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**Department of Defense
Fiscal Year (FY) 2025 Budget Estimates**

March 2024



Missile Defense Agency

Defense-Wide Justification Book Volume 2a of 5

Research, Development, Test & Evaluation, Defense-Wide

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Missile Defense Agency • Budget Estimates FY 2025 • RDT&E Program

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Introduction & Explanation of Contents

The Department of Defense Fiscal Year (FY) 2025 Budget Estimate Submission RDT&E (Includes Procurement, O&M, and MILCON), Defense-wide Volume 2, Missile Defense Agency (MDA) justification materials consists of two books titled Volume 2a and 2b. Justification documents are provided in the books as listed below.

Volume 2a

- MDA FY 2025 Budget Estimate Overview
- MDA Appropriation Summary
- Acronyms
- RDT&E Exhibits in BA-03, BA-04, and BA-06

Volume 2b

- MDA Operation and Maintenance Exhibit
- MDA MILCON Exhibits
- MDA Procurement Exhibits

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Department of Defense
FY 2025 President's Budget
Exhibit R-1 FY 2025 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Mar 2024

<u>Appropriation</u>	FY 2023	FY 2024 PB	FY 2025
	Actuals	Request with CR Adjustments*	Request
Research, Development, Test and Evaluation, Defense-Wide	8,292,828	8,720,984	8,173,419
Total Research, Development, Test, & Evaluation	8,292,828	8,720,984	8,173,419

*A full-year FY 2024 appropriation for this account was not enacted at the time the budget was prepared; therefore, the budget assumes this account is operating under the Further Additional Continuing Appropriations and Other Extensions Act, 2024 (Public Law 118-35). The amounts included for FY 2024 reflect the annualized level provided by the continuing resolution.

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Department of Defense
FY 2025 President's Budget
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(Dollars in Thousands)

Mar 2024

	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
<u>Summary Recap of Budget Activities</u>			
Advanced Technology Development	124,289	39,286	37,274
Advanced Component Development & Prototypes	8,030,963	8,653,335	8,107,112
Management Support	137,576	28,363	29,033
Total Research, Development, Test, & Evaluation	8,292,828	8,720,984	8,173,419
<u>Summary Recap of FYDP Programs</u>			
General Purpose Forces	2,442	2,484	1,771
Intelligence and Communications	1,145	2,760	1,831
Research and Development	8,137,194	8,577,894	8,021,223
Administration and Associated Activities	26,352	28,363	29,033
Space	125,695	109,483	119,561
Total Research, Development, Test, & Evaluation	8,292,828	8,720,984	8,173,419

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Defense-Wide
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Total Obligational Authority
(Dollars in Thousands)

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Appropriation: 0400D Research, Development, Test and Evaluation, Defense-Wide

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
37	0603176C	Advanced Concepts and Performance Assessment	03	U	39,293	17,825	17,920
38	0603180C	Advanced Research	03	U	84,996	21,461	19,354
	Advanced Technology Development				124,289	39,286	37,274
78	0603881C	Ballistic Missile Defense Terminal Defense Segment	04	U	194,264	220,311	367,279
79	0603882C	Ballistic Missile Defense Midcourse Defense Segment	04	U	670,808	903,633	768,227
81	0603884C	Ballistic Missile Defense Sensors	04	U	228,807	239,159	209,002
82	0603890C	BMD Enabling Programs	04	U	589,588	597,720	609,406
83	0603891C	Special Programs - MDA	04	U	317,568	552,888	495,570
84	0603892C	AEGIS BMD	04	U	586,329	693,727	649,255
	Ballistic Missile Defense Command and Control, Battle						
85	0603896C	Management and Communications (C2BMC)	04	U	587,689	554,201	569,662
86	0603898C	Ballistic Missile Defense Joint Warfighter Support	04	U	50,942	48,248	47,723
87	0603904C	Missile Defense Integration & Operations Center (MDIOC)	04	U	47,629	50,549	54,525
88	0603906C	Regarding Trench	04	U	12,146	12,564	27,900
89	0603907C	Sea Based X-Band Radar (SBX)	04	U	163,297	177,868	197,339
90	0603913C	Israeli Cooperative Programs	04	U	300,000	300,000	300,000
91	0603914C	Ballistic Missile Defense Test	04	U	376,650	360,455	367,491
92	0603915C	Ballistic Missile Defense Targets	04	U	572,380	570,258	604,708
96	0604102C	Guam Defense Development	04	U	383,252	397,578	415,794

