

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603892C / <i>AEGIS BMD</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	6,439.527	586.329	693.727	649.255	-	649.255	602.818	539.786	649.556	714.388	Continuing	Continuing
MD09: <i>Aegis BMD</i>	4,009.029	331.877	446.480	397.228	-	397.228	233.885	217.318	336.690	364.666	Continuing	Continuing
MM09: <i>Aegis BMD SM-3 Development</i>	969.210	83.758	42.323	62.064	-	62.064	152.807	103.096	62.782	56.930	Continuing	Continuing
MC09: <i>Cyber Operations</i>	49.609	3.336	5.972	6.574	-	6.574	6.608	6.782	6.962	7.135	Continuing	Continuing
MX09: <i>Aegis BMD Development Support</i>	973.763	139.525	173.105	158.780	-	158.780	184.255	190.342	214.146	252.552	Continuing	Continuing
MD40: <i>Program-Wide Support</i>	437.916	27.833	25.847	24.609	-	24.609	25.263	22.248	28.976	33.105	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Decrease from FY 2024 to FY 2025 reflects the cancellation of the prototype development and planned demonstration for Army/Navy Surface Radar Surveillance and Control (AN/SPY-1) Digital Receive Upgrade (DRU) (formerly Digital Low Noise Amplifier (dLNA)).

A. Mission Description and Budget Item Justification

The Sea-Based Weapon Systems mission is to deliver an enduring, operationally effective and supportable Ballistic Missile Defense (BMD) capability to defend the nation, deployed forces, friends and allies, and to increase this capability by delivering evolutionary improvements as part of Missile Defense System upgrades. The Sea-Based Weapon Systems element of the Missile Defense System capitalizes upon and evolves from the existing U.S. Navy Aegis Weapon System (AWS) and Standard Missile (SM) infrastructures. Sea-Based Weapon Systems provides a forward-deployable, mobile capability to detect and track Ballistic Missiles of all ranges, and the ability to destroy Short-Range Ballistic Missiles, Medium-Range Ballistic Missiles, and Intermediate-Range Ballistic Missiles in the midcourse phase of flight, and shorter range missiles in the terminal phase of flight. Sea-Based Weapon Systems also provides a Long Range Surveillance and Track capability to the Missile Defense System. Upgrades to both the Aegis BMD Weapon System and the SM-3 configuration enable Sea-Based Weapon Systems to provide effective, supportable defensive capability against longer range, threats and an enduring Aegis Ashore defensive capability.

This Program Element also provides the development of the AWS Software configuration for the Aegis portion of the Defense of Guam (DoG), including capabilities for defense against advanced ballistic threats and integration of Land Based Radar configuration.

This Program Element includes Missile Defense System threat discrimination improvements, which will enhance Missile Defense System effectiveness against the evolving adversary threat. The result will be a Missile Defense System architecture more capable of discriminating and destroying reentry vehicles with a higher degree of confidence, improving Warfighter shot doctrine, and more efficiently using interceptor inventory. Missile Defense System threat discrimination improvements

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency	Date: March 2024
---	-------------------------

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603892C / <i>AEGIS BMD</i>
---	--

are funded from the Enabling (0603890C), Midcourse (0603882C), BMD Sensors (0603884C), Command and Control, Battle Management, and Communications (0603896C), and Aegis BMD (0603892C) Program Elements.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	595.572	693.727	639.678	-	639.678
Current President's Budget	586.329	693.727	649.255	-	649.255
Total Adjustments	-9.243	0.000	9.577	-	9.577
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-9.243	0.000			
• Other Adjustment	0.000	0.000	9.577	-	9.577

Change Summary Explanation

-Increase in FY 2025 provides Pacific Deterrence Initiative (PDI) funding increase for analysis, development, integration, and testing of Aegis Guam System software to meet operational capability delivery in FY 2030.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD				Project (Number/Name) MD09 / Aegis BMD			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MD09: Aegis BMD	4,009.029	331.877	446.480	397.228	-	397.228	233.885	217.318	336.690	364.666	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

The decrease from FY 2024 to FY 2025 reflects the following:

- Cancellation of the prototype development and demonstration for Army/Navy Surface Radar Surveillance and Control (AN/SPY-1) Digital Receive Upgrade (DRU) (formerly Digital Low Noise Amplifier (dLNA)).
- Delay of Army Launcher and Sea Based Terminal Increment 3 increased threat space integration into the Weapon System from FY 2027 to FY 2032.
- Development completion and certification of Ballistic Missile Defense (BMD) 6.0.
- Continued alignment to the Missile Defense Agency's (MDA) modeling and simulation (M&S) Enterprise needs and to scheduled Integrated Master Test Plan (IMTP) events.
- Deferment of Standard-Missile (SM)-3 Block IB Radio Frequency (RF) Links missile enhancement.

A. Mission Description and Budget Item Justification

Sea-Based Weapon Systems continues development of a Sea-Based BMD capability in support of the MDA's mission to protect the homeland, deployed forces, friends and allies from ballistic missile threats of all ranges and in all stages of flight.

Systems Engineering & Integration performs requirements development, engineering analysis, capability integration, and performance verification for Aegis BMD development and Missile Defense System integration.

Aegis BMD Technology Design and Insertion enables cross-baseline specification management and capability assessments to ensure consistent application of technical standards, processes, and procedures across the Aegis BMD program. Aegis BMD specific efforts include: systems engineering and architecture (process and execution); M&S; Verification and Validation (V&V) test and evaluation support; ship integration; and quality, safety, and mission assurance. V&V efforts in this accomplishment are performed at the Aegis BMD element level, which feed into the overall Missile Defense System level.

Aegis Baseline (BL) 5.4.1 (BMD 4.2) is a joint effort with the U.S. Navy that refurbishes existing ship AN/SPY-1 radar arrays with the installation of antenna Low Noise Amplifiers (LNAs). As a result of cost growth and schedule delay, MDA and Navy jointly realigned the LNA program to include software upgrades only with no LNA hardware procurements. The restructured program referred to as BMD 4.1.3 will develop spiral capability for the non-LNA upgrades beginning in FY 2024 to include Sea Based Terminal (SBT) Increment 2 Capability Upgrade, Hypersonic Tracking and Reporting, Mission Planner Console update, and Threat Database re-architecture. This capability will deliver to 21 Flight I/II Guided Missile Destroyer (DDG) ships beginning in FY 2025.

Aegis BL 9 (BMD 5.1.5 and 5.1.6) software spiral aligns with U.S. Navy Aegis Baseline 9 Capability Package (CP) 2024 and CP 2026. The software spiral provides enhanced detection, track, report, and defeat capabilities of additional medium, intermediate, and long-range threats with increasingly complex engagement scenes and increased raid sizes. Through a series of unique Capability Insertion Packages, BMD 5.X capability spirals provide continuous software updates to the original

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency	Date: March 2024
--	-------------------------

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

BMD 5.1.0 architecture to incorporate emerging Missile Defense System capabilities, War fighter improvements, SM-3 software updates, and improved Weapon System performance necessary to pace the threat. Aegis BL 9 (BMD 5.1.5 and 5.1.6) software spiral includes support for technology maturation and prototyping that will demonstrate enhanced Missile Defense tracking performance against longer range and more sophisticated threats in challenging and complex environments.

Aegis BL 10 (BMD 6.0 and 6.0.1) provides deployed assets and the next software spiral for capability and performance improvements to Integrated Air and Missile Defense (IAMD). Aegis BL 10 (BMD 6.0) will provide deployed assets enhanced IAMD capability, while enabling Missile Defense System element utilization of SPY-6 data for remote engagement. Enhancements include significant improvements in IAMD planning, search, track, discrimination and force level (multi-asset) raid defense. Aegis BL 10 (BMD 6.0) will enable U.S. Navy ships to maintain greater stand-off range while increasing performance against complex threats. Aegis BL 10.1 (BMD 6.1) will integrate Sea Based Terminal Increment 3 capability with the SPY-6(V)1 radar and achieve alignment with Aegis Common Source Library capabilities equivalent to BMD 5.1.5.

Aegis BL 10M (BMD 6M) adapts Aegis BL10 (BMD 6.x) developed for AN/SPY-6(V)1 and Flight III DDGs to work with the AN/SPY-6(V)4 radar as part of the DDG Modification (MOD) 2.0 program, replacing AN/SPY-1 radars on select Flight IIA DDGs.

This Program Element also provides the development of the Aegis Weapon System Software configuration for the Aegis portion of the Defense of Guam (DoG), including capabilities for defense against advanced ballistic threats and integration of the Land Based Radar configuration.

M&S Objective Simulation Framework (OSF) effort develops, maintains and deploys the framework hardware and software for use at element laboratories and Combatant Command (CCMD) locations to support IMTP events, Missile Defense System capability delivery assessments, War fighter training, exercises, and wargames.

M&S Missile Defense System Simulations & Tools effort provides development and sustainment of digital products and the architecture framework, and delivery/maintenance of infrastructure for Missile Defense System performance assessments.

Missile Defense System Assessment and Verification, Validation & Assessment (VV&A) includes activities to support Missile Defense System Operational Capability Baseline (OCB) delivery decisions and Technical Capability Declarations, and anchor System M&S.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<p>Title: Systems Engineering & Integration</p> <p align="right">Articles:</p> <p>Description: Perform requirements development, engineering analysis, capability integration, and performance verification for Aegis BMD development and Missile Defense System integration, including Aegis BMD compliance with the Missile Defense System Specification and Missile Defense System Description Document.</p> <p>Recurring Accomplishments: - Conduct system level performance analyses to support ongoing Missile Defense System Architecture and Systems Engineering efforts</p>	<p>20.795</p> <p>-</p>	<p>20.430</p> <p>-</p>	<p>21.330</p> <p>-</p>

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024		
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Perform top-down system level engineering analysis, capability integration, and performance verification for Aegis BMD development and Missile Defense System integration, including Aegis BMD compliance with the Missile Defense System Specification and Missile Defense System Description Document - Identify architecture alternatives that improve the Missile Defense System's performance and are complementary to and interoperable with North Atlantic Treaty Organization systems and theaters around the world - Define Missile Defense System technical content expectations and develop system requirements, to include integration of new capabilities - Develop functional performance, interface, and design suitability requirements in collaboration with Aegis BMD engineers to ensure correct flow-down and allocation of Missile Defense System-level requirements to Aegis BMD - Respond to Warfighter, Combatant Command and other requests for analyses and requests for information; provide analytical support for real-world events - Conduct non-advocate assessments of Missile Defense System capabilities and limitations prior to capability delivery decisions to determine fielding readiness (including Theater/Regional BMD) - Conduct extensive analysis of data collected in Missile Defense System test events to evaluate overall System operations and performance <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans: - SEE ABOVE.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: N/A</p>				
Title: Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion		55.360	59.535	60.623
		Articles: -	-	-
<p>Description: Aegis BMD Core System Engineering enables cross-baseline specification management and capability assessments to ensure consistent application of technical standards, processes, and procedures across the Aegis BMD program. Aegis BMD specific efforts include: systems engineering and architecture (process and execution), M&S, V&V, test and evaluation support, and ship integration. M&S V&V efforts in this accomplishment are performed at the Aegis BMD element level, which feed into the overall Missile Defense System level.</p> <p>Recurring Accomplishments:</p> <ul style="list-style-type: none"> - Conduct U.S. Navy and Joint Link certifications required for Baseline certifications for operational deployment 				

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Support Ground Test Campaign for Missile Defense System to achieve OCB declaration - Execute V&V activities and provide results to MDA System Verification Team and the Operational Test Agency (OTA) in support of System-level accreditation for Ballistic Missile Defense System (BMDS) events - Provide M&S Requirements Management and Development - Conduct further development of Aegis BMD System Architecture and overarching system concepts - Conduct Missile Defense System level requirements allocation and Aegis BMD system requirements development, trace, validation and verification, and configuration management for coordination with all participating external agencies and organizations - Perform Command, Control, Computer, Communications and Intelligence (C4I) systems engineering to further develop Aegis BMD requirements, and to identify and resolve Missile Defense System interoperability issues - Define and coordinate development and implementation of C4I capabilities in U.S. Navy C4I programs of record to meet Aegis BMD requirements - Conduct Threat Engineering analysis and Requirements Assessment - Conduct Systems Engineering for Aegis BMD system-level M&S development and interfaces to the Missile Defense System architecture - Provide verified, validated, accredited models in support of U.S. Navy certification, MDA characterization of system-level performance, OTA assessment of operational capabilities, and representation of Aegis BMD capabilities in Missile Defense System test and exercise venues - Provide target engineering, test planning activities, and IMTP process/inputs for Aegis BMD - Conduct Performance Assessment and Verification processes which assess the sufficiency of Objective Quality Evidence to provide a traceable evidence to verify Element Specification requirements traced to Missile Defense System requirements - Provide oversight of all Aegis BMD analysis in support of systems assessment and verification supporting test and analysis requirements and test planning inputs to align with MDA and U.S. Navy test programs - Provide consolidated analysis and reporting for firing events <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Provide Digital Engineering improvements to ensure access to cloud based high-speed network communications, data, and tools for increased collaboration, analysis support, and fidelity across the development, analysis, test, and systems engineering efforts - Begin transitioning baseline development from current methodologies to Digital Engineering (Model Based Systems Engineering and Artificial Intelligence/Machine Learning) practices - Continue providing residual capability analysis of deployed Aegis BMDS and SM-3 versus threats not covered in design requirements, specifically to improve response time to the Combatant Command (COCOM) and Fleet requests for analysis 			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024		
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Expand prototyping and development of Electronic Protection mitigations; includes models and simulation development to support testing activities - Conduct studies for parametric threat space expansion based upon the updated Homeland Defense Ballistic Missile Threat Space for Aegis BMD engagements - Develop Feature Aided Track Correlation capability to support Interceptors ability to address complex threats - Investigate AI/ML feature extraction and new sensor architectures - Integrate and improve threat data development tools with Prime contractor M&S - Maintain and expand dedicated analysis workforce to support large-scale global analysis case matrix execution - Expand infrastructure to support large data library of performance analysis for read access upon request by COCOM and the Fleet while maximizing use of tactical code - Continue Combat System Test Bed (CSTB) IAMD capability integration for M&S planning and VV&A of SM-3 Block IIA, SM-3 Block IB and SM-6 missile models using Aegis BMD 5.x performance assessment as risk reduction for Aegis BMD 6.x efforts <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Conduct independent Verification & Validation (IV&V) at the BMDS Test Bed, San Diego (BTS) Lab of BMDS Overhead Persistent Infrared Architecture (BOA) to Maritime Operations Center (MOC) Command and Control Processor (BMCP) - Conduct data link engineering services including planning and conducting Navy and Joint Link Certifications, and review, evaluation, and testing of data link Engineering Change Proposals, Specification Changes, Interface Change Proposals, and Trouble Reports - Conduct Enterprise System Lab/Enterprise System Processing Node/BOA cued acquisition and engagement mission support to Aegis BMD Link-16/Joint Tactical Terminal at the Integrated Warfare Systems Laboratory, BTS, and/or on a ship if available for support of Flight and Ground Test Hardware In the Loop (HWIL). - Conduct Adaptive Tactical Data Link System Independent Verification and Validation (IV&V) Block 2 and Block 3 events, ATS Link Certifications, and deployment to Land Based Test Sites (LBTS) - Link certification and deployment of BMCP to MOC in support of hypersonic mission requirements - Data Link Test Tool deployment and integration to LBTS - Conduct discrimination improvement design trade studies and engineering analyses to counter the allocated threats and address future and advancing threats <p>FY 2024 to FY 2025 Increase/Decrease Statement: N/A</p>				
Title: Aegis BMD 4.x Development		20.515	28.093	16.692
Articles:		-	-	-
Description: Aegis Baseline 5.4.0 (BMD 4.1.2) incorporates the BMD 5.0 Capability Upgrade of European Phased Adaptive Approach (EPAA) Phase II Endo-atmospheric/Exo-atmospheric (ENDO/EXO) requirements including EPAA Phase II EXO threats,				

