MDA participated in Pacific Dragon 2022 (PD-22). PD-22 consisted of three Integrated Air and Missile Defense (IAMD) events, including an intercept of a MRBM with the SM-3 Block IA, simulated BMD and Anti-Air Warfare engagements, and additional SM-3 Block IA flights for stockpile surveillance as well as assessments for using SM-3 Block IA missiles as surrogate ballistic missile targets for future BMD tests. MDA utilized this campaign to test and evaluate critical new missile defense capabilities on ships from Republic of Korea Navy (ROKN) and Japanese Maritime Self-Defense Force (JMSDF) and to support risk reduction and readiness for future international flight tests
April 2022	The Long Range Discrimination Radar (LRDR), Clear Space Force Station (SFS) successfully conducted the final inspection of the LRDR Power Plant and achieved Beneficial Occupancy
April 2022	Flight Test Aegis Weapon System (FEM-01). An Aegis Ballistic Missile Defense (BMD) System-equipped destroyer successfully fired at a threat-representative MRBM target with a SM-3 Block IIA missile
March 2022	Space Tracking and Surveillance System (STSS) decommissioned. Designed for 2 years of service, STSS completed 12 Years and 2 months providing data from orbit
March 2022	MDA partnered with the U.S. Army Program Executive Office Missiles and Space in the execution of the culminating events for U.S. Forces Korea's Urgent Material Release request for Terminal High Altitude Area Defense (THAAD)/Patriot integration. Flight Test THAAD Weapon System (FTT)-21 successfully demonstrated THAAD's capability to fire and control two PAC-3 Missile System Enhancement (MSE) interceptors and intercept one

Date	Description
	SRBM target (Black Dagger). FTT-21 verified the THAAD Weapon System using THAAD 4.0 software can compute MSE firing solutions, communicate with an M903 launcher, control two MSE interceptors in flight, and successfully intercept an SRBM target
December 2021	Construction completed on the Long Range Discrimination Radar (LRDR), Clear Space Force Station (SFS). Clear Air Force Station (AFS) was redesignated Clear SFS in Jun 2021
November 2021	Upgraded Early Warning Radar (Gen 2 Phase 2) at Fylingdales, United Kingdom operationally accepted by the U.S. Space Force (USSF)
July 2021	Flight Test Aegis Weapon System (FTM)-33. FTM-33 was the first operational test of Sea-Based Terminal capability to detect, track, and lethally engage a raid of two SRBM targets with four Standard Missile (SM)-6 missiles. The firing ship, USS RALPH JOHNSON, successfully detected, tracked, and engaged the raid of two SRBMs with dual salvos of SM-6 Dual IIs and intercepted one of the SRBM targets
May 2021	At Sea Demonstration/Formidable Shield 2021 (ASD/FS-21) was a series of events coordinated by U.S. Navy and Commander Task Force 64 that took place at the United Kingdom Ministry of Defence Hebrides Missile Range in Scotland and Andoya Test Center in Norway. The exercise included 11 North Atlantic Treaty Organization (NATO) nations supporting Maritime Integrated Air and Ballistic Missile Defense (IAMD) live fire operations in order to build interoperability and demonstrate IAMD Command and Control with the deployment of Commander Task Group IAMD. Notable U.S. BMD/Sea Based Terminal events included: simulated Standard Missile (SM)-6 Dual II engagement of a live Pathfinder Zombie (Short Range Ballistic Missile); live organic intercept of a Medium Range Ballistic Missile (MRBM) T4-B with an SM-3 Block IB Threat Upgrade; live Launch-on-Remote (Netherlands BMD Cueing) engagement of a MRBM T4-B with an SM-3 Block IA; and a raid engagement of multiple Anti-Air Warfare missiles with SM-2s while simultaneously engaging a simulated Enhanced Dynamic Test Target with a live SM-3 Block IA
May 2021	Flight Test Aegis Weapon System (FTM)-31. Executed by the USS RALPH JOHNSON, the Sea-Based Terminal flight test FTM-31 Event 1 demonstrated the ability of an Aegis Baseline 9.C2.0 (BMD 5.1) ship to detect, track, and lethally intercept an MRBM target, in a salvo of two SM-6 Dual II (BMD initialized) missiles. Ultimately, the flight test was unsuccessful in achieving intercept, but MDA gathered critical data to inform future developments.
April 2021	Final three silos installed in Missile Field 4 (MF4), Fort Greely, Alaska. This was the first time that three Ground-Based Midcourse Defense Interceptor silos had been installed in one day
January 2021	Sea-Based X-Band Radar (SBX) completed maintenance cycle and headed back to sea. SBX is expected to remain at sea until Sep 2022 (600 days)
December 2020	Silo Fabrication efforts in MF4, Fort Greely, Alaska completed ahead of schedule
November 2020	Flight Test Aegis Weapon System (FTM)-44. An Aegis Ballistic Missile Defense (BMD) System-equipped