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Defense-Wide
FY 2025 President's Budget
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Mar 2024

Appropriation: 0400D Research, Development, Test and Evaluation, Defense-Wide

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
97	0604115C	Technology Maturation Initiatives	04	U	16,000		
100	0604181C	Hypersonic Defense	04	U	513,267	208,997	182,283
115	0604873C	Long Range Discrimination Radar (LRDR)	04	U	65,991	103,517	100,882
116	0604874C	Improved Homeland Defense Interceptors	04	U	1,795,728	2,130,838	1,697,121
117	0604876C	Ballistic Missile Defense Terminal Defense Segment Test	04	U	67,789	47,577	25,673
118	0604878C	Aegis BMD Test	04	U	165,619	193,484	135,019
119	0604879C	Ballistic Missile Defense Sensor Test	04	U	88,326	111,049	96,864
120	0604880C	Land-Based SM-3 (LBSM3)	04	U	23,277	22,163	22,220
121	0604887C	Ballistic Missile Defense Midcourse Segment Test	04	U	84,335	41,824	40,006
123	0202057C	Safety Program Management	04	U	2,442	2,484	1,771
128	0305103C	Cyber Security Initiative	04	U	1,145	2,760	1,831
133	1206895C	Ballistic Missile Defense System Space Programs	04	U	125,695	109,483	119,561
	Advanced Component Development & Prototypes				8,030,963	8,653,335	8,107,112
173	0605502C	Small Business Innovation Research - MDA	06	U	111,224		
209	0901598C	Management HQ - MDA	06	U	26,352	28,363	29,033
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**Missile Defense Agency
Fiscal Year 2025
Budget Estimates**

OVERVIEW



Mission

The Missile Defense Agency (MDA) mission is to develop and deploy a layered integrated Missile Defense System to defend the United States, its deployed forces, allies, and friends from missile attacks in all phases of flight. The MDA designs, develops, and delivers capabilities through the Services to meet Combatant Commands (CCMDS) joint requirements, and sustains advanced missile defense systems as part of the fully integrated and layered Missile Defense System.

MDA's budget request for Fiscal Year (FY) 2025 is \$10.4 billion. The FY 2025 budget will continue the development, rigorous testing and fielding of reliable, increasingly capable, advanced missile defenses. The Agency's priorities for missile defense are:

- 1) Operations and Readiness.
- 2) Production, Fielding, and Deployment.
- 3) Technology, Development, and Test.

MDA will continue to collaborate closely with CCMDS and the Services to support current and future needs for missile defense capabilities. MDA and these key stakeholders are leveraging the existing all-domain Missile Defense System to develop integrated architectures and capabilities to counter the evolving missile threat from ballistic, hypersonic and cruise missiles. This budget request maintains operational missile defense capacity and capabilities for existing homeland and regional defense forces; increases interceptor inventory and maturation of defensive technologies; and improves existing sensors and the Command and Control, Battle Management and Communications (C2BMC) system.

Consistent with the National Defense Strategy, the Missile Defense Review, and the Defense Planning Guidance, MDA's budget reflects a careful and comprehensive balancing of programs and resources to provide missile defense capabilities, as a key deterrence-by-denial component of integrated deterrence. MDA's budget includes funding to improve homeland missile defense against Intercontinental Ballistic Missile (ICBM) threats from North Korea and potentially Iran. It also invests in regional Integrated Air and

Missile Defense (IAMD), principally through increased investment in the defense of Guam and funding for regional ballistic and hypersonic defense activities.

In the regional context, the United States (U.S.) missile defense policy promotes the development and deployment of missile defense capabilities to counter the full range of regional missile threats (e.g., advanced ballistic, hypersonic, and cruise missiles) from any nation of origin, to include advanced regional missile threats from the People's Republic of China and Russia. In response to increasing threats in the Indo-Pacific region, MDA is supporting efforts to improve the Warfighter's capability to defend Guam against regional ballistic, hypersonic, and cruise missiles. FY 2025 funding will support activities to continue development and deployment of an effective defensive architecture solution.

MDA continues to make significant progress in cybersecurity by incorporating threat-informed requirements for cyber resiliency and survivability into system specifications and then implementing rigorous evaluation-based testing and assessments early in the development to find and fix problems before releasing systems for integrated testing. MDA is building cybersecurity into next-generation software processes by leveraging proven secure software development, security, and operations, and establishing continuous integration. MDA established a Defensive Cyberspace Operations organization in 2022, which uses certified cyber teams to evaluate capabilities to enhance our cybersecurity posture.