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024		
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<p>integration of the SM-3 Block IB Threat Upgrade, and reintroduction of other Aegis capabilities integrated with the SM-6 Dual I (ENDO only). Aegis Baseline 5.4.0 (BMD 4.1.2) provides Aegis Modernization capabilities comparable to the BMD 4.0 ships with legacy computer processing architecture. BMD 4.1.3 will develop spiral capability for the non-LNA upgrades beginning in FY 2024 to include SBT Increment 2 Capability Upgrade, Hypersonic Tracking and Reporting, Mission Planner Console update, and Threat Database re-architecture. This capability will deliver to 21 Flight I/II DDGs beginning in FY 2025.</p> <p>Recurring Accomplishments:</p> <ul style="list-style-type: none"> - Update Critical Item Development (CIDS), Interface Description Specifications (IDS) and all supporting engineering documents and plans - Conduct design studies and concepts supporting development and integration - Conduct Aegis BMD performance analysis supporting In-Process Reviews (IPR) - Participate in program leadership and technical forums including Program Management Team, System Engineering Team, and Cross Product Teams for Integration and Test, M&S, Test, Evaluation & Certification, and Fleet Integration and Design - Provide Weapon System updates to include military standard UYK-43, Commercial Off-The-Shelf (COTS) BMD Signal Processor, and COTS adjunct processor updates - MDA / U.S. Navy co-funded effort to provide BMD capability on Flight I/II DDGs <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: Begin development of Aegis Baseline 5.4.X (BMD 4.1.3):</p> <ul style="list-style-type: none"> - Conduct In Process Review to establish baseline schedule and development plans. - Initiate system development and testing. - Begin Ship Change Document (SCD) updates. <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Conduct Engineering Assessment and In Process Review to track baseline schedule and development plans to completion - Complete development of Aegis Baseline 5.4.1 (BMD 4.1.3) - Certify Aegis Baseline 5.4.1 (BMD 4.1.3) <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects the completion of BMD 4.1.3 baseline development integration and test efforts and initiates the transition to certification and the introduction of the baseline into the operational capability before the end of FY 2025.</p>				
Title: Aegis BMD 5.x Development		65.872	126.808	38.067
		Articles:	-	-
		-	-	-

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<p>Description: In alignment with U.S. Navy Aegis Baseline 9 Capability Packages (2022 and 2024), Aegis BMD 5.X will develop a series of unique Capability Insertion Packages (CIP) and AN/SPY-1 Radar sensitivity technology maturation and prototyping that expand detection, track, report, and defeat capabilities of emerging threat systems with increasingly complex engagement scenes and raid sizes. Aegis BMD capability packages are focused towards Aegis Baseline 9 DDGs and Aegis Ashore Missile Defense Systems. Annual capability upgrades are necessary to pace the evolving threat, improve system reliability, and incorporate technological growth.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: Deliver Aegis BMD 5.1.5 (Aligned with Navy Aegis Baseline 9 CP 2024): CIP Includes: Support includes the design, development, integration, and developmental test of BMD 5.1.5 capabilities listed above. FY2022 and FY2023 efforts included development in Technical Insertion (TI) 2012 Hybrid (TI-12H) and TI-16 Mod 0 hardware. In coordination with Navy, MDA is adding TI-16 Mod 1 hardware integration with U.S. Navy including updated system operating environment necessary to address cyber requirements. The addition of new hardware architecture and in an effort to maintain alignment with the U.S. Navy CP 2024 schedule, BMD 5.1.5 milestones (with integrated Sea-Based Terminal Increment 3) are adjusted from what was reported in PB23 (see R4).</p> <p>Perform AN/SPY-1 Radar sensitivity improvement technology maturation and prototyping of DRU (formerly dLNA):</p> <ul style="list-style-type: none"> - Conduct software code and test activities - Maturation of critical Radio Detection and Ranging (RADAR) technologies necessary to digitize receive chain of in-service AN/SPY-1 Radar to be demonstrated at Preliminary Design Review (PDR) for IPR #3 - Assemble prototype array - RADAR calibration techniques - Conduct near-field testing activities - Commence Multi-element Integration testing - Assessment of System performance against existing and emerging complex threat systems <p>FY 2025 Plans: Continue development and integration of Aegis BMD 5.1.5 with Navy Capability Package 2024 with TI-16 Mod 1 and integration with Red Hat Enterprise Linux version 8. CIP Includes: - Expanded Hypersonic Track and Report (Increment 2): Continues development and delivery of Hypersonic tracking and reporting with Missile Defense System performance requirements</p>			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Expanded Aegis BMD Threat Space: Provides integration of additional threats to the Aegis Weapon System (aligns with SM-3 Block IIA Build 8.2/8.3 software updates and threat set) - Aegis BMD Warfighter Improvements: Incorporates and integrates Warfighter feedback through enhancements to existing functionality - Enhanced Aegis Data Link: Provides interface update between AN/SPY-1 Radar and SM-3 missiles - Aegis Remote Engagement: Integrates interface updates with the Missile Defense System to use additional remote data sources for Aegis BMD engagements <p>Commence initial system requirements development to support Aegis BL9 (BMD 5.1.6) with Navy Capability Package 2026. CIP includes:</p> <ul style="list-style-type: none"> - Warfighter enhancements that address direct feedback from operators and provide the operator with critical capabilities required to pace the evolving threat. Enhancements include: - Minimum inventory hard stop: Adds flexibility for operator to manage interceptor inventory - Increased manual search sectors: Expands the minimum allowable freeform sectors, increasing manual radar doctrine search capability to enhance warfighter planning and radar detection - L201a/L202 design cases: Adds initial capability against evolving ballistic missile threats - SM-3 Block IB Enhanced Aegis Data Link: Provides interface update between AN/SPY-1 Radar and SM-3 Block IB missiles <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 cancels the prototype development and planned demonstration for AN/SPY-1 DRU (formerly dLNA).</p>			
<p>Title: Aegis BMD 6.x Development</p> <p align="right">Articles:</p> <p>Description: The U.S. Navy is developing the Advance Capability Build (ACB) 20 CS and the Air and Missile Defense Radar (AMDR), now designated SPY-6(V)1, for introduction on the first DDG Flight III. Aegis BMD 6.0 and Aegis BMD 6.0.1 will integrate Aegis BMD 5.1 capability with the ACB 20 Combat System, to include new SPY-6 requirements. Aegis BMD 6.0 and 6.0.1 exploit SPY-6 radar improvement to enhance Engagement and Search and Track capabilities to include discrimination, raid defense and expanded threat space. This will enable Missile Defense System element utilization of AN/SPY-6(V)1 data for remote engagements and will supplement deployed assets with simultaneous multi-mission capabilities (e.g. IAMD). AMDR will support a force-level (multi-asset) approach to raid defense and will enable U.S. Navy ships to have a greater stand-off range from threat environments.</p> <p>Recurring Accomplishments:</p> <ul style="list-style-type: none"> - CIDS, IDS and all supporting engineering documents and plans - Conduct design studies and concepts supporting development and integration 	57.326	68.691	44.490
	-	-	-

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency	Date: March 2024
--	-------------------------

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Conduct Aegis BMD performance analysis supporting IPR - Participate in program leadership and technical forums including Program Management Team, System Engineering Team, and Cross Product Teams for Integration and Test, M&S, Test, Evaluation & Certification, and Fleet Integration and Design - Develop computer program for Aegis BMD 6.0 supporting Software Increment Reviews - MDA/Navy co-funded effort to provide BMD capability on Flight III DDGs - Expanded BMD Tracking and reporting updates <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Aegis BMD 6.0 software development (Aligned with Aegis Baseline 10.0): - AN/SPY-6(V)1 and Aegis BMD 6.0 test efforts, defect correction, and performance analysis with focus on-ship/at-sea - Support ship execution of test and evaluation activities leading to Baseline Certification, Flt III and AMDR Initial Operational Capability assessment, and BMD 6.0 Operational Capability Baseline decision. <ul style="list-style-type: none"> - Aegis BMD 6.0.1 software development (Aligned with AEGIS baseline 10.1) Capabilities include: - BMD Engagement Control - Limit the number of simultaneous BMD engagements and weapons expended - Mobile Platform Planning - Off-ship IAMD plan development and on-ship mission plan import/export - Raid Evaluator - Add capability to evaluate against raid and display predicted raid performance for a mission plan solution - Provide additional performance improvements - Incorporate further design updates identified during BMD 6.0 development and provide further performance improvement for larger IAMD scenarios <p>FY 2025 Plans:</p> <p>Complete Aegis BMD 6.0 software development (Aligned with Aegis Baseline 10.0):</p> <ul style="list-style-type: none"> - AN/SPY-6(V)1 and Aegis BMD 6.0 test efforts, defect correction, and performance analysis with focus on-ship/at-sea - Support ship execution of test and evaluation activities leading to BMD 6.0 Operational Capability Baseline decision. <p>Continue Aegis BMD 6.0.1 software development (Aligned with Aegis Baseline 10.0.1) Capabilities include:</p> <ul style="list-style-type: none"> - BMD Engagement Control - Limit the number of simultaneous BMD engagements and weapons expended - Mobile Platform Planning - Off-ship IAMD plan development and on-ship mission plan import/export - Raid Evaluator - Add capability to evaluate against raid and display predicted raid performance for a mission plan solution - Provide additional performance improvements - Incorporate further design updates identified during BMD 6.0 development and provide further performance improvement for larger IAMD scenarios <p>Commence Aegis BMD 6.1 software development (Aligned with Aegis Baseline 10.1) Capabilities include:</p>			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency	Date: March 2024
--	-------------------------

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
---	----------------	----------------	----------------

<ul style="list-style-type: none"> - SBT Increment 3 - SM-3 Blk IIA Build 8.1 and 8.2 Updates - Mid-term Discrimination Algorithms for SPY-6(V)1 - Expanded Hypersonic Tracking and Link 16 Reporting - Enhanced Aegis BMD Space Domain Awareness - SM-3 Blk IIA Enhanced Aegis Data Link - SM-3 Blk IIA Raid Improvements - C4I Improvements <p>Commence Aegis BMD 6M software development (Aligned with Aegis Baseline 10M). Capabilities include:</p> <ul style="list-style-type: none"> - Functionality equivalent to BMD 6.0.1 with performance scaled to smaller AN/SPY-6(V)4 radar <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects the development completion and certification of BMD 6.0.</p>			
---	--	--	--

Title: Modeling & Simulation Objective Simulation Framework	32.645	36.285	30.699
Articles:	-	-	-

Description: This effort develops, maintains and deploys the framework hardware and software for use at element laboratories and CCMD locations to support IMTP events, Missile Defense System capability delivery assessments, Warfighter training, exercises, and Wargames.