Date	Description
	destroyer, intercepted and destroyed a threat-representative Intercontinental Ballistic Missile (ICBM) target with a Standard Missile-3 (SM-3) Block IIA missile. In this developmental test, the destroyer used engage-on-remote capabilities through the Command and Control Battle Management Communications (C2BMC) network as part of a defense of Hawaii scenario. This was the first Aegis intercept of an ICBM target
November 2020	Upgraded Early Warning Radar (UEWR) at Cape Cod AFS, Massachusetts operationally accepted by USSF
October 2020	Flight Test Patriot (FTP)-27 Event 1. Successfully executed a flight test to demonstrate the Patriot Weapon System Missile Segment Enhancement extended ground range salvo engagement of threat-representative Short Range Ballistic Missile (SRBM) target exercising Patriot Launch-on-Remote using THAAD AN/TPY-2 (Terminal Mode) track and discrimination data. The test supported the THAAD Advanced Capabilities Urgent Material Release
April 2020	UEWR at Clear AFS, Alaska operationally accepted by USSF
February 2020	Flight Test Patriot (FTP)-27. Joint test with the U.S. Army Lower Tier Project Office that demonstrated Patriot's Launch-on-Remote capability with Army/Navy Transportable Radar Surveillance (AN/TPY)-2's capability to detect, track and transmit that data to the Patriot Weapon System. The Patriot missile did not successfully intercept the Short Range Ballistic Missile (SRBM) target.
August 2019	The first radar panel for the new Long Range Discriminating Radar (LRDR) delivered to Clear Air Force Station, Alaska.
August 2019	Flight Test Terminal High Altitude Area Defense (THAAD) (FTT)-23. THAAD successfully demonstrated its expanding capabilities by intercepting a medium-range ballistic missile that was dropped from a C-17 aircraft. FTT-23 demonstrated the ability to increase the defended area of a single battery and provide additional engagement opportunities against threat ballistic missiles. Soldiers of the E-62 battery were not aware of the target launch timing. This was the 16th successful intercept in 16 attempts for the operational THAAD weapon system.
August 2019	Flight Test Aegis Weapon System (FTM)-31, Event 2. The Navy successfully conducted this test at the Pacific Missile Range Facility, Hawaii. The USS JOHN FINN (DDG 113) with Aegis Baseline 9.C2 (BMD 5.1) software, tracked, engaged, and intercepted for the first time a subsonic Anti-Air Warfare target with a Standard Missile-6 Dual II missile.
March 2019	Flight Test Ground-based Midcourse Defense (FTG)-11. With the successful intercept of an advanced ICBM-class target with countermeasures launched from Kwajalein, MDA executed the first Ground-based Midcourse Defense test involving a salvo engagement, involving two Ground Based Interceptors (GBIs) launched from the missile field at Vandenberg Air Force Base, California. Following detection by Air Force satellites, the Command and Control, Battle Management and Communication (C2BMC) system directed early tracking information to precision discrimination sensors deployed on Wake Island (AN/TPY-2 radar) and in the Pacific Ocean (Sea-Based X-band radar). We achieved an intercept of the lethal warhead using the lead GBI, with the trailing GBI observing the intercept flash and debris scene then intercepting the next most lethal object. During the test of homeland defenses, for the first time, Spacebased Kill Assessment sensors successfully provided data required to assess successful intercepts.
November 2017	44th GBI deployed to silo at Fort Greely, Alaska, completing a DoD-mandated plus-up before the end of the year.

Date	Description
May 2017	GBI with redesigned kill vehicle successfully intercepted an ICBM target over the Pacific.
April 2017	THAAD battery deployed to South Korea.
April 2013	THAAD battery deployed to Guam.
January 2012	AN/TPY-2 radar deployed to Turkey.
September 2009	Deputy Secretary of Defense signed DoDD 5134.09, the MDA "Charter."
September 2008	AN/TPY-2 radar deployed to Israel.
June 2008	The U.S. Navy successfully shot down a damaged U.S. satellite with an SM-3 interceptor. The non-functioning National Reconnaissance Office satellite was traveling at over 17,000 mph at an altitude of 153 nautical miles above the earth. The satellite's fuel (over 1000 pounds of hydrazine) represented a danger to people if allowed to reenter the atmosphere.
May 2008	U.S. Army activated the first Terminal High Altitude Area Defense (THAAD) Battery.
September 2007	Sea-Based X-Band Radar deployed for first time to collect data during GBI Test.
March 2007	The Airborne Laser completed the first in-flight test of the laser targeting system.
March 2005	MDA completed first series of sea test of the Sea-Based X-Band Radar (SBX).
July 2004	First Ground-based Midcourse Defense Interceptor (GBI) was deployed to an underground silo at Fort Greely, Alaska. Four more GBIs were deployed before the end of the year.
December 2002	President George W. Bush directed that the Secretary of Defense "proceed with fielding an initial set of missile defense capabilities."
January 2002	First successful intercept test of the SM-3.
January 2002	Secretary of Defense signed memorandum changing the name of the Ballistic Missile Defense Organization (BMDO) to the Missile Defense Agency (MDA).
January 2001	Aegis cruiser USS Lake Erie conducted first successful flight test of the newly developed Standard Missile-3 (SM-3) interceptor.
September 2000	Following an unsuccessful test in July 2000, President Clinton announced that he was not going to initiate deployment of the national missile defense system.
July 1999	President William J. Clinton signed the National Missile Defense Act of 1999 (Public Law 106-38) that required the United States to deploy an effective national missile defense system capable of defending the territory of the United States against limited ballistic missile attacks.

(U) Schedule**(U) Schedule Events**

No Data

Notes

For schedule milestones, see the unclassified Missile Defense Accountability Report (MDAR) and the MDAR Classified Annex submitted on April 9, 2024.

Schedule Baseline Deviation Explanation

None

(U) Current Significant Schedule Risks and Risks Identified at Milestones/Decisions

None

(U) Performance**(U) Performance Attributes**

No Data

(U) Requirement Source:

Not Provided

Notes

For performance characteristics, see the unclassified Missile Defense Accountability Report (MDAR) and the MDAR Classified Annex, submitted on April 9, 2024.

Performance Deviation Explanation

None

(U) Acquisition Budget Estimate**(U) Total Acquisition Estimates and Quantities**

Category (\$M) Base Year: 2002	Current Estimate PB 2025 CY\$ obs / TY\$ obs	
	RDT&E	158,122.0
Procurement	24,061.1	35,286.1
MILCON	1,853.8	2,826.7
Total Acquisition	184,036.9	246,211.3
Program Acquisition Unit Cost	-	-
Average Procurement Unit Cost	-	-
Program End-Item Quantity		
Development	-	-
Procurement	-	-
O&M-Acquired	-	-

Budget Notes

For Major Defense Acquisition Programs, DoD requires an APB at program initiation. The APB establishes cost, quantity, schedule, and performance parameters that form the basis for unit cost reporting under 10 U.S.C. Sec. 2433. As a single integrated system of systems, the MDS does not have an APB. In response to another statutory requirement (10 U.S.C. Sec 225), however, Missile Defense Agency provides the Congress with an annual Missile Defense Accountability Report (MDAR), which includes schedule, technical, operational capacity, resource, and contract baselines that guide development of ballistic missile defense capabilities. The MDAR includes unit cost baselines for key assets (e.g. SM-3 missiles and THAAD interceptors) comprising the MDS.

