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

Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 0603890C I BMD Enabling Programs
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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	4,810.365	589.588	597.720	609.406	-	609.406	623.893	625.985	659.983	677.858	Continuing	Continuing
MD24: System Engineering & Integration	1,529.613	181.549	171.129	174.159	-	174.159	175.304	172.024	181.084	188.161	Continuing	Continuing
MD21: Homeland Cruise Missile Defense Architecture	16.313	9.458	0.783	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
MT23: Enabling - Test	261.129	43.440	44.248	47.778	-	47.778	48.040	48.972	49.952	50.951	Continuing	Continuing
MD28: Intelligence & Security	404.357	41.925	56.654	58.068	-	58.068	59.637	60.808	67.256	68.353	Continuing	Continuing
MD30: BMD Information Management Systems	823.614	88.463	91.609	93.988	-	93.988	97.316	96.040	102.974	104.948	Continuing	Continuing
MC30: Cyber Operations	389.863	78.161	89.111	91.208	-	91.208	95.476	97.395	99.353	101.350	Continuing	Continuing
MD31: Modeling & Simulation	610.846	68.221	65.702	63.883	-	63.883	63.237	64.752	67.861	69.695	Continuing	Continuing
MC31: Engineering Cyber Operations	129.309	23.993	25.854	24.319	-	24.319	24.888	25.634	26.814	27.032	Continuing	Continuing
MD32: Quality, Safety, and Mission Assurance	387.098	33.203	31.383	32.757	-	32.757	33.630	34.318	35.019	35.735	Continuing	Continuing
MD40: Program-Wide Support	258.223	21.175	21.247	23.246	-	23.246	26.365	26.042	29.670	31.633	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note
 Increase from FY 2024 to FY 2025 provides for additional systems engineering support provided for the Next Generation Interceptor, analysis of ground test data supporting capability declarations, technical review support, and risk mitigations.

A. Mission Description and Budget Item Justification
 The Missile Defense System Enabling Programs provide critical products and processes needed to combine element missile defense capabilities into a single, integrated, and layered System to counter existing threats and provide new defensive capabilities against emerging threats. Specifically, the Enabling Programs:

- Analyze and assess architecture alternatives and new technologies to address advanced threats, define Missile Defense System functional requirements, and provide engineering requirements, execution support, and pre- and post-mission analysis for System-level tests
- Provide validated models and simulations for System assessment
- Assess and document System performance (through data collection and analysis) and deliver capabilities to the Warfighter
- Provide multi-disciplinary security and intelligence support for acquisition, development, test, and deployment of current and future Missile Defense System capabilities

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency	Date: March 2024
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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 0603890C / <i>BMD Enabling Programs</i>
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- Identify potential threats and vulnerabilities to the Missile Defense Agency (MDA) and the Missile Defense System and develop and implement strategies to mitigate those risks
- Provide Information Management tools and products supporting the development of Missile Defense System capabilities while safeguarding networks and critical program information
- Provide MDA secure communication networks, information technology systems, special purpose processing nodes, operations and monitoring centers, and disaster recovery and continuity of operations requirements
- Evaluate quality, technical safeguards, and mission assurance effectiveness
- Assess System ability to maintain integrity and superiority with advances in technology development

This Program Element also funds Missile Defense System threat discrimination capability development to enhance System effectiveness against the evolving adversary threat. The end result will be a Missile Defense System architecture more capable of identifying and destroying reentry vehicles with a higher degree of confidence, improving Warfighter shot doctrine, and using interceptor inventory more efficiently. Missile Defense System threat discrimination development is budgeted for in the Enabling (0603890C); Midcourse (0603882C); BMD Sensors (0603884C); BMD Command, Control, Battle Management and Communications (C2BMC) (0603896C); and Aegis BMD (0603892C) PEs.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	588.847	597.720	620.823	-	620.823
Current President's Budget	589.588	597.720	609.406	-	609.406
Total Adjustments	0.741	0.000	-11.417	-	-11.417
• 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	-9.102	0.000			
• Other Adjustment	9.843	0.000	-11.417	-	-11.417

Change Summary Explanation

Increase in FY 2023 provided for multiple priorities, including network infrastructure, a High Energy Laser Unmanned Aerial Vehicle Design Update Study, Terminal High-Altitude Area Defense / Integrated Battlefield Control System engineering support, Science and Technology Council projects, and Quality Assurance.

Decrease in FY 2025 from PB 2024 to PB 2025 reflects efficiencies realized in MDA Advisory and Assistance Services.

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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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
MD24: System Engineering & Integration	1,529.613	181.549	171.129	174.159	-	174.159	175.304	172.024	181.084	188.161	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

System Engineering & Integration (SE&I) defines, designs, tests and integrates the Missile Defense System, and provides analysis, decision support and planning activities for real-world operations to the National Command Authority, Joint Staff, Military Services, Combatant Commanders, Operational Test Agencies, Director of Operational Test and Evaluation, Allies, and others.

The SE&I Major Program Goals are:

- Plan, design, develop, integrate, and test a layered Missile Defense System that provides the required performance
- Provide System-level engineering to Missile Defense System Elements, and lead collaborative cross-Element, cross-Component engineering
- Analyze architecture alternatives and new technologies, and develop requirements to respond to the proliferation of short, medium, and long-range advanced missile threats
- As technical authority for Integrated Air and Missile Defense (IAMD), provide a consistent, disciplined systems engineering process using a multi-Service team to integrate Joint IAMD systems
- Provide technical direction to Element and Component developers and provide System-level forums to track, assess, and improve hardware and software reliability
- Identify Missile Defense System capabilities and limitations
- Develop performance assessment requirements and conduct assessments to form the basis for capability deliveries in support of fielding decisions
- Identify critical conditions and data required to develop test campaigns to demonstrate Missile Defense System performance
- Identify System issues occurring in ground and flight tests and lead the effort to resolve them
- Ensure the Missile Defense System is complementary to and interoperable with North Atlantic Treaty Organization (NATO) and other theater systems

The Missile Defense System threat discrimination improvements and countermeasures mitigation effort will develop and field integrated Element capabilities to improve the capability to identify lethal reentry vehicles and non-lethal threat objects. SE&I will conduct analysis and engineering to specify Missile Defense System functional, performance, and interface requirements for achieving the improved capabilities.

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

	FY 2023	FY 2024	FY 2025
Title: Requirements and Design	41.758	43.842	52.956
Articles:	-	-	-

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>Description: Requirements and Design develops Missile Defense System-level requirements and specifications, driving the integration of the System to provide required capabilities for the Warfighter. Efforts include:</p> <ul style="list-style-type: none"> - Provide time-phased Missile Defense System technical content expectations and develop system requirements to address evolving threats - Develop Specification Change Notices for future requirements changes, to include mitigation strategies to address discrepancy reports - Develop and allocate functional performance, interface, and design suitability requirements to Programs - Deliver system technical baseline updates to document integrated system build content - Identify and resolve technical disconnects through the requirements trace process and certifications; conduct engineering analyses and perform trade studies - Assess sub-system compliance with Missile Defense System design - Lead Missile Defense Lethality program: <ul style="list-style-type: none"> -- Assess and add emerging threats to the Missile Defense Agency's (MDA's) lethality prediction models -- Update lethality assessments to address collateral effects and consequences of intercept for new/upgraded sub-systems - Develop anti-tamper approaches to inhibit reverse engineering of critical technologies - Evaluate engineering and manufacturing maturity of Missile Defense sub-systems and components <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 engineering support and analysis for the Next Generation Interceptor development efforts leading from Preliminary Design Review to Critical Design Review - Continue Next Generation Interceptor lethality modeling and simulation (M&S) <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Conduct lethality testing and evaluate objective evidence for the Next Generation Interceptor development efforts leading to Critical Design Review <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Increase from FY 2024 to FY 2025 provides for requirements moved from the Anti-Tamper & Engineering Manufacturing Readiness Level Development accomplishment as part of the System technical requirements development process to better reflect program responsibilities and requirements. Increase also provides for increased systems engineering support for the Next Generation Interceptor.</p>			
Title: Integrated Air and Missile Defense (IAMD)		24.765	21.250
Articles:		-	-
		21.322	-

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
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Description: The IAMD effort provides a consistent, disciplined systems engineering process using a joint service system engineering team to develop the technical requirements and capabilities necessary to support integration of joint service IAMD systems, implementing capabilities required by the Geographic Combatant Commands and the Services. Provides modeling, simulation and analysis of cross-Service kill chains using high-fidelity software-in-the-loop program office system representations. Analyzes, assesses, and translates identified Engagement Coordination Initial Capability Document requirements into technical requirements for implementation within Services and Agency programs to improve Engagement Coordination and implement advanced fire control capabilities across the Joint Integrated Air and Missile Defense kill-chain. This effort includes systems engineering analysis, development of technical and interface control requirements and documents, definition of candidate Joint IAMD increments, development and demonstration of candidate Joint IAMD capabilities, IAMD M&S model improvements, support for accurate representation of IAMD capabilities in Wargames and exercises, and support for configuration control across the joint systems. IAMD provides capabilities to improve performance such as an improved Joint air picture and advanced Joint Combat Identification to enable engagement coordination, decision making, increase battlespace, and improve track continuity. These improvements and capabilities will enable right sensor to right shooter functionality across the Joint Services.

Additional efforts will address critical joint Command and Control and interoperability needs such as the Joint Tactical Integrated Fire Control (JTIFC) architecture (including its associated capabilities), and the development of a Joint Integrated Fire Control Network to enable the capability to provide fire control quality data, at the measurement level, from the right sensor to the right shooter to engage the right target. This includes ensuring that all activities are in alignment with the DoD Combined Joint All Domain Command and Control (CJADC2) efforts. Other integration development efforts include an IAMD Operational Architecture, Advanced Tracker Capabilities (Advanced Track Filters and Advanced Data Association algorithms) to defend against advanced threats, Automated Battle Management Aides (ABMAs) to support Engagement Coordination and Sensor/Weapon resource management, and a Joint Analysis Team (JAT) to analyze and assess results of demonstrations and tests.

- Recurring activities include:
- Continue integration of Navy Cooperative Engagement Capability (CEC) & Army Integrated Fire Control Network (IFCN) via Joint Track Management Capability (JTMC) Bridge, and demonstration in increasingly realistic environments and scenarios by leveraging live demonstrations and tracking events.
 - Continue to advance improvements in combat identification integration and interoperability among Joint Integrated Air and Missile Defense systems and to start the implementation of these advanced capabilities across the Army, Navy, Air Force and Marine Corps systems
 - Enhance M&S to support participation in annual Nimble Fire exercises
 - Continue engineering activities supporting critical Joint Command and Control and interoperability needs
 - Work within CJADC2 Working Groups and Integrated Product Teams to ensure IAMD Technical Authority efforts are in alignment and compatible with the direction of the DoD and other Services with respect to CJADC2 capabilities

FY 2023	FY 2024	FY 2025

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
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<p>- Continue providing support to related efforts such as the Defense of Guam Joint Tracking Architecture Study, the National Capital Region Integrated Air Defense System Demo and any follow-on analysis, as well as the Terminal High-Altitude Area Defense Integrated Battle Command System (IBCS) integration studies. Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Continue Multi-system Correlator Tracker (MSCT) software and integration with CEC/IFCN and Air Force and Marine Corps systems - integrate fire control networks with tactical level Command and Control nodes for battle management - Mature and incorporate hypersonic missile tracking into the JTMC Bridge for cross-Service integrated fire control - Implementation of contracting across the JTMC Bridge for integrated fire control sensor to weapon support across Services - Fully integrate Joint Mission Assurance Council (JMAC) into Army IBCS, Navy CEC, Lower Tier Air and Missile Defense Sensor (LTAMDS), Ground/Air Tasking Oriented Radar (G/ATOR), Common Aviation Command and Control System (CAC2S), E-2D, USAF F-15/16 and other POR integration efforts and optimize solutions for distributed JMAC Architecture - Refine and optimize the distributed JMAC capabilities in an integrated JTIFC scenario for demonstration in Live, Virtual, and Constructive (LVC) environment - Find opportunities for collaboration and demonstration of delivered multi-sensor Advanced Track Filters and Advanced Association Algorithms to improve overall Joint IAMD Tracking Capabilities - Leverage FY23 demonstrations and live tracking events to show performance in more realistic IAMD environments; start transition planning into requisite Programs of Record (PoR) - Evolve and update IAMD Lab for Joint Analysis Team (JAT) to analyze existing and emerging IAMD capabilities to ensure they are appropriately represented during wargames/exercises - Step up collaboration and integration of IAMD Technical Authority efforts into Joint All-Domain Command and Control (JADC2) and end-to end-capability development, including working more closely with all of the JADC2 Operation Planning Teams/ Integrated Product Teams as well as Project Convergence, Project Overmatch and ABMS. - Provide impact assessments for the JADC2 Reference Architecture and subsequent architecture and capability development efforts - Enable Right Sensor, Right Shooter capability with current service systems which will provide the capability to perform engagements utilizing remote sensors (engage on remote capabilities) which otherwise would not be available. This will also enable JTIFC to pass fire control quality information across all of the joint service systems. - Operate, maintain and update JTIFC Node, which is the key software utilized to connect the Army and Navy's composite tracking networks which allow the two services to pass fire control quality data from all connected sensors - Mature Hypersonic Defense Command and Control software and support JTIFC LVC/Flag Exercises. The LVC environment and exercises provide low cost opportunities with live systems/equipment and joint assets to continue to mature the JTIFC capabilities, which would otherwise be unaffordable for the IAMD Technical Authority (TA) efforts 			
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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<p>- Narrow down ABMA options and start the maturation, demonstration and fielding of ABMAs for participation with JTIFC.</p> <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Identify architecture alternatives that improve Joint IAMD interoperability and performance -- Demonstrate integration of Joint Tactical Integrated Fire Control into/with Missile Defense System Ballistic Missile Defense (BMD), Cruise Missile Defense, Hypersonic Missile Defense, including Command and Control, Battle Management, and Communications -- Demonstrate Distributed Joint Multi-Platform Advanced Combat Identification capabilities, including the sharing of feature-level data across the JTMC Bridge -- Demonstrate initial prototype ABMA in demonstrations/exercises -- Begin efforts in electronic warfare (electronic protection and counter electronic attack) including integrated electronic protection assessment, and coordinate mitigation opportunities across Service domains - Assess opportunities to identify and counter advanced threats; including ballistic, hypersonic and maneuvering threats -- Prototype with composite tracking networks (including options to add composite tracking to other Service capabilities) to identify and counter advanced threats -- Prototype and demonstrate advanced cross-Service kill chains against the integrated threats - Integrate the Joint Tactical Integrated Fire Control Architecture and Missile Defense System into the JADC2 environment <p>FY 2024 to FY 2025 Increase/Decrease Statement: N/A</p>			
<p>Title: System-Level Verification and Assessment</p> <p align="right">Articles:</p> <p>Description: The System-level Verification and Assessment program provides for Missile Defense System assessment and verification, validation, and accreditation (VV&A) activities to support capability delivery decisions and anchor System models and simulations. Efforts include:</p> <ul style="list-style-type: none"> - Develop and manage assessment plans and requirements, including appropriate data collection venues, for Missile Defense System capability increments - Identify M&S improvements needed to provide the assessment data required for Missile Defense System Operational Capability Baseline and fielding decisions - Analyze ground and flight test data to characterize System interoperability and performance, and anchor models and simulations - Identify mitigation approaches for system performance issues uncovered during the course of analysis and assessment - Conduct VV&A activities to achieve and maintain Hardware-in-the-Loop model accreditation - Conduct assessments of Missile Defense System capabilities and limitations prior to capability delivery decisions - Verify Missile Defense System performance against specified requirements, and produce System verification reports - Identify Missile Defense System sub-system and component technical risks, and track status and risk mitigation progress 	20.877 -	26.049 -	37.374 -

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Appropriation/Budget Activity 0400 / 4		R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025	
<p>- Maintain a risk database using the Failure Reporting and Corrective Action System to track and mitigate technical risks due to subsystem and component failures</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: Increase from FY 2024 to FY 2025 provides for a realignment of requirements moved from the Risk Management accomplishment to the System-Level Verification and Assessment accomplishment to consolidate risk management and System assessment activities. Increase also provides for additional assessment activities associated with ground test sprints.</p>					
<p>Title: Knowledge Centers</p> <p align="right">Articles:</p> <p>Description: Knowledge Centers provide centralized access to independent technical advisors to the MDA program offices to assist in development of technical approaches and solutions. Efforts include: - Provide Federally Funded Research and Development Centers (FFRDC) and University Affiliated Research Centers (UARC) subject matter expertise, to include reach-back capability as needed, for sub-system program managers: -- Provide Subject Matter Expertise and analytical support for Independent Review Teams, mission assurance assessments, Failure Review Boards and Failure Investigation Teams -- Identify and provide recommendations to mitigate technical risks, including innovative and unconventional approaches - Perform independent technical assessments of critical system and sub-system issues, including definition of knowledge points, establish closure criteria, and provide closure recommendations - Conduct assessments of emerging technologies as required</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:</p>		10.790	9.148	10.561	-

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<p>- Conduct specialized technical assessments and recommendations to resolve emerging technical issues and risk areas</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increase from FY 2024 to FY 2025 provides additional FFRDC/UARC staff-years of technical effort to furnish subject matter expertise to support technical issue resolution and risk mitigations.</p> <p>Title: Future Concepts and Planning</p> <p align="right">Articles:</p> <p>Description: This activity funds Missile Defense System architecture and future concept development, and efforts and studies to address the emergent threat, including the Department of Defense Analyses of Alternatives if directed.</p> <ul style="list-style-type: none"> - Participate in designated Office of the Secretary of Defense activities or analyses, as directed by Congress - Perform Missile Defense System capability gap analysis, and analyze and document architecture alternatives and/or new technologies to address gaps - Develop architecture overviews, capability evolution plans, integrated system schedules, and top-level requirements - Develop Architecture Requirements Packages to establish functional, performance and integration planning requirements for next generation weapons and sensors to counter future threats - Identify architecture alternatives that improve Missile Defense System performance and are complementary to and interoperable with NATO systems and theaters around the world - Conduct technology development reviews for future/follow-on Missile Defense System Element development efforts - Update concept capability documentation based on architectural options, trade studies, and technology development experiments - Maintain a dialog with the Warfighter community for all Missile Defense System engineering and technical issues: <ul style="list-style-type: none"> -- Inform Warfighter development of the Joint IAMD Portfolio Priority List by providing relevant System data -- Develop updates to the digital version of the Achievable Capabilities List as required -- Support MDA Wargames planning, execution, and analysis - Develop updates to the digital version of the Future Architecture Roadmap as required - Provide prioritized strategic architecture thrusts to inform Agency Science and Technology investments - Maintain the MDA Director's Strategic Planning War-Room and the Strategic Vision for the Agency - Lead collaborative effort to improve foreign partners' understanding of existing system capabilities, architectural performance and operational concepts of the Missile Defense System <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>	18.927	21.033	19.334
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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration		
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: System Engineering, Engineering Analysis and Quick Response Team Description: This task provides rapid response, high quality systems engineering analysis products and supporting technical data to address external and internal Agency inquiries and decisions. Efforts include: - Conduct system level analyses to support ongoing Missile Defense System Architecture and Systems Engineering efforts - Analyze expected performance of Missile Defense System Architecture options: -- Analyze and predict the performance of future Missile Defense System capabilities -- Provide technical assessments, and collaborate with Missile Defense System Elements to define and track technical performance measures - Respond to Warfighter, Combatant Command, Department, and Congressional requests for information and analysis - Provide analytical support for real-world events Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: SEE ABOVE. FY 2025 Plans: - SEE ABOVE. FY 2024 to FY 2025 Increase/Decrease Statement: N/A.		10.289	11.588	11.552
Articles:		-	-	-
Title: Discrimination Description: Discrimination leads and integrates MDA's Threat Discrimination program, establishes performance goals, and develops functional, performance, and interface requirements to address advanced and emerging countermeasures. Efforts include: - Perform systems engineering support for threat discrimination and counter-countermeasures analysis and assessments - Conduct analysis on predicted performance of advanced capability development for definition of initial requirements for the Missile Defense System		18.287	18.950	17.904
Articles:		-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
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<ul style="list-style-type: none"> - Develop Electronic Attack and Electronic Protection models to support Missile Defense System requirements definition for Electronic Protection techniques - Define operational concepts for improved counter-countermeasure techniques and technologies - Establish discrimination and countermeasures mitigation test requirements and data collection plans - Develop models and simulations for Electronic Attack, Electronic Protection, Objective Debris Mitigation, electro-optical/infrared improvements, advanced/dynamic threat, and high-fidelity scene generation to support test planning and execution - Provide technical support for fielding improved threat discrimination capabilities 			
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Specific and/or unique accomplishments to each FY are as follows:

FY 2024 Plans:

- Develop techniques for Electronic Protection and Objective Debris Mitigation capabilities
- Investigate high fidelity scene generation and electronic attack models and simulations for Systems Engineering analysis and concept development
- Develop various threat-based models representing anticipated advisory countermeasures capabilities for use in engineering trade studies and analysis

FY 2025 Plans:

- SEE ABOVE.

FY 2024 to FY 2025 Increase/Decrease Statement:

N/A

Title: Risk Management	Articles:	8.440	8.331	0.000
		-	-	-

Description: The Risk Management task identifies Missile Defense System element and component technical risks, and tracks status and risk mitigation progress.

- Execute the risk management and mission readiness working group process
- Maintain a risk database using the Failure Reporting and Corrective Action System
- Review and approve program element risks, on quarterly basis

FY 2024 Plans:

- SEE ABOVE.