Recurring Accomplishments:

- Develop and implement OSF upgrades to incorporate advanced tracking, discrimination, engagement and associated upper tier debris mitigation capabilities, as well as other requirements and capabilities to meet MDA's evolving M&S enterprise needs
- Sustain and enhance framework products to maintain capabilities to support stakeholders
- Develop plans, procedures and documentation for scheduled events including Wargames and Combatant Command Exercises and the Distributed, Focused and Integrated HWIL Events as presented in the IMTP. Provide event architecture integration and checkout of Wargames for these same IMTP scheduled events
- Provide the ground test architecture integration expertise to meet the testing requirements of the IMTP. Support delivery of integrated architectures for test across all test venues using the Missile Defense System test framework to integrate distributed architectures
- Develop, maintain, test, field, and operate model representations for use in events and other MDA M&S stakeholder application areas. Deploy hardware and software updates to distributed sites. Perform regular maintenance and critical repairs of hardware and software.
- Control and maintain the M&S Integration and Development Laboratories for Element M&S. Maintain venue for stakeholders to conduct early integration efforts and identification of issues prior to event architecture integration to support system development.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency	Date: March 2024
--	-------------------------

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
---	---------	---------	---------

<p>- Maintain System-level M&S framework</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans: - SEE ABOVE.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects alignment to MDA's M&S Enterprise needs and to scheduled IMTP events.</p>			
---	--	--	--

Title: M&S BMDS Simulations &Tools	5.210	4.355	0.000
Articles:	-	-	-

<p>Description: This effort includes: development and sustainment of digital products and the architecture framework, and delivery/ maintenance of infrastructure for Missile Defense System performance assessments.</p> <p>Recurring Accomplishments:</p> <ul style="list-style-type: none"> - Integrate, test, and verify the M&S enterprise supporting Missile Defense System testing, assessment, exercises, and wargaming, including testing infrastructure. Guide and facilitate integration testing of MDA's M&S frameworks and core truth models, and all M&S components into virtual representations of the Missile Defense System that are credible, affordable, and provide decision makers with the data needed - Integrate, test, functionally qualify, and deliver M&S tools and complex test architectures to provide system test capabilities to support MDA IMTP based test events, wargames, and exercises - Continue the transition of real-time digital simulation capability to the OSF to support Intended Uses - Provide HWIL/M&S Benchmarking/Integration documentation and coordination - Conduct M&S system integration and verification to support M&S system architecture development. Provide developmental integration testing to support M&S system architecture integration <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans:</p>			
--	--	--	--

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024		
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
N/A				
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects the completion of this effort.				
Title: BMDS Verification, Validation & Assessment (VV&A)		18.761	18.491	18.032
		Articles:	-	-
<p>Description: This activity includes Missile Defense System Assessment and VV&A activities to support OCB delivery decisions, and anchor System M&S.</p> <p>Recurring Accomplishments:</p> <ul style="list-style-type: none"> - Verify Missile Defense System performance, and produce verification status reports - Conduct extensive analysis of data collected in System ground and flight test events, instrumental to understanding Missile Defense System operations and performance and anchoring models and simulations - Identify mitigation approaches for Missile Defense System performance issues uncovered during system level analysis and assessment - Maintain M&S VV&A database, and verification data for Missile Defense System Specification Change Notices - Develop, maintain, and update the M&S VV&A tool kit - Provide recommendations for improving assessment confidence, including M&S and testing issue resolutions - Conduct V&V in support of MDA System-level accreditation process in support of Missile Defense System Ground Test and performance assessment events - Conduct specified System-level post-flight reconstructions, element post-flight reconstructions, and pre-mission testing events so as to optimize the body of evidence and analysis supporting system-level Missile Defense System accreditation. <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans: - SEE ABOVE.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: N/A</p>				
Title: RF Link Improvements		2.168	3.392	1.765
		Articles:	-	-

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024		
Appropriation/Budget Activity 0400 / 4		R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD		Project (Number/Name) MD09 / Aegis BMD
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<p>Description: Design, develop, and deliver RF Link Security Improvements that implement advance communications between Aegis BMD Weapon System and SM-3 Block IB and IIA missile variants. Product development and implementation will enable missile hardware enhancements in order to achieve the full requisite Missile RF Link Security Improvements. Priority will be on the BL 9 and SM-3 Block IIA followed by BL 9/10 and SM-3 Block IB.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Additional upgrades to Aegis BMD weapon system(s) and SM-3 BLK IB missile hardware and software to enhance missile-to-ship communications. - Replace Plate 3A (radio) & Computer Processing Unit Circuit Card Assembly with IIA Aegis Data Link to address obsolescence issues. <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Complete RF Link Security Improvements between Aegis BL9 (BMD 5.1.5) Weapon System and SM-3 Block IIA <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Decrease from FY 2024 to FY 2025 reflects the completion of SM-3 Block IIA RF link missile enhancement within the BL9 (BMD 5.1.5) Weapon System.</p>				
<p>Title: Guam Defense Aegis BMD Development</p> <p align="right">Articles:</p> <p>Description: Develop the Aegis Weapon System Software configuration for land based DoG including capabilities for defense against advanced ballistic and hypersonic threats and integration of the Land Based AN/TPY-6 Radar configuration.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Finalize development of new weapon system specifications and continue development of distributed weapon system with relocatable array and launchers - Complete Aegis Guam system requirements compliant with Missile Defense System requirements and participate in DoG requirements review - Conduct element level, as well as Multi-Element level integration testing - Continue Aegis compliance threat space and performance analysis to inform requirements development and optimize Aegis Guam System performance 		53.225	80.400	165.530
		-	-	-

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Design and code new electronic protection techniques that take advantage of solid state radar technologies - Continue design and development of new radar adaptation data, fire control calculation changes to support remote launchers, encrypted communication methods between Aegis Guam System components, and modular Guam Defense System Operations Center components. - Develop training plan that optimizes existing capabilities and easily adapted for Lead Service use <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Analyze Flight Experiment data and commence operational software development. Continue element level, as well as Multi-Element level integration testing - Commence software development to address advanced ballistic and hypersonic threats to the Aegis Guam System (AGS) baseline - Continue Aegis compliance threat space and performance analysis to inform requirements development and optimize AGS System performance - Continue the design and code new electronic protection techniques that take advantage of solid state radar technologies - Continue design and development of new radar adaptation data, fire control calculation changes to support remote launchers, encrypted communication methods between AGS components, and modular Guam Defense System Operations Center components. - Continue development of training plan that optimizes existing capabilities and easily adapted for Lead Service use - Commence planning for Joint Track Architecture and Integrated Battle Management integration design for interoperability <p>FY 2024 to FY 2025 Increase/Decrease Statement: The \$85.130 million increase in Pacific Deterrence Initiative (PDI) funding from FY 2024 to FY 2025 provides analysis, development, integration, and testing of AGS software to meet operational capability delivery in FY 2030.</p>			
Accomplishments/Planned Programs Subtotals	331.877	446.480	397.228

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0208866C: Aegis BMD <i>Operation and Maintenance</i>	63.132	72.224	75.016	-	75.016	110.955	104.814	117.250	208.492	Continuing	Continuing
• 0208866C: MD09: <i>Aegis BMD Procurement</i>	402.235	374.756	85.000	-	85.000	0.000	0.000	0.000	0.000	0.000	861.991
• 0208866C: MD73: Aegis <i>Ashore Procurement</i>	36.067	2.390	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	38.457

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2023	FY 2024	FY 2025	FY 2025	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Cost To	
			Base	OCO	Total					Complete	Total Cost
• 0208866C: MD90: Aegis Hardware and Software Procurement	72.170	27.825	32.040	-	32.040	27.906	25.365	13.864	11.896	Continuing	Continuing
• 0603898C: Ballistic Missile Defense Joint Warfighter Support	50.942	48.248	47.723	-	47.723	48.921	50.062	51.376	52.565	Continuing	Continuing
• 0604102C: Guam Defense Development	383.252	397.578	415.794	-	415.794	247.793	183.214	303.003	218.941	Continuing	Continuing
• 0604878C: Aegis BMD Test	165.619	193.484	135.019	-	135.019	169.731	143.292	154.413	168.707	Continuing	Continuing
• 0604880C: Land Based SM-3 (LBSM3)	23.277	22.163	22.220	-	22.220	22.500	22.899	22.996	23.495	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Sea-Based Weapon Systems element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Sea-Based Weapon Systems program awarded sole source contracts to Raytheon and Lockheed Martin to continue development of the SM-3 and the Aegis BMD Weapon System, respectively.

The M&S acquisition strategy utilizes full and open competition to develop, acquire and deliver the integrated architectures/frameworks, as well as develop and deliver models of Aegis systems. The Digital and HWIL product centers integrate the suite of M&S into a composite simulation capability, all based on an open architecture. M&S achieves this end-state via close collaboration between its integrating contractor teams (Digital and HWIL) and those of the Aegis BMD prime contractors, with additional technical standards and engineering oversight provided by Federally Funded Research and Development Centers (FFRDCs) and University Affiliated Research Centers.

The acquisition strategy for Guam Defense consists of contract actions to industry, and agreements with Department of Defense organizations and FFRDCs to develop, demonstrate, and field a Missile Defense System on Guam.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering & Integration - CSS	C/CPFF	Various : Various	28.510	1.285	Nov 2022	2.313	Nov 2023	0.000		-		0.000	0.000	32.108	0.000
Systems Engineering & Integration - FFRDC	FFRDC	Various : Various	1.372	0.000		0.000		0.000		-		0.000	0.000	1.372	0.000
Systems Engineering & Integration - GTRI	C/CPFF	GEORGIA TECH APPLIED RESEARCH CORPORATION : Various	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	0.000
Systems Engineering & Integration - Industry	C/CPAF	BOEING : VA	107.357	14.466	Nov 2022	12.475	Nov 2023	14.582	Nov 2024	-		14.582	Continuing	Continuing	Continuing
Systems Engineering & Integration - OGA	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	4.186	0.000		0.000		0.000		-		0.000	0.000	4.186	0.000
Systems Engineering & Integration - Threat	C/CPFF	SEG (Systems Engineering Group, Inc.) : AL	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	0.000
Systems Engineering & Integration - Various Systems Engineering	Various	Various : VA, AL	70.586	1.562	Nov 2022	0.976	Nov 2023	1.851	Nov 2024	-		1.851	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - ABS NIWC Pacific	MIPR	NIWC PAC : San Diego, CA	30.576	4.717	Nov 2022	9.200	Nov 2023	7.432	Nov 2024	-		7.432	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - ABS NSWC DD	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) DAHLGREN DIVISION (NSWCDD) : VA	0.000	3.011	Nov 2022	0.000		3.000	Nov 2024	-		3.000	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - ABS NSWC PHD	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) PORT HUENEME DIVISION (PHD) : CA	0.000	0.315	Nov 2022	0.000		0.300	Nov 2024	-		0.300	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - Advanced Concepts	C/CPFF	RAYTHEON : Various	4.629	2.000	Jan 2024	0.000		0.000		-		0.000	0.000	6.629	0.000
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - Discrimination Improvements	MIPR	Various : Various	17.640	0.000		1.849	Nov 2023	8.342	Nov 2024	-		8.342	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - M&S Improvements - Industry	C/CPFF	LOCKHEED MARTIN CORPORATION : VA	29.939	1.418	Nov 2022	1.238	Nov 2023	0.323	Nov 2024	-		0.323	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - M&S Improvements - Industry (Missile)	SS/IDIQ	RAYTHEON : AZ	0.000	0.782	Nov 2022	0.000		0.000		-		0.000	0.000	0.782	0.000
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - ABY Telescope	C/CPFF	Various : FL	6.000	6.000	Jun 2023	0.000		0.000		-		0.000	0.000	12.000	0.000
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - M&S Improvements - Industry (Missile)	MIPR	CECOM - MITRE : Dahlgren, VA	5.097	0.272	Nov 2022	0.000		0.000		-		0.000	0.000	5.369	0.000

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency												Date: March 2024			
Appropriation/Budget Activity						R-1 Program Element (Number/Name)				Project (Number/Name)					
0400 / 4						PE 0603892C / AEGIS BMD				MD09 / Aegis BMD					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Insertion - MD09 - C4I MITRE															
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - TD APL	SS/CPAF	JHU/APL : Columbia, MD	62.623	10.143	Nov 2022	12.143	Nov 2023	13.745	Nov 2024	-		13.745	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - TD IDT	MIPR	INNOVATIVE DEFENSE TECHNOLOGIES, LLC : VA	0.804	1.714	Nov 2022	3.274	Nov 2023	2.974	Nov 2024	-		2.974	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - TD LM	C/CPFF	Lockheed Martin : Moorestown, NJ	50.787	9.289	Nov 2022	7.495	Nov 2023	8.121	Nov 2024	-		8.121	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - TD MIT	MIPR	Hanscom AFB - MIT/LL : Lexington, MA	31.980	3.316	Nov 2022	4.965	Nov 2023	5.216	Nov 2024	-		5.216	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - TD NSWCCD	MIPR	NSWC DD : Dahlgren, VA	63.105	9.105	Nov 2022	14.292	Nov 2023	10.104	Nov 2024	-		10.104	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - TD Raytheon	SS/IDIQ	RAYTHEON : AZ	4.160	2.272	Nov 2022	5.079	Nov 2023	1.066	Nov 2024	-		1.066	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 Special Programs Classified Development	Various	Various : Various	0.000	0.400	Nov 2022	0.000		0.000		-		0.000	0.000	0.400	0.000
Aegis Ballistic Missile Defense (BMD)	MIPR	Various - MDA : AL,VA,CA	34.569	0.606	Sep 2023	0.000		0.000		-		0.000	0.000	35.175	0.000