Quantity Notes

Quantities of Key MDS Assets (grouped by appropriation, total buys from FY 2002-29):

Program Component	RDT&E	Proc
Terminal High Altitude Area Defense (THAAD) Batteries	2	6
THAAD Interceptors	50	726
Aegis SM-3 Block IA	79	71
Aegis SM-3 Block IIA	17	158
Aegis SM-3 Block IB	21	501
Ground-Based Midcourse Defense (GMD) Ground-Based Interceptors (GBIs)	61*	0
Sensors: AN/TPY-2	7	6

*NOTE: 58 GBIs were procured under RDT&E plus 3 were assembled from spares

Cost Baseline Deviation Explanation

None

(U) Risk and Sensitivity Analysis

Current Procurement Estimate Risks (12/31/2023)
None

(U) Unit Costs

(U) Current Estimate Compared with Current Baseline

A Current Cost Baseline and Acquisition Budget Estimate must be defined to display this comparison

(U) Current Estimate Compared with Original Baseline

An Original Cost Baseline and Acquisition Budget Estimate must be defined to display this comparison

(U) Cost Growth Details

Actions taken or Proposed to Control Future Cost Growth

Status of Each Major Contract and Significant Factors Contributing to Cost and Schedule Variance; Projected Effects on Future Program Costs

See Contracts section.

Notes

The Missile Defense Agency (MDA) is predominately a research and development organization that is responsible for the development and fielding of several subsystems that comprise the MDS. MDA works with the Services to transition subsystems as they mature, allowing MDA to return to focusing on its core research mission. Although MDA does budget for a subsystem's MDS unique mission costs leading up to transition, it does not capture the Service's portion of the cost. Therefore, since the MDA portion does not represent the entire operating and support cost of each subsystem, MDA does not report these in the SAR/MSAR.

(U) Life-Cycle Costs**(U) Operating and Support and Disposal Cost Estimates Compared with Baseline**

A Current Cost Baseline must be defined to display this comparison.

(U) Current Cost Estimate Sources**Operating and Support Cost**

Type: No estimate. Not Applicable

Operating and Support Baseline Deviation Explanation

None

Cost Notes

See note above.

(U) Operating and Support Variance with Prior Estimate

No Data

(U) Operating and Support Cost Element Structure Estimates by Acquired System

No Data

(U) Annual Operating and Support Costs per Unit Compared with Antecedent System

No Data

(U) Operating and Support Cost Estimate Assumptions

No Data

Additional O&S Estimate Assumptions

None

Antecedent Estimate Assumptions

None

O&S Annual Cost Calculation Memo

None

(U) Performing Activities and Contracts

Additional information for this section is provided in the classified annex to this submission.

(U) External Government Activities

None

(U) Contracts and Efforts

Contract Title	Contract Number / Effort	Contractor	Phase
Development and Sustainment Contract (DSC)	HQ0147-12-C-0004	The Boeing Company	Development
IRBM/ICBM Targets	HQ0147-11-C-0006	Northrop Grumman	Development
Medium Range Ballistic Missile Type 1 / Type 2 (T1/T2) Targets	HQ0147-14-C-0001	AEROJET ROCKETDYNE COLEMAN AEROSPACE, IN	Development
Standard Missile 3 (SM3) Block IIA All Up Round (AUR)	HQ0276-15-C-0003	Raytheon Missile Defense	Development
Type 4 (T4) Subscale Targets	HQ0147-19-C-0005	Northrop Grumman	Development
Standard Missile 3 (SM3) Block IB Multi-Year Procurement (MYP)	HQ0851-20-C-0002	Raytheon Missile Systems	Production

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	HQ0147-12-C-0004	Order Number:	N/A
Contract Title:	Development and Sustainment Contract (DSC)	Strategy:	FAR 15: Negotiated Contracts
CAGE:	3A768 - The Boeing Company	Contracting Office:	MDA/GMK
City, State/Province:	Huntsville, AL		
Effort Number:	-	Supported Phase:	Development
Type:	Multiple Types	Award Date:	December 30, 2011
Latest Modification Date:	December 23, 2023	Definitization Date:	December 30, 2011
Latest Modification No.:	P00203	Work Start Date:	December 30, 2011
Technical Data Rights:	None		
Notes:	1) Contract: HQ0147-12-C-0004 / HQ0147-19-C-0004; Title: Development & Sustainment Contract (DSC). 2) Contract Types: Cost (CR), Cost Plus Fixed Fee (CPFF), Cost Plus Incentive Fee (CPIF), Cost Plus Award Fee (CPAF), Fixed Price Incentive (Firm Target) (FPIF).		

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
2,816.8 2,816.8	11,635.2 11,826.8	10,807.8 10,939.3	-	-	-

Work Completed (%): 84.82%
 Cost Variance (TY\$M): -304.8
 Schedule Variance (TY\$M): -86.7

Factors Contributing to Cost Variance and Projected Effects on Program Costs

Cumulative Cost Variance primarily driven by: Historical labor (surge, turnover), software and engineering designs/rework, and material overruns.

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

Cumulative Schedule Variance primarily driven by: Historical production, redesign issues, material and fielding delays.

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	HQ0147-11-C-0006	Order Number:	N/A
Contract Title:	IRBM/ICBM Targets	Strategy:	FAR 15: Negotiated Contracts
CAGE:	8LM16 - Northrop Grumman	Contracting Office:	MDA/TCK
City, State/Province:	Chandler, AZ		
Effort Number:	-	Supported Phase:	Development
Type:	Multiple Types	Award Date:	March 7, 2011
Latest Modification Date:	December 19, 2023	Definitization Date:	March 7, 2011
Latest Modification No.:	P00342	Work Start Date:	March 7, 2011
Technical Data Rights:	Government Purpose License Rights		
Notes:	None		

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM		Initial Quantity	Current Quantity	Delivered Quantity
217.1 244.8	1,491.1 1,566.2	1,130.5	1,134.5	8	27	23

Work Completed (%): 91.15%
 Cost Variance (TY\$M): -3.6
 Schedule Variance (TY\$M): -6.6

Factors Contributing to Cost Variance and Projected Effects on Program Costs

Factors contributing to the cost variance are closed CLINs, (\$32.8M), and Kit-15 Non-Recurring Engineering, (\$3.5M), which has been offset by material costing less than baselined, production learning curve efficiencies, and labor efficiencies in production and pre/post mission tasks, \$33.1M. No concerns currently with costs. Program Costs will continue to trend favorably as contract moves forward.