FY 2025 Plans:

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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 a realignment of requirements and funds to the System-level Verification and Assessment accomplishment to consolidate risk management and System assessment activities.				
Title: Anti-Tamper & Engineering Manufacturing Readiness Level Development		5.509	5.446	0.000
Articles:		-	-	-
Description: This task develops anti-tamper approaches to inhibit reverse engineering of critical technologies and assesses Element, Component, or System maturity. - Develop anti-tamper approaches to enable international fielding, support coalition warfare, and extend the effective operational life - Engage and support the Services in understanding and transitioning Missile Defense System Element Anti-Tamper activities - Participate in Element reviews to assess proposed Anti-Tamper solutions and assist programs in developing and implementing Anti-Tamper detection and response technologies to mitigate risk - Assess and report readiness of MDA development efforts for transition to production Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: - SEE ABOVE. FY 2025 Plans: N/A FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects a realignment of requirements and funds to the Requirements and Design accomplishment to better reflect program responsibilities and requirements.				
Title: Manufacturing and Producibility		4.297	5.492	3.156
Articles:		-	-	-
Description: This activity supports a System-level manufacturing and producibility team to address materials, key component, and subsystem design and development to reduce cycle time, part count, and risk. This activity also supports a System-level reliability team to reduce risk of test failures and performance shortcomings and drive reliability into system and component designs. - Assess Missile Defense industrial base and determine critical manufacturing technologies: -- Conduct assessments of critical component supply base and update critical technologies database				

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> -- Collaborate with national security space components on investment strategies for critical technologies -- Develop engineering management tool to characterize industrial base risks - Utilize supply chain risk identification and mitigation tracking system to mitigate manufacturing supply issues for critical components - Assess the effectiveness of reliability programs for each MDA Product (Radar, Launcher, Missile/Interceptor, etc.) to achieve/sustain required reliability - Perform reliability, composite risk, and probability of mission success assessments for flight tests - Identify failure trends/modes and evaluate impact on the Probability of Mission Success; evaluate potential corrective actions - Provide element/program scorecard data to support reliability evaluations/assessments - With Logistics Support, develop MDA Reliability and Logistic Policies/Plans to promote integrated sustainability efforts - Ensure that Missile Defense products have achieved the required maturity in Reliability, Availability, and Maintainability (RAM) to support the transition from MDA to the appropriate service organization; provide RAM expertise as needed to Element Program Offices - Provide updates to MDA RAM policy and guidance <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 a realignment of Civilian Labor budget from Manufacturing and Producibility to Requirements and Design to accurately reflect alignment of civilian positions to budget.</p>				
<p>Title: Guam Defense Integrated Air and Missile Defense (IAMD)</p> <p align="right">Articles:</p> <p>Description: The Guam Defense IAMD provides the integration of the JTMC Bridge to establish an independent integrated fire control architecture in support of the Defense of Guam. This activity pulls from ongoing IAMD TA efforts that developed a bridge capability demonstration. This requirement would allow composite tracking networks to operate as a single joint composite tracking network in support of Guam Defense.</p> <p>FY 2024 Plans:</p>		17.610	0.000	0.000
		-	-	-

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
N/A			
FY 2025 Plans: N/A			
FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals	181.549	171.129	174.159

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>
• 0603881C: Ballistic Missile <i>Defense Terminal Defense Segment</i>	194.264	220.311	367.279	-	367.279	543.868	554.429	464.018	314.936	Continuing	Continuing
• 0603882C: Ballistic <i>Missile Defense Midcourse</i> <i>Defense Segment</i>	670.808	903.633	768.227	-	768.227	856.218	842.985	956.974	1,007.150	Continuing	Continuing
• 0603884C: Ballistic <i>Missile Defense Sensors</i>	228.807	239.159	209.002	-	209.002	205.087	202.555	209.816	214.110	Continuing	Continuing
• 0603892C: AEGIS BMD	586.329	693.727	649.255	-	649.255	602.818	539.786	649.556	714.388	Continuing	Continuing
• 0603896C: Ballistic Missile <i>Defense Command and</i> <i>Control, Battle Management</i> <i>& Communication</i>	587.689	554.201	569.662	-	569.662	570.632	587.929	618.050	651.885	Continuing	Continuing
• 0603914C: Ballistic <i>Missile Defense Test</i>	376.650	360.455	367.491	-	367.491	418.514	383.362	435.626	438.825	Continuing	Continuing
• 0604102C: Guam <i>Defense Development</i>	383.252	397.578	415.794	-	415.794	247.793	183.214	303.003	218.941	Continuing	Continuing
• 0604181C: Hypersonic Defense	513.267	208.997	182.283	-	182.283	193.100	205.122	250.208	327.698	Continuing	Continuing

Remarks

D. Acquisition Strategy

In order to optimize the performance of the Missile Defense System, MDA leverages the nation's engineering Centers of Excellence at government agencies and Military Services, FFRDCs, UARCs, and industry. The executing agents utilize various contracting strategies in a flexible manner to maximize their contribution. Products and Services will be acquired by competitive means to the extent that is possible and practical.

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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 0603890C / BMD Enabling Programs				Project (Number/Name) MD24 / System Engineering & Integration					
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
Requirements and Design - Reqts & Design - Lethality Spt - CSS	C/CPFF	TEAMS : NC	5.522	0.637	Nov 2022	0.713	Nov 2023	0.000		-		0.000	0.000	6.872	0.000
Requirements and Design - CSS - TEAMS	C/CPFF	YORKTOWN SYSTEMS GROUP, INC. : Various	0.000	0.000		0.000		1.808	Nov 2024	-		1.808	Continuing	Continuing	Continuing
Requirements and Design - CSS - TEAMS AO	C/CPFF	Veterans Technology, LLC : AL	0.000	0.000		0.000		2.194	Nov 2024	-		2.194	Continuing	Continuing	Continuing
Requirements and Design - CSS - TEAMS MDSE	C/CPAF	PARSONS GOVERNMENT SERVICES INC. : AL	0.000	0.000		0.000		3.644	Nov 2024	-		3.644	Continuing	Continuing	Continuing
Requirements and Design - Industry	C/CPAF	BOEING : AL	0.000	0.000		0.000		11.386	Nov 2024	-		11.386	Continuing	Continuing	Continuing
Requirements and Design - Lethality Spt - CSS	C/CPFF	NTSI LLC : AL	0.000	0.000		0.000		0.221	Nov 2024	-		0.221	Continuing	Continuing	Continuing
Requirements and Design - Lethality Spt - Various	Various	Various : Various	6.022	1.355	Nov 2022	1.526	Nov 2023	2.347	Nov 2024	-		2.347	Continuing	Continuing	Continuing
Requirements and Design - Next Generation Interceptor Lethality Analysis	Various	Various : Various	0.000	0.000		8.582	Dec 2023	12.615	Nov 2024	-		12.615	Continuing	Continuing	Continuing
Requirements and Design - Previous Year Reqts & Design Content No Longer in FYDP	Various	Various : Various	47.805	0.000		0.000		0.000		-		0.000	0.000	47.805	0.000
Requirements and Design - Reqts & Design	C/CPFF	TEAMS : AL, VA	64.648	5.632	Nov 2022	6.368	Nov 2023	0.000		-		0.000	0.000	76.648	0.000
Requirements and Design - Reqts & Design - FFRDC/UARC	FFRDC	Various : Various	16.624	1.448	Nov 2022	1.419	Nov 2023	0.000		-		0.000	0.000	19.491	0.000
Requirements and Design - Reqts & Design - Industry	C/CPFF	Boeing : AL	142.235	10.568	Nov 2022	9.473	Nov 2023	0.000		-		0.000	0.000	162.276	0.000
Requirements and Design - Reqts & Design - MDA	Allot	MDA : AL, VA	89.844	14.220	Oct 2022	11.016	Oct 2023	16.286	Oct 2024	-		16.286	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs				MD24 / System Engineering & Integration					
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
Requirements and Design - Reqts & Design - Next Generation Interceptor Lab support	Various	Various : NM, CA, TX	3.929	1.247	Dec 2022	0.000		0.000		-		0.000	0.000	5.176	0.000
Requirements and Design - Reqts & Design - Next Generation Interceptor OGA support	MIPR	Various : AL, TN	2.292	3.429	Dec 2022	0.000		0.000		-		0.000	0.000	5.721	0.000
Requirements and Design - Reqts & Design - Next Generation Interceptor Various	Various	Various : AL	3.315	0.800	Dec 2022	0.000		0.000		-		0.000	0.000	4.115	0.000
Requirements and Design - Reqts & Design - OGA	MIPR	CCDC : AL	15.585	0.000		0.000		0.000		-		0.000	0.000	15.585	0.000
Requirements and Design - Reqts & Design - Post Intercept Assessment	Various	Various : Various	27.201	1.341	Nov 2022	4.745	Nov 2023	0.000		-		0.000	0.000	33.287	0.000
Requirements and Design - Reqts & Design - S&T	Various	Various : Various	2.937	0.000		0.000		0.000		-		0.000	0.000	2.937	0.000
Requirements and Design - Various Reqts & Design Support	Various	Various : Various	0.000	1.081	Nov 2022	0.000		2.455	Nov 2024	-		2.455	Continuing	Continuing	Continuing
Integrated Air and Missile Defense (IAMD) - Advanced Architecture - External Support	Various	Various : Various	17.010	3.462	Oct 2022	20.418	Oct 2023	4.995	Nov 2024	-		4.995	Continuing	Continuing	Continuing
Integrated Air and Missile Defense (IAMD) - Advanced Architecture - Joint Integrated Command and Control (CCDC AvMC)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	0.000	2.267	Nov 2022	0.000		0.000		-		0.000	0.000	2.267	0.000
Integrated Air and Missile Defense (IAMD) -	MIPR	DOD - USA - COMBAT	0.000	9.372	Nov 2022	0.000		10.818	Nov 2024	-		10.818	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs				MD24 / System Engineering & Integration					
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
Advanced Architecture - Joint Integrated Command and Control (CCDC)		CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL													
Integrated Air and Missile Defense (IAMD) - Advanced Architecture - Joint Integrated Command and Control (JHU APL)	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	0.000	2.445	Nov 2022	0.000		1.971	Nov 2024	-		1.971	Continuing	Continuing	Continuing
Integrated Air and Missile Defense (IAMD) - Advanced Architecture - Joint Integrated Command and Control (NG)	C/CPFF	NORTHROP GRUMMAN : Various	0.000	2.719	Apr 2023	0.000		0.000		-		0.000	0.000	2.719	0.000
Integrated Air and Missile Defense (IAMD) - Advanced Architecture - Joint Integrated Command and Control (NIWC)	MIPR	DOD - USA - PROGRAM EXECUTIVE OFFICE MISSILES AND SPACE (PEO MS) : Various	0.000	1.000	Jan 2023	0.000		0.000		-		0.000	0.000	1.000	0.000
Integrated Air and Missile Defense (IAMD) - Advanced Architecture - Joint Integrated Command and Control (PEO IWS)	MIPR	DOD - USN - PROGRAM EXECUTIVE OFFICE INTEGRATED WARFARE SYSTEMS (PEO IWS) : Various	0.000	1.025	Jul 2023	0.000		0.000		-		0.000	0.000	1.025	0.000
Integrated Air and Missile Defense (IAMD) - Advanced Architecture - Program Ops (TEAMS Next)	C/CPFF	NTSI LLC : Various	0.000	1.411	Feb 2023	0.000		1.495	Nov 2024	-		1.495	Continuing	Continuing	Continuing
Integrated Air and Missile Defense (IAMD) - Advanced Architecture-	Various	Various : Various	0.000	0.524	Nov 2022	0.000		1.506	Nov 2024	-		1.506	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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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 Integrated Command and Control															
Integrated Air and Missile Defense (IAMD) - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	0.000	0.540	Oct 2022	0.832	Oct 2023	0.537	Oct 2024	-		0.537	Continuing	Continuing	Continuing
System-Level Verification and Assessment - Previous Year Sys V&A content no longer in the FYDP	Various	Various : Various	12.236	0.000		0.000		0.000		-		0.000	0.000	12.236	0.000
System-Level Verification and Assessment - Sys V&A - CSS	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	21.395	2.732	Nov 2022	2.737	Nov 2023	2.203	Nov 2024	-		2.203	Continuing	Continuing	Continuing
System-Level Verification and Assessment - Sys V&A - FFRDC/UARC - Aerospace	FFRDC	Aerospace : CA	26.832	1.721	Nov 2022	1.231	Nov 2023	1.044	Nov 2024	-		1.044	Continuing	Continuing	Continuing
System-Level Verification and Assessment - Sys V&A - FFRDC/UARC - JHU/APL	FFRDC	JHU/APL : MD, VA	14.575	0.874	Nov 2022	1.321	Nov 2023	1.360	Nov 2024	-		1.360	Continuing	Continuing	Continuing
System-Level Verification and Assessment - Sys V&A - FFRDC/UARC - Mitre	FFRDC	MITRE : VA	26.671	2.439	Nov 2022	1.110	Nov 2023	1.557	Nov 2024	-		1.557	Continuing	Continuing	Continuing
System-Level Verification and Assessment - Sys V&A - FFRDC/UARC - Various	FFRDC	Various : Various	28.422	0.969	Nov 2022	1.386	Nov 2023	1.184	Nov 2024	-		1.184	Continuing	Continuing	Continuing
System-Level Verification and Assessment - Sys V&A - M&S Accreditation	MIPR	CCDC : AL	30.187	6.576	Nov 2022	7.081	Nov 2023	9.684	Nov 2024	-		9.684	Continuing	Continuing	Continuing
System-Level Verification and Assessment - Sys V&A - MDA	Allot	MDA : VA, AL	26.094	1.295	Oct 2022	7.381	Oct 2023	14.185	Oct 2024	-		14.185	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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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			
System-Level Verification and Assessment - Sys V&A - OGA	MIPR	CCDC : AL	21.564	2.975	Nov 2022	3.291	Nov 2023	3.456	Nov 2024	-		3.456	Continuing	Continuing	Continuing
System-Level Verification and Assessment - Sys V&A - Various	Various	Various : Various	0.000	0.818	Nov 2022	0.000		2.180	Nov 2024	-		2.180	Continuing	Continuing	Continuing
System-Level Verification and Assessment - V&A Industry Support	C/CPFF	Boeing : AL	23.509	0.478	Nov 2022	0.511	Nov 2023	0.521	Nov 2024	-		0.521	Continuing	Continuing	Continuing
Knowledge Centers - KC - FFRDC/UARC - Aerospace	FFRDC	Aerospace : CA	17.668	0.000		0.000		0.000		-		0.000	0.000	17.668	0.000
Knowledge Centers - KC - FFRDC/UARC - Mitre	FFRDC	MITRE : VA	15.101	0.484	Nov 2022	0.876	Nov 2023	0.000		-		0.000	0.000	16.461	0.000
Knowledge Centers - KC - Industry	C/CPFF	BOEING : AL	0.974	0.000		0.000		0.000		-		0.000	0.000	0.974	0.974
Knowledge Centers - KC - MDA	Allot	MDA : AL, VA	48.832	4.120	Oct 2022	2.921	Oct 2023	3.579	Oct 2024	-		3.579	Continuing	Continuing	Continuing
Knowledge Centers - KC - OGA	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	0.000	2.348	Nov 2022	0.000		0.000		-		0.000	0.000	2.348	0.000
Knowledge Centers - KC - TEAMS	C/CPFF	TEAMS : AL	11.533	0.713	Nov 2022	0.000		0.000		-		0.000	0.000	12.246	0.000
Knowledge Centers - KC - Various	Various	Various : Various	19.852	3.125	Nov 2022	5.351	Nov 2023	6.982	Nov 2024	-		6.982	Continuing	Continuing	Continuing
Knowledge Centers - Previous Year KC Content No Longer In FYDP	Various	Various : AL, AK, CA, CO, HI, NM, VA	3.032	0.000		0.000		0.000		-		0.000	0.000	3.032	0.000
Future Concepts and Planning - Advanced	MIPR	DOD - USA - COMMUNICATIONS	0.000	2.037	Nov 2022	0.000		0.000		-		0.000	0.000	2.037	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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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			
Architecture - Advanced Concepts Evaluation (AFLCMC)		ELECTRONICS COMMAND (CECOM) : MD													
Future Concepts and Planning - Advanced Architecture - Program Ops (TEAMS Next and GTRI)	C/Variou	Various : Various	0.000	0.000		0.000		1.368	Nov 2024	-		1.368	Continuing	Continuing	Continuing
Future Concepts and Planning - Advanced Architecture - Program Ops (TEAMS Par)	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	0.000	0.000		0.000		2.917	Nov 2024	-		2.917	Continuing	Continuing	Continuing
Future Concepts and Planning - Advanced Architecture - Program Ops (TEAMS VT)	C/CPIF	Veterans Technology, LLC : AL	0.000	0.000		0.000		1.231	Nov 2024	-		1.231	Continuing	Continuing	Continuing
Future Concepts and Planning - Advanced Architecture - Strategic Planning and Communication (GTRI)	C/CPFF	GTRI (Georgia Tech Research Institute) : GA	1.856	2.604	Jan 2023	4.366	Dec 2023	0.804	Nov 2024	-		0.804	Continuing	Continuing	Continuing
Future Concepts and Planning - Advanced Architecture - Various	Various	Various : Various	0.000	5.725	Nov 2022	10.132	Nov 2023	6.213	Nov 2024	-		6.213	Continuing	Continuing	Continuing
Future Concepts and Planning - Architecture target simulation development	MIPR	USA CCDC AVIATION AND MISSILE CENTE : AL	10.000	0.000		0.000		0.000		-		0.000	0.000	10.000	0.000
Future Concepts and Planning - Future Concepts - Architecture CSS	C/CPFF	TEAMS : AL, VA	30.317	0.000		0.000		0.000		-		0.000	0.000	30.317	0.000
Future Concepts and Planning - Future Concepts - FFRDC / UARC 1	FFRDC	SNL : CA	4.097	0.000		0.000		0.000		-		0.000	0.000	4.097	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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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			
Future Concepts and Planning - Future Concepts - FFRDC / UARC 3	FFRDC	MIT/LL : MA	5.130	0.000		0.000		0.000		-		0.000	0.000	5.130	0.000
Future Concepts and Planning - Future Concepts - Support	Allot	MDA : VA / AL	40.122	8.561	Oct 2022	6.535	Oct 2023	6.801	Oct 2024	-		6.801	Continuing	Continuing	Continuing
Future Concepts and Planning - Future Concepts - WHS	MIPR	RAND CORPORATION : Various	0.069	0.000		0.000		0.000		-		0.000	0.000	0.069	0.000
Future Concepts and Planning - Previous Year Future Concepts - No Longer in FYDP	Various	Various : Various	82.988	0.000		0.000		0.000		-		0.000	0.000	82.988	0.000
System Engineering, Engineering Analysis and Quick Response Team - CSS	C/CPFF	SCIENCE APPLICATIONS INTERNATIONAL CORPORATION : Various	0.000	0.000		0.000		7.979	Nov 2024	-		7.979	Continuing	Continuing	Continuing
System Engineering, Engineering Analysis and Quick Response Team - CSS / TEAMS MDSE	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	0.000	0.000		0.000		3.070	Nov 2024	-		3.070	Continuing	Continuing	Continuing
System Engineering, Engineering Analysis and Quick Response Team - Previous Year Sys Engrg, QRT - No Longer In FYDP	Various	Various : Various	6.253	0.000		0.000		0.000		-		0.000	0.000	6.253	0.000
System Engineering, Engineering Analysis and Quick Response Team - Sys Engrg, QRT - CSS	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	47.903	2.609	Nov 2022	3.329	Nov 2023	0.000		-		0.000	0.000	53.841	0.000
System Engineering, Engineering Analysis and Quick Response Team - Sys Engrg, QRT - CSS 2	C/CPFF	SAIC : VA, AL	52.429	7.220	Nov 2022	7.766	Nov 2023	0.000		-		0.000	0.000	67.415	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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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
System Engineering, Engineering Analysis and Quick Response Team - Sys Engrg, QRT - Industry Spt	C/CPFF	Boeing : VA, AL	2.153	0.460	Nov 2022	0.493	Nov 2023	0.000		-		0.000	0.000	3.106	0.000
System Engineering, Engineering Analysis and Quick Response Team - Various	Various	Various : Various	0.000	0.000		0.000		0.503	Nov 2024	-		0.503	Continuing	Continuing	Continuing
Discrimination - CSS / TEAMS MDSE	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	0.000	0.000		0.000		4.069	Nov 2024	-		4.069	Continuing	Continuing	Continuing
Discrimination - Discrimination - CSS	C/CPFF	TEAMS : AL	41.211	4.244	Nov 2022	5.635	Nov 2023	0.000		-		0.000	0.000	51.090	0.000
Discrimination - Discrimination - Industry	C/CPAF	Boeing : AL, VA	70.393	1.713	Nov 2022	10.813	Nov 2023	0.000		-		0.000	0.000	82.919	0.000
Discrimination - Discrimination - Industry 2	C/CPAF	NORTHROP GRUMMAN : AL	1.928	0.000		0.000		0.000		-		0.000	0.000	1.928	0.000
Discrimination - Discrimination - OGA	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	0.000	2.027	Nov 2022	0.000		0.000		-		0.000	0.000	2.027	0.000
Discrimination - Discrimination - Sea Based	C/CPFF	LOCKHEED MARTIN CORPORATION : NJ	0.000	2.897	Nov 2022	0.000		0.000		-		0.000	0.000	2.897	0.000
Discrimination - Discrimination - Sensors	C/CPFF	IERUS TECHNOLOGIES, LLC : AL	1.368	0.000		0.000		0.000		-		0.000	0.000	1.368	0.000
Discrimination - Discrimination - Support	Allot	MDA : AL, VA	43.197	5.666	Oct 2022	1.992	Oct 2023	5.185	Oct 2024	-		5.185	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs				MD24 / System Engineering & Integration					
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
Discrimination - Discrimination – Advanced Technology	IA	DOE - DEPARTMENT OF ENERGY (DOE) : Various	6.600	0.000		0.000		0.000		-		0.000	0.000	6.600	0.000
Discrimination - Industry	C/CPAF	BOEING : Various	0.000	0.000		0.000		8.201	Nov 2024	-		8.201	Continuing	Continuing	Continuing
Discrimination - Prior Year Discrimination Improvements no longer funded in FYDP	Various	Various : Various	61.423	0.000		0.000		0.000		-		0.000	0.000	61.423	0.000
Discrimination - Various	Various	Various : Various	11.091	1.740	Nov 2022	0.510	Nov 2023	0.449	Nov 2024	-		0.449	Continuing	Continuing	Continuing
Risk Management - Risk Mgt - Analysis	Allot	MDA : VA, AL	51.605	7.413	Oct 2022	6.525	Oct 2023	0.000		-		0.000	0.000	65.543	0.000
Risk Management - Risk Mgt - ICT	C/CPAF	Northrop Grumman : AL, AK, CA, CO, HI, NM, VA	2.125	0.000		0.000		0.000		-		0.000	0.000	2.125	0.000
Risk Management - Risk Mgt - Various	Various	Various : Various	12.857	1.027	Nov 2022	1.806	Nov 2023	0.000		-		0.000	0.000	15.690	0.000
Anti-Tamper & Engineering Manufacturing Readiness Level Development - AT & EMRL - Anti-Tamper	Various	Various : AL, VA, CO	11.066	0.633	Nov 2022	0.848	Nov 2023	0.000		-		0.000	0.000	12.547	0.000
Anti-Tamper & Engineering Manufacturing Readiness Level Development - AT & EMRL - MDA	Allot	MDA : AL, VA	43.111	4.876	Oct 2022	4.598	Oct 2023	0.000		-		0.000	0.000	52.585	0.000
Anti-Tamper & Engineering Manufacturing Readiness Level Development - Prior Year AT & EMRL no longer funded in FYDP	Various	Various : Various	2.983	0.000		0.000		0.000		-		0.000	0.000	2.983	0.000
Manufacturing and Producibility - Core Standards	C/CPFF	Boeing : AL	7.677	0.000		0.000		0.000		-		0.000	0.000	7.677	0.000
Manufacturing and Producibility -	Various	Various : Various	1.226	1.508	May 2023	0.000		0.000		-		0.000	0.000	2.734	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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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			
Manufacturing and Producibility - Advanced Technology															
Manufacturing and Producibility - Mfg and Producibility	Allot	MDA : AL	11.619	0.446	Oct 2022	3.103	Oct 2023	0.716	Oct 2024	-		0.716	Continuing	Continuing	Continuing
Manufacturing and Producibility - Mfg and Producibility - CSS	C/CPFF	TEAMS : AL, VA	3.338	2.343	Nov 2022	2.389	Nov 2023	2.440	Nov 2024	-		2.440	Continuing	Continuing	Continuing
Manufacturing and Producibility - Mfg and Producibility - OGA Support	MIPR	CCDC : AL	13.463	0.000		0.000		0.000		-		0.000	0.000	13.463	0.000
Manufacturing and Producibility - Mfg and Producibility - Various	Various	Various : AL	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	0.000
Manufacturing and Producibility - Previous Year Mfg and Producibility - No Longer In FYDP	Various	Various : Various	1.450	0.000		0.000		0.000		-		0.000	0.000	1.450	0.000
Guam Defense Integrated Air and Missile Defense (IAMD) - Guam Defense IAMD - DISA	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : Various	0.000	3.766	Mar 2023	0.000		0.000		-		0.000	0.000	3.766	0.000
Guam Defense Integrated Air and Missile Defense (IAMD) - Guam Defense IAMD - NIWC-PAC	MIPR	DOD - USN - NAVAL INFORMATION WARFARE CENTER (NIWC) PACIFIC : Various	0.000	0.340	Mar 2023	0.000		0.000		-		0.000	0.000	0.340	0.000
Guam Defense Integrated Air and Missile Defense (IAMD) - Guam Defense IAMD - PEO-IWS	MIPR	Program Executive Office (PEO) Integrated Warfare Systems (IWS)/1.0 : Various	0.000	1.500	Mar 2023	0.000		0.000		-		0.000	0.000	1.500	0.000
Guam Defense Integrated Air and Missile Defense	MIPR	DOD - USA - SPACE AND	0.000	0.371	Mar 2023	0.000		0.000		-		0.000	0.000	0.371	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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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			
(IAMD) - Guam Defense IAMD - SMDC		MISSILE DEFENSE COMMAND (SMDC) : Various													
Guam Defense Integrated Air and Missile Defense (IAMD) - Guam Defense IAMD - TEAMs Bus Ops	C/CPFF	Veterans Technology, LLC : AL	0.000	0.087	Sep 2023	0.000		0.000		-		0.000	0.000	0.087	0.000
JEON Capability - CSS	C/CPFF	TEAMS : VA, AL	5.996	0.000		0.000		0.000		-		0.000	0.000	5.996	0.000
JEON Capability - FFRDC/UARC	FFRDC	MITRE : VA	1.341	0.000		0.000		0.000		-		0.000	0.000	1.341	0.000
JEON Capability - Framework, Truth Models	Various	Various : CO, AL	4.043	0.000		0.000		0.000		-		0.000	0.000	4.043	0.000
Guam Defense Integrated Air and Missile Defense (IAMD) - Guam Defense IAMD - AvMC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	0.000	3.863	Feb 2023	0.000		0.000		-		0.000	0.000	3.863	0.000
Guam Defense Integrated Air and Missile Defense (IAMD) - Guam Defense IAMD - JHU/APL	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	0.000	1.650	Feb 2023	0.000		0.000		-		0.000	0.000	1.650	0.000
Guam Defense Integrated Air and Missile Defense (IAMD) - Guam Defense IAMD - Lockheed Martin	C/CPFF	LOCKHEED MARTIN CORPORATION : Various	0.000	2.500	Mar 2023	0.000		0.000		-		0.000	0.000	2.500	0.000
Guam Defense Integrated Air and Missile Defense (IAMD) - Guam Defense IAMD - Northrop Grumman	C/CPFF	NORTHROP GRUMMAN : Various	0.000	2.933	May 2023	0.000		0.000		-		0.000	0.000	2.933	0.000
Guam Defense Integrated Air and Missile Defense	C/CPFF	PARSONS GOVERNMENT	0.000	0.600	Jun 2023	0.000		0.000		-		0.000	0.000	0.600	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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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			
(IAMD) - Guam Defense IAMD - TEAMS MDSE		SERVICES INC. : Various													
JEON Capability - Industry Support	C/CPFF	Boeing : AL, VA	2.106	0.000		0.000		0.000		-		0.000	0.000	2.106	0.000
JEON Capability - Industry Support - IRES	C/CPAF	Northrop Grumman : AL, VA	9.133	0.000		0.000		0.000		-		0.000	0.000	9.133	0.000
JEON Capability - OGA	MIPR	CCDC : AL	6.044	0.000		0.000		0.000		-		0.000	0.000	6.044	0.000
JEON Capability - Systems Engineering	Various	MDA Various : VA, AL, CO	6.539	0.000		0.000		0.000		-		0.000	0.000	6.539	0.000
JEON Capability - Test & Performance Analysis	Various	Various : VA, AL	11.268	0.000		0.000		0.000		-		0.000	0.000	11.268	0.000
JEON Capability - UARC	FFRDC	JHU / APL : MD, VA	4.649	0.000		0.000		0.000		-		0.000	0.000	4.649	0.000
Subtotal			1,529.613	181.549		171.129		174.159		-		174.159	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	1,529.613	181.549	171.129	174.159	-	174.159	Continuing	Continuing	N/A