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Technology Design and Insertion - Various - MDA															
Aegis BMD 4.x Development - MD09 - Dahlgren	MIPR	NSWC/DD : DAHLGREN, VA	179.756	1.394	Nov 2022	5.281	Nov 2023	3.138	Nov 2024	-		3.138	Continuing	Continuing	Continuing
Aegis BMD 4.x Development - MD09 - Lockheed Martin	SS/CPIF	LOCKHEED MARTIN : MOORESTOWN, NJ	1,001.285	13.004	Nov 2022	19.750	Nov 2023	11.734	Nov 2024	-		11.734	Continuing	Continuing	Continuing
Aegis BMD 4.x Development - MD09 Teams MDS Engineering	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : VA	0.000	2.412	May 2023	0.000		0.000		-		0.000	0.000	2.412	0.000
Aegis BMD 4.x Development - MD09-Aegis Tech Rep	MIPR	AEGIS Techrep : Moorestown, NJ	7.630	0.325	Nov 2022	1.655	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Aegis BMD 4.x Development - MD09-BMD 4.0 Dev-	Various	Various : Various	51.956	3.380	Nov 2022	1.407	Nov 2023	1.820	Nov 2024	-		1.820	Continuing	Continuing	Continuing
Aegis BMD 4.x Development - MD09-D	Allot	MDA : VA	33.053	0.000		0.000		0.000		-		0.000	0.000	33.053	0.000
Aegis BMD 5.x Development - MD09 - 5.x	SS/CPAF	LOCKHEED MARTIN : MOORESTOWN, NJ	799.645	45.709	Nov 2022	91.303	Nov 2023	20.208	Nov 2024	-		20.208	Continuing	Continuing	Continuing
Aegis BMD 5.x Development - MD09 - 5.x APL	SS/CPFF	JHU/APL/MD : COLUMBIA, MD	58.602	2.100	Nov 2022	6.340	Nov 2023	1.403	Nov 2024	-		1.403	Continuing	Continuing	Continuing
Aegis BMD 5.x Development - MD09 - 5.x DD	MIPR	NSWC/DD : DAHLGREN, VA	93.466	11.127	Nov 2022	16.485	Nov 2023	3.649	Nov 2024	-		3.649	Continuing	Continuing	Continuing
Aegis BMD 5.x Development - MD09 - 5.x PHD	MIPR	NSWC/PHD : PT HUENEME, CA	14.781	0.789	Nov 2022	5.072	Nov 2023	1.122	Nov 2024	-		1.122	Continuing	Continuing	Continuing
Aegis BMD 5.x Development - MD09 - Aegis Tech Rep	MIPR	Aegis Tech Rep : Moorestown, NJ	11.170	2.347	Nov 2022	7.608	Nov 2023	1.685	Nov 2024	-		1.685	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency												Date: March 2024			
Appropriation/Budget Activity						R-1 Program Element (Number/Name)				Project (Number/Name)					
0400 / 4						PE 0603892C / AEGIS BMD				MD09 / Aegis BMD					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis BMD 5.x Development - MD09 - Special Programs Classified Development	Various	Various : Various	0.000	3.800	Nov 2022	0.000		0.000		-		0.000	0.000	3.800	0.000
Aegis BMD 5.x Development - MD09 - Various	MIPR	Various : MA, MD, VA, NJ	209.059	0.000		0.000		10.000	Nov 2024	-		10.000	0.000	219.059	0.000
Aegis BMD 6.x Development - Aegis Tech Rep	MIPR	DOD - USN - AEGIS TECHNICAL REPRESENTATIVE (AEGIS TECHREP) : NJ	0.000	2.076	Nov 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Aegis BMD 6.x Development - D - Strategic Investment	MIPR	Various : Various	6.055	0.000		0.000		0.000		-		0.000	0.000	6.055	0.000
Aegis BMD 6.x Development - JHU/APL	SS/CPFF	JHU/APL : MD	31.288	4.491	Nov 2022	5.699	Nov 2023	3.693	Nov 2024	-		3.693	Continuing	Continuing	Continuing
Aegis BMD 6.x Development - Lockheed Martin	C/CPFF	Lockheed Martin : NJ	235.800	38.460	Nov 2022	47.537	Nov 2023	30.787	Nov 2024	-		30.787	Continuing	Continuing	Continuing
Aegis BMD 6.x Development - MD09 - DD	MIPR	NSWC/DD : Dahlgren, VA	40.216	8.384	Nov 2022	7.837	Nov 2023	5.072	Nov 2024	-		5.072	Continuing	Continuing	Continuing
Aegis BMD 6.x Development - NSWC PHD	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) PORT HUENEME DIVISION (PHD) : CA	0.000	1.271	Nov 2022	0.000		2.536	Nov 2024	-		2.536	Continuing	Continuing	Continuing
Aegis BMD 6.x Development - Raytheon Integrated Defense Systems	MIPR	DOD - USN - NAVAL SEA SYSTEMS COMMAND (NAVSEA) : VA	3.213	2.246	Nov 2022	3.725	Nov 2023	2.402	Nov 2024	-		2.402	Continuing	Continuing	Continuing
Aegis BMD 6.x Development - Various	MIPR	Various : MA, MD, VA, NJ, CA	49.919	0.398	Nov 2022	3.893	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Aegis Layered Homeland Defense Development - Aegis Engineering - APL	SS/CPFF	JHU/APL : MD	2.387	0.000		0.000		0.000		-		0.000	0.000	2.387	0.000
Aegis Layered Homeland Defense Development - Aegis Engineering - DD	MIPR	NSWC DD : Dahlgren VA	2.379	0.000		0.000		0.000		-		0.000	0.000	2.379	0.000
Aegis Layered Homeland Defense Development - Aegis Engineering - LM	SS/CPFF	Lockheed Martin : Moorestown NJ	5.922	0.000		0.000		0.000		-		0.000	0.000	5.922	0.000
Aegis Layered Homeland Defense Development - Aegis Engineering - MIT/LL	FFRDC	MIT/LL : Lexington MA	3.241	0.000		0.000		0.000		-		0.000	0.000	3.241	0.000
Aegis Layered Homeland Defense Development - Aegis Weapon System - MD09 - LM	SS/CPFF	Lockheed Martin : Moorestown NJ	2.128	0.000		0.000		0.000		-		0.000	0.000	2.128	0.000
Modeling & Simulation Objective Simulation Framework - CSS - TEAMS	C/CPFF	YORKTOWN SYSTEMS GROUP, INC. : Various	42.240	1.172	Nov 2022	5.013	Nov 2023	2.415	Nov 2024	-		2.415	Continuing	Continuing	Continuing
Modeling & Simulation Objective Simulation Framework - CSS - TEAMS MDSE	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	87.142	3.047	Nov 2022	4.401	Nov 2023	4.195	Nov 2024	-		4.195	Continuing	Continuing	Continuing
Modeling & Simulation Objective Simulation Framework - Industry	C/CPAF	BOEING : Various	176.002	2.373	Nov 2022	0.000		2.591	Nov 2024	-		2.591	Continuing	Continuing	Continuing
Modeling & Simulation Objective Simulation Framework - M&S OSF - OGA	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	0.000	3.006	Nov 2022	0.000		0.000		-		0.000	0.000	3.006	0.000

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Modeling & Simulation Objective Simulation Framework - M&S OSF - Software	C/CPAF	NORTHROP GRUMMAN : CO	0.000	4.499	Nov 2022	0.000		0.000		-		0.000	0.000	4.499	0.000
Modeling & Simulation Objective Simulation Framework - M&S OSF Engineering	Various	Various : AL, VA	25.695	0.726	Nov 2022	3.968	Nov 2023	1.267	Nov 2024	-		1.267	Continuing	Continuing	Continuing
Modeling & Simulation Objective Simulation Framework - Prime	C/CPFF	LOCKHEED MARTIN CORPORATION : Various	26.132	17.822	Nov 2022	22.903	Nov 2023	20.231	Nov 2024	-		20.231	Continuing	Continuing	Continuing
Aegis Layered Homeland Defense Development - Standard Missile - 3 (SM-3) Block IIA Development - MD09 - Raytheon	SS/CPIF	Raytheon : AZ	5.454	0.000		0.000		0.000		-		0.000	0.000	5.454	0.000
Aegis Layered Homeland Defense Development - Strategic Investment	MIPR	Various : Various	0.106	0.000		0.000		0.000		-		0.000	0.000	0.106	0.000
M&S BMDS Simulations & Tools - Sims & Tools	C/CPFF	Teledyne Brown Engineering : AL, CO	3.558	0.000		0.000		0.000		-		0.000	0.000	3.558	0.000
M&S BMDS Simulations & Tools - Sims & Tools - Industry	C/CPAF	Northrop Grumman : CO	40.308	0.000		0.000		0.000		-		0.000	0.000	40.308	0.000
M&S BMDS Simulations & Tools - Sims & Tools - Industry (2)	C/CPAF	NORTHROP GRUMMAN : CO	10.744	5.210	Nov 2022	4.355	Nov 2023	0.000		-		0.000	0.000	20.309	0.000
M&S BMDS Simulations & Tools - Sims & Tools - Industry (3)	C/CPAF	BOEING : AL	1.045	0.000		0.000		0.000		-		0.000	0.000	1.045	0.000
M&S BMDS Simulations & Tools - Sims & Tools - Various	Various	Various : AL, CO	2.078	0.000		0.000		0.000		-		0.000	0.000	2.078	0.000

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
BMDS Verification, Validation & Assessment (VV&A) - Industry	C/CPAF	BOEING : AL	49.320	5.044	Nov 2022	6.677	Nov 2023	6.811	Nov 2024	-		6.811	Continuing	Continuing	Continuing
BMDS Verification, Validation & Assessment (VV&A) - Labs	MIPR	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : Various	14.685	1.778	Nov 2022	1.321	Nov 2023	1.360	Nov 2024	-		1.360	Continuing	Continuing	Continuing
BMDS Verification, Validation & Assessment (VV&A) - OGA	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	54.827	8.508	Nov 2022	7.488	Nov 2023	7.641	Nov 2024	-		7.641	Continuing	Continuing	Continuing
BMDS Verification, Validation & Assessment (VV&A) - UARC	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : Various	9.155	0.749	Nov 2022	1.709	Nov 2023	1.278	Nov 2024	-		1.278	Continuing	Continuing	Continuing
BMDS Verification, Validation & Assessment (VV&A) - Verification & Assessment	Various	MDA Various : Various	0.000	0.268	Nov 2022	0.000		0.942	Nov 2024	-		0.942	0.000	1.210	0.000
BMDS Verification, Validation & Assessment (VV&A) - Verification & Assessment - CSS Support	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	21.564	2.414	Nov 2022	1.296	Nov 2023	0.000		-		0.000	0.000	25.274	0.000
RF Link Improvements - Missile	SS/CPIF	RAYTHEON : AZ	25.960	0.000		1.881	Dec 2023	0.000		-		0.000	0.000	27.841	0.000
RF Link Improvements - Missiles (Various)	Various	Various : Various	1.132	0.000		0.600	Dec 2023	0.000		-		0.000	0.000	1.732	0.000
RF Link Improvements - Weapon System	SS/CPIF	Lockheed Martin : Moorestown, NJ	3.202	2.168	Nov 2022	0.911	Nov 2023	1.765	Nov 2024	-		1.765	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Guam Defense Aegis BMD Development - AFLCMC	MIPR	039664375 - TAMERAN GRAPHIC SYSTEMS, INC. : TBD	0.000	0.000		0.000		2.484	Nov 2024	-		2.484	Continuing	Continuing	Continuing
Guam Defense Aegis BMD Development - Aegis TechRep	MIPR	DOD - USN - AEGIS TECHNICAL REPRESENTATIVE (AEGIS TECHREP) : NJ	0.000	0.920	Nov 2022	0.000		3.641	Nov 2024	-		3.641	Continuing	Continuing	Continuing
Guam Defense Aegis BMD Development - Corvid	SS/FFP	Corvid Technologies Inc : NC	0.000	0.099	Oct 2022	0.000		0.000		-		0.000	0.000	0.099	0.000
Guam Defense Aegis BMD Development - JHU/APL	C/CPIF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	0.000	1.595	Nov 2022	3.533	Nov 2023	5.793	Nov 2024	-		5.793	Continuing	Continuing	Continuing
Guam Defense Aegis BMD Development - Lockheed Martin	C/CPIF	LOCKHEED MARTIN CORPORATION : NJ	0.000	43.131	Nov 2022	68.011	Nov 2023	117.030	Nov 2024	-		117.030	Continuing	Continuing	Continuing
Guam Defense Aegis BMD Development - MIT/LL	MIPR	DOD - USAF - AIR FORCE LIFE CYCLE MANAGEMENT CENTER (AFLCMC) : MA	0.000	0.819	Nov 2022	0.000		0.000		-		0.000	0.000	0.819	0.000
Guam Defense Aegis BMD Development - NAVSEA	MIPR	Program Executive Office (PEO) Integrated Warfare Systems (IWS)/1.0 : VA	0.000	1.834	Nov 2022	1.235	Nov 2023	8.939	Nov 2024	-		8.939	Continuing	Continuing	Continuing
Guam Defense Aegis BMD Development - NSWC Dahlgren	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) DAHLGREN	0.000	4.698	Nov 2022	6.773	Nov 2023	19.035	Nov 2024	-		19.035	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
		DIVISION (NSWCDD) : VA													
Guam Defense Aegis BMD Development - NSWC Port Hueneme	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) PORT HUENEME DIVISION (PHD) : CA	0.000	0.129	Nov 2022	0.848	Nov 2023	8.442	Nov 2024	-		8.442	Continuing	Continuing	Continuing
Guam Defense Aegis BMD Development - SCSTC	MIPR	039664375 - TAMERAN GRAPHIC SYSTEMS, INC. : TBD	0.000	0.000		0.000		0.166	Nov 2024	-		0.166	Continuing	Continuing	Continuing
Subtotal			4,000.220	328.395		441.814		392.331		-		392.331	Continuing	Continuing	N/A

Remarks

- In accordance with the Financial Management Regulation cost category definitions, some items have transferred to appropriate cost categories.
- The \$49.019 million increase for Guam Defense Aegis BMD Development - Lockheed Martin from FY 2024 to FY 2025 supports the Pacific Deterrence Initiative (PDI) and provides analysis, development, integration, and testing of Aegis Guam System software to meet operational capability delivery in FY 2030.