Note: The information presented above does not include any FFP CLINs or CLINs with a DFARS deviation to omit the required EVM clause, so the EV data may compute less than the Current Target Price.

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

Factors contributing to the schedule variance are a production plan change from three IRBMs per year to two per year and ECU design changes and material delays. No concerns currently with schedule. All future deliveries are on track to complete as currently planned.

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	HQ0147-14-C-0001	Order Number:	-
Contract Title:	Medium Range Ballistic Missile Type 1 / Type 2 (T1/T2) Targets	Strategy:	FAR 15: Negotiated Contracts
CAGE:	7VXX4 - AEROJET ROCKETDYNE COLEMAN AEROSPACE, IN	Contracting Office:	MDA/TCK
City, State/Province:	Orlando, FL		
Effort Number:	-	Supported Phase:	Development
Type:	Fixed-Price Incentive (Firm Target)	Award Date:	October 31, 2013
Latest Modification Date:	December 21, 2023	Definitization Date:	October 31, 2013
Latest Modification No.:	P00197	Work Start Date:	October 31, 2013
Technical Data Rights:	Limited Rights		
Notes:	Technical Data/Computer Software to be Furnished with Restrictions (Limited Rights) eSR19 and Roll Control		

Initial Price (TY\$M) Target / Ceiling		Current Price (TY\$M) Target / Ceiling		Est. Price at Completion (TY\$M) Contractor / PM		Initial Quantity	Current Quantity	Delivered Quantity
73.4	78.7	1,155.5	1,509.4	494.1	496.7	6	18	5

Work Completed (%): 89.19%

Cost Variance (TY\$M): -90.1

Schedule Variance (TY\$M): -5.5

Factors Contributing to Cost Variance and Projected Effects on Program Costs

Factors contributing to cost variance are the majority of cost overrun in the past from Non-Recurring Engineering efforts with future cost growth in the enhanced solid rocket motor and roll control system areas. The cost overrun on the program is unrecoverable, however, costs are currently covered within controls and there are no funding impacts. Note: The information presented above does not include any FFP CLINs or CLINs with a DFARS deviation to omit the required EVM clause, so the EV data computes less than the Current Target Price.

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

Factors contributing to the schedule variance are production delays from delayed design due to ongoing enhanced solid rocket motor issues; and Thrust Vector Control System (TVCS) delays due controller issues.

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	HQ0276-15-C-0003	Order Number:	N/A
Contract Title:	Standard Missile 3 (SM3) Block IIA All Up Round (AUR)	Strategy:	FAR 15: Negotiated Contracts
CAGE:	15090 - Raytheon Missile Defense	Contracting Office:	MDA/ABK
City, State/Province:	Tucson, AZ		

Effort Number: - Supported Phase: Development
 Type: Multiple Types Award Date: June 11, 2015
 Latest Modification Date: December 21, 2023 Definitization Date: August 28, 2017
 Latest Modification No.: P00144 Work Start Date: June 11, 2015
 Technical Data Rights: None
 Notes: Applicable SM3 data is CUI and will be available upon request.

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
-	-	-	-	-	-

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number: HQ0147-19-C-0005 Order Number: N/A
 Contract Title: Type 4 (T4) Subscale Targets Strategy: FAR 15: Negotiated Contracts
 CAGE: 8LM16 - Northrop Grumman Contracting Office: MDA/TCK
 City, State/Province: Chandler, AZ

Effort Number: - Supported Phase: Development
 Type: Multiple Types Award Date: September 20, 2019
 Latest Modification Date: December 18, 2023 Definitization Date: September 20, 2019
 Latest Modification No.: P00052 Work Start Date: September 20, 2019
 Technical Data Rights: None
 Notes: None to date. The Contractor has submitted documentation to support their request to incorporate data rights, but they have not been accepted.

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
189.3 200.2	282.2 295.5	317.3 327.7	9	9	-

Work Completed (%): 46.55%
 Cost Variance (TY\$M): -27.1
 Schedule Variance (TY\$M): -25.9

Factors Contributing to Cost Variance and Projected Effects on Program Costs

The main cost contributor is higher vendor prices in multiple areas and low value material cable components, and additional effort in completing Kit design, system test, and hardware builds. Majority of contract is on Fixed Price CLINs. Program overruns are covered within program controls.

Note: The information presented above does not include any FFP or FPAF CLINs or CLINs with a DFARS deviation to omit the required EVM clause, so the EV data may compute less than the Current Target Price.

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

The main schedule contributor is driven by Castor IVB motor milestone delays due to case insulation issues, material delays impacting multiple areas, and Orion 38 Motor Milestone delays due to Hydroproof delays. No impact to program milestones at this time.

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	HQ0851-20-C-0002	Order Number:	N/A
Contract Title:	Standard Missile 3 (SM3) Block IB Multi-Year Procurement (MYP)	Strategy:	FAR 15: Negotiated Contracts
CAGE:	15090 - Raytheon Missile Systems	Contracting Office:	MDA/ABK
City, State/Province:	Tucson, AZ		
Effort Number:	-	Supported Phase:	Production
Type:	Multiple Types	Award Date:	March 27, 2020
Latest Modification Date:	December 14, 2023	Definitization Date:	March 27, 2020
Latest Modification No.:	P00031	Work Start Date:	March 27, 2020
Technical Data Rights:	None		
Notes:	Applicable SM3 data is CUI and will be available upon request.		

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
-	-	-	-	-	-

(U) Production**(U) Low-Rate Initial Production**

No Data

Rationale if LRIP Quantity Exceeds 10% of Total Procurement Quantity (Current Determination)

None

LRIP Notes

Production numbers of significant component programs are listed under Acquisition Budget Estimate and in the unclassified Missile Defense Accountability Report (MDAR), delivered on April 9, 2024.