Missile Threat

Missile threats continue to increase, growing more numerous and complex. Adversary missile systems are becoming more mobile, survivable, reliable, and accurate while also achieving longer ranges. Hypersonic glide vehicles delivered by missile boosters are an emerging threat that pose new challenges to missile defense systems. Adversary missile pre-launch survivability is likely to increase as potential adversaries strengthen their denial and deception measures and increasingly base missiles on mobile platforms. Increasing technical and operational countermeasures continue to challenge defensive systems in missiles. New missile systems feature multiple independently targetable reentry vehicles and maneuverable reentry vehicles, along with decoys and other countermeasures. Ballistic

and maneuvering missile threats continue to increase with the advancement and proliferation of missile technology. Our adversaries are not only developing more complex and advanced threats to counter Missile Defense System assets, but are also increasing the amount of missiles in inventory in an effort to overwhelm the Missile Defense System.

Missiles continue to be a primary means for adversaries to project power, coerce, and inhibit or disrupt U.S. military operations in a crisis or conflict. Maneuvering missiles, such as hypersonic glide vehicles, provide a challenge to existing defensive systems because they can travel on unpredictable flight paths at low altitudes making them difficult to track using standard terrestrial radar systems. Consequently, the continued investment in development of long range and resilient sensor technologies and capabilities, to include those that could support a space sensor network is essential for tracking, discriminating and engaging advanced missile threats. North Korea is developing long-range ballistic missile systems that can reach the U.S. and its allies in the Indo-Pacific region. It has also tested shorter range missiles that maneuver within the atmosphere. Iran continues to develop more sophisticated missiles with improved accuracy, range, and lethality, and it is fielding an array of increasingly accurate short- and medium-range ballistic missile systems capable of threatening deployed U.S. forces, allies, and partners in the Middle East. It has combined ballistic or cruise missiles and unmanned aerial vehicles in complex attacks.

Major Program Element Highlights

The following discussion summarizes the highlights of major Program Elements (PE) in order of the Missile Defense System battle sequence: Detect, Control, and Engage.

An engagement sequence begins when the missile defense system sensors (radars and satellites) detect the launch of threat missiles and track/discriminate them in flight, maintaining birth-to-death custody of the threats. C2BMC processes these tracks to generate the system track representation of the threat attack. C2BMC subsequently tasks the sensors to collect source track data for fire control quality system tracks to support the appropriate weapon systems in engagement of the threats. The weapon systems develop fire

control solutions enabling their interceptors to engage and negate the threats. MDA's C2BMC is the all-domain backbone that enables Missile Defense System engagements.

Note: The following discussion does not fully describe all funding or activities included within each PE.

I. Detect and Control

MDA delivers, maintains, and upgrades C2BMC capability across 19 time zones with hardened networks supporting U.S. Northern Command (USNORTHCOM), U.S. Indo-Pacific Command (USINDOPACOM), U.S. European Command (USEUCOM), U.S. Central Command (USCENTCOM), U.S. Space Command (USSPACECOM) and Missile Defense Radars for missile defense and space domain awareness mission support. C2BMC provides a common operating missile defense picture for decision makers and the CCMDs and is capable of generating and distributing fire control quality data to missile defense assets. The Warfighter also uses this system to understand what is happening in real time in current conflict zones. The budget request includes:

- **C2BMC (PE 0603896C).** MDA is requesting \$569.7 million in FY 2025 for C2BMC. C2BMC provides the capability for persistent acquisition, centralized multi-sensor tracking, cueing, discrimination, and distribution of fire-control quality system track data to the Aegis Weapon System, Ground Based Midcourse Defense (GMD), Terminal High Altitude Area Defense (THAAD), Patriot, Space Command and Control (C2) and coalition partners to support homeland and regional defense. MDA's C2BMC capabilities support Warfighter needs across the globe by providing the Combatant Commander with sensor management, the Ballistic Missile Defense (BMD) planner, situational awareness tools, and battle management capability. These tools support global missile defense situational awareness, coalition operations, weapons release authority for homeland defense, and control of and tasking to a variety of Missile Defense System radars. C2BMC operators and maintainers deploy to some of the world's most threatening regions and continue to provide around-the-clock support to local commanders.
 - In FY 2025, MDA will sustain the fielded C2BMC capability (Spiral 8.2-5) in USNORTHCOM, USINDOPACOM, USEUCOM, USCENTCOM, USSTRATCOM, and USSPACECOM Areas of Responsibilities, which includes the following capabilities: integration and C2 of the Long Range Discrimination Radar (LRDR) including support tasking for