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

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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Activity	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Design and deliver integrated Missile Defense System technical baseline	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Conduct Missile Defense System assessments and System-level Verification, Validation, and Accreditation (VV&A) to support operational capability delivery	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Update digital Achievable Capabilities List	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD24 / System Engineering & Integration
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Design and deliver integrated Missile Defense System technical baseline	1	2023	4	2029
Conduct Missile Defense System assessments and System-level Verification, Validation, and Accreditation (VV&A) to support operational capability delivery	1	2023	4	2029
Update digital Achievable Capabilities List	1	2023	4	2029

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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 0603890C / BMD Enabling Programs				Project (Number/Name) MD21 / Homeland Cruise Missile Defense Architecture			
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
MD21: <i>Homeland Cruise Missile Defense Architecture</i>	16.313	9.458	0.783	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Decrease from FY 2024 to FY 2025 reflects the completion of Cruise Missile Defense (CMD) efforts in FY 2024 as the Missile Defense Agency (MDA) moves from a primary role to a support role, following the Joint Tactical Integrated Fire Control (JTIFC) demonstration in FY 2023.

A. Mission Description and Budget Item Justification

In response to United States Northern Command's requirements for Cruise Missile Defense of the Homeland (CMD-H), the MDA will develop systems architecture and conduct a JTIFC demonstration. The effort includes developing systems engineering requirements, software modifications, models and simulations, and integration of joint sensors and shooters into a fire control network for the demonstration of the JTIFC demonstration in FY 2023, completion of related demo analysis in FY 2024 and support Department CMD-H systems engineering as required in FY 2024 and outyears.

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

	FY 2023	FY 2024	FY 2025
Title: Homeland Cruise Missile Defense Architecture	9.458	0.783	0.000
Articles:	-	-	-
Description: Develop and demonstrate a JTIFC capability in FY 2023 and complete demo analysis in FY 2024. Support Department CMD-H systems engineering as required in FY 2024 and outyears.			
Specific and/or unique accomplishments to each FY are as follows:			
FY 2024 Plans:			
- Conduct a review and analysis of JTIFC demonstration results and write final report to integrate Joint sensors and weapons into an integrated fire control network.			
- Support Department CMD-H systems engineering as required.			
FY 2025 Plans:			
N/A			
FY 2024 to FY 2025 Increase/Decrease Statement:			

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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 0603890C / <i>BMD Enabling Programs</i>	Project (Number/Name) MD21 / <i>Homeland Cruise Missile Defense Architecture</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
Decrease from FY 2024 to FY 2025 reflects the completion of CMD efforts in FY 2024 as MDA moves from a primary role to a support role, following the JTIFC demonstration in FY 2023.			
Accomplishments/Planned Programs Subtotals	9.458	0.783	0.000

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

N/A

Remarks

D. Acquisition Strategy

MDA leverages the nation's engineering Centers of Excellence at government agencies and Military Services, Federally Funded Research & Development Centers, University Affiliated Research Centers, and industry. The executing agents utilize various contracting strategies in a flexible manner to maximize their contribution. Products and Services will be acquired by competitive means to the extent that is possible and practical.

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD21 / Homeland Cruise Missile Defense Architecture
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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			
Homeland Cruise Missile Defense Architecture - CMD-H Advanced Architecture - Advanced Concepts Evaluation (CCDC AvMC)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	0.000	1.690	Oct 2022	0.000		0.000		-		0.000	0.000	1.690	0.000
Homeland Cruise Missile Defense Architecture - CMD-H Advanced Architecture - Advanced Concepts Evaluation (NG)	C/CPFF	Northrop Grumman : AL	1.402	2.258	Apr 2023	0.000		0.000		-		0.000	0.000	3.660	0.000
Homeland Cruise Missile Defense Architecture - CMD-H Architecture Design	MIPR	Various : VA, MD, MA, CO	9.493	2.923	Nov 2022	0.000		0.000		-		0.000	0.000	12.416	0.000
Homeland Cruise Missile Defense Architecture - CMD-H Architecture Engineering	C/CPFF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : Various	0.957	0.000		0.000		0.000		-		0.000	0.000	0.957	0.000
Homeland Cruise Missile Defense Architecture - CMD-H Demonstration (Raytheon)	C/CPFF	Raytheon : MD, FL, CA, MA	2.400	0.000		0.000		0.000		-		0.000	0.000	2.400	0.000
Subtotal			14.252	6.871		0.000		0.000		-		0.000	0.000	21.123	N/A

Remarks
Award Dates reflect date of first obligation. Additional obligations may incrementally occur throughout the year.

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD21 / Homeland Cruise Missile Defense Architecture
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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			
Homeland Cruise Missile Defense Architecture - Advanced Architecture - Program Ops (TEAMS)	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	2.061	2.587	Oct 2022	0.783	Nov 2023	0.000		-		0.000	0.000	5.431	0.000
Subtotal			2.061	2.587		0.783		0.000		-		0.000	0.000	5.431	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	16.313	9.458	0.783	0.000	-	0.000	0.000	26.554	N/A

Remarks
N/A

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD21 / Homeland Cruise Missile Defense Architecture
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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		
IFC CMD-H demonstration planning and reporting					◆	◆	◆	◆	◆										
IFC CMD-H demonstration								▲											

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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 0603890C / <i>BMD Enabling Programs</i>	Project (Number/Name) MD21 / <i>Homeland Cruise Missile Defense Architecture</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
IFC CMD-H demonstration planning and reporting	1	2023	1	2024
IFC CMD-H demonstration	4	2023	4	2023

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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 0603890C / BMD Enabling Programs				Project (Number/Name) MT23 / Enabling - Test			
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
MT23: <i>Enabling - Test</i>	261.129	43.440	44.248	47.778	-	47.778	48.040	48.972	49.952	50.951	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

The Enabling Test project includes Missile Defense System test planning, execution, and post-test analysis and assessment, and the Modeling & Simulation (M&S) tools and framework required to prepare for and execute ground and flight tests. This includes test design, target requirement definition, and collaboration with the Service Operational Test Agencies (OTA) to incorporate operational test requirements into Missile Defense System events. This ensures Missile Defense System tests collect essential System data and confirm proper System operation. It also provides data to anchor system and element models and simulations for use in simulations to characterize System performance across the battle space, including areas where no live-fire-testing is performed. Resources for the planning, design, execution and management of this testing are provided in accordance with the most current version of the Integrated Master Test Plan (IMTP).

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

	FY 2023	FY 2024	FY 2025
Title: Engineering and Analysis	28.786	44.248	47.778
Articles:	-	-	-
<p>Description: The Engineering and Analysis effort provides essential System ground and flight test event planning, threat development, test case development, execution, and analysis activities:</p> <ul style="list-style-type: none"> - Design test architecture, define test objectives and evaluation criteria, define target requirements, and generate test scenarios appropriate to the data collection requirements to assess System performance and anchor models and simulations - Coordinate with Missile Defense System OTA to address test issues and recommend action plans to achieve closure - Integrate the Missile Defense M&S framework with Missile Defense Agency (MDA) and non-MDA Elements into event architectures supporting assessment activities - Integrate, test, and deliver end-to-end System-level simulations supporting ground test missions - Deploy, maintain, and sustain M&S Simulation Interface Units for testing, to include cybersecurity compliance - Analyze System-level interoperability - Conduct modeling and technical analysis for Combatant Command Wargames and Exercises - Utilize M&S for pre-test assessment, post-test review, and M&S updates - Conduct early integration activities such as scenario refinement and early checkout of Element software for ground test (GT) sprints - Conduct continuous test requirements management for the IMTP at the test campaign and test event levels - Provide test configuration management; risk assessments; and anomaly/deficiency review, assessment and closure 			

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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 0603890C / <i>BMD Enabling Programs</i>	Project (Number/Name) MT23 / <i>Enabling - Test</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Analyze test results to identify verification and validation data collection shortfalls and reassign objectives to future test events as required - Perform event architecture certification - Provide Federation reporting for verification, validation, and accreditation of M&S architectures -- Plan, conduct, and report System-level pre-mission predictive analysis for IMTP flight tests (FTs) that provides risk reduction and likelihood of mission success - Conduct test data reduction and processing and archive analysis products - Perform quick-look and detailed post-test analysis and reporting for IMTP FTs - Plan, conduct, and report system level performance analysis for IMTP GTs that provides assessment of system performance in simple and worst-case real-world scenarios, identifies limitations and issues that need to be corrected prior to fielding - Document test observations for System-level test anomalies and coordinate the resulting Discrepancy Reports within the Failure Reporting, Analysis, and Corrective Action System - Design, develop, deploy, maintain, test, accredit, and modernize test analysis tools (e.g., Modular Analysis and Reporting Suite) to enhance analysis capability and efficiency - Conduct M&S Continuous Developmental Integration (CDI) - Design complex and diverse System-level GT scenarios to provide data collection necessary for requirements verification and performance assessment of new Missile Defense System capabilities during a GT campaign - Develop and implement software tools for the development of test cases in support of System-level CDIs, Ground Test events, System Pre-Mission Tests and System Federation Validation Events; and define and develop test case characteristics <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 test planning, analysis, M&S integration, M&S execution, threat development, and post-event analysis for integrated ground testing, M&S CDI, and M&S engineering activities - Support execution of agency ground test plan in accordance with approved IMTP and maintain integration across concurrent ground test and flight test activities - Provide M&S technical expertise and risk reduction process for Missile Defense System Element integration activities and event planning within a CDI environment, to include support to IMTP testing and M&S engineering activities; a venue for integrating new Elements, interfaces, connectivity and functionality to support Missile Defense System capability increment upgrades; and cybersecurity monitoring and automation to the CDI environment - Conduct early integration activities such as scenario refinement and early checkout of Element software for GT sprints - Conduct continuous test requirements management for the IMTP at the test campaign and test event levels <p>FY 2025 Plans:</p>			

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MT23 / Enabling - Test		
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: Continuous Integration and Agile Test (CI/CAT)		11.290	0.000	0.000
Articles:		-	-	-
Description: Provide test planning, analysis, M&S integration, M&S execution, and post-event analysis for integrated ground testing, M&S Continuous Developmental Integration, and M&S engineering activities. Execute agency ground test plan in accordance with approved IMTP and maintain integration across concurrent ground test and flight test activities.				
FY 2024 Plans: N/A				
FY 2025 Plans: N/A				
FY 2024 to FY 2025 Increase/Decrease Statement: N/A				
Title: Continuous Development & Integration (CDI) Environment		3.364	0.000	0.000
Articles:		-	-	-
Description: Provide technical expertise and risk reduction process for Missile Defense System Element integration activities and event planning within a CDI environment, to include support to IMTP testing and M&S engineering activities; and a venue for integrating new Elements, interfaces, connectivity and functionality to support Missile Defense System capability increment upgrades.				
FY 2024 Plans: - N/A				
FY 2025 Plans: N/A				
FY 2024 to FY 2025 Increase/Decrease Statement: N/A				
Accomplishments/Planned Programs Subtotals		43.440	44.248	47.778

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency	Date: March 2024
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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MT23 / Enabling - Test
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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>
• 0603914C: <i>Ballistic Missile Defense Test</i>	376.650	360.455	367.491	-	367.491	418.514	383.362	435.626	438.825	Continuing	Continuing

Remarks

D. Acquisition Strategy

In order to optimize System performance, MDA leverages the nation's engineering Centers of Excellence at government agencies and Military Services, Federally Funded Research & Development Centers, University Affiliated Research Centers, and industry. The executing agents utilize various contracting strategies in a flexible manner to maximize their contribution. MDA will acquire products and services by competitive means to the extent practical.

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MT23 / Enabling - Test
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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			
Engineering and Analysis - Test Infrastructure	C/CPFF	JACOBS TECHNOLOGY INC. : CO	0.000	0.000		0.000		1.790	Nov 2024	-		1.790	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		1.790		-		1.790	Continuing	Continuing	N/A

Remarks
To comply with the Financial Management Regulation, updated the R-3 cost categories and moved product support efforts into the correct Test and Evaluation cost category.

Test and Evaluation (\$ 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			
Engineering and Analysis - CSS / Predictive Analysis	C/CPFF	NTSI LLC : AL	0.000	0.000		0.000		2.280	Nov 2024	-		2.280	Continuing	Continuing	Continuing
Engineering and Analysis - CSS Support	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	19.786	4.703	Nov 2022	8.977	Nov 2023	5.753	Nov 2024	-		5.753	Continuing	Continuing	Continuing
Engineering and Analysis - Engineering & Analysis - FFRDC	FFRDC	GEORGIA TECH RESEARCH CORPORATION : AL	3.479	0.000		1.631	Nov 2023	0.000		-		0.000	0.000	5.110	0.000
Engineering and Analysis - Engineering & Analysis - Industry	C/CPAF	BOEING : Various	35.327	2.922	Nov 2022	6.415	Nov 2023	0.000		-		0.000	0.000	44.664	0.000
Engineering and Analysis - Engineering & Analysis - Integration Support CSS	C/CPAF	COLSA CORPORATION : AL	21.744	0.000		0.000		0.000		-		0.000	0.000	21.744	0.000
Engineering and Analysis - Engineering & Analysis - Non-MDA Element Support for IMTP Events	Various	Various : Various	11.231	0.000		0.000		0.000		-		0.000	0.000	11.231	0.000
Engineering and Analysis - Engineering & Analysis - OGA Support	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT	86.025	11.627	Nov 2022	16.747	Nov 2023	0.000		-		0.000	0.000	114.399	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MT23 / Enabling - Test
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Test and Evaluation (\$ 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			
		COMMAND (CCDC) : AL													
Engineering and Analysis - Engineering & Analysis - OGA Support - NME & RASP	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	15.362	0.000		0.000		0.000		-		0.000	0.000	15.362	0.000
Engineering and Analysis - Engineering & Analysis - Technical Support	C/CPAF	NORTHROP GRUMMAN : Various	5.554	0.000		0.000		0.000		-		0.000	0.000	5.554	0.000
Engineering and Analysis - Engineering & Analysis - Test Engineering Support	Various	Various : Various	4.757	0.950	Nov 2022	0.500	Nov 2023	0.000		-		0.000	0.000	6.207	0.000
Engineering and Analysis - FEM-02 Support	C/CPFF	NTSI LLC : AL	0.000	0.000		0.441	Jan 2024	0.690	Nov 2024	-		0.690	Continuing	Continuing	Continuing
Engineering and Analysis - FFRDC	FFRDC	GEORGIA TECH RESEARCH CORPORATION : Various	0.000	0.000		0.000		1.686	Nov 2024	-		1.686	Continuing	Continuing	Continuing
Engineering and Analysis - Industry	C/CPAF	BOEING : Various	0.000	0.000		0.000		6.268	Nov 2024	-		6.268	Continuing	Continuing	Continuing
Engineering and Analysis - OGA Support	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	0.000	0.000		0.000		15.420	Nov 2024	-		15.420	Continuing	Continuing	Continuing
Engineering and Analysis - OGA-DC	C/CPAF	TORCH TECHNOLOGIES INC : Various	0.000	0.000		0.000		1.398	Nov 2024	-		1.398	Continuing	Continuing	Continuing
Engineering and Analysis - RASP Lab / Test Case Production	MIPR	DOD - USA - COMBAT CAPABILITIES	0.000	8.584	Nov 2022	9.537	Nov 2023	10.593	Nov 2024	-		10.593	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MT23 / Enabling - Test
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Test and Evaluation (\$ 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				
		DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL														
Engineering and Analysis - Test Engineering Support	Various	Various : Various	0.000	0.000		0.000		0.600	Nov 2024	-		0.600	Continuing	Continuing	Continuing	
Engineering and Analysis - Threat Modeling	C/CPFF	NORTHROP GRUMMAN : Various	0.000	0.000		0.000		1.300	Nov 2024	-		1.300	Continuing	Continuing	Continuing	
Continuous Integration and Agile Test (CI/CAT) - CI/ CAT - Framework	C/CPAF	LOCKHEED MARTIN CORPORATION : AL	0.000	2.495	Dec 2022	0.000		0.000		-		0.000	0.000	2.495	0.000	
Continuous Integration and Agile Test (CI/CAT) - CI/ CAT Analysis (OGA)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	6.877	5.576	Dec 2022	0.000		0.000		-		0.000	0.000	12.453	0.000	
Continuous Integration and Agile Test (CI/CAT) - CI/ CAT M&S Integration	Various	Various : Various	17.590	0.618	Dec 2022	0.000		0.000		-		0.000	0.000	18.208	0.000	
Continuous Integration and Agile Test (CI/CAT) - CI/ CAT Test & Performance Analysis	Various	Various : Various	6.931	1.504	Dec 2022	0.000		0.000		-		0.000	0.000	8.435	0.000	
Continuous Integration and Agile Test (CI/CAT) - CI/ CAT Test Requirements Engineering - TEAMS CSS	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	6.713	1.097	Nov 2022	0.000		0.000		-		0.000	0.000	7.810	0.000	
Continuous Integration and Agile Test (CI/CAT) - Hardware	C/CPFF	TELEDYNE BROWN ENGINEERING, INC. : AL	1.689	0.000		0.000		0.000		-		0.000	0.000	1.689	0.000	
Continuous Development & Integration (CDI) Environment - Continuous	Various	Various : Various	3.031	0.000		0.000		0.000		-		0.000	0.000	3.031	0.000	

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MT23 / Enabling - Test
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Test and Evaluation (\$ 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			
Development & Integration (CDI) Environment - CSS															
Continuous Development & Integration (CDI) Environment - Test Case Development & Continuous Development and Integration Environment	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : Various	15.033	3.364	Dec 2022	0.000		0.000		-		0.000	0.000	18.397	0.000
Subtotal			261.129	43.440		44.248		45.988		-		45.988	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	261.129	43.440	44.248	47.778	-	47.778	Continuing	Continuing	N/A

Remarks
Award Dates reflect date of first obligation. Additional obligations may incrementally occur throughout the year. Beginning in FY 2024, CDI and CI/CAT Accomplishment activities are realigned to the Engineering and Analysis Accomplishment, in accordance with current ground testing Concept of Operations.