(U) Deliveries and Expenditures**(U) Acquisition Funding**

	Total Estimate	Actual to Date	Actual, Percent Complete
Years Appropriated	-	-	-
Appropriations (TY, \$M)	246,211.3	-	-
Expenditures (TY, \$M)	246,211.3	-	-

(U) End Items Delivered

No Data

Notes

None

(U) International Program Aspects

General Memo

None

Exportability and Business Issues

Exportability has been a key consideration of the MDS from its inception. Issues will vary by individual program elements within the MDS and can be specifically addressed upon request.

Is design for international exportability planned?	Yes	Industry/Partner Exportability Cost-Sharing?	Yes
--	-----	--	-----

Program Protection: Technology Security and Foreign Disclosure Issues

Issues will vary by individual program elements within the MDS and can be specifically addressed upon request.

(U) Agreements

No International Agreements have been defined for MDS



UNCLASSIFIED

Modernized Selected Acquisition Report Supplement

Missile Defense System (MDS)

FY 2025 President's Budget
Effective: December 31, 2023

UNCLASSIFIED

MSAR Supplement Sections

Program Description

Program Use of the Adaptive Acquisition Framework

Technologies and Systems Engineering

Funding Sources (Acquisition)

Funding Sources (Operating and Support)

Acquisition Estimate and Quantity Summary

Annual Acquisition Estimates by Appropriation Account

Acquired System Annual End-Item Quantities by Appropriation Account

Nuclear Costs

Operational Fielding Plan

O&S Independent Cost Estimate

Annual Operating and Support Estimates by Cost Element

Program Description

Full Name

Missile Defense System

Short Name

MDS

PNO

362

Lead Component

MDA

AAF Pathway

MCA

Acquisition Type

MDAP

Acquired Systems

MDS

Related Programs

Full Name	PNO	Pathway	Type	ACAT/ BCAT	Acquisition Status	Costs in SAR? Acq O&S	

Program Use of the Adaptive Acquisition Framework

The Missile Defense Agency (MDA) emphasizes the Adaptive Acquisition Framework. MDA was founded on the premise of rapidly fielding missile defense capabilities to the warfighters. It has done so for decades, utilizing various innovative acquisition strategies to include Rapid Prototyping, Spiral Development, Other Transaction Authority, Broad Agency Announcements, as well as traditional acquisition processes, selecting the best strategy for a particular acquisition. This emphasis on rapid fielding to defeat the threat has been expanded in the last year by pushing decision-making down to the lowest possible levels of the organization, ensuring decisions can be made quickly by the leaders with the best information. For additional related program information see PB 2025 Missile Defense Accountability Report (MDAR)

Technologies and Systems Engineering

Missile Defense System

Major Software Efforts

Title	Status	Fielding Date	Description
See Note			See all MDA Elements' respective Deliveries & Supporting Events sections of the PB 2025 MDAR for information on major software efforts and major engineering changes. Technical baseline variance descriptions can also be found in the PB 2025 MDAR, Classified Appendix G.

Major Engineering Changes

Title	Original Need Date	Fielding Date	Description, Rationale and Program Impacts

Funding Sources (Acquisition)

Acquisition Funding Notes

Missile Defense System

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
Procurement	0300D	XX	OTHER - Other or New 0300D Line Item	XXX	XXX - --		
Note: Line Item AP80							
Procurement	0300D	01	MD09 - Aegis BMD	0208866C	-		
Procurement	0300D	01	MD08 - Ground Based Midcourse	0208866C	-		
Procurement	0300D	01	MD11 - BMDs AN/TPY-2 Radars	0208866C	-		
Procurement	0300D	01	MD14 - SM-3 IIAs	0208866C	-		
Procurement	0300D	01	MD26 - Arrow 3 Upper Tier Systems	0208866C	-		
Procurement	0300D	01	MD34 - Short Range Ballistic Missile Defense (SRBMD)	0208866C	-		
Procurement	0300D	01	MD73 - Aegis Ashore Phase III	0208866C	-		x
Procurement	0300D	01	MD80 - NGI Procurement	0604874C	-		
Procurement	0300D	01	MD83 - Iron Dome	0208866C	-		
Procurement	0300D	01	MD90 - Aegis BMD Hardware and Software	0208866C	-		
Procurement	0300D	01	MD07 - THAAD	0208866C	-		
Procurement	0300D	01	MD65 - Defense of Guam Procurement	0208902C	-		
RDT&E	0400D	03	0603176C - Advanced Concepts and Performance Assessment	0603176C	MC71 - Cyber Operations		

Missile Defense System

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	0400D	03	0603176C - Advanced Concepts and Performance Assessment	0603176C	MD71 - Advanced Concepts and Performance Assessments		
RDT&E	0400D	03	0603176C - Advanced Concepts and Performance Assessment	0603176C	MD40 - Program Wide Support		
RDT&E	0400D	03	0603180C - Advanced Research	0603180C	MD25 - Advanced Technology Development		
RDT&E	0400D	03	0603180C - Advanced Research	0603180C	MD40 - Program Wide Support		
RDT&E	0400D	04	0202057C - Safety Program Management	0202057C	MDSH - Safety Program Management		
RDT&E	0400D	04	0305103C - Cyber Security Initiative	0305103C	MDCS - Cyber Security Initiative		
RDT&E	0400D	04	0603881C - Ballistic Missile Defense Terminal Defense Segment	0603881C	MC07 - Cyber Operations		
RDT&E	0400D	04	0603881C - Ballistic Missile Defense Terminal Defense Segment	0603881C	MD06 - PAC-3		
RDT&E	0400D	04	0603881C - Ballistic Missile Defense Terminal Defense Segment	0603881C	MD07 - Terminal High Altitude Area Defense (Thaad)		
RDT&E	0400D	04	0603881C - Ballistic Missile Defense Terminal Defense Segment	0603881C	MD40 - Program-Wide Support		
RDT&E	0400D	04	0603882C - Ballistic Missile Defense Midcourse Defense Segment	0603882C	MC08 - Cyber Operations		
RDT&E	0400D	04	0603882C - Ballistic Missile Defense Midcourse Defense Segment	0603882C	MD08 - Ground Based Midcourse Defense		
RDT&E	0400D	04	0603882C - Ballistic Missile Defense Midcourse Defense Segment	0603882C	MD40 - Program-Wide Support		
RDT&E	0400D	04	0603884C - Ballistic Missile Defense Sensors	0603884C	MC11 - Cyber Operations		
RDT&E	0400D	04	0603884C - Ballistic Missile Defense Sensors	0603884C	MD11 - BMDS Radars		