GMD homeland defense engagements (will provide a significant expansion of homeland against North Korea and Iran); initial hypersonic threat tracking and display for CCMDs situational awareness; receive and display electronic attack indicators from LRDR and AN/TPY-2 (forward-based mode) radars for C2BMC situational awareness of the radars' operational environment; integration of new sensors into the Ballistic Missile Defense System Overhead Persistent Infrared Architecture (BOA 7.1); extend existing AN/TPY-2 (Forward-Based Mode) Space Domain Awareness (SDA) coverage with the addition of LRDR and Aegis SPY-1 SDA functionality; provide initial interface to the IAMD Battle Command System (IBCS) for enhanced coordination with Patriot.

- MDA continues development and testing of Spiral 8.2-7 which provides the following capabilities: full system track and system level discrimination to support GMD homeland engagements; fusion and residual bias processing of highly correlated multi-radar track clusters for enhanced system track accuracy and GMD target object map correlation; expanded hypersonic threat tracking that includes additional radars and track reporting to Link-16; BOA 8.1 integration which provides increased raid handling; SDA enhancements with LRDR and Aegis SPY-1. In the timeframe leading up to Spiral 8.2-7 fielding (FY24-FY26), MDA is initiating efforts to mitigate hardware and software obsolescence and performance degradation associated with C2BMC operational strings, developmental labs, and test facilities. Current C2BMC hardware/software is approaching End of Service/End of Life (EOS/EOL).
- MDA continues to improve the C2BMC capability to address advancing threats worldwide by investing in the development, integration, and testing of advanced algorithms to improve track and discrimination capabilities and enhance the use of space-based sensor data, through BOA.
- MDA will continue to increase the cybersecurity posture by assessing the risk of C2BMC architecture against possible attack. C2BMC capabilities will be involved in multi-agency cyber-focused tests and assessments planned in FY 2025 to identify and correct cyber vulnerabilities.

– Finally, as part of the C2BMC budget request, MDA is requesting \$53.5 million in FY 2025 for the Defense of Guam.

Funding provides new command center build-out, and mission node and network communications installation.

- **Sea-Based X-Band (SBX) Radar (PE 0603907C).** MDA is requesting \$197.3 million in FY 2025 for the SBX. SBX is an advanced sea-mobile radar that provides precision midcourse tracking and discrimination capabilities. The SBX participates in flight tests to demonstrate discrimination and debris mitigation improvements, as well as operations for homeland defense. The budget request includes funds to continue extended deployments to conduct operations for defense of the homeland. MDA plans on 305 days at sea before docking for an in-port maintenance period in FY 2025. The budget request also continues fabrication of a replacement radome for the SBX. The installation of the new radome will be initiated in FY 2025 and completed in FY 2026.
- **Long Range Discrimination Radar (LRDR) (PE 0604873C).** MDA is requesting \$100.9 million in FY 2025 for the LRDR, which will provide persistent long-range midcourse discrimination, precision tracking and hit assessment to support the GMD capability against long-range missile threats from the Pacific theater. LRDR's improved discrimination capability in the Missile Defense System architecture increases the defensive capacity of the homeland defense interceptor inventory by enabling conservation of Ground Based Interceptors. LRDR includes threat discrimination improvements to enhance Missile Defense System effectiveness against the evolving threat. LRDR also supports other mission areas, including SDA and Space Object Identification. The LRDR Operational Capability Baseline is planned for 4th Quarter FY 2024, leading to the completion of the transition and transfer process of LRDR to the U.S. Space Force in FY 2025. MDA's request includes funding for software Independent Verification and Validation, Modeling and Simulation (M&S) efforts, and development of software for tracking and discrimination improvements and refined space intelligence data.
- **Radar Program Maintenance and Sustainment** supports both homeland and regional defense missions. MDA is requesting \$254.7 million in FY 2025 to sustain AN/TPY-2 radars, provide related support to the U.S. Space Force's Cobra Dane, LRDR and Upgraded Early Warning Radars (UEWR). FY 2025 is the first year of maintenance and sustainment of LRDR as the

system is transitioning to the US Space Force. The Services and CCMDs, with logistical support from MDA, operate AN/TPY-2 (Forward Based Mode) radars in Japan (two radars), Israel, Turkey, and USCENTCOM. MDA continues to support the AN/TPY-2 radar (Terminal Mode) as part of eight THAAD batteries both home-based and in the USINDOPACOM area of responsibility.