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MT23 / Enabling - Test
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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
IMTP Engineering Inputs	◇	◇	◇	◇	◇	◇	◇

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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 0603890C / <i>BMD Enabling Programs</i>	Project (Number/Name) MT23 / <i>Enabling - Test</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
IMTP Engineering Inputs	1	2023	4	2029

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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 0603890C / BMD Enabling Programs				Project (Number/Name) MD28 / Intelligence & Security			
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
MD28: <i>Intelligence & Security</i>	404.357	41.925	56.654	58.068	-	58.068	59.637	60.808	67.256	68.353	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

The Intelligence and Security program provides multi-disciplinary intelligence and security for the Missile Defense System acquisition, development, test and deployment. The Intelligence and Security Major Program Goals are:

- Ensure the Intelligence Community (IC) understands and fulfills the Missile Defense Agency's (MDA's) current and future prioritized intelligence requirements; advocate Missile Defense test intelligence requirements
- Leverage available National and Department of Defense (DoD) Counterintelligence resources. Ensure counterintelligence products and services are fully integrated into all Research, Development, Test, and Evaluation programs and activities to protect classified information and critical technologies and to protect MDA and Missile Defense System personnel, facilities, information and activities
- Provide cross-Agency acquisition security oversight and support for the identification and protection of Critical Program Information. Provide physical security for Missile Defense System weapon/sensor deployments, including Foreign Military Sales. Implement MDA's information security and declassification programs. Strengthen Test and Operations Security across the Agency
- Produce threat definitions and model packages, Adversary Data Packages, and Flight Test Target Requirements and Target System Performance Specifications; provide Real World Event analysis

These efforts provide critical information regarding threat missile system capabilities; protection of personnel, activities, and technology from espionage and terrorism; and identification and mitigation of Missile Defense System vulnerabilities.

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

	FY 2023	FY 2024	FY 2025
Title: Intelligence	9.648	8.477	0.000
Articles:	-	-	-
Description: The Intelligence program provides expertise to develop intelligence products on threat system capabilities, and leverages unique intelligence-community developed, owned, and operated capabilities for the benefit and advocacy of the missile defense community. Efforts include:			
<ul style="list-style-type: none"> - Serve as designated intelligence liaison between MDA and the Intelligence Community - Provide Current, Technical, Acquisition, and Cyber intelligence to the Missile Defense System throughout the acquisition life cycle 			

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD28 / Intelligence & Security		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Characterize all adversary missile threat systems for use in Missile Defense modeling, simulation, and testing - Maintain Missile Intelligence Secure Link classified portal (full operational capability) <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects a realignment of requirements and funds to the Intelligence and Security accomplishment to streamline and improve quality of MDA budget justification.</p>				
<p>Title: Counterintelligence</p> <p align="right">Articles:</p> <p>Description: The Counterintelligence Program detects, mitigates or neutralizes espionage, foreign intelligence collection activities and terrorist activities conducted for or on behalf of foreign powers, organizations, persons, or their agents directed against U.S. national security interests, or DoD/MDA and its personnel, information, material, facilities, and activities. Efforts include:</p> <ul style="list-style-type: none"> - Serve as MDA Liaison with Federal, State and Local Law Enforcement and Counterintelligence (CI) Organizations to report and resolve incidents involving MDA personnel, information and technologies - Replace outdated technical surveillance countermeasures and equipment to employ the latest technologies during conferences, flight tests, and other classified activities to detect, deter, and prevent the loss or compromise of classified or sensitive information to foreign adversary collection activities - Conduct CI activities to detect malicious and insider threat activities targeting MDA administrative and fire control networks - Provide CI research and assistance to identify cyber threats to MDA computer networks and Missile Defense fire control systems - Conduct CI research and analysis to produce CI threat products that address foreign intelligence, cyber and international terrorist threats to MDA personnel, facilities, information, systems and activities worldwide - Maintain technical surveillance countermeasures and gear to detect, identify and neutralize adversary collection platforms and capabilities used to gain unauthorized access to MDA classified and controlled unclassified information <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p>		6.217 -	7.248 -	0.000 -

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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 0603890C / BMD Enabling Programs		Project (Number/Name) MD28 / Intelligence & Security
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
- SEE ABOVE.				
FY 2025 Plans: N/A				
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects a realignment of requirements and funds to the Intelligence and Security accomplishment to streamline and improve quality of MDA budget justification.				
Title: Cybersecurity Engineering Program		3.894	4.909	0.000
		Articles:	-	-
Description: Cybersecurity Engineering: Develop designs and solutions to protect the MDA from existing and emerging cyber threats through coherent cybersecurity systems engineering. Efforts include: - Coordinate evaluation of cybersecurity capability during System tests - Develop verification and assessment strategies for System cybersecurity requirements - Implement cyber threat mitigation strategies - Update cybersecurity systems engineering policy and guidance for Missile Defense System design and acquisition to enhance resiliency against cyber threats Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: - SEE ABOVE. FY 2025 Plans: N/A FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects a realignment of requirements and funds to the Intelligence and Security accomplishment to streamline and improve quality of MDA budget justification.				
Title: Program Protection		13.061	12.076	0.000
		Articles:	-	-
Description: Protects Missile Defense information, Critical Program Information, technologies, and deploying systems; develops and coordinates Security Classification Guides; and performs declassification reviews to identify equities that warrant continued protection to preserve the technological advantage of the Missile Defense System. Program Protection also coordinates MDA intelligence, counterintelligence and security for Missile Defense System test activities. Efforts include:				

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD28 / Intelligence & Security
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
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<ul style="list-style-type: none"> - Perform reviews required for all Agency public release, security classification, and Freedom of Information Act and Mandatory Declassification Reviews to ensure sensitive Missile Defense information is not inadvertently released into the public domain - Oversee MDA program information security activities - Provide security oversight for the Agency's classified contracts - Provide dedicated on-site security and protection of Missile Defense resources and personnel at operational sites to ensure security protection coverage of Missile Defense System mission operations and test assets - Perform systematic Declassification reviews on historical Agency information to prevent unauthorized disclosures due to automatic declassification requirements - Identify and integrate Security requirements for overseas sites with existing or planned missile defense weapons or sensors to ensure protection of deployed sites - Provide effective physical protection to low density/high demand emerging Warfighter capability - Continue continuous monitoring to determine security clearance eligibility - Assess candidate critical program information for Advanced Technology program and other MDA programs undergoing technical baseline changes; ensure critical technologies embedded in missile defense systems are not vulnerable to compromise <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects a realignment of requirements and funds to the Intelligence and Security accomplishment to streamline and improve quality of MDA budget justification.</p>			
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Title: Threat Systems Engineering	9.105	23.944	20.538
Articles:	-	-	-

<p>Description: Threat Engineering provides representations of adversary missile capabilities based on available intelligence information, and develops, coordinates, and baselines Missile Defense System-level targets and countermeasures requirements to define target capabilities required to meet System flight test objectives. Efforts include:</p> <ul style="list-style-type: none"> - Develop threat definitions for system specifications -- Produce threat / scenario data for Missile Defense System development events -- Perform Threat Verification and Validation analysis to verify missile models meet specifications and are consistent with intelligence assessments 			
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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD28 / Intelligence & Security		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Produce Adversary Data Package updates - Develop target requirements to ensure flight test targets meet operationally realistic conditions - Produce Target Assessment and Certification Reports - Assess threat representation of flight test targets - Develop target system specifications and guide targets requirements development, planning, and certification for Missile Defense System flight tests - Analyze flight test target performance relative to threat intelligence assessments to support target system verification and certification - Provide Technical Data for major engineering reviews (System Requirements Reviews, Critical Design Reviews, etc.) <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 threat space and definitions for 2030 and beyond - Develop new representations for complex threat characteristics (e.g. wake models, ablation models, dynamic threat models) - Provide threat models and scenario data to support Warfighter Requests for Analysis and Analysis of Alternatives - Respond to quick reaction tasks and provide traceability of models in coordination with the IC - Innovate threat prediction tools and processes to increase threat production throughput - Increase threat data production supporting program and element design, development and verification activities - Increase production rate of target requirements and certification reports for FY 2024 <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - SEE ABOVE. <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>N/A</p>				
<p>Title: Intelligence & Security</p> <p align="right">Articles:</p> <p>Description: Intelligence and Security describes the MDA technical intelligence program in the following areas:</p> <p>Intelligence: Serves as the designated MDA liaison with the IC. Provides expertise to develop intelligence products on threat system capabilities and leverages unique IC capabilities for the benefit and advocacy of the missile defense community. Efforts include:</p> <ul style="list-style-type: none"> - Provide current technical, acquisition, and cyber intelligence to the Missile Defense System across the acquisition life cycle - Characterize all adversary missile threat systems for use in Missile Defense modeling, simulation, and testing 		0.000 -	0.000 -	37.530 -

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency	Date: March 2024
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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MD28 / Intelligence & Security
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<p>Counterintelligence: Detects, mitigates or neutralizes espionage, foreign intelligence collection activities and terrorist activities conducted for or on behalf of foreign powers, organizations, persons, or their agents directed against U.S. national security interests, or DoD/MDA and its personnel, information, material, facilities, and activities. Efforts include:</p> <ul style="list-style-type: none"> - Serve as MDA liaison with law enforcement and CI organizations to report and resolve incidents involving MDA personnel, information and technologies - Conduct CI activities to detect malicious insider threat and cyber threat activities targeting MDA administrative and fire control networks, and deliver CI products to address these threats - Maintain technical surveillance countermeasures and gear to detect, identify and neutralize adversary collection platforms and capabilities used to gain unauthorized access to MDA classified and controlled unclassified information <p>Cybersecurity Engineering: Develop designs and solutions to protect the MDA from existing and emerging cyber threats through coherent cybersecurity systems engineering. Efforts include:</p> <ul style="list-style-type: none"> - Coordinate evaluation of cybersecurity capability during System tests - Develop verification and assessment strategies for System cybersecurity requirements - Implement cyber threat mitigation strategies - Update cybersecurity systems engineering policy and guidance for Missile Defense System design and acquisition to enhance resiliency against cyber threats <p>Program Protection: Protects Missile Defense Critical Program Information, technologies, and deploying systems; develops and coordinates Security Classification Guides; and performs declassification reviews to identify equities that warrant continued protection to preserve the technological advantage of the Missile Defense System. Program Protection also coordinates MDA intelligence, counterintelligence and security for Missile Defense System test activities. Efforts include:</p> <ul style="list-style-type: none"> - Perform security and policy reviews for all Agency public release and Freedom of Information Act requests. to prevent inadvertent release of sensitive Missile Defense information into the public domain - Oversee MDA program information security activities - Provide security oversight for the Agency's classified contracts - Provide dedicated on-site security and protection of Missile Defense resources and personnel at operational and test sites - Conduct continuous monitoring to determine security clearance eligibility - Assess candidate critical program information for Advanced Technology program and other MDA programs undergoing technical baseline changes; ensure critical technologies embedded in missile defense systems are not vulnerable to compromise <p>Specific and/or unique accomplishments to each FY are as follows:</p>			

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD28 / Intelligence & Security

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: N/A			
FY 2025 Plans: - SEE ABOVE			
FY 2024 to FY 2025 Increase/Decrease Statement: Increase from FY 2024 to FY 2025 provides for requirements and funding moved from the Intelligence, Counterintelligence, Cybersecurity Engineering Program, and Program Protection accomplishments to consolidate Technical Intelligence efforts in a single location. It also provides for realignment of personnel from the Cyber Security Program Element (PE) (0305103C) for Counterintelligence support in order to centrally manage the contract and Federally Funded Research & Development Center (FFRDC) services.			
Accomplishments/Planned Programs Subtotals	41.925	56.654	58.068

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>
• 0305103C: <i>Cyber Security Initiative</i>	1.145	2.760	1.831	-	1.831	1.876	1.922	1.970	2.018	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project leverages expertise in the intelligence community, counterintelligence community, and information assurance community, including the Military Services, FFRDCs, University Affiliated Research Centers, and industry. The executing agents utilize various contracting strategies in a flexible manner to maximize their contribution. Products and Services will be acquired by competitive means to the extent that is beneficial and practical.

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD28 / Intelligence & Security
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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			
Intelligence - Intelligence Analysis & Support	Allot	MDA : VA, AL, CO	44.175	5.485	Oct 2022	3.822	Oct 2023	0.000		-		0.000	0.000	53.482	0.000
Intelligence - Intelligence Analysis & Support - Special Prog	Various	Various : Various	1.948	0.000		0.000		0.000		-		0.000	0.000	1.948	0.000
Intelligence - Intelligence Support	C/CPFF	TEAMS : AL, VA, CO	44.162	3.763	Nov 2022	4.655	Nov 2023	0.000		-		0.000	0.000	52.580	0.000
Intelligence - Intelligence Support (OGA)	MIPR	Various : Various	0.525	0.400	Nov 2022	0.000		0.000		-		0.000	0.000	0.925	0.000
Intelligence - Intelligence Support - IT Maintenance	C/CPFF	Northrop Grumman : AL, CO	3.282	0.000		0.000		0.000		-		0.000	0.000	3.282	0.000
Intelligence - Prior year Intelligence Support no longer funded in FYDP	Various	Various : Various	7.770	0.000		0.000		0.000		-		0.000	0.000	7.770	0.000
Counterintelligence - CI Analysis & Support	Allot	MDA : AL, CO, VA	25.646	4.481	Oct 2022	2.793	Oct 2023	0.000		-		0.000	0.000	32.920	0.000
Counterintelligence - CI Analysis and Support	C/CPFF	TEAMS : AL, CO, VA	36.101	1.108	Nov 2022	3.996	Nov 2023	0.000		-		0.000	0.000	41.205	0.000
Counterintelligence - CI Surveillance Gear	Various	Various : Various	1.937	0.628	Nov 2022	0.459	Nov 2023	0.000		-		0.000	0.000	3.024	0.000
Counterintelligence - Prior Year Counterintelligence Support no longer funded in FYDP	C/CPFF	MIDAESS : VA	1.069	0.000		0.000		0.000		-		0.000	0.000	1.069	0.000
Cybersecurity Engineering Program - Cybersecurity Engineering - Hardware (OGA)	MIPR	DOD - USA - PROGRAM EXECUTIVE OFFICE ENTERPRISE INFORMATION SYSTEMS (PEO EIS) : AL	0.624	0.000		0.000		0.000		-		0.000	0.000	0.624	0.000
Cybersecurity Engineering Program - Cybersecurity - FFRDC	FFRDC	Aerospace : CA, VA	3.663	0.000		0.000		0.000		-		0.000	0.000	3.663	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD28 / Intelligence & Security
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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			
Cybersecurity Engineering Program - Cybersecurity - FFRDC (2)	FFRDC	MITRE : VA, AL	3.858	0.000		0.000		0.000		-		0.000	0.000	3.858	0.000
Cybersecurity Engineering Program - Cybersecurity Engineering	Allot	MDA : VA, AL	20.476	0.952	Oct 2022	1.876	Oct 2023	0.000		-		0.000	0.000	23.304	0.000
Cybersecurity Engineering Program - Cybersecurity Engineering - Hardware	C/CPFF	JACOBS TECHNOLOGY INC. : AL, CO, VA	1.605	2.011	Nov 2022	1.963	Nov 2023	0.000		-		0.000	0.000	5.579	0.000
Cybersecurity Engineering Program - Cybersecurity Engineering - Various	Various	Various : Various	0.000	0.931	Nov 2022	0.000		0.000		-		0.000	0.000	0.931	0.000
Cybersecurity Engineering Program - Cybersecurity Engineering CSS	C/CPFF	TEAMS : VA, AL	8.657	0.000		1.070	Nov 2023	0.000		-		0.000	0.000	9.727	0.000
Program Protection - Prior Year Program Protection Support no longer funded in FYDP	Various	Various : Various	18.452	0.000		0.000		0.000		-		0.000	0.000	18.452	0.000
Program Protection - Program Protection - Various	Various	Various : Various	0.000	2.190	Nov 2022	0.000		0.000		-		0.000	0.000	2.190	0.000
Program Protection - Program Protection Analysis	Allot	MDA : VA, AL	42.408	6.268	Oct 2022	4.851	Oct 2023	0.000		-		0.000	0.000	53.527	0.000
Program Protection - Program Protection Analysis & Support	C/CPFF	TEAMS : AL, AK, CA, CO, VA	40.357	3.919	Nov 2022	6.455	Nov 2023	0.000		-		0.000	0.000	50.731	0.000
Program Protection - Program Protection Support - DIA	MIPR	DOD - DEFENSE INTELLIGENCE AGENCY (DIA) : Various	0.000	0.000		0.459	Nov 2023	0.000		-		0.000	0.000	0.459	0.000
Program Protection - Program Protection Support - FFRDC	Various	Various : AL, VA, CO	0.875	0.684	Nov 2022	0.311	Nov 2023	0.000		-		0.000	0.000	1.870	0.000

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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 0603890C / BMD Enabling Programs					MD28 / Intelligence & Security					
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
Threat Systems Engineering - CSS / Special Products	C/CPFF	SEG (Systems Engineering Group, Inc.) : MD	0.000	0.000		0.000		10.591	Nov 2024	-		10.591	Continuing	Continuing	Continuing
Threat Systems Engineering - CSS / TEAMS	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	0.000	0.000		0.000		1.680	Nov 2024	-		1.680	Continuing	Continuing	Continuing
Threat Systems Engineering - FFRDC / LLNL	MIPR	DOE - LAWRENCE LIVERMORE NATIONAL LABORATORY (LLNL) : MA	0.000	0.000		0.000		1.660	Nov 2024	-		1.660	Continuing	Continuing	Continuing
Threat Systems Engineering - FFRDC / MIT-LL	FFRDC	MASSACHUSETTS INSTITUTE OF TECHNOLOGY : Various	0.000	0.000		0.000		1.996	Nov 2024	-		1.996	Continuing	Continuing	Continuing
Threat Systems Engineering - Prior Year Threat Systems Engineering Support no longer funded in FYDP	Various	Various : AL, MD, VA	19.225	0.000		0.000		0.000		-		0.000	0.000	19.225	0.000
Threat Systems Engineering - TSE-Variou Support	Various	Various : Various	0.000	2.478	Jan 2023	6.500	Nov 2023	2.821	Nov 2024	-		2.821	Continuing	Continuing	Continuing
Threat Systems Engineering - Threat Systems Engineering - CSS	C/CPFF	TEAMS, Various : VA, AL	16.556	2.344	Nov 2022	4.022	Nov 2023	0.000		-		0.000	0.000	22.922	0.000
Threat Systems Engineering - Threat Systems Engineering - CSS 2	C/CPFF	SEG (Systems Engineering Group, Inc.) : VA, AL	0.505	0.051	Nov 2022	3.520	Nov 2023	0.000		-		0.000	0.000	4.076	0.000
Threat Systems Engineering - Threat Systems Engineering - FFRDC	FFRDC	MIT/LL : MA	5.931	1.547	Nov 2022	2.125	Nov 2023	0.000		-		0.000	0.000	9.603	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD28 / Intelligence & Security
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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			
Threat Systems Engineering - Threat Systems Engineering - FFRDC 2	FFRDC	SNL (Sandia National Laboratory) : MA	0.519	0.385	Nov 2022	0.638	Nov 2023	0.000		-		0.000	0.000	1.542	0.000
Threat Systems Engineering - Threat Systems Engineering - FFRDC 3	FFRDC	LLNL (Lawrence Livermore National Laboratory) : MA	1.275	0.745	Nov 2022	0.850	Nov 2023	0.000		-		0.000	0.000	2.870	0.000
Threat Systems Engineering - Threat Systems Engineering - OGA	MIPR	Various : CA, VA, AL	15.118	0.000		0.000		0.000		-		0.000	0.000	15.118	0.000
Threat Systems Engineering - Threat Systems Engineering - UARC	FFRDC	JHU/APL : MD	8.424	0.000		2.763	Nov 2023	0.000		-		0.000	0.000	11.187	0.000
Threat Systems Engineering - Threat Systems Engineering Civ Labor	Allot	MDA : VA, AL, CO	29.214	1.555	Oct 2022	3.526	Oct 2023	1.790	Oct 2024	-		1.790	Continuing	Continuing	Continuing
Intelligence & Security - CSS / TEAMS	C/CPFF	TBD : Various	0.000	0.000		0.000		10.996	Nov 2024	-		10.996	Continuing	Continuing	Continuing
Intelligence & Security - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	0.000	0.000		0.000		15.927	Oct 2024	-		15.927	Continuing	Continuing	Continuing
Intelligence & Security - Cybersecurity Engineering - Hardware	MIPR	DOD - USA - PROGRAM EXECUTIVE OFFICE ENTERPRISE INFORMATION SYSTEMS (PEO EIS) : MD	0.000	0.000		0.000		1.585	Nov 2024	-		1.585	Continuing	Continuing	Continuing
Intelligence & Security - I&S Various Support	Various	Various : Various	0.000	0.000		0.000		1.269	Nov 2024	-		1.269	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD28 / Intelligence & Security
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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			
Intelligence & Security - Program Protection CSS	C/CPFF	TBD : Various	0.000	0.000		0.000		6.461	Nov 2024	-		6.461	Continuing	Continuing	Continuing
Intelligence & Security - Program Protection SSO CSS	C/CPFF	SYSTEM HIGH CORPORATION : Various	0.000	0.000		0.000		1.292	Nov 2024	-		1.292	Continuing	Continuing	Continuing
Subtotal			404.357	41.925		56.654		58.068		-		58.068	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	404.357	41.925	56.654	58.068	-	58.068	Continuing	Continuing	N/A

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

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD28 / Intelligence & Security
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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							
MD28 Intelligence & Security	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇
Declassification Reviews	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇
Development and delivery of Adversary Data Package (ADP)	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇
MDA OPSEC Reporting to USD(I)	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇

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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 0603890C / <i>BMD Enabling Programs</i>	Project (Number/Name) MD28 / <i>Intelligence & Security</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD28 Intelligence & Security	1	2023	4	2029
Declassification Reviews	1	2023	4	2029
Development and delivery of Adversary Data Package (ADP)	1	2023	4	2029
MDA OPSEC Reporting to USD(I)	1	2023	4	2029

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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 0603890C / BMD Enabling Programs				Project (Number/Name) MD30 / BMD Information Management Systems			
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
MD30: BMD Information Management Systems	823.614	88.463	91.609	93.988	-	93.988	97.316	96.040	102.974	104.948	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

The Missile Defense System Information Management Systems budget project funds information technology mission critical functions necessary for the efficient operations and safeguarding of Missile Defense System information in compliance with DoD policies and in keeping pace with the ever-growing cyber threat which is one of the most serious economic and national security challenges we face. Information Technology (IT) is critical to the day-to-day functions of MDA personnel to communicate (classified and unclassified) with each other, Congress, senior DoD and other U.S. Government agency personnel, Combatant Commanders, NATO partners, and other industry partners. Communication among these organizations facilitates the MDA mission of developing and fielding an integrated Missile Defense System to defend the United States, our deployed forces, allies, and friends against all ranges of enemy ballistic missiles in all phases of flight.