Missile Defense System

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	0400D	04	0603884C - Ballistic Missile Defense Sensors	0603884C	MD40 - Program-Wide Support		
RDT&E	0400D	04	0603890C - BMD Enabling Programs	0603890C	MC30 - Cyber Operations		
RDT&E	0400D	04	0603890C - BMD Enabling Programs	0603890C	MC31 - Engineering Cyber Operations		
RDT&E	0400D	04	0603890C - BMD Enabling Programs	0603890C	MD24 - System Engineering & Integration		
RDT&E	0400D	04	0603890C - BMD Enabling Programs	0603890C	MD28 - Intelligence & Security		
RDT&E	0400D	04	0603890C - BMD Enabling Programs	0603890C	MD30 - BMD Information Management Systems		
RDT&E	0400D	04	0603890C - BMD Enabling Programs	0603890C	MD31 - Modeling & Simulation		
RDT&E	0400D	04	0603890C - BMD Enabling Programs	0603890C	MD32 - Safety, Quality and Mission Assurance		
RDT&E	0400D	04	0603890C - BMD Enabling Programs	0603890C	MT23 - Enabling Test		
RDT&E	0400D	04	0603890C - BMD Enabling Programs	0603890C	MD40 - Program-Wide Support		
RDT&E	0400D	04	0603891C - Special Programs - MDA	0603891C	MD27 - Special Programs		
RDT&E	0400D	04	0603892C - AEGIS BMD	0603892C	MC09 - Cyber Operations		
RDT&E	0400D	04	0603892C - AEGIS BMD	0603892C	MD09 - Aegis Bmd		
RDT&E	0400D	04	0603892C - AEGIS BMD	0603892C	MM09 - Aegis BMD SM-3 Development		
RDT&E	0400D	04	0603892C - AEGIS BMD	0603892C	MX09 - Aegis BMD Development Support		
RDT&E	0400D	04	0603892C - AEGIS BMD	0603892C	MD40 - Program-Wide Support		
RDT&E	0400D	04	0603896C - Ballistic Missile Defense Command and Control, Battle Management and Communications (C2BMC)	0603896C	MC01 - Cyber Operations		

Missile Defense System

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	0400D	04	0603896C - Ballistic Missile Defense Command and Control, Battle Management and Communications (C2BMC)	0603896C	MD01 - C2BMC		
RDT&E	0400D	04	0603896C - Ballistic Missile Defense Command and Control, Battle Management and Communications (C2BMC)	0603896C	MT01 - C2BMC Test		
RDT&E	0400D	04	0603896C - Ballistic Missile Defense Command and Control, Battle Management and Communications (C2BMC)	0603896C	MX01 - C2BMC Development Support		
RDT&E	0400D	04	0603896C - Ballistic Missile Defense Command and Control, Battle Management and Communications (C2BMC)	0603896C	MD40 - Program-Wide Support		
RDT&E	0400D	04	0603898C - Ballistic Missile Defense Joint Warfighter Support	0603898C	MC03 - Cyber Operations		
RDT&E	0400D	04	0603898C - Ballistic Missile Defense Joint Warfighter Support	0603898C	MD03 - Joint Warfighter Support		
RDT&E	0400D	04	0603898C - Ballistic Missile Defense Joint Warfighter Support	0603898C	MT03 - Joint Warfighter Test		
RDT&E	0400D	04	0603898C - Ballistic Missile Defense Joint Warfighter Support	0603898C	MD40 - Program-Wide Support		
RDT&E	0400D	04	0603904C - Missile Defense Integration & Operations Center (MDIOC)	0603904C	MC22 - Cyber Operations		
RDT&E	0400D	04	0603904C - Missile Defense Integration & Operations Center (MDIOC)	0603904C	MD22 - MDIOC		
RDT&E	0400D	04	0603904C - Missile Defense Integration & Operations Center (MDIOC)	0603904C	MD40 - Program-Wide Support		
RDT&E	0400D	04	0603906C - Regarding Trench	0603906C	MD35 - Regarding Trench		
RDT&E	0400D	04	0603907C - Sea Based X-Band Radar (SBX)	0603907C	MX46 - Sea Based X-Band Radar Development Support		
RDT&E	0400D	04	0603907C - Sea Based X-Band Radar (SBX)	0603907C	MD40 - Program Wide Support		

Missile Defense System

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	0400D	04	0603913C - Israeli Cooperative Programs	0603913C	MD26 - ARROW Weapons System		
RDT&E	0400D	04	0603913C - Israeli Cooperative Programs	0603913C	MD34 - Short Range Ballistic Missile Defense (SRBMD)		
RDT&E	0400D	04	0603914C - Ballistic Missile Defense Test	0603914C	MC04 - Cyber Operations		
RDT&E	0400D	04	0603914C - Ballistic Missile Defense Test	0603914C	MT04 - BMDs Test Program		
RDT&E	0400D	04	0603914C - Ballistic Missile Defense Test	0603914C	MD40 - Program Wide Support		
RDT&E	0400D	04	0603915C - Ballistic Missile Defense Targets	0603915C	MC05 - Cyber Ops		
RDT&E	0400D	04	0603915C - Ballistic Missile Defense Targets	0603915C	MT05 - BMDs Targets Program		
RDT&E	0400D	04	0603915C - Ballistic Missile Defense Targets	0603915C	MD40 - Program Wide Support		
RDT&E	0400D	04	0604102C - Guam Defense Development	0604102C	MD65 - Defense of Guam Development		
RDT&E	0400D	04	0604102C - Guam Defense Development	0604102C	MD40 - Program Wide Support		
RDT&E	0400D	04	0604181C - Hypersonic Defense	0604181C	MD29 - Hypersonic Defense		
RDT&E	0400D	04	0604181C - Hypersonic Defense	0604181C	MD40 - Program Wide Support		
RDT&E	0400D	04	0604873C - Long Range Discrimination Radar (LRDR)	0604873C	MD96 - Long Range Discrimination Radar		
RDT&E	0400D	04	0604873C - Long Range Discrimination Radar (LRDR)	0604873C	MD40 - Program Wide Support		
RDT&E	0400D	04	0604874C - Improved Homeland Defense Interceptors	0604874C	MD80 - Next Generation Interceptor (NGI)		
RDT&E	0400D	04	0604874C - Improved Homeland Defense Interceptors	0604874C	MD40 - Program Wide Support		