- **Radar Procurement.** MDA is requesting \$57.1 million to procure initial Digital Receiver/Exciter kits to upgrade from the current analog Receiver/Exciter technology to a modern digital capability, increasing reliability and AN/TPY-2 next generation servers. MDA will also procure Cooling Equipment Unit Retrofit Kits as part of the AN/TPY-2 Modernization effort. Additionally, MDA will continue to procure spares availability for the AN/TPY-2 radar fleet. The congressionally authorized AN/TPY-2 provided by the FY 2021 enactment (#13 AN/TPY-2 radar) is on schedule for delivery by 3QFY25.
- **Sensors (*PE 0603884C*).** MDA is requesting \$209 million in FY 2025 to provide software updates for the AN/TPY-2, COBRA DANE, SBX, and UEWR radars to counter evolving threats, develop M&S, and to develop future radar capabilities through system engineering, software development, and testing. MDA's investment in a robust and highly capable sensor architecture will support Missile Defense System weapons by providing highly accurate midcourse tracking, discrimination and battle damage assessment for homeland missile defense. This request includes funding for the development of advanced discrimination algorithms for the AN/TPY-2 and SBX radars to improve the Missile Defense System ability to identify lethal and non-lethal objects for advancing threats.
- **Sensors Test (*PE 0604879C*).** MDA is requesting \$96.9 million in FY 2025 for Sensors testing. This includes planning, analysis and execution of Missile Defense System flight test events, including pre- and post-test efforts such as Digital and Hardware-in-the-Loop (HWIL) System Pre-Mission Tests and System Post-Flight Reconstruction. Sensor tests also provide planning, analysis and execution in accordance with the ground test Concept of Operations for Missile Defense System-level ground tests identified in the Integrated Master Test Plan (IMTP), as well as support to HWIL infrastructure. As part of the overall Sensors Test budget request, MDA is requesting \$4.9 million in FY 2025 for the Defense of Guam.

- **Space Program (PE 1206895C).** MDA is requesting \$119.6 million in FY 2025 for Missile Defense Space Programs. One program this request funds is the development of the Hypersonic and Ballistic Tracking Space Sensor (HBTSS) prototype demonstration. The HBTSS prototype demonstration was initiated in 2018 to address the requirement to detect and track hypersonic threats and ballistic missiles. In FY 2025, the HBTSS prototype demonstration will execute on-orbit testing utilizing the MDA IMTP, non-IMTP partner flight test events, and Targets of Opportunity to test, characterize and validate the HBTSS performance, as well as develop and implement ground system and space vehicle software updates. MDA is collaborating with the U.S. Space Force to deploy the HBTSS prototype demonstration as an element within SDA's Proliferated Warfighter Space Architecture (PWSA), providing fire-control-quality tracking data for hand off through linked missile defense weapons and enabling the engagement of hypersonic, ballistic, and other advanced threats. This request also funds the Spacebased Kill Assessment (SKA) project, which uses a network of fast-rate infrared sensors hosted on commercial satellites to deliver an interceptor hit and kill assessment capability for missile defense. SKA sensors, on orbit today, have participated successfully in a variety of MDA flight tests and engineering activities. FY 2025 will continue SKA on-orbit operations by experimenting and participating in Missile Defense System ground and flight tests and providing situational awareness hit assessment to USNORTHCOM during declared periods of heightened activity. Space Applications for missile defense will provide strategic planning, program integration, contracting, acquisition, engineering, financial management, internal reviews and audits, and program assessments for development and acquisition of missile defense space applications.

II. Engage

MDA remains committed to developing, delivering, sustaining, and improving the nation's missile defenses. The FY 2025 budget request continues to resource and improve U.S. homeland missile defenses designed to counter ballistic missile threats from North Korea and potentially Iran. In addition, the FY 2025 budget request continues to fund and build integrated missile defenses that are interoperable with systems deployed by international partners to protect our deployed forces, allies and international partners against regional ballistic, cruise, and hypersonic missile threats.