MDA information management systems capabilities support rigorous missile defense Research, Development, Test and Engineering (RDT&E) and facilitate the development of technologies to guard against evolving missile threats. Communications are vital for missile defense to continue a viable homeland defense against rogue threats and to provide the integration required to defend deployed forces, allies, and friends against theater threats. Missile Defense System information management consists of MDA Special Purpose Processing Nodes (SPPNs), IT systems, data centers, operations and monitoring centers which are vital to support the strategic mission of the Agency and necessary to meet disaster recovery and continuity of operations requirements. This infrastructure is required to sustain access to the Secret Internet Protocol Router Network, Non-secure Internet Protocol Router Network, MDA classified and unclassified networks, classified and unclassified video teleconferencing services, test and business knowledge data centers, and the Defense Research Engineering Network (DREN). These mission critical functions provide for the efficient operation and safeguarding of all agency information in locations supporting MDA around the world.

Project MD30 is aligned into the following inter-agency mission critical IT services and the associated plans in accordance with the Federal Information Technology Shared Services Strategy.

1. End User Support
2. SPPNs
3. IT Planning and Solutions
4. Unified Communications
5. Portal and Data Services
6. Business Automation Services

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD30 / BMD Information Management Systems

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<p>Title: End User Support</p> <p align="right">Articles:</p> <p>Description: Provides IT operations, support and maintenance (24 hours a day, 7 days a week, 365 days a year) to over 10,500 MDA worldwide users (classified and unclassified) executing the Missile Defense System RDT&E mission. Services include Integrated Service Desk support (Help Desk and Client Support Services); management of hardware and software maintenance and licensing; and monitoring network activity to ensure users comply with DoD policies for the proper use of information systems. Services also include printing and copying; email and file; directory and authentication services. Includes investments in equipment at end-of-life to comply with Federal and DoD mandated cybersecurity policies. Plans, engineers and implements sustainment projects for common-use IT services and business systems consistent with the IT architecture road map. Provides life-cycle management of over 190,000 IT assets including IT procurement, receiving, shipping/transportation, warehousing, transfers and disposal using the Defense Property Accountability System. Increase Joint Worldwide Intelligence Communications System capability to provide connectivity and interoperability with intelligence community via Common Operating Environment. Deliver Development Security Operations (DEVSECOPS) software services for continuous improvement and development to the Agency in an Agile methodology to improve efficiencies and reduce redundancies.</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 realignment of Civilian Labor from End User Support to IT Planning and Solutions.</p>	13.080	16.349	11.428
<p>Title: Special Purpose Processing Nodes (SPPN)</p> <p align="right">Articles:</p> <p>Description: Provides for the developmental/specialty engineering and operational strategies and concepts; planning, design, implementation, software/license renewals, and maintenance for MDA RDT&E SPPN. SPPN consists of Digital Transformation (i.e., Cloud, Development, Security, and Operations (DevSecOps), etc.), Network Provisioning, and Communications Security (COMSEC). SPPN also sustains core communications distribution services across the MDA Enterprise and includes investments in equipment at end-of-life to comply with Federal and DoD mandated cybersecurity policies.</p>	8.713	5.210	4.147

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD30 / BMD Information Management Systems		
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: - SEE ABOVE.</p> <p>FY 2025 Plans: - Initiate the transition program-based Cloud and DevSecOps capabilities to Agency-wide capabilities.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects realignment of Civilian Labor from Special Purpose Processing Nodes to IT Planning and Solutions.</p>				
Title: Information Technology (IT) Planning and Solutions		16.539	16.903	26.554
		Articles: -	-	-
<p>Description: Provides IT engineering support for new requirements analysis, design, planning and implementation of IT solutions. Addresses the increasing demand for more complex IT products and highly specialized IT services. Manages the prioritization and integration of investments in the MDA IT Portfolio to ensure compliance with Federal and DoD policies. Supports the MDA Chief Information Officer (CIO) Enterprise Architecture Board, Project Steering Committee and the Change Control Board. Ensures compliance with Federal Laws, DoD policies, directives and regulations including the Clinger-Cohen Act, the Federal Information Security Management Act, and the Office of Management and Budget IT budget reporting policies. Integrate CIO staff in strategic planning and complete 4th Estate IT Reform, agile capability delivery governance, capability and architecture modeling. Integrate monitoring and performance tools into an area having drill down capabilities to device meta data and applications improving operations, incident resolution, test event configurations, and reducing schedules for capability enhancements to the Warfighter. This effort also provides civilian labor for core information technology efforts.</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:</p>				

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD30 / BMD Information Management Systems		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
Increase from FY 2024 to FY 2025 provides realignment of civilian labor from the following R2As: Business Automation, End User Support, Portal and Data Services, SPPNs, and Unified Communications to IT Planning and Solutions in order to centralize civilian labor costs.				
<p>Title: Unified Communications</p> <p align="right">Articles:</p> <p>Description: Provides for the management, operations, and sustainment of classified and unclassified globally deployed video teleconferencing capabilities and equipment. Also includes unclassified desktop instant messaging, wireless services, and collaboration capabilities. Provides and implements engineering solutions for all unified communications services. Supports MDA global RDT&E mission for classified and unclassified voice services and interfaces with the Defense Information System Network Video Services Global, the DREN, and commercial vendors. Includes maintenance agreements and licenses for MDA Enterprise telecommunications equipment classified and unclassified mobile and desktop telephony devices.</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 realignment of civilian labor from Unified Communications to IT Planning and Solutions.</p>		23.310	24.015	23.313
		-	-	-
<p>Title: Portal and Data Services</p> <p align="right">Articles:</p> <p>Description: Provides for the management, operation and maintenance support for the classified and unclassified MDA Portal application and the IT portal infrastructure. The support includes web-based developmental engineering and operations, planning, design, application implementation, content management and training. Also provides MDA Privacy Office and Civil Liberties compliance and reporting and provides data management services to accommodate MDA users.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p>		12.154	13.035	12.839
		-	-	-

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD30 / BMD Information Management Systems		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
- SEE ABOVE.				
FY 2025 Plans: - SEE ABOVE.				
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects realignment of civilian labor from Portal and Data Services to IT Planning and Solutions.				
Title: Business Automation Services		14.667	16.097	15.707
		Articles: -	-	-
Description: Provides for the management, operation, and maintenance of enterprise business applications for the MDA community to access and share various sources of available data, information, and knowledge and enable improved organization, retrieval, manipulation, and storage. Operate and maintain seven Defense Business Systems that meet the reporting requirements of Title 10 United States Code section 2222; these include Electronic Learning Management System, Program Resource Internet Database Environment, Information Management Program Activity Control Tool, Standard Procurement System, Human Resource Tracking System/Personnel Tracking System, TEAMMATE, TASK MANAGEMENT TOOL, Electronic Content and Records Tool, and MDA's enterprise data visualization tool (QLIK Sense) for business intelligence and data integration. Integrate Business Intelligence and Data Management to streamline and formalize the activities associated with data storage, access, and handling. Provide comprehensive data governance, data cataloging, and analytics to blend processes and technologies to significantly improve data quality, data security, and data accessibility. Improved data management will enable Machine Learning and Artificial Intelligence which will identify additional efficiencies and enable automation to support Missile Defense System processes, products, and decision forums with Artificial Intelligence capabilities.				
Specific and/or unique accomplishments to each FY are as follows:				
FY 2024 Plans: - SEE ABOVE.				
FY 2025 Plans: - SEE ABOVE.				
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects realignment of civilian labor from Business Automation Services to IT Planning and Solutions.				
Accomplishments/Planned Programs Subtotals		88.463	91.609	93.988

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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 0603890C / BMD Enabling Programs				Project (Number/Name) MD30 / BMD Information Management Systems			

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>		<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u>		
			<u>Base</u>	<u>OCO</u>					<u>Total</u>	<u>Complete</u>	<u>Total Cost</u>
• 0603176C: <i>Advanced Concepts and Performance Assessment</i>	39.293	17.825	17.920	-	17.920	39.210	58.477	67.637	72.697	Continuing	Continuing
• 0603180C: <i>Advanced Research</i>	84.996	21.461	19.354	-	19.354	23.432	24.863	26.418	26.894	Continuing	Continuing
• 0603881C: <i>Ballistic Missile Defense Terminal Defense Segment</i>	194.264	220.311	367.279	-	367.279	543.868	554.429	464.018	314.936	Continuing	Continuing
• 0603882C: <i>Ballistic Missile Defense Midcourse Defense Segment</i>	670.808	903.633	768.227	-	768.227	856.218	842.985	956.974	1,007.150	Continuing	Continuing
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	228.807	239.159	209.002	-	209.002	205.087	202.555	209.816	214.110	Continuing	Continuing
• 0603892C: <i>AEGIS BMD</i>	586.329	693.727	649.255	-	649.255	602.818	539.786	649.556	714.388	Continuing	Continuing
• 0603896C: <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	587.689	554.201	569.662	-	569.662	570.632	587.929	618.050	651.885	Continuing	Continuing
• 0603898C: <i>Ballistic Missile Defense Joint Warfighter Support</i>	50.942	48.248	47.723	-	47.723	48.921	50.062	51.376	52.565	Continuing	Continuing
• 0603904C: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	47.629	50.549	54.525	-	54.525	56.851	58.115	59.600	61.362	Continuing	Continuing
• 0603907C: <i>Sea Based X-Band Radar (SBX)</i>	163.297	177.868	197.339	-	197.339	176.888	162.741	177.598	188.253	Continuing	Continuing
• 0603913C: <i>Israeli Cooperative Programs</i>	300.000	300.000	300.000	-	300.000	300.000	300.000	300.000	300.000	Continuing	Continuing
• 0603914C: <i>Ballistic Missile Defense Test</i>	376.650	360.455	367.491	-	367.491	418.514	383.362	435.626	438.825	Continuing	Continuing
• 0603915C: <i>Ballistic Missile Defense Targets</i>	572.380	570.258	604.708	-	604.708	584.070	429.635	515.282	584.771	Continuing	Continuing
• 0604102C: <i>Guam Defense Development</i>	383.252	397.578	415.794	-	415.794	247.793	183.214	303.003	218.941	Continuing	Continuing
• 0604880C: <i>Land Based SM-3 (LBSM3)</i>	23.277	22.163	22.220	-	22.220	22.500	22.899	22.996	23.495	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD30 / BMD Information Management Systems

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>
• 0901598C: <i>Management HQ - MDA</i>	26.352	28.363	29.033	-	29.033	29.632	30.245	30.870	31.508	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Acquisition Strategy for MDA IT Services is aligned with DoD IT Modernization Efforts and IT reform initiatives. Information technology services are critical to MDA stakeholders and are required to support and accomplish the global MDA mission 24 hours a day, 7 days a week, 365 days a year via openly competed acquisition contracts:

The Research and Development Enterprise Collaboration Services (RECS) provides classified and unclassified Video Teleconferencing (VTC) services, Portal services, and Data Management Services, Business Automation Services and End User Training.

The Integrated Research and Development for Enterprise Solutions (IRES) provides the enterprise and baseline IT service capabilities 1) supporting Missile Defense System RDT&E requirements, 2) providing Common-Use business IT requirements, and 3) enabling Missile Defense System mission support tasks for deployed systems.

IRES & RECS requirements will be migrated to follow-on contracts in accordance with an updated acquisition strategy once approved by the Director of Acquisitions for MDA.

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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 0603890C / BMD Enabling Programs				MD30 / BMD Information Management Systems							
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
End User Support - End User Civilian Pay	Allot	MDA : Various	29.990	3.055	Oct 2022	2.578	Oct 2023	0.000		-		0.000	0.000	35.623	0.000
End User Support - End User Consolidated Support	C/CPFF	Various : Various	1.879	0.459	Nov 2022	0.372	Nov 2023	0.416	Nov 2024	-		0.416	Continuing	Continuing	Continuing
End User Support - End User Operational Support	C/CPAF	JACOBS TECHNOLOGY INC. : Various	163.447	8.513	Nov 2022	11.369	Oct 2023	6.604	Nov 2024	-		6.604	Continuing	Continuing	Continuing
End User Support - End User Operational Support - DISA	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : Various	0.000	0.000		1.387	Oct 2023	3.295	Oct 2024	-		3.295	Continuing	Continuing	Continuing
End User Support - JWICS	MIPR	DOD - DEFENSE INTELLIGENCE AGENCY (DIA) : VA	0.000	1.053	Nov 2022	0.643	Nov 2023	1.113	Nov 2024	-		1.113	Continuing	Continuing	Continuing
Special Purpose Processing Nodes (SPPN) - SPPN Civilian Pay	Allot	MDA : Various	11.571	2.575	Oct 2022	3.618	Oct 2023	0.000		-		0.000	0.000	17.764	0.000
Special Purpose Processing Nodes (SPPN) - SPPN Operational Support	C/CPAF	JACOBS TECHNOLOGY INC. : Various	197.463	4.586	Nov 2022	1.092	Nov 2023	3.577	Nov 2024	-		3.577	Continuing	Continuing	Continuing
Special Purpose Processing Nodes (SPPN) - SPPN SWDC PNT	C/CPFF	NORTHROP GRUMMAN : Various	7.634	1.006	Nov 2022	0.000		0.000		-		0.000	0.000	8.640	0.000
Special Purpose Processing Nodes (SPPN) - SPPN Specialty Engineering	C/CPFF	Various : Various	0.280	0.546	Nov 2022	0.500	Nov 2023	0.570	Nov 2024	-		0.570	Continuing	Continuing	Continuing
Information Technology (IT) Planning and Solutions - IT Planning and Solutions Civilian Labor/Travel/PCS	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	14.265	4.608	Oct 2022	4.059	Oct 2023	13.355	Oct 2024	-		13.355	Continuing	Continuing	Continuing
Information Technology (IT) Planning and Solutions	C/Various	Various : Various	0.277	0.315	Nov 2022	0.473	Nov 2023	0.482	Nov 2024	-		0.482	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD30 / BMD Information Management Systems
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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			
- IT Planning and Solutions Consolidated Support															
Information Technology (IT) Planning and Solutions - IT Planning and Solutions Consolidated Support - 5SRC	C/CPAF	FIVE STONES RESEARCH CORPORATION : Various	44.301	5.748	Nov 2022	5.862	Aug 2024	5.980	Nov 2024	-		5.980	Continuing	Continuing	Continuing
Information Technology (IT) Planning and Solutions - IT Planning and Solutions Operational Support	C/CPAF	JACOBS TECHNOLOGY INC. : Various	47.992	4.065	Mar 2023	3.098	Mar 2024	3.440	Mar 2025	-		3.440	Continuing	Continuing	Continuing
Information Technology (IT) Planning and Solutions - IT Planning and Solutions SWDC PNT	C/CPFF	NORTHROP GRUMMAN : Various	2.173	1.803	Nov 2022	3.411	Nov 2023	3.297	Nov 2024	-		3.297	Continuing	Continuing	Continuing
Unified Communications - Unified Communications Civilian Pay	Allot	MDA : Various	11.841	1.468	Oct 2022	1.202	Oct 2023	0.000		-		0.000	0.000	14.511	0.000
Unified Communications - Unified Communications Leased Communications/ Licenses - DISA	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : Various	5.981	8.615	Nov 2022	7.088	Oct 2023	7.154	Nov 2024	-		7.154	Continuing	Continuing	Continuing
Unified Communications - Unified Communications Leased Communications/ Licenses - Various	MIPR	Various : Various	39.710	0.538	Nov 2022	0.518	Nov 2023	0.874	Nov 2024	-		0.874	Continuing	Continuing	Continuing
Unified Communications - Unified Communications Leased Communications/ Licenses- ERDC	MIPR	DOD - USA - ENGINEER RESEARCH AND DEVELOPMENT CENTER (ERDC) : Various	1.534	1.161	Jan 2023	1.598	Jan 2024	1.614	Jan 2025	-		1.614	Continuing	Continuing	Continuing
Unified Communications - Unified Communications Operational Support	C/CPAF	JACOBS TECHNOLOGY INC. : Various	23.323	4.310	Nov 2022	3.224	Nov 2023	3.792	Nov 2024	-		3.792	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs				Project (Number/Name) MD30 / BMD Information Management Systems					
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
Unified Communications - Unified Communications VTC Operations Support	C/CPIF	NETWORK MANAGEMENT RESOURCES, INC. : Various	58.169	6.042	Apr 2023	8.962	Apr 2024	8.446	Apr 2025	-		8.446	Continuing	Continuing	Continuing
Unified Communications - Unified Communications Wireless Services	C/FFP	AT&T MOBILITY LLC : Various	12.512	1.176	Nov 2022	1.423	Oct 2023	1.433	Nov 2024	-		1.433	Continuing	Continuing	Continuing
Portal and Data Services - Portal and Data Services Civilian Pay	Allot	MDA : Various	9.734	0.872	Oct 2022	0.514	Oct 2023	0.000		-		0.000	0.000	11.120	0.000
Portal and Data Services - Portal and Data Services Operational Support- IRES	C/CPAF	JACOBS TECHNOLOGY INC. : Various	24.011	4.674	Jan 2023	6.862	Jan 2024	7.085	Jan 2025	-		7.085	Continuing	Continuing	Continuing
Portal and Data Services - Portal and Data Services Operational Support- RECS	C/FFP	NETWORK MANAGEMENT RESOURCES, INC. : Various	42.257	6.304	Apr 2023	5.352	Apr 2024	5.445	Apr 2025	-		5.445	Continuing	Continuing	Continuing
Portal and Data Services - Portal and Data Services Operational Support- Various	Various	Various : Various	4.009	0.304	Dec 2022	0.307	Oct 2023	0.309	Dec 2024	-		0.309	Continuing	Continuing	Continuing
Business Automation Services - Business Automation Civilian Pay	Allot	MDA : Various	4.934	0.035	Oct 2022	0.687	Oct 2023	0.000		-		0.000	0.000	5.656	0.000
Business Automation Services - Business Automation Operational Support- IRES	C/CPAF	JACOBS TECHNOLOGY INC. : Various	58.997	10.361	Nov 2022	11.267	Nov 2023	11.262	Nov 2024	-		11.262	Continuing	Continuing	Continuing
Business Automation Services - Business Automation Operational Support- RECS	C/CPAF	NETWORK MANAGEMENT RESOURCES, INC. : Various	0.531	3.308	Nov 2022	3.634	Nov 2023	3.926	Nov 2024	-		3.926	Continuing	Continuing	Continuing
Business Automation Services - Business	MIPR	Various : Various	0.124	0.963	Jul 2023	0.509	Oct 2023	0.519	Jul 2025	-		0.519	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD30 / BMD Information Management Systems
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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			
Automation Tools and Support															
CARES Act Funding (COVID 19) - CARES IT Hardware Support	C/CPAF	Jacobs Engineering : AL, AK, CA, CO, HI, NM, VA	4.675	0.000		0.000		0.000		-		0.000	0.000	4.675	0.000
Subtotal			823.614	88.463		91.609		93.988		-		93.988	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	823.614	88.463	91.609	93.988	-	93.988	Continuing	Continuing	N/A

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

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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 0603890C / BMD Enabling Programs						Project (Number/Name) MD30 / BMD Information Management Systems							
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	
Operate, monitor and sustain Information Technology Infrastructure across the MDA Enterprise						◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇

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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 0603890C / <i>BMD Enabling Programs</i>	Project (Number/Name) MD30 / <i>BMD Information Management Systems</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Operate, monitor and sustain Information Technology Infrastructure across the MDA Enterprise	1	2023	4	2029

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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 0603890C / BMD Enabling Programs				Project (Number/Name) MC30 / 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
MC30: <i>Cyber Operations</i>	389.863	78.161	89.111	91.208	-	91.208	95.476	97.395	99.353	101.350	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

A number of key IT strategies were identified in the DoD IT Enterprise Strategy and Roadmap issued by the Deputy Secretary of Defense in 2011. The IT Roadmap specifically addresses the need to improve Cybersecurity. It states that DoD networks are under constant attack from cybersecurity threats launched from various sources. The MDA must meet the National Command Authority Directives for rapid deployment of the Missile Defense System while complying with the key principles of Cybersecurity standards to ensure MDA remains a secure member of the DoD Information Network.