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering & Integration - Advanced Architecture - Program Ops (TEAMS)	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	8.809	3.151	Oct 2022	4.666	Nov 2023	4.897	Nov 2024	-		4.897	Continuing	Continuing	Continuing
Systems Engineering & Integration - Advanced Architecture - Program Ops Support	Various	Various : Various	0.000	0.331	Feb 2023	0.000		0.000		-		0.000	0.000	0.331	0.000
Subtotal			8.809	3.482		4.666		4.897		-		4.897	Continuing	Continuing	N/A

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

Remarks
In accordance with the Financial Management Regulation cost category definitions, some items have transferred to appropriate cost categories.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	4,009.029	331.877	446.480	397.228	-	397.228	Continuing	Continuing	N/A

Remarks
Funding in the All Prior Years column represents a summary of Prior Years Total Costs for active contracts, MIPRs, and civilian salaries on the R-3. Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

Significant Event Complete ▲	Milestone Decision Complete ★	Element Test Complete ◆	System Level Test Complete ●	Complete Activity ◆
Significant Event Planned △	Milestone Decision Planned ☆	Element Test Planned ◇	System Level Test Planned ○	Planned Activity ◇

	FY 2023			FY 2024			FY 2025			FY 2026			FY 2027			FY 2028			FY 2029		
BMD 5.1.4.0 OCB	★																				
BMD 5.1.4.1 EA		▲																			
BMD 6.0 IPR #8		★																			
BMD 5.1.4.1 CSCP			★																		
Defense of Guam Weapon System SRR			★																		
BMD 5.1.4.1 OCB				★																	
BMD 6.0 EA				▲																	
BMD 6.0.1 SRR					★																
Defense of Guam IPR #1					★																
BMD 6.0.1 IPR #9/PDR						★															
BMD 5.1.5 EA							◇														
BMD 4.1.3 IPR #6							☆														
BMD 6.0 CSCP							☆														
Defense of Guam CDR							☆														
BMD 6.0.1 IPR #10/CDR								☆													
BMD 4.1.3 EA									☆												
BMD 4.1.3 IPR #7									☆												
BMD 6.0 OCB									☆												
BMD 6.0.1 EA #1									☆												
Aegis Guam System IPR #2									☆												
BMD 5.1.5 CSCP										☆											
BMD 4.1.3 Cert											△										
BMD 5.1.5 OCB										☆											
BMD 4.1.3 OCB												△									

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

Significant Event Complete ▲	Milestone Decision Complete ★	Element Test Complete ◆	System Level Test Complete ●	Complete Activity ◆
Significant Event Planned △	Milestone Decision Planned ☆	Element Test Planned ◇	System Level Test Planned ○	Planned Activity ◇

	FY 2023			FY 2024			FY 2025			FY 2026			FY 2027			FY 2028			FY 2029		
BMD 6.0.1 CSCP											☆										
BMD 6.0.1 OCB												☆									
BMD 5.1.6 CSCP													☆								
BMD 5.1.6 OCB														☆							
BMD 6.1 CSCP															☆						
BMD 6.1 OCB																			☆		
BMD 6M CSCP																					☆

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Missile Defense Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
BMD 5.1.4.0 OCB	1	2023	1	2023
BMD 5.1.4.1 EA	2	2023	2	2023
BMD 6.0 IPR #8	2	2023	2	2023
BMD 5.1.4.1 CSCP	3	2023	3	2023
Defense of Guam Weapon System SRR	3	2023	3	2023
BMD 5.1.4.1 OCB	4	2023	4	2023
BMD 6.0 EA	4	2023	4	2023
BMD 6.0.1 SRR	1	2024	1	2024
Defense of Guam IPR #1	1	2024	1	2024
BMD 6.0.1 IPR #9/PDR	2	2024	2	2024
BMD 5.1.5 EA	4	2024	4	2024
BMD 4.1.3 IPR #6	4	2024	4	2024
BMD 6.0 CSCP	4	2024	4	2024
Defense of Guam CDR	4	2024	4	2024
BMD 6.0.1 IPR #10/CDR	1	2025	1	2025
BMD 4.1.3 EA	2	2025	2	2025
BMD 4.1.3 IPR #7	2	2025	2	2025
BMD 6.0 OCB	2	2025	2	2025
BMD 6.0.1 EA #1	2	2025	2	2025
Aegis Guam System IPR #2	2	2025	2	2025
BMD 5.1.5 CSCP	3	2025	3	2025
BMD 4.1.3 Cert	4	2025	4	2025
BMD 5.1.5 OCB	4	2025	4	2025

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
--	---	--

Events	Start		End	
	Quarter	Year	Quarter	Year
BMD 4.1.3 OCB	1	2026	1	2026
BMD 6.0.1 CSCP	2	2026	2	2026
BMD 6.0.1 OCB	1	2027	1	2027
BMD 5.1.6 CSCP	2	2027	2	2027
BMD 5.1.6 OCB	3	2027	3	2027
BMD 6.1 CSCP	4	2027	4	2027
BMD 6.1 OCB	4	2028	4	2028
BMD 6M CSCP	4	2029	4	2029

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MM09 / Aegis BMD SM-3 Development
--	---	---

COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MM09: Aegis BMD SM-3 Development	969.210	83.758	42.323	62.064	-	62.064	152.807	103.096	62.782	56.930	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Increase from FY 2024 to FY 2025 provides for the obsolescence recovery and requalification of the software, firmware, and hardware for the Mission Computer (MC), Image Processor (IP), Data Processor (DP), and Navigation Computer (NC) Circuit Card Assemblies (CCA) in the Standard Missile (SM) Block IIA missile. The obsolescence recovery and requalification addresses Diminishing Manufacturing Sources and Material Shortages (DMSMS) / obsolete components on all four CCAs.

A. Mission Description and Budget Item Justification

Provides development of SM-3 Missiles, Upgrade Modifications, and Integration into the Aegis Weapon System.

The SM-3 Block IB improves Aegis Ballistic Missile Defense's (BMD's) ability to expand the BMD battlespace, engage longer range, more sophisticated ballistic missiles that may deploy countermeasures and launch in larger raid sizes. The SM-3 Block IB Kinetic Warhead's (KW) two color infra-red (IR) seeker and advanced signal processor provides a real-time discrimination and characterization capability while improving sensitivity for longer range targets and performance against more sophisticated threats. Additionally, the Block IB new TDACS KW divert engine has been upgraded over the SM-3 Block IA to provide a more flexible divert in order to maneuver the KW to intercept.

The SM-3 Block IIA consists of an upgrade to a 21-inch diameter SM-3 missile and expands beyond the SM-3 Block IB battlespace to counter Intermediate Range Ballistic Missile. SM-3 Block IIA provides an increased kinematic envelope through improved IR discrimination and divert capability that provide performance against the European Phased Approach phase III expanded threat set. When combined with Aegis BMD 5.1 weapon system modifications, the SM-3 Block IIA will provide Engage on Remote (EoR) capability, which allows the use of remote off board sensor information to launch and guide the SM-3 Block IIA to final intercept. Aegis BMD 5.1 EoR capability with SM-3 Block IIA also frees up radar resources and increases the number and type of threats to be engaged simultaneously over previous baselines.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2023	FY 2024	FY 2025
Title: Standard Missile-3 (SM-3) Block IB Development	22.702	15.823	10.180
Articles:	-	-	-
<p>Description: This effort modernizes the SM-3 Block IB missile, which improves on the SM-3 Block IA performance and enables engagement of more sophisticated ballistic missiles and larger raid sizes</p> <p>SM-3 Block IB Threat Upgrade/Tech Refresh (previously IB Modernization) will provide the following:</p> <ul style="list-style-type: none"> - Refreshed SM-3 KW Common Avionics Package will provide improved producibility and utilization of common components between the SM-3 Block IIA. SM-3 Block IB common components will be extendable to support different form/fit in circuit card 			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency	Date: March 2024
--	-------------------------

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MM09 / Aegis BMD SM-3 Development
--	---	---

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024		FY 2025
---	----------------	----------------	--	----------------

assemblies across SM-3 Block IB and SM-3 Block IIA and will mitigate SM-3 Block IB hardware availability issues. Includes Back-fit of IIA Guidance Electronics Unit (GEU) ECP into IB

- Refreshed SM-3 Block IB Guidance Section with the integration of Digital Data Link replacement of Plate 3A will resolve Plate 3A hardware availability issues

Recurring Accomplishments:

- Assess performance with weapons systems upgrades/modifications and against emerging threats

Specific and/or unique accomplishments to each FY are as follows:

FY 2024 Plans:

In addition to the above, the program plans the following accomplishments in FY 2024:

- Expand threat space to combat evolving ballistic missile threats and facilitate availability of Blk IIA All Up Rounds (AURs) for more complex missions.
- Develop Two phase software build with associated Formal Qualification Tests (FQTs). Address self-destruct, inertial midcourse guidance, fin rotation angle Built-in Test, normalized distance factor, discrimination updates, and exclusion angle improvements.
- Leverage studies conducted for SM-3 exclusion angle and SM-3 Block IIA algorithms
- Conduct Hardware/Software refresh of test/integration Hardware-in-the-Loop (HWIL)/Computer-in-the-Loop (CIL) workstations

FY 2025 Plans:

- Initiate Guidance System (GS) focused Software Upgrades (SWUP) addressing inertial midcourse guidance, self-destruct, fin rotation angle built-in-test; this effort also includes the computer in loop/hardware in loop upgrades supporting SWUP development. This software upgrade will be applied to currently fielded missiles during their periodic repair and recertification maintenance.

FY 2024 to FY 2025 Increase/Decrease Statement:

Decrease from FY 2024 to FY2025 reflects the cancellation of the hardware portion of SM-3 BLK IB Software Upgrade (SWUP) due to termination of SM-3 BLK IB new production.

Title: Standard Missile-3 (SM-3) Block IIA Development

Articles:

61.056	26.500	51.884
-	-	-

Description: The SM-3 Block IIA is required to meet EPAA Phase III. It will increase the area that can be defended by Aegis BMD, increase the probability of kill against a larger threat set, and leverage enhanced capability provided by BMDS sensor upgrades.

Recurring Accomplishments:

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MM09 / Aegis BMD SM-3 Development

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Conduct SM-3 Block IIA software update to support engagements against additional threats - Conduct End-to-End Distributed Development System integration testing and flight test support - Continue transition to production for all SM-3 Block IIA development efforts - Comply with Engineering Manufacturing Readiness level through the life cycle of SM-3 Block IIA <p>Specific and unique accomplishments to each FY are as follow:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Completion of software Build 8.2 including Enhanced Aegis Data Link and continuation of Baseline 5 and 6 integration efforts. Includes transition to Production to support a Full Rate Production Decision and transition of GEU ECP to Production. <p>FY 2025 Plans:</p> <p>Conduct SM-3 Block IIA CCA obsolescence recovery and qualify the CCA software, firmware, and hardware for the MC, IP, DP, and NC.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Increase from FY 2024 to FY 2025 provides for the obsolescence recovery and qualification of the software, firmware, and hardware for the CCA for the MC, IP, DP, and NC of the SM-3 Block IIA missile. The obsolescence recovery and requalification addresses DMSMS / obsolete components on all four CCAs.</p>			
Accomplishments/Planned Programs Subtotals	83.758	42.323	62.064

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2023	FY 2024	FY 2025			FY 2026	FY 2027	FY 2028	FY 2029	Cost To	
			Base	OCO	Total					Complete	Total Cost
• 0208866C: MD09: <i>Aegis BMD Procurement</i>	402.235	374.756	85.000	-	85.000	0.000	0.000	0.000	0.000	0.000	861.991
• 0208866C: Aegis BMD <i>Operation and Maintenance</i>	63.132	72.224	75.016	-	75.016	110.955	104.814	117.250	208.492	Continuing	Continuing
• 0208866C: MD14: SM-3 Block IIA	669.975	432.824	406.370	-	406.370	382.663	386.947	450.039	434.041	Continuing	Continuing
• 0604878C: Aegis BMD Test	165.619	193.484	135.019	-	135.019	169.731	143.292	154.413	168.707	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Sea-Based Weapon Systems element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Sea-Based Weapon Systems program awarded sole source contracts to Raytheon and Lockheed Martin to continue development of the SM-3 and the Aegis BMD Weapon System, respectively.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MM09 / Aegis BMD SM-3 Development
--	---	---

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Standard Missile-3 (SM-3) Block IB Development - JHU/APL	SS/CPFF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	6.843	3.970	Nov 2022	1.650	Nov 2023	1.200	Nov 2024	-		1.200	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IB Development - MM09 - 20117142332259	MIPR	NSWC/PHD : Port Hueneme, CA	0.199	0.000		0.000		0.000		-		0.000	0.000	0.199	0.000
Standard Missile-3 (SM-3) Block IB Development - MM09 - Various	MIPR	NSWC Corona : Corona, CA	1.053	0.000		0.000		0.000		-		0.000	0.000	1.053	0.000
Standard Missile-3 (SM-3) Block IB Development - MM09 Carderock	MIPR	NSWC Carderock : Bethesda, MD	0.882	0.000		0.000		0.000		-		0.000	0.000	0.882	0.000
Standard Missile-3 (SM-3) Block IB Development - SM-3 BLK IB Development (Raytheon)	SS/CPIF	RAYTHEON : AZ	205.869	16.983	Jan 2023	12.805	Jan 2024	8.180	Jan 2025	-		8.180	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IB Development - Various	MIPR	Various : Various	3.711	1.749	Nov 2022	1.368	Nov 2023	0.800	Nov 2024	-		0.800	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IIA Development - MM09 - SM-3 BLK IIA	MIPR	Brookhaven Lab - DOE : Uptown NY	3.830	0.000		0.000		0.000		-		0.000	0.000	3.830	0.000
Standard Missile-3 (SM-3) Block IIA Development - MM09 - SM-3 BLK IIA Draper	SS/CPIF	Draper Laboratory : Cambridge MA	5.067	0.000		0.000		0.000		-		0.000	0.000	5.067	0.000
Standard Missile-3 (SM-3) Block IIA Development - New Jersey	C/CPFF	Lockheed Martin : Moorestown NJ	34.812	0.000		0.000		0.000		-		0.000	0.000	34.812	0.000
Standard Missile-3 (SM-3) Block IIA Development - SM-3 Block IIA Development -Engineering and Tech Support (APL)	SS/CPFF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	0.000	7.922	Dec 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MM09 / Aegis BMD SM-3 Development
--	---	---

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Standard Missile-3 (SM-3) Block IIA Development - SM-3 Block IIA MC/IP/DP Circuit Card Assembly Obsolescence Recovery and Qualification	SS/CPFF	RAYTHEON : AZ	0.000	0.000		0.000		39.726	Dec 2024	-		39.726	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IIA Development - SM-3 Block IIA PEO/IWS 3L Mk 29 Canister Systems Engineering Support (Labor and Travel)	SS/CPFF	BAE SYSTEMS INFORMATION AND ELECTRONIC SYSTEMS INTEGRATION I : MN	0.000	2.900	Dec 2022	0.000		0.000		-		0.000	0.000	2.900	0.000
Standard Missile-3 (SM-3) Block IIA Development - SM-3 Block IIA Vertical Launch System BMD Build 8 Missile Power Application Non-Launch	SS/CPFF	LOCKHEED MARTIN CORPORATION : MD	0.000	2.826	Dec 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IIA Development - Standard Missile-3 (SM-3) Block IIA Development - Integration (NSWCDD)	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) DAHLGREN DIVISION (NSWCDD) : VA	29.397	6.997	Oct 2022	2.110	Dec 2023	0.238	Dec 2024	-		0.238	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IIA Development - Standard Missile-3 (SM-3) Block IIA Development - Integration (Raytheon)	SS/CPFF	RAYTHEON : AZ	587.061	35.396	Nov 2022	22.706	Dec 2023	11.429	Dec 2024	-		11.429	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IIA Development - Standard Missile-3 (SM-3) Block IIA Development - Integration (Various)	MIPR	Various : Various	90.486	0.761	Oct 2022	1.684	Dec 2023	0.491	Dec 2024	-		0.491	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MM09 / Aegis BMD SM-3 Development
--	---	---