Missile Defense System

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	0400D	04	0604876C - Ballistic Missile Defense Terminal Defense Segment Test	0604876C	MT07 - THAAD Test		
RDT&E	0400D	04	0604876C - Ballistic Missile Defense Terminal Defense Segment Test	0604876C	MD40 - Program Wide Support		
RDT&E	0400D	04	0604878C - Aegis BMD Test	0604878C	MT09 - Aegis BMD Test		
RDT&E	0400D	04	0604878C - Aegis BMD Test	0604878C	MD40 - Program Wide Support		
RDT&E	0400D	04	0604879C - Ballistic Missile Defense Sensor Test	0604879C	MT11 - BMDS Radars Test		
RDT&E	0400D	04	0604879C - Ballistic Missile Defense Sensor Test	0604879C	MD40 - Program Wide Support		
RDT&E	0400D	04	0604880C - Land-Based SM-3 (LBSM3)	0604880C	MC68 - Cyber Operations		
RDT&E	0400D	04	0604880C - Land-Based SM-3 (LBSM3)	0604880C	MD68 - Aegis Ashore		
RDT&E	0400D	04	0604880C - Land-Based SM-3 (LBSM3)	0604880C	MD40 - Program Wide Support		
RDT&E	0400D	04	0604887C - Ballistic Missile Defense Midcourse Segment Test	0604887C	MT08 - Ground Based Midcourse Test		
RDT&E	0400D	04	0604887C - Ballistic Missile Defense Midcourse Segment Test	0604887C	MD40 - Program Wide Support		
RDT&E	0400D	04	1206895C - Ballistic Missile Defense System Space Programs	1206895C	MC33 - BMDS Cyber Operations		
RDT&E	0400D	04	1206895C - Ballistic Missile Defense System Space Programs	1206895C	MD33 - Missile Defense Space Experimentation Center		
RDT&E	0400D	04	1206895C - Ballistic Missile Defense System Space Programs	1206895C	MD42 - HBTSS Prototype		
RDT&E	0400D	04	1206895C - Ballistic Missile Defense System Space Programs	1206895C	MD40 - Program-Wide Support		
RDT&E	0400D	06	0901598C - Management HQ - MDA	0901598C	MD38 - Management Headquarters		

Missile Defense System

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
MILCON	0500D	XX	OTHER - Other or New 0500D Line Item	XXX	XXX - --		

Note: Line Item MM44 (Sunk), MM65, MM80, MM14, MM32

Funding Sources (Operating and Support)

Note: Budget lines fund activities executed by the Program Office or Sustainment Office.

Operating and Support Funding Notes

Missile Defense System

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
O&M	0100D	XX	OTHER - Other or New 0100D Line Item	XXX	XXX - --		

Note: Line item MD09, MD08, MD11, MD07

Acquisition Estimate and Quantity Summary**Missile Defense System****Acquisition Estimates**

Category	PB 2025	TY (\$M)	Current Base Year	Original Base Year	Report Fiscal Year
			CY2002 (\$M)	CY2002 (\$M)	CY2024 (\$M)
RDT&E		208,098.5	158,122.0	158,122.0	257,990.0
Procurement		35,286.1	24,061.1	24,061.1	39,257.7
MILCON		2,826.7	1,853.8	1,853.8	3,024.7
O&M		-	-	-	-
Total Acquisition		246,211.2	184,036.9	184,036.9	300,272.4
PAUC		n/a	n/a	n/a	n/a
APUC		n/a	n/a	n/a	n/a

Acquisition End-Item Quantities

System	PB 2025	Development	Procurement
MDS		-	-
Total		-	-

Unit Description

See MSAR in DAVE, page 14.

Current and Future Years Defense Program Summary, TY(\$M)

Appropriation	Prior	2024	2025	2026	2027	2028	2029	To Complete	Total
RDT&E	160,457.8	8,721.0	8,173.4	7,740.5	8,003.2	7,565.5	7,437.0	-	208,098.5
Procurement	24,905.7	1,453.3	1,070.9	1,507.5	1,693.8	2,361.0	2,293.8	-	35,286.1
MILCON	1,584.7	149.0	555.5	349.1	176.4	5.9	6.0	-	2,826.7
O&M	-	-	-	-	-	-	-	-	-
PB 2025 Total	186,948.3	10,323.3	9,799.9	9,597.2	9,873.3	9,932.4	9,736.9	-	246,211.2

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Missile Defense System

Since its inception in 2002, MDA was directed to use its own set of indices for use in the BMDS Selected Acquisition Report (SAR). This direction remained unchanged throughout the life of the SAR and for consistency purposes continues with the Modernized Selected Acquisition Report (MSAR).

Source for TY\$-CY\$ Conversion:

0400D - Research, Development, Test & Eval, DW					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2002 (\$M)
Total		208,098.5	208,098.5	-	158,122.0
2002		6,618.800	6,618.8	1.018794	6,496.7
2003		6,446.300	6,446.3	1.033392	6,238.0
2004		7,566.800	7,566.8	1.033702	7,320.1
2005		8,826.700	8,826.7	1.046797	8,432.1
2006		7,690.300	7,690.3	1.086400	7,078.7
2007		9,382.800	9,382.8	1.123594	8,350.7
2008		8,655.300	8,655.3	1.130599	7,655.5
2009		8,411.900	8,411.9	1.169001	7,195.8
2010		6,945.900	6,945.9	1.176992	5,901.4
2011		7,406.700	7,406.7	1.190099	6,223.6
2012		6,809.152	6,809.2	1.207982	5,636.8
2013		5,867.289	5,867.3	1.243386	4,718.8
2014		5,730.978	5,731.0	1.274400	4,497.0
2015		5,666.992	5,667.0	1.304827	4,343.1
2016		6,210.193	6,210.2	1.312105	4,733.0
2017		6,201.242	6,201.2	1.328003	4,669.6
2018		7,759.557	7,759.6	1.356092	5,722.0
2019		6,985.312	6,985.3	1.321274	5,286.8
2020		7,865.269	7,865.3	1.432195	5,491.8
2021		7,851.226	7,851.2	1.500397	5,232.8
2022		7,266.295	7,266.3	1.579240	4,601.1
2023		8,292.828	8,292.8	1.627976	5,093.9
2024		8,720.984	8,721.0	1.663955	5,241.1
2025		8,173.419	8,173.4	1.702247	4,801.5
2026		7,740.546	7,740.5	1.737994	4,453.7
2027		8,003.184	8,003.2	1.774492	4,510.1
2028		7,565.517	7,565.5	1.811757	4,175.8
2029		7,437.008	7,437.0	1.849804	4,020.4