DoD Instruction 8500.01 Cybersecurity issued in March 2014, requires continuous monitoring, data analysis, reporting and incident mitigation of DoD classified and unclassified, mission, test and administrative networks. To comply with the Instruction, MDA must implement a multi-tiered cybersecurity risk management capability to protect critical Missile Defense System data and systems from rapidly evolving internal and external threats.

This project provides funds to sustain the Risk Management Framework (RMF) and Controls Validation Testing (CVT) activities, analysis of validation results, risk assessments and reviews of proposed Program Manager/Information Systems Security Manager (PM/ISSM) Plan of Action and Milestones (POA&M) for the MDA mission, test and common-use IT systems. Maintains the Authorization and Assessment (A&A) data repository, capturing the RMF documentation (artifacts, validation results, and Cybersecurity Risk Assessment results, and Authorizing Official (AO) decisions) and POA&M on all MDA information systems. Supports the monitoring and tracking of Cybersecurity mitigations detailed in IT cybersecurity POA&Ms. Activities include preparation of A&A documentation and authorization recommendations to the MDA PM/ISSM and AO. Independent Verification and Validation team actions ensure the availability, integrity, confidentiality and non-repudiation of the MDA mission, test and common-use IT systems. Activities in the Project are necessary to comply with Federal Information Security Management Act (FISMA).

This project funds the MDA Global Network Operations and Security Center (GNOSC) responsible for monitoring, managing, patching, and maintaining MDA network and core IT services; issuing and tracking Technical Compliance Orders; and coordinating overarching Enterprise Network Operations. The GNOSC provides the network security operations centers and supporting processes to protect and defend the MDA Enterprise information and information systems.

The MDA's Tier II Cybersecurity Service Provider- Computer Emergency Response Team (CSSP-CERT), monitors the MDA classified and unclassified IT RDT&E and common-use IT networks and reports vulnerabilities. The MDA CSSP coordinates with U.S. Cyber Command to identify and implement network vulnerability updates and patches to comply with U.S. Cyber Command vulnerabilities identified for DoD networks. In FY 2020, the MDA CSSP began taking over CSSP responsibilities from United States Strategic Command in accordance with Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 6510.01F, DoD O-8530.1 and the DoD Cybersecurity Discipline Implementation Plan.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency	Date: March 2024
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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MC30 / Cyber Operations
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The project funds Cybersecurity governance management and administrative management support, annual Agency-wide computer-based Cybersecurity training and metrics reporting, implementation of Public Key Infrastructure and Enabling Communication Security (COMSEC) related activities.

Facility-related control systems (FRCS) include building management systems, electronic security systems, industrial control systems, and supervisory control and data acquisition systems in support of facility operations.

This project provides for the management of MDA's FRCS cybersecurity program, cybersecurity engineering for FRCS incorporated in MDA facility plans for construction and upgrades, as well as the implementation of RMF and Computer Network Defense (CND) on FRCS in MDA facilities.

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

	FY 2023	FY 2024	FY 2025
<p>Title: Preventing Malicious Cybersecurity Activity</p> <p align="right">Articles:</p> <p>Description: Provide all Risk Management activities related to ISSM and Security Control Assessor roles and responsibilities to include the development, implementation, assessment, testing, and management of cybersecurity, resiliency, and survivability for MDA IT systems / networks and associated remote sites. This effort includes integration and test capabilities for element interface verification and provide operations and sustainment of the deployed Position, Navigation, and Timing Last Mile integration capabilities at Missile Defense System locations.</p> <p>Recurring Activities for Preventing Malicious Cyber Attacks:</p> <ul style="list-style-type: none"> - Develop and maintain a current Cybersecurity risk and residual risk assessment of the Missile Defense Systems leveraging threat identification and detection, threat monitoring, and vulnerability mitigation tools and strategies; implementing technology protections to improve the cybersecurity posture of the Missile Defense System and prevent unauthorized access to MDA Information Systems; manage the cybersecurity risk for all MDA systems, projects, and connections. - Develop and implement a risk-based approach to cybersecurity assessments, ensuring resiliency and survivability support operational objectives. Provide cybersecurity efficiencies by incorporating and managing cyber risk for Development Security Operations tools and processes. - Support Cyber Threat Hunting services for classified Defense Industry Base (DIB) partners and Missile Defense System environments. <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - SEE ABOVE. <p>FY 2025 Plans:</p>	16.576	17.818	16.644
	-	-	-

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC30 / Cyber Operations		
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: Decrease from FY 2024 to FY 2025 reflects realignment of Civilian Labor from Preventing Malicious Cybersecurity Activity to Defense Cyber Operations.				
Title: Planning, Policy Development, Workforce Training & Force Management		5.463	5.090	3.465
Articles:		-	-	-
Description: Provide Cyberspace Mission Support activities related to MDA cyber training, policies, and procedures, and support to the Warfighter / Other Government Agency (OGA) (e.g. Joint Cyber Cell / DIB / Cyber Personnel Training and Certification Management). Planning, Policy Development, Workforce Training & Force Management includes: -Develop, document, provide, and maintain Agency level cybersecurity policies, Standard Operating Instructions, and Procedures to incorporate evolving cybersecurity capability requirements under the RMF. Maintain an interface with the MDA Missile Defense System Network Operations Support Center and the Missile Defense System elements. Ensure effective cyber secure Missile Defense Systems are delivered to the Warfighter. -Manage the Cyberspace Workforce Management Program to certify Cybersecurity professionals and report compliance in accordance with FISMA and DoD Directive 8140.01 (Cyberspace Workforce Management), achieving the DoD certification goal; reports Cybersecurity Risk Assessments, Primary RMF artifacts. -Provide collection and analysis tools that support vulnerability and cyber warfare attack reporting to the MDA Chief Information Offer (CIO), MDA leadership, and U.S. Cyber Command. Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: - SEE ABOVE. FY 2025 Plans: - SEE ABOVE. FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects realignment of Civilian Labor from Planning, Policy Development, Workforce Training and Force Management to Detect, Analyze, and Mitigate Intrusions.				
Title: Continuous Monitoring		7.956	8.385	8.527
Articles:		-	-	-

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC30 / Cyber Operations		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<p>Description: Provides advanced cyber capability to include development and support to DoD directed cybersecurity measures (e.g., Zero Trust, Security Information and Event Management tools); identifies new cybersecurity technologies to promote and maintain the Agency cyber risk posture; manage engineering, architecture design, tool selection, and integration responsibilities. Provide hardware, software, and necessary licenses for cybersecurity tools; manage the cybersecurity business portal.</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: N/A</p>				
<p>Title: Detect, Analyze and Mitigate Intrusions</p> <p align="right">Articles:</p> <p>Description: Provide Defensive Cyber Operations activities related to CERT, Tier 2 CSSP, and Tier 3 Local Control Centers; manage and monitor system vulnerabilities, security information and event management tools, and user activities; conduct threat hunting and forensic analysis, review and analyze content of compromised systems, and identify and implement mitigations and/or corrective actions.</p> <p>Recurring activities include:</p> <ul style="list-style-type: none"> - Manage and assess RMF controls on all MDA mission, test, and common-use IT systems to ensure secure operations in accordance with DoD cybersecurity directives and instructions; analyze and report residual risk and proposed Missile Defense System monitoring and mitigation; identify vulnerabilities through application testing and monthly cybersecurity vulnerability audits; track implementation status of applicable Information Assurance Vulnerability Alerts, Bulletins and Technical Advisories. - Maintain MDA and Missile Defense System CSSP - CERT as a fully accredited Tier II CSSP in accordance with CJCSI 6510.01F and DoD O-8530.1, and the DoD Cybersecurity Discipline Implementation Plan; conduct CSSP protect, detect, respond, and sustain services for all MDA Common-use IT Services, MDA Mission and test networks and enclaves; perform network security monitoring of all MDA subscriber networks and enclaves. - Conduct system forensic analysis, review content of compromised system, document files and data, and identify tactics, techniques and procedures used by an attacker to gain access; identify, recommend, and execute modifications to existing Missile Defense Agency tactics, techniques and procedures on order to counter new cybersecurity threats as directed. 		46.281 -	55.967 -	61.548 -

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC30 / Cyber Operations		
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: - SEE ABOVE.</p> <p>FY 2025 Plans: - SEE ABOVE.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increase from FY 2024 to FY 2025 provides for the realignment of Civilian Labor from Planning, Policy, Workforce Training, and Force Management, and Preventing Malicious Cybersecurity Activity to Detect, Analyze, and Mitigate Intrusions.</p>				
<p>Title: Outside Federal Outreach - Defense Industrial Base</p> <p align="right">Articles:</p>		0.958	0.853	0.000
<p>Description: Review current Cybersecurity Policies and coordinate with MDA Missile Defense System Programs to ensure all applicable Cybersecurity clauses are included into MDA contracts with MDA Industry partners in the DIB to ensure protection of Missile Defense System Controlled Unclassified Information. Resource Government Cybersecurity Maturity Model Certification (CMMC) Assessment Teams to conduct CMMC Level 3 assessments on identified MDA Tier 1 contracts.</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: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects realignment of civilian labor from Outside Federal Outreach to Defense Cyber Operations.</p>		-	-	-
<p>Title: Facility Related Control Systems (FRCS)</p> <p align="right">Articles:</p>		0.927	0.998	1.024
<p>Description: Provide FRCS program oversight to include policies, procedures, plans, reports and budgets to support agency FRCS.</p> <p>- Systems development, inventory, assessment, mitigation and sustainment in accordance with DoDI 8500.01 Cybersecurity and DoDI 8510.01 RMF throughout the life cycle of each FRCS.</p>		-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency	Date: March 2024
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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MC30 / Cyber Operations
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<p>- Manage the cybersecurity activities to protect the FRCS, including vulnerability assessment and management, malware protection, information system continuous monitoring, cyber incident handling, and auditing to detect, deter, and mitigate insider threats, in accordance with DoDI 8530.01 Cybersecurity Activities Support to DoD Information Network Operations.</p> <p>- Oversee the development of FRCS in facilities to ensure cybersecurity is designed and built into the system in accordance with Unified Facilities Criteria 4-010-06 Cybersecurity Of Facility-Related Control Systems to reduce cybersecurity risk and ensure compliance with applicable NIST Special Publication 800-53 Rev. 5 security controls.</p> <p>- Manage the training and development of the FRCS cybersecurity workforce to ensure all personnel are qualified to perform assigned cybersecurity duties in accordance with DoDD 8140.01 Cyberspace Workforce Management.</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: N/A</p>			
Accomplishments/Planned Programs Subtotals	78.161	89.111	91.208

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

N/A

Remarks

D. Acquisition Strategy

The Cyber acquisition strategy supports cybersecurity activities throughout the agency to ensure a best value solution that meets mission requirements and reduces overall agency cyber risk. MDA continues to support Cyberspace Mission Support, Tier-III Local Control Center Services, Incident Management and Tier II Cyber Security Service Provider Services through the Cyberspace Mission Support - Computer Network Defense contract. These services will provide confidentiality, integrity and availability to the Missile Defense System, as well as Enterprise and Research, Development, Testing & Evaluations systems throughout the agency to mitigate cyber risk to an acceptable level to the agency Authorizing Official. In addition, the Integrated Research and Development for Enterprise Solutions contract provides IT design, engineering, implementation and sustainment services.

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC30 / Cyber Operations
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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			
Preventing Malicious Cybersecurity Activity - Civilian Pay	Allot	MDA : Various	8.649	1.069	Oct 2022	1.550	Oct 2023	0.000		-		0.000	0.000	11.268	0.000
Preventing Malicious Cybersecurity Activity - Consolidated Support CSM	C/Various	Various : Various	2.820	0.830	Nov 2022	0.879	Nov 2023	0.230	Nov 2024	-		0.230	Continuing	Continuing	Continuing
Preventing Malicious Cybersecurity Activity - Cyber CSS - IRES	C/CPAF	JACOBS TECHNOLOGY INC. : Various	89.457	14.677	Nov 2022	15.389	Nov 2023	16.414	Nov 2024	-		16.414	Continuing	Continuing	Continuing
Planning, Policy Development, Workforce Training & Force Management - A&AS Cyber MDS CSM/CND	C/CPFF	SYSTEM HIGH CORPORATION : Various	13.632	2.387	Nov 2022	1.887	Nov 2023	2.643	Nov 2024	-		2.643	Continuing	Continuing	Continuing
Planning, Policy Development, Workforce Training & Force Management - Civilian Pay	Allot	MDA : Various	6.211	2.293	Oct 2022	1.716	Oct 2023	0.000		-		0.000	0.000	10.220	0.000
Planning, Policy Development, Workforce Training & Force Management - Cyber CSS	C/CPAF	JACOBS TECHNOLOGY INC. : Various	0.000	0.323	Nov 2022	1.020	Nov 2023	0.000		-		0.000	0.000	1.343	0.000
Planning, Policy Development, Workforce Training & Force Management - FFRDC	FFRDC	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : Various	0.491	0.460	Nov 2022	0.467	Nov 2023	0.822	Nov 2024	-		0.822	Continuing	Continuing	Continuing
Continuous Monitoring - Continuous Monitoring - IT Security Tools	C/CPAF	JACOBS TECHNOLOGY INC. : Various	0.000	7.956	Nov 2022	8.385	Oct 2023	8.527	Nov 2024	-		8.527	Continuing	Continuing	Continuing
Detect, Analyze and Mitigate Intrusions - A&AS CSM/CND	C/CPFF	SYSTEM HIGH CORPORATION : Various	6.471	2.548	Nov 2022	2.553	Aug 2024	3.029	Aug 2025	-		3.029	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC30 / Cyber Operations
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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
Detect, Analyze and Mitigate Intrusions - A&AS, Cyber Risk Mgmt	C/CPFF	DECISIVE ANALYTICS CORPORATION : Various	17.515	3.229	Mar 2023	4.229	Mar 2024	4.313	Mar 2025	-		4.313	Continuing	Continuing	Continuing
Detect, Analyze and Mitigate Intrusions - Civilian Pay/Travel/PCS	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	13.853	4.957	Oct 2022	5.301	Oct 2023	9.185	Oct 2024	-		9.185	Continuing	Continuing	Continuing
Detect, Analyze and Mitigate Intrusions - Consolidated CSS - TEAMS	C/CPAF	Various : Various	0.000	2.096	Nov 2022	0.000		0.000		-		0.000	0.000	2.096	0.000
Detect, Analyze and Mitigate Intrusions - Cyber CSS	C/CPAF	JACOBS TECHNOLOGY INC. : Various	206.459	27.607	Jan 2023	36.944	Jan 2024	36.901	Jan 2025	-		36.901	Continuing	Continuing	Continuing
Detect, Analyze and Mitigate Intrusions - Cyber Customer Support	C/CPAF	NETWORK MANAGEMENT RESOURCES, INC. : Various	8.775	0.000		0.000		0.000		-		0.000	0.000	8.775	0.000
Detect, Analyze and Mitigate Intrusions - Cyber Threat Hunting	C/CPAF	JACOBS TECHNOLOGY INC. : Various	0.200	0.623	Aug 2023	0.600	Aug 2024	1.334	Aug 2025	-		1.334	Continuing	Continuing	Continuing
Detect, Analyze and Mitigate Intrusions - FFRDC	FFRDC	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : Various	0.000	0.278	Aug 2023	0.000		0.513	Aug 2025	-		0.513	Continuing	Continuing	Continuing
Detect, Analyze and Mitigate Intrusions - Network/System Assessment and Authorization Contract Support services	C/FFP	BOOZ ALLEN HAMILTON INC. : Various	4.450	0.000		0.000		0.000		-		0.000	0.000	4.450	0.000
Detect, Analyze and Mitigate Intrusions - Tier II CSSP	C/FFP	FOUR POINTS TECHNOLOGY, L.L.C. : Various	9.358	4.943	Apr 2023	6.340	Apr 2024	6.273	Apr 2025	-		6.273	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC30 / Cyber Operations
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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			
Outside Federal Outreach - Defense Industrial Base - Civilian Pay	Allot	MDA : Various	0.644	0.958	Oct 2022	0.853	Oct 2023	0.000		-		0.000	0.000	2.455	0.000
Facility Related Control Systems (FRCS) - Cyber Security and Cyber Resiliency	C/FFP	Various : Various	0.878	0.927	Nov 2022	0.998	Nov 2023	1.024	Nov 2024	-		1.024	Continuing	Continuing	Continuing
Subtotal			389.863	78.161		89.111		91.208		-		91.208	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	389.863	78.161	89.111	91.208	-	91.208	Continuing	Continuing	N/A

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

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC30 / Cyber Operations
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Operate, monitor, and sustain Cyberspace Activities Infrastructure across the MDA Enterprise.	1	2023	4	2029

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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 0603890C / BMD Enabling Programs				Project (Number/Name) MD31 / Modeling & Simulation			
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
MD31: <i>Modeling & Simulation</i>	610.846	68.221	65.702	63.883	-	63.883	63.237	64.752	67.861	69.695	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

The Missile Defense Agency's (MDA's) Modeling and Simulation (M&S) program consists of system and product planning, development, integration, and operation; threat model development, verification, and analysis; and integration and deployment of improved M&S capabilities. Models and simulations are tailored to the specific needs of the Agency's test events and to match Missile Defense System components in their various stages of development, ranging from low-to-medium fidelity analyses supporting concept definitions studies, to high-fidelity models used to support engineering level activities. MDA validates and accredits System-level models and simulations by anchoring them to ground and flight test events, per the Integrated Master Test Plan (IMTP), to enable accurate and comprehensive assessments. MDA's M&S systems and products provide analysis, decision-making, and planning capabilities for Real-World Operations to inform the National Command Authority, Joint Staff, Military Services, North Atlantic Treaty Organization, Combatant Commanders (CCMDs), Operational Test Authority (OTAs), Director of Operational Test & Evaluation (DOT&E), and Allies.

MDA's M&S Program executes a single, integrated, and synchronized program to manage M&S development and sustainment; improves System Flight and Ground Test execution and provides a digital assessment venue; leverages MDA test activities to collect data to anchor models and simulations; and supports Warfighter training and tactics validation.

The M&S program also addresses the following key elements of DOT&E assessments: Ensure that future M&S architectures are composable and flexible, and simplify the integration process to conserve resources and improve capabilities; Ensure that future M&S architectures incorporate and require the use of consistent truth representations (phenomenology, lethality, environmental factors, threat simulations, etc.); Improve cross-organizational system engineering processes to optimize requirements generation and ensure the inclusion of all stakeholders; Develop refined M&S accreditation criteria between MDA and the OTA; Enable top-down systems engineering and management of agency-wide M&S federations.

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

	FY 2023	FY 2024	FY 2025
Title: M&S Requirements, Design Support, Scenario Optimization	8.516	10.958	11.240
Articles:	-	-	-
Description: This activity provides the integrated program life cycle planning and requirements definition of all Missile Defense System M&S models and capabilities to enable assessment of capability deliveries. M&S capability development executes an integrated, synchronized program to manage M&S development in support of Missile Defense System development, testing, and			

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024		FY 2025
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assessment. The following actions are required on a continuing basis to accomplish the M&S life cycle planning and requirements definition mission:

- Maintain traceability between the M&S Systems Requirements Documents and M&S product development
- Support Missile Defense System- and element-level engineering, including M&S planning, assessment, and requirements definition, and performing developmental integration activities
- Conduct integration, testing and System-level verification per the System Requirements Document and the Concept of Operations
- Produce capability documents and specifications for M&S product development to enable digital assessments, System flight and ground tests, training events, exercises, wargames, concept evaluation and development engineering
- Support MDA response to export requests for M&S software and technical data to nations or international organizations
- Participate in Technical Interchange Meetings and provide support for bilateral agreements with allies and partners
- Support system engineering capability trades for all Missile Defense System capability deliveries
- Provide integrated program life cycle planning and scheduling of all System-level M&S models and capabilities to enable assessment of capability deliveries for Homeland and Regional Defense
- Execute M&S planning, development, framework and test integration; core truth model development; threat model development and data production, verification, and analysis; and integration and deployment of improved capabilities
- Develop/sustain models and simulations tailored to the specific needs of the Agency's test events; match Missile Defense System components in their various stages of development or sustainment as required for the test venue

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

FY 2024 Plans:
- SEE ABOVE.

FY 2025 Plans:
- SEE ABOVE.