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Standard Missile-3 (SM-3) Block IIA Development - TEAMS MDS Engineering	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : VA	0.000	4.254	May 2023	0.000		0.000		-		0.000	0.000	4.254	0.000
Subtotal			969.210	83.758		42.323		62.064		-		62.064	Continuing	Continuing	N/A

Remarks
N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	969.210	83.758	42.323	62.064	-	62.064	Continuing	Continuing	N/A

Remarks
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MM09 / Aegis BMD SM-3 Development
--	---	---

	Significant Event Complete ▲			Milestone Decision Complete ★			Element Test Complete ◆			System Level Test Complete ●			Complete Activity ◆		
	Significant Event Planned △			Milestone Decision Planned ☆			Element Test Planned ◇			System Level Test Planned ○			Planned Activity ◇		
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029								
Build 8.2 and BMD 5.1.4.0 OCB	▲														
GEU-ECP (1st AUR Delivery with ECP)	▲														
IBTU Tech Refresh CDR		▲													
IB GU Qualification				△											
Build 8.3 FQT			△												
IBTU Tech Refresh Qualification			△												
IB SW FQT			△												
IB ECP Approval			△												
Build 8.3 and BMD 5.1.5 OCB			△												
PRD for SM-3 Block IIA MC/IP/DP/NC Re-Spin			△												
GEU-ECP Transition to Production					△										
IB SWUP Phase 1.0					△										
CDR for SM-3 Block IIA MC/IP/DP/NC Re-Spin								△							
SRR for SWUP Phase 1.0									△						
CDR for SWUP Phase 1.0										△					
FQT for SWUP Phase 1.0											△				

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Missile Defense Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MM09 / Aegis BMD SM-3 Development

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Build 8.2 and BMD 5.1.4.0 OCB	1	2023	1	2023
GEU-ECP (1st AUR Delivery with ECP)	1	2023	1	2023
IBTU Tech Refresh CDR	3	2023	3	2023
IB GU Qualification	3	2024	3	2024
Build 8.3 FQT	2	2024	2	2024
IBTU Tech Refresh Qualification	3	2024	3	2024
IB SW FQT	2	2024	2	2024
IB ECP Approval	2	2024	2	2024
Build 8.3 and BMD 5.1.5 OCB	3	2024	3	2024
PRD for SM-3 Block IIA MC/IP/DP/NC Re-Spin	3	2024	3	2024
GEU-ECP Transition to Production	1	2025	1	2025
IB SWUP Phase 1.0	1	2025	1	2025
CDR for SM-3 Block IIA MC/IP/DP/NC Re-Spin	1	2026	1	2026
SRR for SWUP Phase 1.0	4	2025	4	2025
CDR for SWUP Phase 1.0	2	2026	2	2026
FQT for SWUP Phase 1.0	1	2027	1	2027

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD				Project (Number/Name) MC09 / Cyber Operations			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MC09: <i>Cyber Operations</i>	49.609	3.336	5.972	6.574	-	6.574	6.608	6.782	6.962	7.135	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

Sustain the Department of Defense (DoD) Risk Management Framework (RMF) Certification and Accreditation (C&A) process and Controls Validation Testing (CVT) activities, analysis of validation results, risk assessments and reviews of proposed Program Manager/Information Systems Security Manager.

This project supports the monitoring and tracking of Cybersecurity mitigation detailed in Information Technology Security Plan of Action and Milestones (POA&Ms). Activities include preparation of Certification and Accreditation (C&A) documentation and accreditation recommendations to the MDA Authorizing Official. Independent Verification and Validation team actions ensure the availability, integrity, authentication, confidentiality and non-repudiation of the Aegis mission and non-mission systems, which includes test and remote site administrative systems. Activities in the Project are necessary to comply with the Federal Information Security Management Act.

The Standard Missile (SM)-3 Block IB and IIA missiles and corresponding Aegis Ballistic Missile Defense (BMD) weapon systems communication requires hardware and software development and integration testing to enable new cyber security capabilities. Activities include Encoder/Decoder, Plate 3 Circuit Card Assemblies (CCA) and Mission Computer CCA updates. After missile and baseline specific efforts are complete, significant integration testing is required.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2023	FY 2024	FY 2025
Title: Network / System Certification and Accreditation (C&A)	3.336	5.972	6.574
Articles:	-	-	-
Description: Network/System C&A includes recurring efforts such as cybersecurity engineering and architecture requirements planning for Aegis BMD systems, plan and test the RMF controls for the BMDS in regards to Aegis BMD systems to comply with the new directive, RMF for DoD Information Technology (DoDi 8510.01) to replace the DoD Information Assurance Certification and Accreditation process and conduct CVT.			
Recurring Accomplishments:			
- Continue coordination and development of new and existing accreditation packages that comply with new directive, RMF for DoD Information Technology (DoDi 8510.01) process			
- CVT and cooperative risk assessments to mitigate cybersecurity deficiencies			
- Develop and deploy Hardware and Software implementation strategies for Continuous Monitoring activities at remote sites and Aegis BMD assets			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MC09 / Cyber Operations
--	---	---

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
- Monthly reviews of systems through the Enterprise Mission Assurance Support Services (eMass) System - Daily management of eMass System Plan of Action and Milestones. Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: - Provide monitoring for the Host Based Security System - Conduct Assured Compliance Assessment Solution Vulnerability scanning - Implement Security Information Event Management (i.e. ArcSight) requirements at remote sites - Provide on-site maintenance support for Cybersecurity activities at MDA sponsored Land Based Test Sites FY 2025 Plans: - SEE ABOVE FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals	3.336	5.972	6.574

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603882C: Ballistic Missile Defense Midcourse Defense Segment	670.808	903.633	768.227	-	768.227	856.218	842.985	956.974	1,007.150	Continuing	Continuing
• 0603884C: Ballistic Missile Defense Sensors	228.807	239.159	209.002	-	209.002	205.087	202.555	209.816	214.110	Continuing	Continuing
• 0603896C: Ballistic Missile Defense Command and Control, Battle Management & Communication	587.689	554.201	569.662	-	569.662	570.632	587.929	618.050	651.885	Continuing	Continuing
• 0603898C: Ballistic Missile Defense Joint Warfighter Support	50.942	48.248	47.723	-	47.723	48.921	50.062	51.376	52.565	Continuing	Continuing
• 0603904C: Missile Defense Integration and Operations Center (MDIOC)	47.629	50.549	54.525	-	54.525	56.851	58.115	59.600	61.362	Continuing	Continuing
• 0604878C: Aegis BMD Test	165.619	193.484	135.019	-	135.019	169.731	143.292	154.413	168.707	Continuing	Continuing

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency									Date: March 2024		
Appropriation/Budget Activity 0400 / 4				R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD				Project (Number/Name) MC09 / Cyber Operations			

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2023	FY 2024	FY 2025	FY 2025	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Cost To	
			Base	OCO	Total					Complete	Total Cost
• 0604880C: Land Based SM-3 (LBSM3)	23.277	22.163	22.220	-	22.220	22.500	22.899	22.996	23.495	Continuing	Continuing
• 0901598C: Management HQ - MDA	26.352	28.363	29.033	-	29.033	29.632	30.245	30.870	31.508	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Sea-Based Weapon Systems element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Sea-Based Weapon Systems program awarded sole source contracts to Raytheon and Lockheed Martin to continue development of the SM-3 and the Aegis BMD Weapon System, respectively.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MC09 / Cyber Operations
--	---	---

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Network / System Certification and Accreditation (C&A) - DISA	MIPR	DISA : Falls Church, VA	0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	0.000
Network / System Certification and Accreditation (C&A) - CND/IA Advisory and Assistance Services	C/CPIF	TORCH TECHNOLOGIES INC : Huntsville, AL	2.747	0.000		0.000		0.000		-		0.000	0.000	2.747	0.000
Network / System Certification and Accreditation (C&A) - Cyber TEAMS/DREM	Various	Various : VA	1.565	0.766	Nov 2022	1.220	Nov 2023	1.267	Nov 2024	-		1.267	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Cyber TEAMS - MC09	C/CPFF	BOOZ ALLEN HAMILTON INC. : McLean, VA	17.548	0.000		0.000		0.000		-		0.000	0.000	17.548	0.000
Network / System Certification and Accreditation (C&A) - DD	MIPR	NSWC - DD : Dahlgren VA	1.300	0.000		0.000		0.000		-		0.000	0.000	1.300	0.000
Network / System Certification and Accreditation (C&A) - LBTS AWS Cyber Maintenance	MIPR	DOD - USN - NAVAL INFORMATION WARFARE CENTER (NIWC) PACIFIC : CA	0.000	0.000		1.260	Nov 2023	1.323	Nov 2024	-		1.323	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - LM	SS/CPAF	LOCKHEED MARTIN CORPORATION : Moorestown NJ	11.813	0.000		0.000		0.000		-		0.000	0.000	11.813	0.000
Network / System Certification and Accreditation (C&A) - PHD	MIPR	NSWC/PHD : Port Hueneme CA	0.501	0.000		0.000		0.000		-		0.000	0.000	0.501	0.000
Network / System Certification and Accreditation (C&A) - Program Operations - MC09 - CivSal	Allot	MDA : VA	1.139	0.251	Oct 2022	0.195	Oct 2023	0.537	Oct 2024	-		0.537	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MC09 / Cyber Operations
--	---	---

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Network / System Certification and Accreditation (C&A) - RMS	SS/CPAF	RAYTHEON : Tucson, AZ	4.106	0.000		0.000		0.000		-		0.000	0.000	4.106	0.000
Network / System Certification and Accreditation (C&A) - TEAMS - CCRM	C/CPFF	Various : VA	0.000	0.121	Nov 2022	3.297	Nov 2023	3.447	Nov 2024	-		3.447	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - TEAMS Cyber BMDS CSM	C/CPFF	SYSTEM HIGH CORPORATION : VA	0.000	2.198	Nov 2022	0.000		0.000		-		0.000	0.000	2.198	0.000
RF Link Improvements - SM-3	SS/CPFF	Raytheon : Tucson, AZ	8.390	0.000		0.000		0.000		-		0.000	0.000	8.390	0.000
RF Link Improvements - Weapon System	SS/CPIF	Lockheed Martin : Moorestown, NJ	0.400	0.000		0.000		0.000		-		0.000	0.000	0.400	0.000
Subtotal			49.609	3.336		5.972		6.574		-		6.574	Continuing	Continuing	N/A

Remarks
N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	49.609	3.336	5.972	6.574	-	6.574	Continuing	Continuing	N/A

Remarks
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MC09 / Cyber Operations
--	---	---

Significant Event Complete ▲	Milestone Decision Complete ★	Element Test Complete ◆	System Level Test Complete ●	Complete Activity ◆
Significant Event Planned △	Milestone Decision Planned ☆	Element Test Planned ◇	System Level Test Planned ○	Planned Activity ◇

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029							
MC09 Cyber Operations.	◆	◆	◆	◆																												
MC09 Cyber Operations					◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MC09 / Cyber Operations
--	---	---

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MC09 Cyber Operations.	1	2023	4	2023
MC09 Cyber Operations	1	2024	4	2029

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support
--	---	--

COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MX09: <i>Aegis BMD Development Support</i>	973.763	139.525	173.105	158.780	-	158.780	184.255	190.342	214.146	252.552	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Increase from FY 2024 to FY 2025 provides hardware and software refresh upgrades at the land based test sites used for the development of Aegis BMD baselines.

A. Mission Description and Budget Item Justification

Provides Government, contractor, and Federally Funded Research and Development Center (FFRDC) workforce that manage the overall Sea-Based Weapon Systems program and enables the program to develop, build, and test standard missiles and associated Aegis Weapons Systems. Sea-Based Weapon Systems, in accordance with negotiated agreements between the U.S. Navy and the MDA has identified and segregated funding for Developmental Support of Sea-Based Weapon Systems specific elements resident aboard Aegis capable U.S. Navy ships. Computer Program Support consists of, but is not limited to, reviews of Technical Observation Reports (TORs) that are generated by ship crews during exercises or deployments, determination of root causes and preparation of Computer Program Change Request (CPCR) to correct TORs, updates to the in-service computer program to apply, test and certify multiple CPCRs, and tests installation of Aegis Weapon System (Army/Navy Surface Radar Surveillance and Control radar/Fire Control System) alignment updates as required. Sea-Based Weapon Systems provides support to Annual Integration Events to ensure any updated Aegis Combat System computer programs do not degrade BMD equipped ships and provides distance and technical support for BMD equipped ships. Provides Fleet operations and mission support to enable the conduct of sustained BMD operation.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2023	FY 2024	FY 2025
Title: Program Operations	87.226	90.708	87.574
Articles:	-	-	-
Description: This activity includes the Government, contractor, and FFRDC workforce that manage the overall Sea-Based Weapon Systems program and enables the program to develop, build, and test standard missiles and the associated Aegis Weapon Systems. This project includes all operations support for the Aegis program office in Engineering, Testing, Logistics, Acquisition, Safety, Quality Assurance, Finance, Budget Formulation and Execution, Cost Estimation, and Earned Value Management in support of development activities.			
Specific and/or unique accomplishments to each FY are as follows:			
FY 2024 Plans: - SEE ABOVE.			
FY 2025 Plans:			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
- SEE ABOVE.			
FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Title: Aegis Ballistic Weapon System Support Description: Provides system engineering for fielded Sea-Based Weapon Systems from warfighter feedback, investigation of BMDS Discrepancy Reports, and BMDS ground test observation analysis. It includes computer program defect corrections and supports assessment of flight test readiness. Recurring Accomplishments: - Update threat adaptation data to keep pace with emergent threats - Provide operation and sustainment of land based test sites used for the development of Aegis BMD baselines. Operation and sustainment includes Engineering, Logistics, Quality Assurance, Configuration Management and other support activities to both baseline development and the sites. - Provide support for contingency operations of national interest - Support upgrades to fielded Aegis BMD computer programs baselines approved as an Operational Capability Baseline (OCB) - Provide engineering support to OCB ships that participate in BMD test events - Provide test site usage for maintenance and support of baselines under development - Sustain the classified computing infrastructure needed for development efforts Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: - Provide capacity for increased development lab usage - Conduct hardware and software refresh at the land based test sites used for Aegis BMD baseline software development FY 2025 Plans: - Provide emergent software updates to in-service BMD baselines to include defect corrections, integration of Diminishing Manufacturing Source solutions, and urgent fleet operational needs required to sustain warfighting capacity - Conduct Modeling and Simulation runs supporting baseline capability development - Conduct integration, verification, and Hardware-in-the-Loop test events at test sites - Conduct hardware and software refresh for BL10 facilities for Aegis BMD baseline software development FY 2024 to FY 2025 Increase/Decrease Statement:	21.766	38.468	32.660
Articles:	-	-	-

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
---	----------------	----------------	----------------

Decrease from FY 2024 to FY 2025 reflects completion of hardware refresh upgrades at the Beowulf Modeling and Simulation lab used for the development of Aegis BMD baselines and the completion of hardware upgrades at the Ground Test Hardware in the Loop lab at BMDS Test Bed, San Diego (BTS) to support development, ground and flight testing.