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Missile Defense System

Since its inception in 2002, MDA was directed to use its own set of indices for use in the BMDS Selected Acquisition Report (SAR). This direction remained unchanged throughout the life of the SAR and for consistency purposes continues with the Modernized Selected Acquisition Report (MSAR).

Source for TY\$-CY\$ Conversion:

0300D - Procurement, Defense-Wide									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2002 (\$M)
Total	-	-	-	-	-	35,286.1	35,286.1	-	24,061.1
2002							-		-
2003							-		-
2004							-		-
2005							-		-
2006							-		-
2007							-		-
2008							-		-
2009						206.600	206.6	1.183276	174.6
2010						835.700	835.7	1.187243	703.9
2011						1,070.800	1,070.8	1.200314	892.1
2012						1,347.238	1,347.2	1.218118	1,106.0
2013						1,464.168	1,464.2	1.256257	1,165.5
2014						1,785.174	1,785.2	1.285870	1,388.3
2015						1,757.170	1,757.2	1.313379	1,337.9
2016						1,488.761	1,488.8	1.325464	1,123.2
2017						1,610.399	1,610.4	1.339878	1,201.9
2018						3,052.841	3,052.8	1.370831	2,227.0
2019						2,260.400	2,260.4	1.224419	1,846.1
2020						1,724.734	1,724.7	1.479542	1,165.7
2021						2,027.594	2,027.6	1.545846	1,311.6
2022						2,611.253	2,611.3	1.608719	1,623.2
2023						1,662.861	1,662.9	1.650331	1,007.6
2024						1,453.312	1,453.3	1.684852	862.6
2025						1,070.933	1,070.9	1.726578	620.3
2026						1,507.546	1,507.5	1.762837	855.2
2027						1,693.805	1,693.8	1.799856	941.1
2028						2,360.962	2,361.0	1.837653	1,284.8
2029						2,293.804	2,293.8	1.876244	1,222.6

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Missile Defense System

Since its inception in 2002, MDA was directed to use its own set of indices for use in the BMDS Selected Acquisition Report (SAR). This direction remained unchanged throughout the life of the SAR and for consistency purposes continues with the Modernized Selected Acquisition Report (MSAR).

Source for TY\$-CY\$ Conversion:

0500D - Military Construction, Defense-Wide					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2002 (\$M)
Total		2,826.7	2,826.7	-	1,853.8
2002		8.200	8.2	1.037975	7.9
2003		24.900	24.9	1.050633	23.7
2004		24.400	24.4	1.051724	23.2
2005		22.300	22.3	1.061905	21.0
2006		4.900	4.9	1.113636	4.4
2007		0.800	0.8	1.142857	0.7
2008		-	-		-
2009		18.200	18.2	1.189542	15.3
2010		96.700	96.7	1.195303	80.9
2011		1.200	1.2	1.200000	1.0
2012		71.863	71.9	1.234759	58.2
2013		138.652	138.7	1.279077	108.4
2014		188.095	188.1	1.319965	142.5
2015		38.990	39.0	1.856667	21.0
2016		181.817	181.8	1.360906	133.6
2017		193.644	193.6	1.384160	139.9
2018		203.000	203.0	1.425562	142.4
2019		198.184	198.2	1.441338	137.5
2020		45.472	45.5	1.573355	28.9
2021		52.922	52.9	1.626008	32.5
2022		23.435	23.4	1.671376	14.0
2023		47.063	47.1	1.710761	27.5
2024		149.010	149.0	1.743959	85.4
2025		555.501	555.5	1.784913	311.2
2026		349.122	349.1	1.822396	191.6
2027		176.360	176.4	1.860666	94.8
2028		5.924	5.9	1.899740	3.1
2029		6.042	6.0	1.939635	3.1

Acquired System Annual End-Item Quantities by Appropriation Account
(Aligned to Budget Position: PB 2025)

Missile Defense System

fiscal year	MDS			Total
Total	-			-

Nuclear Costs

Missile Defense System

Program's Use of Department of Energy Resources

N/A

Operational Fielding Plan

Missile Defense System

System: MDS

Fielding and Inventory Notes

Data was provided in annual Missile Defense Accountability Report (MDAR) submitted on April 9, 2024. See THAAD delivery, inventory, and expenditure data on the THAAD Schedule Estimate in the PB 2025 MDAR. See SM-3 Block IB and Block IIA cumulative delivery information on their respective Schedule Estimates and Buy/Delivery Summaries in the PB 2025 MDAR.

MDS Fielding Plan and Inventory

fiscal year	Store	Field	Expend/Loss	Decommission	Inventory
2023					
2024					-
2025					-
2026					-
2027					-
2028					-
2029					-

O&S Independent Cost Estimate

Missile Defense System

Independent and Current Cost Estimate Comparison

Category	CY2002 (\$M)	Independent Cost Estimate	Current Estimate	Variance with ICE (%)
Unit-Level Manpower				-
Unit Operations				-
Maintenance				-
Sustaining Support				-
Continued System Improvements				-
Other				-
Total O&S		-	-	-

Independent Cost Estimate Source

Event:

Type:

Approved by:

Current Cost Estimate Source

Type:

Approved by:

Cost Estimate Variance Explanation

N/A

Annual Operating and Support Estimates by Cost Element

Missile Defense System

System: MDS

Source for TY-CY Conversion:

Operating and Support Cost Elements							
fiscal year	1.0 Unit-Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY2002 (\$M)
Total	-	-	-	-	-	-	-