FY 2024 to FY 2025 Increase/Decrease Statement:
N/A

Title: BMDS Simulations & Tools	10.932	10.650		0.000
Articles:	-	-		-

Description: This activity funds the development and sustainment of digital products and the architecture framework, and delivery/maintenance of infrastructure for Missile Defense performance assessments, Warfighter events, engineering studies/analyses, and International Simulation events. The following actions are required on a continuing basis:

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency	Date: March 2024
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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603890C / <i>BMD Enabling Programs</i>	Project (Number/Name) MD31 / <i>Modeling & Simulation</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<p>Event Integration/Support Operations:</p> <ul style="list-style-type: none"> - Deliver integrated architecture instantiations of the Missile Defense System to support Performance Assessments and integration of new capabilities into the Operational Capability Baseline - Integrate, test, and verify the M&S enterprise supporting System-level testing, assessment, exercises, and wargaming, including testing infrastructure - 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 - Provide simulation capability for System and Element M&S development laboratories - Provide Event Integration Support for non-MDA Missile Defense component and weapon system models for M&S, threat, and Element developmental integration activities - Provide M&S benchmarking/integration, documentation and coordination; sustain, integrate and execute ground tests, and exercises/wargames - Provide communications emulation (Multicast Tactical Digital Information Link (TADIL-J), Satellite TADIL-J, and Link-16) and network analysis support via the Tactical Communications Environment Segment for M&S, threat, and Element developmental integration activities - Perform operational planning for planned Missile Defense System assessment events - Conduct M&S system integration and verification and conduct developmental integration testing <p>M&S Operations:</p> <ul style="list-style-type: none"> - Provide digital representations of Missile Defense System elements/components in support of CCMD and International wargames, conceptual planning, visualizations, training/orientation, M&S demonstrations, and the Warfighter's Modification & Fielding Requirements List for exercises and training - Implement Missile Defense Advanced Simulation (MDASim) architecture requirements and emerging capability requirements to adapt to growing distributed event requirements - Sustain the Missile Defense Space Warning Tool (MDST) and related tools to pace fielded Overhead Persistent Infrared (OPIR) Architectures in support of Warfighter training and exercise events, and Element development engineering - Provide software operations/maintenance support to the Extended Air Defense Simulation for use in Warfighter exercises, training venues, and Combatant Command planning tools - Provide, maintain, and operate a secure M&S execution infrastructure for digital system simulations - Upgrade models and develop new designs or software as required to support System simulations - Provide threat representations (trajectories, radar cross sections, and signatures data) for use in real-world events, simulations, exercises, wargames, and test and evaluation activities across the Department of Defense - Develop products that meet digital and Hardware-in-the-Loop (HWIL) requirements and allow M&S participation across multiple intended uses - Update and provide new M&S capabilities to support development of new Missile Defense System assets 			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency	Date: March 2024
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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
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<p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects a movement and consolidation of M&S requirements and funds to the Missile Defense System M&S Accomplishment.</p>			
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Title: M&S Objective Simulation Framework (OSF)	12.016	12.261	0.000
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<p align="right">Articles:</p> <p>Description: The following actions are required on a continuing basis to accomplish the OSF mission:</p> <ul style="list-style-type: none"> - 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 - Perform testing and integration of Core Truth Model capabilities into the OSF framework - Develop, sustain and enhance framework, other M&S tools, and products to maintain capabilities to support stakeholders and to keep pace with evolving requirements to support testing venues - Develop plans, procedures and documentation for scheduled events including wargames and Combatant Command Exercises and the Distributed, Focused and Integrated ground test events as presented in the IMTP; provide event architecture integration and checkout of wargames - Perform regular maintenance and critical repairs of hardware and software - Maintain the M&S Integration and Development Laboratories for Element models and simulations; maintain venue for stakeholders to conduct early M&S integration efforts and identification of issues prior to event architecture integration to support system development 	-	-	-
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<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>			
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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation		
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 a movement and consolidation of M&S requirements and funds to the Missile Defense System M&S Accomplishment.				
Title: M&S Core Truth Modeling		11.701	12.461	0.000
		Articles:	-	-
Description: The Core Truth Model (CTM) program provides consistent and common Phenomenology, Lethality, Environment, Communications, and Threat models for Missile Defense Subsystem development and M&S venues utilized in test events and wargaming exercises. The CTM efforts are critical in the assessment of all Missile Defense capability deliveries. The following actions are required on a continuing basis: <ul style="list-style-type: none"> - Implement next generation truth representations for signatures and lethality to address advanced Missile Defense System capability needs for tracking, discrimination and engagement - Maintain legacy truth representations (e.g., Parametric Endoatmospheric-Exoatmospheric Lethality Simulation, Kinetic Intercept Debris Distribution and Optical Signatures Code/Optical Signature Inline Generator) until fully transitioned - Support integration of all applicable CTM functions into the OSF framework - Deliver CTM Toolkit for integrated truth representations across the M&S enterprise - Produce and deliver high quality, credible, and cost-effective Threat Data Products (Integrated Threat Packages) - Deliver updated vehicle characteristics during flight utilizing mature production processes - Produce infrared (IR) Hardbody data for Ballistic Missile Defense System OPIR Architecture - Provide validation and verification evidence for radio frequency (RF) and IR signature models to support accreditation decisions Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: - SEE ABOVE. FY 2025 Plans: N/A FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects a movement and consolidation of M&S requirements and funds to the Missile Defense System M&S Accomplishment.				
Title: M&S Improvements		25.056	19.372	19.584
		Articles:	-	-

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
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Description: This effort funds Missile Defense System Enterprise-wide M&S improvements to enhance test capabilities. This effort designs and develops simulation capabilities that provide assessment data (supplemental to Ground- and Flight tests) in areas that those venues cannot address. Digital improvements enhance predictive pre-mission analysis. HWIL improvements address accreditation and assessment limitations in simulation complexity and integration times. This effort ensures consistent truth data representation, implements standard framework interfaces, and provides common data formats to correct ground test simulation inadequacies in threat uncertainty and debris modeling. Accomplishing these improvements includes the following:

- Execute agile software development of incremental versions for continuous deliveries of enhanced capabilities
- Conduct Model Based Systems Engineering for requirements analysis, functional analysis, design and implementation
- Conduct continuous integration, test and verification of incremental software versions
- Conduct continuous developmental checkout of incremental software builds
- Perform M&S data production to support Missile Defense System Increment builds
- Conduct integrated end-to-end analysis of software capabilities
- Examine use of new technologies (including Artificial Intelligence/Machine Learning/data analytics) for M&S applications
- Assess and implement courses of action for advanced and emerging capabilities as appropriate

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

FY 2024 Plans:

- SEE ABOVE.

FY 2025 Plans:

- SEE ABOVE.

FY 2024 to FY 2025 Increase/Decrease Statement:

N/A

Title: Missile Defense System M&S	0.000	0.000	33.059
Articles:	-	-	-

Description: Missile Defense System M&S includes Core M&S development and sustainment of Frameworks, Core Truth Models, and Simulations and tools.

M&S Frameworks: 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. Includes:

- Perform testing and integration of Core Truth Model capabilities into the OSF framework

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Develop, sustain and enhance framework, other M&S tools, and products to maintain capabilities to support stakeholders and to keep pace with evolving requirements to support testing venues - Develop plans, procedures and documentation for scheduled events including wargames and Combatant Command Exercises and the Distributed, Focused and Integrated ground test events as presented in the IMTP; provide event architecture integration and checkout of wargames - Perform regular maintenance and critical repairs of hardware and software - Maintain the M&S Integration and Development Laboratories for Element models and simulations; maintain venue for stakeholders to conduct early M&S integration efforts to identify and resolve issues <p>Core Truth Models: Provide consistent and common Phenomenology, Lethality, Environment, Communications, and Threat models for Missile Defense Subsystem development and M&S venues utilized in test events and wargaming exercises. Includes:</p> <ul style="list-style-type: none"> - Implement next generation truth representations for signatures and lethality to address advanced Missile Defense System capability needs for tracking, discrimination and engagement - Maintain legacy truth representations (e.g., Parametric Endoatmospheric-Exoatmospheric Lethality Simulation, Kinetic Intercept Debris Distribution and Optical Signatures Code/Optical Signature Inline Generator) until fully transitioned - Support integration of all applicable CTM functions into the OSF framework - Deliver CTM Toolkit for integrated truth representations across the M&S enterprise - Produce and deliver high quality, credible, and cost-effective Threat Data Products (Integrated Threat Packages) - Deliver updated vehicle characteristics during flight utilizing mature production processes - Produce IR Hardbody data for Ballistic Missile Defense System OPIR Architecture - Provide validation and verification evidence for RF and IR signature models to support accreditation decisions <p>M&S Simulations and Tools: Develop and sustain MDA M&S tools to support Missile Defense performance assessments, Warfighter events, engineering studies/analyses, and International Simulation events. Includes:</p> <ul style="list-style-type: none"> - Deliver integrated architecture instantiations of the Missile Defense System to support Performance Assessments and integration of new capabilities into the Operational Capability Baseline - Integrate, test, and verify the M&S enterprise supporting System-level testing, assessment, exercises, and wargaming, including testing infrastructure - 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 - Provide simulation capability for System and Element M&S development laboratories - Provide Event Integration Support for non-MDA Missile Defense component and weapon system models for M&S, threat, and Element developmental integration activities - Provide M&S benchmarking/integration, documentation and coordination; sustain, integrate and execute ground tests, and exercises/wargames 			

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Provide communications emulation (Multicast TADIL-J, Satellite TADIL-J, and Link-16) and network analysis support via the Tactical Communications Environment Segment for M&S, threat, and Element developmental integration activities - Perform operational planning for planned Missile Defense System assessment events - Provide digital representations of Missile Defense System elements/components for wargames, conceptual planning, visualizations, training/orientation, M&S demonstrations, and the Warfighter's Modification & Fielding Requirements List for exercises and training - Implement MDASim architecture requirements and emerging capability requirements to adapt to growing distributed event requirements - Sustain the MDST and related tools to pace fielded OPIR Architectures in support of Warfighter training and exercise events, and Element development engineering - Provide software operations/maintenance support to the Extended Air Defense Simulation for use in Warfighter exercises, training venues, and Combatant Command planning tools - Provide, maintain, and operate a secure M&S execution infrastructure for digital system simulations - Upgrade models and develop new designs or software as required to support System simulations - Provide threat representations (trajectories, radar cross sections, and signatures data) for use in real-world events, simulations, exercises, wargames, and test and evaluation activities across the Department of Defense - Develop products that meet digital and HWIL requirements and allow M&S participation across multiple intended uses - Update and provide new M&S capabilities to support development of new Missile Defense System assets <p>FY 2024 Plans: N/A</p> <p>FY 2025 Plans: - SEE ABOVE.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increase from FY 2024 to FY 2025 provides for requirements and funding moved from the M&S OSF, M&S Core Truth Modeling, and M&S Simulations and Tools accomplishments to consolidate related M&S development and sustainment efforts in a single location.</p>			
Accomplishments/Planned Programs Subtotals	68.221	65.702	63.883

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
• 0603881C: Ballistic Missile <i>Defense Terminal Defense Segment</i>	194.264	220.311	367.279	-	367.279	543.868	554.429	464.018	314.936	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation
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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
• 0603882C: <i>Ballistic Missile Defense Midcourse Defense Segment</i>	670.808	903.633	768.227	-	768.227	856.218	842.985	956.974	1,007.150	Continuing	Continuing
• 0603892C: <i>AEGIS BMD</i>	586.329	693.727	649.255	-	649.255	602.818	539.786	649.556	714.388	Continuing	Continuing

Remarks

D. Acquisition Strategy

The M&S acquisition strategy utilizes full and open competition to develop, acquire and deliver the integrated architectures/frameworks while the Elements, using the same open competition methods, develop and deliver models of their 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 Element prime contractors, with additional technical standards and engineering oversight provided by Federally Funded Research & Development Centers and University Affiliated Research Centers.

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation
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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
M&S Requirements, Design Support, Scenario Optimization - FFRDC & UARC	Various	Various : CO, AL	11.219	0.512	Nov 2022	0.603	Nov 2023	1.152	Nov 2024	-		1.152	Continuing	Continuing	Continuing
M&S Requirements, Design Support, Scenario Optimization - M&S Requirements & Design - OGA	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	0.000	1.628	Nov 2022	0.000		0.000		-		0.000	0.000	1.628	0.000
M&S Requirements, Design Support, Scenario Optimization - M&S Support - various	Various	Various : Various	0.000	0.000		0.000		1.378	Nov 2024	-		1.378	Continuing	Continuing	Continuing
M&S Requirements, Design Support, Scenario Optimization - Prior Yr Requirements & Scenario Design no longer funded in FYDP	Various	Various : AL	13.032	0.000		0.000		0.000		-		0.000	0.000	13.032	0.000
M&S Requirements, Design Support, Scenario Optimization - Requirements & Design - CSS	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	0.000	0.000		0.000		8.710	Nov 2024	-		8.710	Continuing	Continuing	Continuing
M&S Requirements, Design Support, Scenario Optimization - Requirements & Design - Industry	Various	Various : Various	4.367	0.000		0.000		0.000		-		0.000	0.000	4.367	0.000
M&S Requirements, Design Support, Scenario Optimization - Science and Technology Council	Various	Various : VA, AL	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation
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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			
M&S Requirements, Design Support, Scenario Optimization - Threat Modeling	Various	Various : CO, AL	3.544	0.000		0.000		0.000		-		0.000	0.000	3.544	0.000
M&S Requirements, Design Support, Scenario Optimization - x-Requirements & Design - CSS	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : CO, AL	48.946	6.376	Nov 2022	10.355	Nov 2023	0.000		-		0.000	0.000	65.677	0.000
BMDS Simulations & Tools - Digital Framework Development	C/CPAF	NORTHROP GRUMMAN : CO	34.671	0.000		0.000		0.000		-		0.000	0.000	34.671	0.000
BMDS Simulations & Tools - Digital Simulation Development / Support	MIPR	SMDC : AL	9.319	1.750	Nov 2022	1.598	Nov 2023	0.000		-		0.000	0.000	12.667	0.000
BMDS Simulations & Tools - M&S / Digital Framework Development	C/CPAF	NORTHROP GRUMMAN : CO	25.264	9.182	Nov 2022	8.926	Nov 2023	0.000		-		0.000	0.000	43.372	0.000
BMDS Simulations & Tools - M&S / Digital Framework Support	Various	MDA : CO, AL	3.646	0.000		0.000		0.000		-		0.000	0.000	3.646	0.000
BMDS Simulations & Tools - M&S / Digital Framework Support - CSS	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : CO	6.780	0.000		0.126	Nov 2023	0.000		-		0.000	0.000	6.906	0.000
BMDS Simulations & Tools - M&S / Digital Framework Support - Industry	C/CPFF	TELEDYNE BROWN ENGINEERING, INC. : AL	1.850	0.000		0.000		0.000		-		0.000	0.000	1.850	0.000
BMDS Simulations & Tools - M&S / Digital Framework Support - OGA	MIPR	CCDC : AL	16.459	0.000		0.000		0.000		-		0.000	0.000	16.459	0.000
BMDS Simulations & Tools - Science & Technology Council	Various	Various : VA, AL	3.402	0.000		0.000		0.000		-		0.000	0.000	3.402	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation
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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			
M&S Objective Simulation Framework (OSF) - Continuous Integration Requirements Development	Various	Various : CO, AL	3.778	0.000		0.000		0.000		-		0.000	0.000	3.778	0.000
M&S Objective Simulation Framework (OSF) - M&S HWIL - CSS	C/CPFF	JACOBS TECHNOLOGY INC. : CO, AL	10.520	1.914	Nov 2022	4.060	Nov 2023	0.000		-		0.000	0.000	16.494	0.000
M&S Objective Simulation Framework (OSF) - M&S HWIL - CSS Support	C/CPIF	PARSONS GOVERNMENT SERVICES INC. : Various	0.000	2.383	Nov 2022	0.000		0.000		-		0.000	0.000	2.383	0.000
M&S Objective Simulation Framework (OSF) - M&S HWIL - Industry	C/CPAF	Northrop Grumman : CO	6.540	1.496	Nov 2022	0.000		0.000		-		0.000	0.000	8.036	0.000
M&S Objective Simulation Framework (OSF) - M&S HWIL - Modeling	C/CPAF	DECIBEL RESEARCH, INC : Various	0.000	1.921	Dec 2022	0.000		0.000		-		0.000	0.000	1.921	0.000
M&S Objective Simulation Framework (OSF) - M&S HWIL Framework Development and Support	C/CPAF	LOCKHEED MARTIN CORPORATION : AL, CO	54.732	2.278	Nov 2022	2.525	Nov 2023	0.000		-		0.000	0.000	59.535	0.000
M&S Objective Simulation Framework (OSF) - M&S HWIL Simulations / Models - Various	Various	Various : CO, AL	7.496	0.456	Dec 2022	0.936	Dec 2023	0.000		-		0.000	0.000	8.888	0.000
M&S Objective Simulation Framework (OSF) - M&S HWIL Simulations / Models Development	MIPR	CCDC : AL	29.294	1.568	Nov 2022	4.740	Nov 2023	0.000		-		0.000	0.000	35.602	0.000
M&S Objective Simulation Framework (OSF) - M&S HWIL Support / GT re-architecture	Various	MDA : AL, CO	8.855	0.000		0.000		0.000		-		0.000	0.000	8.855	0.000
M&S Objective Simulation Framework (OSF) -	Various	Various : VA, AL	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation
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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			
Science & Technology Council															
M&S Core Truth Modeling - M&S Core Truth Modeling - Various	MIPR	Various : Various	4.640	0.830	Nov 2022	0.700	Nov 2023	0.000		-		0.000	0.000	6.170	0.000
M&S Core Truth Modeling - Core Truth Modeling - Engineering	C/CPAF	PEOPLETEC, INC. : AL	4.282	0.000		0.000		0.000		-		0.000	0.000	4.282	0.000
M&S Core Truth Modeling - Core Truth Models Validation	Allot	MDA : CO, AL	10.665	0.000		0.000		0.000		-		0.000	0.000	10.665	0.000
M&S Core Truth Modeling - M&S Core Truth Modeling	C/CPAF	DECIBEL RESEARCH, INC : AL	10.219	5.018	Nov 2022	6.525	Nov 2023	0.000		-		0.000	0.000	21.762	0.000
M&S Core Truth Modeling - M&S Core Truth Modeling - CSS	C/CPFF	PEOPLETEC, INC. : AL, CO	4.497	0.000		0.000		0.000		-		0.000	0.000	4.497	0.000
M&S Core Truth Modeling - M&S Core Truth Modeling - CSS 2	C/CPFF	TEAMS : AL, CO	1.683	0.000		0.000		0.000		-		0.000	0.000	1.683	0.000
M&S Core Truth Modeling - M&S Core Truth Modeling - Lethality/ Phenomenology Modeling	MIPR	CCDC : AL	34.822	0.000		0.000		0.000		-		0.000	0.000	34.822	0.000
M&S Core Truth Modeling - M&S Core Truth Modeling Simulation System	C/CPAF	NORTHROP GRUMMAN : CO	50.706	0.000		0.000		0.000		-		0.000	0.000	50.706	0.000
M&S Core Truth Modeling - M&S Core Truth Modeling Simulation System 2	C/CPAF	NORTHROP GRUMMAN : CO	16.597	5.853	Nov 2022	5.236	Nov 2023	0.000		-		0.000	0.000	27.686	0.000
M&S Improvements - Enterprise Engineering	Various	Various : Various	0.000	0.000		0.000		8.199	Dec 2024	-		8.199	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation
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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			
M&S Improvements - Enterprise-wide ground test re-architecture improvements	Various	Various : CO, AL	53.827	11.284	Dec 2022	0.647	Dec 2023	7.185	Nov 2024	-		7.185	Continuing	Continuing	Continuing
M&S Improvements - M&S Improvement - Enterprise-wide capability development	Various	Various : CO, AL	113.694	13.772	Nov 2022	18.725	Nov 2023	4.200	Nov 2024	-		4.200	Continuing	Continuing	Continuing
Missile Defense System M&S - Digital Simulation Development / Support	MIPR	DOD - USA - SPACE AND MISSILE DEFENSE COMMAND (SMDC) : AL	0.000	0.000		0.000		1.799	Nov 2024	-		1.799	Continuing	Continuing	Continuing
Missile Defense System M&S - M&S Core Truth Modeling	C/CPFF	PEOPLETEC, INC. : Various	0.000	0.000		0.000		5.001	Nov 2024	-		5.001	Continuing	Continuing	Continuing
Missile Defense System M&S - M&S HWIL Framework Development and Support	C/CPAF	LOCKHEED MARTIN CORPORATION : AL	0.000	0.000		0.000		2.500	Nov 2024	-		2.500	Continuing	Continuing	Continuing
Missile Defense System M&S - M&S HWIL Simulations / Models - Various	Various	Various : Various	0.000	0.000		0.000		1.893	Dec 2024	-		1.893	Continuing	Continuing	Continuing
Missile Defense System M&S - M&S Threat Modeling	C/CPAF	NORTHROP GRUMMAN : CO	0.000	0.000		0.000		21.866	Nov 2024	-		21.866	Continuing	Continuing	Continuing
Subtotal			610.846	68.221		65.702		63.883		-		63.883	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	610.846	68.221	65.702	63.883	-	63.883	Continuing	Continuing	N/A

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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 0603890C / <i>BMD Enabling Programs</i>	Project (Number/Name) MD31 / <i>Modeling & Simulation</i>
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	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
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Remarks
 Funding in the All Prior Years column represents a summary of Prior Years Total Costs for active contracts, Military Interdepartmental Purchase Requests, and civilian salaries on the R-3.
 Award Dates reflect date of first obligation. Additional obligations may incrementally occur throughout the year.

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation
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	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			
Deliver Initial Digital Capability	▲																					
Digital Updates / New Capability Development for MDS Increments		◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇
Deliver Initial GT HWIL Capability Improvement		▲																				
GT HWIL Updates / New Capability Development for MDS Increments			◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇
M&S Framework Updates / New Capability Development for MDS Increments		◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇
Threat Model Updates / New Capability Development		◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇
Missile Defense Advanced Simulation Updates / New Capability Development		◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇
MDST Updates / New Capability Development		◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇

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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 0603890C / <i>BMD Enabling Programs</i>	Project (Number/Name) MD31 / <i>Modeling & Simulation</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Deliver Initial Digital Capability	1	2023	1	2023
Digital Updates / New Capability Development for MDS Increments	2	2023	4	2029
Deliver Initial GT HWIL Capability Improvement	2	2023	2	2023
GT HWIL Updates / New Capability Development for MDS Increments	3	2023	4	2029
M&S Framework Updates / New Capability Development for MDS Increments	1	2023	4	2029
Threat Model Updates / New Capability Development	1	2023	4	2029
Missile Defense Advanced Simulation Updates / New Capability Development	1	2023	4	2029
MDST Updates / New Capability Development	1	2023	4	2029

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC31 / Engineering Cyber Operations
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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
MC31: <i>Engineering Cyber Operations</i>	129.309	23.993	25.854	24.319	-	24.319	24.888	25.634	26.814	27.032	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

Engineering and Cyber Operations provides monitoring and tracking of Cybersecurity mitigations detailed in Information Technology security Plan of Action and Milestones. Activities include preparation of certification and accreditation documentation and accreditation recommendations to the Missile Defense Agency (MDA) Senior Information Assurance Officer/Certification Authority and Designated Approving Authority. Independent Verification and Validation team actions ensure the availability, integrity, authentication, confidentiality and non-repudiation of the MDA mission, test and administrative systems. Activities are necessary to comply with the Federal Information Security Management Act.