Title: Fleet Integration	19.178	26.196	26.335
Articles:	-	-	-

Description: Provide support for Fleet operations and mission support to enable the conduct of sustained BMD operations; provide capability analysis in response to Geographic Combatant Commanders (COCOM) and Fleet Commander Requests for Analysis and Information (RFA/RFIs); provide operational and exercise support of deployed Aegis BMD capabilities; advocate warfighter capabilities and threat requirements developed from gap analysis, warfighter engagements, and fleet feedback; provide Doctrine, Organization, Training, materiel, Leadership and Education, Personnel, and Facilities support to Aegis BMD baseline development.

Recurring Accomplishments:

- Provide system performance analysis in response to RFA/RFIs from Geographic COCOMs and Fleet Commanders, including assessments of Aegis Combat System capabilities against new and evolving threats.
- Execute a warfighter feedback process to collect, organize, assess and disseminate warfighter feedback from combat system operators and technicians; shipboard leadership, Fleet and COCOM staffs, and the warfighter training community to identify system issues to support enhancement and to support the definition and development of future Aegis BMD baseline capabilities.
- Review, define, and develop Joint and Fleet Doctrine and Tactics, Techniques, and Procedures for incorporation of Aegis BMD capability transition to warfighter and baseline acceptance into MDA OCB.
- Support event planning, event participation, and provide Subject Matter Expert support to exercises, wargames, and ground test.
- Develop and maintain system M&S for all Aegis BMD baseline variants to support joint and allied exercise and wargames.
- Define, develop, and maintain a prioritized list of warfighter capabilities and provide requirements definition for warfighter capabilities in support of Aegis BMD development efforts.
- Develop an annual prioritized list of warfighter threats in support of Aegis BMD baseline requirements.
- Support the development of the Aegis BMD Handbook and support definition of warfighter acceptance requirements for Aegis BMD baselines certification and OCB assessment.
- Develop Aegis BMD training simulations and scenarios to support shipboard training including BMD Qualification and higher level exercises. Maintain training scenarios for legacy Aegis Combat Training System and Advanced Training Domain (ATD).
- Develop and maintain Aegis BMD Mission Planner (MP) re-host laptops for legacy baselines to support Fleet Maritime Operation Centers operational planning

Specific and/or unique accomplishments to each FY are as follows:

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024		
Appropriation/Budget Activity 0400 / 4		R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD		Project (Number/Name) MX09 / Aegis BMD Development Support
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Support recurring cloud based services costs - Integrate Maritime Tactical Command and Control System (MTC2) Battle Management Aids to support integrated IAMD planning - Continue design, development, and delivery of IAMD planning capabilities in the Cerberus IAMD Planner to include new BMD baselines, new sensors, SBT Increment 2 and Increment 3, additional threats and begin planning for Hypersonic glide vehicle threats - Conduct Fleet Requests For Analysis (RFAs) in response to the evolving threat - Updates to shipboard and Fleet Maritime Operations Centers (MOC) mission planning systems - Conduct capability analysis, IAMD/BMD MP integration, doctrine development, and BMD/IAMD scenario development for BMD 6.0 with SPY-6 radar - Develop scenarios for the Navy's new ATD system <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Field and sustain Cerberus IAMD Planner as part of the Collaborative IAMD Planning Program - Continue design, development, and delivery of IAMD planning capabilities in the Cerberus IAMD Planner to include expanded threat set, new BMD baselines and sensors, and new user requested features - Integrate with other Battle Management Aids hosted on MTC2 <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <ul style="list-style-type: none"> - N/A 				
<p>Title: Infrastructure Upgrades</p> <p align="right">Articles:</p> <p>Description: Provides management of Command, Control, Computer, Communications and Intelligence (C4I) aspects of the BTS San Diego upgrade plan to maintain Fleet representative C4I configurations to support testing, troubleshooting, and Fleet operations. Includes Information Technology (IT) services in support of the Aegis Research, Development, Testing and Evaluation mission to include: IT help-desk services; portal and data services; records management; business automation services; and desktop and Special Purpose Processing Nodes (SPPNs) maintenance and licenses. In addition, replaces critical IT infrastructure at end-of-life and to implement DoD mandated projects in support of the Joint Information environment (JIE) initiative. Recurring accomplishments:</p> <ul style="list-style-type: none"> - Conduct Aegis IT services such as IT help-desk; portal and data services; records management; business automation services; and desktop and SPPN maintenance and licenses - Replacement of critical end-of-life equipment - Upgrades to IT infrastructure planning and implementation efforts to accomplish DoD mandated IT Projects (JIE and DoD Chief Information Officer Information Resources Management initiatives. 		11.355	17.733	12.211
		-	-	-

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
Specific and/or unique accomplishments to each FY are as follows:			
<p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Update BTS San Diego with two additional Technology Insertion hardware baselines to align with Baseline (BL) 9 and BL 10 hardware configurations to support development testing and Ground/Flight Test requirements <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Conduct configuration and data management to ensure M&S and software builds are identical in collateral and Special Access Program environment - Procurement of critical end-of-life IT equipment replacements <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Decrease from FY 2024 to FY 2025 reflects completion of hardware upgrades at the Ground Test Hardware in the Loop lab at BMDS Test Bed, San Diego (BTS) to support development, ground and flight testing.</p>			
Accomplishments/Planned Programs Subtotals	139.525	173.105	158.780

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• 0208866C: Aegis BMD Operations and Maintenance	63.132	72.224	75.016	-	75.016	110.955	104.814	117.250	208.492	Continuing	Continuing
• 0604878C: Aegis BMD Test	165.619	193.484	135.019	-	135.019	169.731	143.292	154.413	168.707	Continuing	Continuing
• 0604880C: Land Based SM-3 (LBSM3)	23.277	22.163	22.220	-	22.220	22.500	22.899	22.996	23.495	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Sea-Based Weapon Systems element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Sea-Based Weapon Systems program awarded sole source contracts to Raytheon and Lockheed Martin to continue development of the Standard Missile-3 and the Aegis BMD Weapon System, respectively.

Competition will be maximized for purchase of any products or services as appropriate.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support
--	---	--

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Operations - IT	Various	Various : Various	6.917	0.390	Dec 2022	0.740	Dec 2023	0.740	Dec 2024	-		0.740	Continuing	Continuing	Continuing
Program Operations - MDA Travel	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : VA	6.879	1.138	Oct 2022	1.253	Oct 2023	1.634	Oct 2024	-		1.634	Continuing	Continuing	Continuing
Program Operations - MX09 - GSA Procurement for MDA Historical Project	C/CPFF	Gryphon Technologies : VA	0.316	0.000		0.000		0.000		-		0.000	0.000	0.316	0.000
Program Operations - MX09 - Civ Sal	Allot	MDA : VA	160.218	36.193	Nov 2022	34.975	Nov 2023	35.790	Nov 2024	-		35.790	Continuing	Continuing	Continuing
Program Operations - MX09 - DD PM	MIPR	NSWC/DD : Dahlgren, VA	10.968	0.000		0.000		0.000		-		0.000	0.000	10.968	0.000
Program Operations - MX09 - NAVSEA Travel	MIPR	NAVSEA : Washington, DC	2.496	0.000		0.000		0.000		-		0.000	0.000	2.496	0.000
Program Operations - NAVSEA Civ Sal/ ReachBack/Training, Various	MIPR	DOD - USN - NAVAL SEA SYSTEMS COMMAND (NAVSEA) : VA	77.796	15.652	Nov 2022	17.521	Nov 2023	18.047	Nov 2024	-		18.047	Continuing	Continuing	Continuing
Program Operations - Program Ops Misc	Various	Various : Various	3.502	0.404	Nov 2022	0.300	Nov 2023	1.018	Nov 2024	-		1.018	Continuing	Continuing	Continuing
Program Operations - Service Level Agreement (SLA)	C/CPFF	JACOBS TECHNOLOGY INC. : Various	0.000	2.618	Dec 2022	0.000		0.000		-		0.000	0.000	2.618	0.000
Program Operations - TEAMS	C/CPFF	Various : Various	197.995	0.510	Nov 2022	4.070	Nov 2023	4.148	Nov 2024	-		4.148	Continuing	Continuing	Continuing
Program Operations - TEAMS - Acquisition	C/CPFF	BCF SOLUTIONS, INC. : VA	0.000	1.740	Nov 2022	0.000		0.000		-		0.000	0.000	1.740	0.000
Program Operations - TEAMS - C3PO	C/CPFF	Kepler Research, Incorporated : Various	0.000	0.644	Nov 2022	0.000		0.000		-		0.000	0.000	0.644	0.000
Program Operations - TEAMS - ITMA	C/CPFF	FIVE STONES RESEARCH CORPORATION : Various	0.000	0.550	Nov 2022	0.000		0.000		-		0.000	0.000	0.550	0.000

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support
--	---	--

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Operations - TEAMS - International Programs	C/CPFF	Allied Associates International, Inc (A2I) : Various	0.000	0.410	Nov 2022	0.000		0.000		-		0.000	0.000	0.410	0.000
Program Operations - TEAMS - Logistics	C/CPFF	VENTURI, INC. : Various	0.000	0.650	Nov 2022	0.000		0.000		-		0.000	0.000	0.650	0.000
Program Operations - TEAMS Acquisition	C/CPFF	Various : Various	0.000	0.000		2.426	Nov 2023	2.460	Nov 2024	-		2.460	Continuing	Continuing	Continuing
Program Operations - TEAMS Bus Op	C/CPFF	Veterans Technology, LLC : VA	0.000	4.083	Nov 2022	0.000		0.000		-		0.000	0.000	4.083	0.000
Program Operations - TEAMS Business Ops	C/CPFF	Various : Various	0.000	0.000		3.856	Nov 2023	3.909	Nov 2024	-		3.909	Continuing	Continuing	Continuing
Program Operations - TEAMS MDS Engineering	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : VA	0.000	14.550	Nov 2022	16.002	Nov 2023	10.588	Nov 2024	-		10.588	Continuing	Continuing	Continuing
Program Operations - TEAMS Next QMA	C/CPFF	AI SOLUTIONS, INC. : VA	0.000	1.420	Nov 2022	0.000		0.000		-		0.000	0.000	1.420	0.000
Program Operations - TEAMS Office Admin Bridge	C/CPFF	YORKTOWN SYSTEMS GROUP, INC. : VA	0.000	1.523	Nov 2022	0.000		0.000		-		0.000	0.000	1.523	0.000
Program Operations - TEAMS Office Admin	C/CPFF	Various : VA	0.000	0.000		2.186	Nov 2023	2.216	Nov 2024	-		2.216	Continuing	Continuing	Continuing
Program Operations - TEAMS Predictive Eng	C/CPFF	Various : VA	0.000	1.065	Nov 2022	1.413	Nov 2023	1.432	Nov 2024	-		1.432	Continuing	Continuing	Continuing
Program Operations - TEAMS Protocol & VIPC	C/FFP	Various : Various	0.000	0.776	Nov 2022	0.000		0.000		-		0.000	0.000	0.776	0.000
Program Operations - TEAMS QMA	C/CPFF	Various : VA	0.000	0.000		2.729	Nov 2023	2.310	Nov 2024	-		2.310	Continuing	Continuing	Continuing
Program Operations - TEAMS Warfighter Integration	C/CPFF	STRATEGIC ALLIANCE BUSINESS GROUP LLC : VA	0.000	2.910	Nov 2022	3.237	Nov 2023	3.282	Nov 2024	-		3.282	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support
--	---	--

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis Ballistic Weapon System Support - D - Strategic Investment	MIPR	039664375 - TAMERAN GRAPHIC SYSTEMS, INC. : Various	2.140	0.000		0.000		0.000		-		0.000	0.000	2.140	0.000
Aegis Ballistic Weapon System Support - MX09 - ABS Various	MIPR	Various : Various	0.766	1.114	Nov 2022	1.063	Nov 2023	1.003	Nov 2024	-		1.003	Continuing	Continuing	Continuing
Aegis Ballistic Weapon System Support - MX09 - AW APL	SS/CPFF	JHU/APL : Columbia, MD	7.855	0.000		0.000		0.000		-		0.000	0.000	7.855	0.000
Aegis Ballistic Weapon System Support - MX09 - AW DD	MIPR	NSWC DD : Dahlgren, VA	28.808	2.107	Nov 2022	2.129	Nov 2023	1.980	Nov 2024	-		1.980	Continuing	Continuing	Continuing
Aegis Ballistic Weapon System Support - MX09 - AW LM	C/CPFF	Lockheed Martin : Moorestown, NJ	78.663	10.707	Nov 2022	11.251	Nov 2023	16.795	Nov 2024	-		16.795	Continuing	Continuing	Continuing
Aegis Ballistic Weapon System Support - MX09 - AW NAVSEA	MIPR	NAVSEA : Washington, DC	81.783	3.302	Nov 2022	20.881	Nov 2023	9.926	Nov 2024	-		9.926	Continuing	Continuing	Continuing
Aegis Ballistic Weapon System Support - MX09 - AW TECH REP	MIPR	Aegis Tech Rep : Moorestown, NJ	1.594	1.556	Nov 2022	0.000		0.000		-		0.000	0.000	3.150	0.000
Aegis Ballistic Weapon System Support - MX09 - AW Wallops	MIPR	SCSC : Wallops Island, VA	8.243	2.360	Nov 2022	3.144	Nov 2023	2.956	Nov 2024	-		2.956	Continuing	Continuing	Continuing
Aegis Ballistic Weapon System Support - MX09 - TD Various	MIPR	Various : San Diego, CA	33.163	0.000		0.000		0.000		-		0.000	0.000	33.163	0.000
Aegis Ballistic Weapon System Support - MX09 - AW PHD	MIPR	NSWC PHD : Port Hueneme, CA	0.956	0.620	Nov 2022	0.000		0.000		-		0.000	0.000	1.576	0.000
Fleet Integration - Fleet APL	SS/CPFF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS	58.574	5.232	Nov 2022	8.195	Nov 2023	7.195	Nov 2024	-		7.195	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency												Date: March 2024			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)					
0400 / 4					PE 0603892C / AEGIS BMD					MX09 / Aegis BMD Development Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		LABORATORY LLC, THE : MD													
Fleet Integration - Fleet CSCS	MIPR	DOD - USN - CENTER FOR SURFACE COMBAT SYSTEMS (CSCS) : VA	8.545	1.900	Nov 2022	2.053	Nov 2023	2.153	Nov 2024	-		2.153	Continuing	Continuing	Continuing
Fleet Integration - Fleet DD	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) DAHLGREN DIVISION (NSWCDD) : VA	17.579	4.052	Nov 2022	4.734	Nov 2023	3.548	Nov 2024	-		3.548	Continuing	Continuing	Continuing
Fleet Integration - Fleet SCD	SS/CPFF	TBD : TBD	0.000	0.000		0.000		2.639	Nov 2024	-		2.639	Continuing	Continuing	Continuing
Fleet Integration - Fleet SMDC	MIPR	DOD - USA - SPACE AND MISSILE DEFENSE COMMAND (SMDC) : AL	4.640	0.925	Nov 2022	0.940	Nov 2023	0.640	Nov 2024	-		0.640	Continuing	Continuing	Continuing
Fleet Integration - MX09 - ABS	MIPR	NIWC : San Diego, CA	2.500	1.019	Nov 2022	0.000		2.643	Nov 2024	-		2.643	Continuing	Continuing	Continuing
Fleet Integration - MX09 - ABS APL	SS/CPFF	JHU/APL : Columbia, MD	6.979	6.050	Nov 2022	10.274	Nov 2023	7.517	Nov 2024	-		7.517	Continuing	Continuing	Continuing
Fleet Integration - MX09 - ABS Fleet	C/CPFF	LM : VA	5.058	0.000		0.000		0.000		-		0.000	0.000	5.058	0.000
Fleet Integration - MX09 - Fleet PEO C41	MIPR	PEO C41 : San Diego, CA	5.008	0.000		0.000		0.000		-		0.000	0.000	5.008	0.000
Fleet Integration - MX09 - TG & Cerberus Integration	C/CPFF	NORTHROP GRUMMAN : AL	0.315	0.000		0.000		0.000		-		0.000	0.000	0.315	0.000
Infrastructure Upgrades - MX-09 S Jacobs	C/CPAF	Jacobs Engineering : AL, CA, CO, NM, VA, HI	0.096	0.000		0.000		0.000		-		0.000	0.000	0.096	0.000

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support
--	---	--

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Infrastructure Upgrades - MX-09 S Network	C/CPFF	Network Management Resources : Chantilly, VA	0.171	0.000		0.000		0.000		-		0.000	0.000	0.171	0.000
Infrastructure Upgrades - MX09 - ICT Funding	C/CPAF	JACOBS TECHNOLOGY INC. : Various	82.184	11.355	Nov 2022	11.898	Nov 2023	12.211	Nov 2024	-		12.211	Continuing	Continuing	Continuing
Infrastructure Upgrades - MX09 - S	MIPR	DOD - USN - NAVAL INFORMATION WARFARE SYSTEMS COMMAND (NAVWAR) : CA	0.446	0.000		0.000		0.000		-		0.000	0.000	0.446	0.000
Infrastructure Upgrades - MX09 - S APL	SS/CPAF	JHU/APL : Laurel, MD	6.957	0.000		0.000		0.000		-		0.000	0.000	6.957	0.000
Infrastructure Upgrades - MX09 - S Corona	MIPR	NSWC Corona : Corona, CA	5.332	0.000		0.000		0.000		-		0.000	0.000	5.332	0.000
Infrastructure Upgrades - MX09 - S LM	C/CPAF	Lockheed Martin : Moorestown, NJ	21.629	0.000		0.000		0.000		-		0.000	0.000	21.629	0.000
Infrastructure Upgrades - MX09 - S MIT	C/CPAF	MIT : Lexington, MA	1.306	0.000		0.000		0.000		-		0.000	0.000	1.306	0.000
Infrastructure Upgrades - MX09 - S RMS	C/CPAF	Raytheon : Tucson, AZ	6.920	0.000		0.000		0.000		-		0.000	0.000	6.920	0.000
Infrastructure Upgrades - MX09- NIWC	MIPR	DOD - USN - NAVAL INFORMATION WARFARE SYSTEMS COMMAND (NAVWAR) : CA	18.244	0.000		5.835	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Infrastructure Upgrades - MX09- S DD	MIPR	NSWC DD : Dahlgren, VA	3.843	0.000		0.000		0.000		-		0.000	0.000	3.843	0.000
Infrastructure Upgrades - MX09-Variou	MIPR	Various : Various	1.579	0.000		0.000		0.000		-		0.000	0.000	1.579	0.000

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support
--	---	--

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Joint Emerging Operational Need (JEON) - MX09 AW JHU/APL	SS/CPFF	JHU/APL : Columbia, MD	0.480	0.000		0.000		0.000		-		0.000	0.000	0.480	0.000
Joint Emerging Operational Need (JEON) - MX09 AW Lockheed Martin	C/CPFF	Lockheed Martin : Moorestown, NJ	3.635	0.000		0.000		0.000		-		0.000	0.000	3.635	0.000
Joint Emerging Operational Need (JEON) - MX09 AW NSWC	MIPR	NSWC DD : Dahlgren, VA	0.685	0.000		0.000		0.000		-		0.000	0.000	0.685	0.000
Subtotal			973.763	139.525		173.105		158.780		-		158.780	Continuing	Continuing	N/A

Remarks
N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	973.763	139.525	173.105	158.780	-	158.780	Continuing	Continuing	N/A

Remarks
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support
--	---	--

Significant Event Complete ▲	Milestone Decision Complete ★	Element Test Complete ◆	System Level Test Complete ●	Complete Activity ◆														
Significant Event Planned △	Milestone Decision Planned ☆	Element Test Planned ◇	System Level Test Planned ○	Planned Activity ◇														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 12.5%;">FY 2023</td> <td style="width: 12.5%;">FY 2024</td> <td style="width: 12.5%;">FY 2025</td> <td style="width: 12.5%;">FY 2026</td> <td style="width: 12.5%;">FY 2027</td> <td style="width: 12.5%;">FY 2028</td> <td style="width: 12.5%;">FY 2029</td> </tr> <tr> <td>◇</td><td>◇</td><td>◇</td><td>◇</td><td>◇</td><td>◇</td><td>◇</td> </tr> </table>					FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	◇	◇	◇	◇	◇	◇	◇
FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029												
◇	◇	◇	◇	◇	◇	◇												
MX09 Aegis BMD Development Support																		

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Missile Defense Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MX09 Aegis BMD Development Support	1	2023	4	2029

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD				Project (Number/Name) MD40 / Program-Wide Support			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MD40: <i>Program-Wide Support</i>	437.916	27.833	25.847	24.609	-	24.609	25.263	22.248	28.976	33.105	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.

A. Mission Description and Budget Item Justification

PWS contains non-headquarters management costs in support of MDA functions and activities across the entire Missile Defense System. These functions include Government Civilians and Contract Support Services. This effort provides integrity and oversight of the Missile Defense System as well as supports MDA in the development and evaluation of technologies that will respond to the changing threat. Additionally, PWS includes personnel to support global deployments performing deployment site preparation and activation, and provides facility capabilities for MDA Executing Agent locations worldwide. Other MDA wide costs include: physical and technical security; civilian drug testing; audit readiness; the Science, Technology, Engineering, and Mathematics (STEM) program; legal services and settlements; travel and agency training; office, equipment, vehicle, and warehouse leases; utilities and base operations across multiple geographic locations; commercial and ancillary facility services; management of all facility aspects regardless of lifecycle stage; supplies and maintenance; compliance with statutory environmental requirements; data and unified communications support; materiel and readiness and central property management of equipment; Facilities Sustainment, Restoration and Modernization (FSRM) program (formerly Real Property Maintenance) to keep the Department's inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2023	FY 2024	FY 2025
Title: Program Wide Support	27.833	25.847	24.609
Articles:	-	-	-
Description: PWS contains non-headquarters management costs in support of MDA functions and activities across the entire Missile Defense System. These functions include Government Civilians and Contract Support Services. This effort provides integrity and oversight of the Missile Defense System as well as supports MDA in the development and evaluation of technologies that will respond to the changing threat. Additionally, PWS includes personnel to support global deployments performing deployment site preparation and activation, and provides facility capabilities for MDA Executing Agent locations worldwide. Other MDA wide costs include: physical and technical security; civilian drug testing; audit readiness; the Science, Technology, Engineering, and Mathematics (STEM) program; legal services and settlements; travel and agency training; office, equipment, vehicle, and warehouse leases; utilities and base operations across multiple geographic locations; commercial and ancillary facility services; management of all facility aspects regardless of lifecycle stage; supplies and maintenance; compliance with statutory environmental requirements; data and unified communications support; materiel and readiness and central property management of equipment; Facilities Sustainment, Restoration and Modernization (FSRM) program (formerly Real Property			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency	Date: March 2024
--	-------------------------

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD40 / Program-Wide Support
--	---	---

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<p>Maintenance) to keep the Department's inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans: - SEE ABOVE.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects the PWS allocation on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.</p>			
Accomplishments/Planned Programs Subtotals	27.833	25.847	24.609

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

The acquisition strategy for MDA Consolidated Support consists of contract actions to industry for: a) Engineering and technical support; b) studies, analyses, and evaluations; and c) management and professional services to MDA functional organizations and program offices. With a focus to achieve Small Business goals, MDA is leveraging existing contracts and will competitively award new contracts to meet MDA's Fiscal Years 2020-2030 Advisory and Assistance Services (A&AS) support.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD40 / Program-Wide Support
--	---	---

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Wide Support - Agency Facilities and Maintenance	MIPR	DOD - USA - ARMY GARRISON REDSTONE ARSENAL (USAG RSA) : AL	0.000	0.000		0.000		1.281	Nov 2024	-		1.281	Continuing	Continuing	Continuing
Program Wide Support - Agency Facilities and Maintenance SRM	MIPR	Army Corps of Engineers/ Huntsville : Various	0.000	0.000		0.000		1.854	Nov 2024	-		1.854	Continuing	Continuing	Continuing
Program Wide Support - Agency Facility Operations and Sustainment	MIPR	Various : Various	31.368	1.849	Nov 2022	0.000		0.000		-		0.000	0.000	33.217	0.000
Program Wide Support - Agency Operations Management	C/CPAF	Various : Multi: AL, CA, CO, VA	3.662	0.500	Sep 2023	0.000		0.000		-		0.000	0.000	4.162	0.000
Program Wide Support - Agency Operations and Support Civilian Salaries	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	351.737	23.370	Oct 2022	25.847	Oct 2023	21.474	Oct 2024	-		21.474	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	Various : Multi: AL, CA, CO, VA	46.459	2.114	Nov 2022	0.000		0.000		-		0.000	0.000	48.573	0.000
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	4.690	0.000		0.000		0.000		-		0.000	0.000	4.690	0.000
Subtotal			437.916	27.833		25.847		24.609		-		24.609	Continuing	Continuing	N/A

Remarks
N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	437.916	27.833	25.847	24.609	-	24.609	Continuing	Continuing	N/A

Remarks
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD40 / Program-Wide Support
--	---	---

Significant Event Complete ▲	Milestone Decision Complete ★	Element Test Complete ◆	System Level Test Complete ●	Complete Activity ◆																
Significant Event Planned △	Milestone Decision Planned ☆	Element Test Planned ◇	System Level Test Planned ○	Planned Activity ◇																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 10%;">FY 2023</th> <th style="width: 10%;">FY 2024</th> <th style="width: 10%;">FY 2025</th> <th style="width: 10%;">FY 2026</th> <th style="width: 10%;">FY 2027</th> <th style="width: 10%;">FY 2028</th> <th style="width: 10%;">FY 2029</th> </tr> </thead> <tbody> <tr> <td>MD40 Program-Wide Support</td> <td>◇</td><td>◇</td><td>◇</td><td>◇</td><td>◇</td><td>◇</td><td>◇</td> </tr> </tbody> </table>						FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	MD40 Program-Wide Support	◇	◇	◇	◇	◇	◇	◇
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029													
MD40 Program-Wide Support	◇	◇	◇	◇	◇	◇	◇													

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Missile Defense Agency **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD	Project (Number/Name) MD40 / Program-Wide Support
--	---	---

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD40 Program-Wide Support	1	2023	4	2029