Engineering and Cyber Operations implements Risk Management Framework (RMF) system engineering principles as specified within the Department of Defense (DoD) Instruction DoD 8510.01 to acquire, design, test, implement and field technical solutions throughout the systems architecture to ensure sufficient protections exist from a threat and risk-based approach. MDA's goal is to ensure Cybersecurity engineering principles flow into system requirements and design specifications early to provide the most cost benefit and ensure security controls are aligned with the National Institute of Standards and Technology 800-53a security controls as applicable to systems categorized as National Security Systems.

Engineering and Cyber Operations includes resources to conduct an MDA Insider Threat program to identify, deter, and mitigate potential insider threats. This activity is Presidentially and DoD-mandated.

Engineering and Cyber Operations also includes Defense Industrial Base (DIB) Cyber Risk Management to assess the security of MDA information on DIB networks.

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

	FY 2023	FY 2024	FY 2025
Title: Information Assurance / Cyber Network Defense	23.993	25.854	24.319
Articles:	-	-	-
Description: This activity includes network defense and Information System Security Manager activities for MDA Engineering. Specific tasks include:			
- Conduct Cybersecurity/information assurance engineering and architecture planning for Engineering information technology systems			
- Plan and test the information assurance controls for Engineering systems			

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC31 / Engineering Cyber Operations
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Implement RMF system engineering principles to ensure sufficient protections exist from a threat and risk-based approach - Conduct Controls Validation Testing of systems and provide Plan of Action and Milestones to mitigate information assurance deficiencies - Conduct annual information assurance reviews to assess compliance in implementing and maintaining information assurance controls - Perform cybersecurity upgrades as needed to MDA Engineering systems to be in compliance with DoD mandates - Execute System-level Supply Chain and Cyber Risk Management program - Continue MDA Insider Threat Mitigation Team efforts, to include User Activity Monitoring - Perform engagements with MDA Defense Industrial Base partners to detect and increase understanding of cyber threats <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>			
Accomplishments/Planned Programs Subtotals	23.993	25.854	24.319

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2025</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u>	<u>Total Cost</u>
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• 0305103C: Cyber Security Initiative	1.145	2.760	1.831	-	1.831	1.876	1.922	1.970	2.018	Continuing	Continuing

Remarks

D. Acquisition Strategy

This program leverages expertise in the Engineering, intelligence/counterintelligence, and information assurance communities, including the Military Services, Federally Funded Research & Development Centers, University Affiliated Research Centers, and industry. The executing agents utilize various contracting strategies in a flexible manner to maximize their contribution. Products and Services will be acquired by competitive means to the extent that is beneficial and practical.

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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 0603890C / BMD Enabling Programs				MC31 / Engineering Cyber Operations					
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
Information Assurance / Cyber Network Defense - Cyber Assistance Team Leads	FFRDC	MITRE : VA, AL	8.282	2.137	Nov 2022	1.653	Nov 2023	0.000		-		0.000	0.000	12.072	0.000
Information Assurance / Cyber Network Defense - Cyber Assistance Team Leads - FFRDC	FFRDC	THE MITRE CORPORATION : MD	0.000	0.000		0.000		2.081	Nov 2024	-		2.081	Continuing	Continuing	Continuing
Information Assurance / Cyber Network Defense - Cyber Assistance Teams - CSS	C/CPFF	TBD : Various	0.000	0.000		0.000		0.919	Nov 2024	-		0.919	Continuing	Continuing	Continuing
Information Assurance / Cyber Network Defense - Cyber Assistance Teams - CSS & H/W	Various	Various : VA, AL	30.679	3.426	Nov 2022	6.899	Nov 2023	0.000		-		0.000	0.000	41.004	0.000
Information Assurance / Cyber Network Defense - Cyber Assistance Teams - Hardware	MIPR	DOD - USA - PROGRAM EXECUTIVE OFFICE ENTERPRISE INFORMATION SYSTEMS (PEO EIS) : VA, AL	4.199	0.000		0.000		0.000		-		0.000	0.000	4.199	0.000
Information Assurance / Cyber Network Defense - Cyber Assistance Teams - Hardware H/W, S/W, Licenses	C/CPFF	DOD - USA - PROGRAM EXECUTIVE OFFICE ENTERPRISE INFORMATION SYSTEMS (PEO EIS) : Various	0.000	0.000		0.000		3.413	Nov 2024	-		3.413	Continuing	Continuing	Continuing
Information Assurance / Cyber Network Defense - Cyber Assistance Teams - Intelligence Reporting	C/CPAF	DELOITTE CONSULTING LLP : AL, VA	4.961	0.000		0.000		0.000		-		0.000	0.000	4.961	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC31 / Engineering Cyber Operations
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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			
Information Assurance / Cyber Network Defense - Cyber Assistance Teams - Software/Licenses	MIPR	DOD - USA - PROGRAM EXECUTIVE OFFICE ENTERPRISE INFORMATION SYSTEMS (PEO EIS) : AL, VA	7.820	1.964	Nov 2022	2.741	Nov 2023	0.000		-		0.000	0.000	12.525	0.000
Information Assurance / Cyber Network Defense - Cyber Engineering - CSS	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : VA, AL	6.195	0.785	Nov 2022	0.000		0.000		-		0.000	0.000	6.980	0.000
Information Assurance / Cyber Network Defense - Cyber Engineering - CSS / TEAMS	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	0.000	0.000		0.000		1.007	Nov 2024	-		1.007	Continuing	Continuing	Continuing
Information Assurance / Cyber Network Defense - Cyber Engineering - FFRDC/UARC	MIPR	Various : Various	4.405	0.750	Nov 2022	0.000		0.000		-		0.000	0.000	5.155	0.000
Information Assurance / Cyber Network Defense - Cyber Engineering - VISUM	FFRDC	THE MITRE CORPORATION : AL	5.291	1.240	Dec 2022	0.923	Dec 2023	0.000		-		0.000	7.454	14.908	0.000
Information Assurance / Cyber Network Defense - Cyber Engineering - VISUM - FFRDC	MIPR	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : Various	0.000	0.000		0.000		1.124	Nov 2024	-		1.124	Continuing	Continuing	Continuing
Information Assurance / Cyber Network Defense - Cyber Program Protection	C/CPFF	TEAMS : CO, AL, VA	0.560	0.000		1.230	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Information Assurance / Cyber Network Defense - Cyber Program Protection - CSS / TEAMS	C/CPFF	SYSTEM HIGH CORPORATION : Various	0.000	0.000		0.000		2.637	Nov 2024	-		2.637	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC31 / Engineering Cyber Operations
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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			
Information Assurance / Cyber Network Defense - Cyber Program Protection - CSS / TEAMS-Sp	C/CPFF	NTSI LLC : Various	0.000	0.000		0.000		3.725	Nov 2024	-		3.725	Continuing	Continuing	Continuing
Information Assurance / Cyber Network Defense - Cyber SW Engineering & Assessment	MIPR	USA CCDC AVIATION AND MISSILE CENTE : AL	6.730	0.000		0.000		0.000		-		0.000	0.000	6.730	0.000
Information Assurance / Cyber Network Defense - Cyber Support - Various	Various	Various : AL, VA	8.170	0.026	Dec 2022	0.981	Dec 2023	1.659	Nov 2024	-		1.659	Continuing	Continuing	Continuing
Information Assurance / Cyber Network Defense - Cybersecurity - Systems Engineering - OGA	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	2.552	2.216	Nov 2022	0.000		0.000		-		0.000	0.000	4.768	0.000
Information Assurance / Cyber Network Defense - Cybersecurity - Systems Engineering & Anti-tamper	Various	Various : Various	4.219	0.800	Dec 2022	0.000		0.000		-		0.000	0.000	5.019	0.000
Information Assurance / Cyber Network Defense - Cybersecurity - User Activity Monitoring	C/CPAF	JACOBS TECHNOLOGY INC. : Various	2.814	2.851	Nov 2022	0.000		0.000		-		0.000	0.000	5.665	0.000
Information Assurance / Cyber Network Defense - Cybersecurity Resiliency Strategy Implementation	Various	Various : Various	2.334	0.750	Nov 2022	0.000		0.000		-		0.000	0.000	3.084	0.000
Information Assurance / Cyber Network Defense - IT / CND Support	C/CPFF	TEAMS : CO, AL, VA	9.591	1.345	Nov 2022	2.846	Nov 2023	0.000		-		0.000	0.000	13.782	0.000
Information Assurance / Cyber Network Defense	C/CPFF	TBD : Various	0.000	0.000		0.000		2.903	Nov 2024	-		2.903	Continuing	Continuing	Continuing

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC31 / Engineering Cyber Operations
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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			
- IT/CND Support - CSS / TEAMS															
Information Assurance / Cyber Network Defense - Insider Threat - CSS / TEAMS	C/CPFF	TBD : Various	0.000	0.000		0.000		1.287	Nov 2024	-		1.287	Continuing	Continuing	Continuing
Information Assurance / Cyber Network Defense - Insider Threat - SSO / Mitigation Cell	C/CPFF	TEAMS : CO, AL, VA	6.196	1.050	Dec 2022	1.958	Dec 2023	0.000		-		0.000	0.000	9.204	0.000
Information Assurance / Cyber Network Defense - Insider Threat Mitigation Cell - IRES	C/CPFF	JACOBS TECHNOLOGY INC. : Various	0.000	0.000		0.000		2.652	Nov 2024	-		2.652	Continuing	Continuing	Continuing
Information Assurance / Cyber Network Defense - Insider Threat Mitigation Cell - IT	C/CPAF	NORTHROP GRUMMAN : CO	4.042	0.000		0.000		0.000		-		0.000	0.000	4.042	0.000
Information Assurance / Cyber Network Defense - Software Assurance	TBD	TBD : Various	0.000	0.000		0.000		0.912	Dec 2024	-		0.912	Continuing	Continuing	Continuing
Information Assurance / Cyber Network Defense - Supply Chain and Cyber Risk Management (SC2RM)	MIPR	Various : Various	0.921	0.174	Nov 2022	1.011	Nov 2023	0.000		-		0.000	0.000	2.106	0.000
Information Assurance / Cyber Network Defense - Supply Chain and Cyber Risk Management (SC2RM) - TEAMS Analysis	C/CPFF	Various : AL	1.640	2.025	Dec 2022	0.000		0.000		-		0.000	0.000	3.665	0.000
Information Assurance / Cyber Network Defense - Supply Chain and Cyber Risk Management	C/CPFF	Various : AL	0.000	0.453	Dec 2022	3.832	Dec 2023	0.000		-		0.000	0.000	4.285	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC31 / Engineering Cyber Operations
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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			
(SC2RM) - Data Analytics / Mission Assurance															
Information Assurance / Cyber Network Defense - x-Software Assurance	C/CPFF	TEAMS : CO, AL	7.708	2.001	Dec 2022	1.780	Dec 2023	0.000		-		0.000	0.000	11.489	0.000
Subtotal			129.309	23.993		25.854		24.319		-		24.319	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	129.309	23.993	25.854	24.319	-	24.319	Continuing	Continuing	N/A

Remarks
Award Dates reflect date of first obligation. Additional obligations may incrementally occur throughout the year.

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MC31 / Engineering Cyber Operations

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Engineering Cyber Operations	1	2023	4	2029

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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 0603890C / BMD Enabling Programs				Project (Number/Name) MD32 / Quality, Safety, and Mission Assurance			
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
MD32: <i>Quality, Safety, and Mission Assurance</i>	387.098	33.203	31.383	32.757	-	32.757	33.630	34.318	35.019	35.735	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

Quality, Safety, and Mission Assurance ensures that the Missile Defense System and all of its elements are designed, tested and operated in a reliable, safe, and effective manner.

Quality and Mission Assurance: Responsible for ensuring the reliable and effective design, test and operation of the Missile Defense System and all of its elements. Develops and ensures implementation of quality and mission assurance requirements. Mitigates quality and mission assurance risks to the lowest practical level. Provides in-plant MDA Assurance Representatives at MDA government and contractor facilities to provide quality and mission assurance oversight of contractor manufacturing and integration. Performs Quality and Mission Assurance Assessments to ensure contractual requirements, internal requirements, and industry best practices are implemented at prime contractor and lower tier suppliers. Reviews and approves all new and modified parts, materials and critical processes for Missile Defense System elements.

Safety: Responsible for ensuring the safe design, test and operation of the Missile Defense System and all of its elements. Develops and ensures implementation of safety requirements. Mitigates safety risks to the lowest practical level. Ensures a safe workplace for all MDA employees and contractors by implementing a Safety program. Missile Defense System Safety Officers provide on-site support at the Missile Defense Integration and Operations Center 24 hours a day, 7 days a week, and 365 days a year to ensure operational safety of the Missile Defense System.

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

	FY 2023	FY 2024	FY 2025
Title: Quality, Safety & Mission Assurance	33.203	31.383	32.757
Articles:	-	-	-
Description: Quality, Safety, and Mission Assurance ensures that the Missile Defense System and all of its elements are designed, tested and operated in a reliable, safe, and effective manner. Specific and/or unique accomplishments to each FY are as follows:			
FY 2024 Plans:			

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD32 / Quality, Safety, and Mission Assurance

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
-SEE ABOVE.			
FY 2025 Plans: -SEE ABOVE.			
FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals	33.203	31.383	32.757

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

N/A

Remarks

D. Acquisition Strategy

The Quality, Safety and Mission Assurance program is a collaboration between subject matter expertise in the Government, Federally Funded Research & Development Centers, University Affiliated Research Centers, Contract Support Services, and Industry.

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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 0603890C / BMD Enabling Programs					MD32 / Quality, Safety, and Mission Assurance					
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
Quality, Safety & Mission Assurance - Audits & Quality On-site Support	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) CORONA DIVISION : CA	35.701	3.225	Nov 2022	3.209	Nov 2023	3.488	Nov 2024	-		3.488	Continuing	Continuing	Continuing
Quality, Safety & Mission Assurance - In-Plant Quality Support (MARS)	C/CPFF	Various Multi : AL, AK, AZ, CA, CO, FL, HI, NJ, MA, MO, MD, UT	18.138	0.000		0.000		0.000		-		0.000	0.000	18.138	0.000
Quality, Safety & Mission Assurance - Independent Readiness Review Team	C/CPFF	AI SOLUTIONS, INC. : AL	5.994	0.000		0.000		0.000		-		0.000	0.000	5.994	0.000
Quality, Safety & Mission Assurance - MDS Quality Support	C/CPFF	AI SOLUTIONS, INC. : AL	12.137	0.000		0.000		0.000		-		0.000	0.000	12.137	0.000
Quality, Safety & Mission Assurance - MDS Safety	C/CPFF	APT, INC : AL	13.116	0.000		0.000		0.000		-		0.000	0.000	13.116	0.000
Quality, Safety & Mission Assurance - MDS Safety Officers	MIPR	CCDC : AL	4.706	0.000		0.000		0.000		-		0.000	0.000	4.706	0.000
Quality, Safety & Mission Assurance - Management and Operations Support	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	4.508	0.326	Nov 2022	0.523	Nov 2023	0.505	Nov 2024	-		0.505	Continuing	Continuing	Continuing
Quality, Safety & Mission Assurance - Mission Assurance Subject Matter Experts	C/CPFF	APT, INC. : AL	9.083	0.000		0.000		0.000		-		0.000	0.000	9.083	0.000
Quality, Safety & Mission Assurance - Operations Support	MIPR	Various Multi : AL, CA	5.859	0.000		0.000		0.000		-		0.000	0.000	5.859	0.000

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD32 / Quality, Safety, and Mission Assurance
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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			
Quality, Safety & Mission Assurance - Parts, Materials and Processes (PMP) Program	MIPR	Various Multi : AL, CA, DC, IN	24.168	0.468	Nov 2022	0.619	Nov 2023	0.565	Nov 2024	-		0.565	Continuing	Continuing	Continuing
Quality, Safety & Mission Assurance - Parts, Materials and Processes - PMP - Program	C/CPFF	AI SOLUTIONS, INC. : AL	10.083	0.000		0.000		0.000		-		0.000	0.000	10.083	0.000
Quality, Safety & Mission Assurance - Parts, Materials, and Processes (PMP) Engineering	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) CRANE DIVISION : IN	1.312	1.274	Nov 2022	1.483	Nov 2023	1.362	Nov 2024	-		1.362	Continuing	Continuing	Continuing
Quality, Safety & Mission Assurance - Pedigree & Design Certification - FFRDC	MIPR	DOD - USSF - SPACE AND MISSILE SYSTEMS CENTER (SMC) : CA	36.684	2.545	Nov 2022	3.039	Nov 2023	2.884	Nov 2024	-		2.884	Continuing	Continuing	Continuing
Quality, Safety & Mission Assurance - Quality and Mission Assurance Support	C/CPFF	AI SOLUTIONS, INC. : AL	26.017	8.891	Nov 2022	7.347	Nov 2023	6.868	Nov 2024	-		6.868	Continuing	Continuing	Continuing
Quality, Safety & Mission Assurance - Safety Support	C/CPFF	ARES CORPORATION : AL	4.941	0.000		0.781	Jan 2024	0.979	Nov 2024	-		0.979	Continuing	Continuing	Continuing
Subtotal			212.447	16.729		17.001		16.651		-		16.651	Continuing	Continuing	N/A

Remarks
N/A

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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 0603890C / BMD Enabling Programs					Project (Number/Name) MD32 / Quality, Safety, and Mission Assurance				

Management Services (\$ 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	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
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
Quality, Safety & Mission Assurance - Quality, Safety & Mission Assurance HQ & Core Management (MDA CIV)	Allot	MDA QS : AL, VA, MD, CA, AZ, HI, AK, MA, NJ, FL, AR, UT	140.157	15.885	Oct 2022	13.583	Oct 2023	15.128	Oct 2024	-		15.128	Continuing	Continuing	Continuing
Quality, Safety & Mission Assurance - Quality, Safety & Mission Assurance Operations Support (NMR/Jacobs/Yorktown/Travel/PCS)	Various	Various : Various	34.494	0.589	Oct 2022	0.799	Oct 2023	0.978	Oct 2024	-		0.978	Continuing	Continuing	Continuing
Subtotal			174.651	16.474		14.382		16.106		-		16.106	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		387.098	33.203	31.383	32.757	-	32.757	Continuing	Continuing

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

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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 0603890C / BMD Enabling Programs						Project (Number/Name) MD32 / Quality, Safety, and Mission Assurance							
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	
MD32 Quality, Safety, and Mission Assurance						◇◇◇◇		◇◇◇◇		◇◇◇◇		◇◇◇◇		◇◇◇◇		◇◇◇◇		◇◇◇◇	

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD32 / Quality, Safety, and Mission Assurance

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD32 Quality, Safety, and Mission Assurance	1	2023	4	2029

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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 0603890C / BMD Enabling Programs				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>	258.223	21.175	21.247	23.246	-	23.246	26.365	26.042	29.670	31.633	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency PEs 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	21.175	21.247	23.246
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			

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD40 / Program-Wide Support

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
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.			
<i>FY 2024 Plans:</i> - SEE ABOVE.			
<i>FY 2025 Plans:</i> - SEE ABOVE.			
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> N/A			
Accomplishments/Planned Programs Subtotals	21.175	21.247	23.246

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 support.

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD40 / Program-Wide Support
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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	Various Multi: : AL, CO, CA, VA	32.854	0.079	Nov 2022	0.000		0.000		-		0.000	0.000	32.933	0.000
Program Wide Support - Agency Facilities and Maintenance SRM	MIPR	Army Corps of Engineers : Multi: AL, CA, AL, AK	1.785	0.000		0.000		0.000		-		0.000	0.000	1.785	0.000
Program Wide Support - Agency Operations Management	Various	Various : Multi: AL, CA, CO, VA	6.512	0.000		0.000		0.000		-		0.000	0.000	6.512	0.000
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Allot	MDA : AK, AL, CA, CO, VA	82.367	18.533	Oct 2022	21.247	Oct 2023	23.246	Oct 2024	-		23.246	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Other Agency Services	MIPR	Various : Multi: AK, AL, CO, CA, HI, MD, VA, NJ, NY, OCONUS	8.519	0.000		0.000		0.000		-		0.000	0.000	8.519	0.000
Program Wide Support - Agency Operations and Support Services	C/Various	STRATEGIC ALLIANCE BUSINESS GROUP LLC : Multi: AK, AL, CO, CA, HI, MD, VA	120.566	2.563	Nov 2022	0.000		0.000		-		0.000	0.000	123.129	0.000
Program Wide Support - Agency Operations, Sustainment and GPC	C/CPFF	Various Multi: : AK, AL, CA, HI, NY, VA	0.018	0.000		0.000		0.000		-		0.000	0.000	0.018	0.000
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	5.602	0.000		0.000		0.000		-		0.000	0.000	5.602	0.000
Subtotal			258.223	21.175		21.247		23.246		-		23.246	Continuing	Continuing	N/A

Remarks
N/A

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD40 / Program-Wide Support
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	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	258.223	21.175	21.247	23.246	-	23.246	Continuing	Continuing	N/A

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

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD40 / Program-Wide Support
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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: 12.5%;">FY 2023</th> <th style="width: 12.5%;">FY 2024</th> <th style="width: 12.5%;">FY 2025</th> <th style="width: 12.5%;">FY 2026</th> <th style="width: 12.5%;">FY 2027</th> <th style="width: 12.5%;">FY 2028</th> <th style="width: 12.5%;">FY 2029</th> </tr> </thead> <tbody> <tr> <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	◇	◇	◇	◇	◇	◇	◇
FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029												
◇	◇	◇	◇	◇	◇	◇												

MD40 Program-Wide Support

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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 0603890C / BMD Enabling Programs	Project (Number/Name) MD40 / Program-Wide Support
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Schedule Details

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