The **GMD system** currently defends the U.S. against long-range ballistic missile threats from North Korea and potentially Iran. Initially fielded in the early 2000s, the GMD system is undergoing a service life extension and will be improved with the addition of the Next Generation Interceptor starting no later than 2028. The budget request includes:

- **GMD (PE 0603882C).** MDA is requesting \$768.2 million in FY 2025 for GMD. The GMD element of the Missile Defense System provides USNORTHCOM with a continuously available (24 hours a day, 7 days a week, 365 days a year) capability to defend the homeland against limited ICBM attacks during the midcourse phase of flight. The GMD capability consists of the Ground Based Interceptor, GMD Fire Control system (GFC), GMD Communication Network (GCN), In-Flight Interceptor Communications System Data Terminals (IDTs) and ground Launch Support Systems (LSS). MDA continues to upgrade and replace ground system infrastructure and fire control/kill vehicle software to improve the reliability, capability, and cybersecurity resiliency of the GMD weapon system. MDA will complete testing and fielding of the Ground System 8B software build that provides a selectable 2/3 stage capability for Ground Based Interceptors, as successfully demonstrated with an intercept in the FTG-12 flight test conducted in December 2023. The Ground System 8B software build improves discrimination, integrates LRDR with GFC, improves the system cybersecurity posture, and supports GCN and IDT modernization. In addition to Ground System 8B software, MDA is developing GMD Weapon Systems (GWS) 10A and 10B. GWS 10A integrates into the weapon system the Missile Defense System track to improve system utilization of sensor data. GWS 10B will include the ability to plan and coordinate engagements with the Next Generation Interceptor. Software re-architecture will support accelerated processing and expanded capacity and Phased Array (PA) IDTs to support increased two-way data transmissions with interceptors while in flight. GWS 10B will also improve cyber resiliency by creating a single common platform for cyber detection and response capabilities, provide improvements addressing the emerging threats, and discrimination improvements. MDA will continue integration of a new LSS into the Fort Greely, Alaska Missile Fields and GMD Ground Systems with modernized Silo Interface Vault equipment in the existing silos to increase silo compatibility and reliability. The budget request continues funding for PA IDT Software Development, PA IDT Antenna Development, and a

Test PA IDT Asset. MDA will continue the Service Life Extension Program for the existing Ground Based Interceptor fleet to improve fleet performance and reliability until the Next Generation Interceptor begins entering the fleet.

- **Improved Homeland Defense Interceptors (PE 0604874C).** MDA is requesting \$1.7 billion in FY 2025 for the Next Generation Interceptor. The Next Generation Interceptor development will provide a more capable, robust, All-Up-Round solution to meet the emerging threat. The Next Generation Interceptor features a multiple kill vehicle payload, improves system survivability, and provides increased performance against projected threats from North Korea and potentially Iran. The program continues to produce substantial technical maturation as demonstrated by early achievement of the Preliminary Design Reviews for two viable designs, reducing the overall risk to fielding this critical capability and to negate the expanding threat within USNORTHCOM's operational timeline. The budget request supports continuation of the single selected NGI design to continue design, development, prototyping, integration and relevant environmental testing to mature the booster, payload, sensor(s), and design-specific critical technologies and technology elements to reduce technical risk.
- **Phased Array In-Flight Communication System Data Terminal (IDT) Procurement.** MDA is requesting \$20.8 million in FY 2025 for the Phased Array IDT. MDA will begin procuring long lead items for PA IDT retrofits in FY 2025 to enable the Warfighter to fully utilize Next Generation Interceptor capabilities to improve interceptor inventory management.
- **Ground-Based Midcourse Defense Test (PE 0604887C).** MDA is requesting \$40 million in FY 2025 for the GMD test program, which supports the IMTP. The next intercept flight tests will be executed for the Next Generation Interceptor in the 2027 timeframe. Until then, continued ground testing and cyber testing are essential to support this critical Missile Defense System capability and integration of the Missile Defense System track into the weapon system.
- **GMD Maintenance and Sustainment.** MDA is requesting \$184.3 million in FY 2025 for the Operation and Maintenance (O&M) of the GMD weapon system. In addition to operation, maintenance and sustainment of the GMD weapon system and operational and support facilities at Fort Greely, Alaska; Vandenberg Space Force Base (SFB), California; Fort Drum, New York; Schriever SFB, Colorado; and Eareckson Air Station, Alaska, this request includes Warfighter training, wargames, and

exercises to maintain readiness. Finally, this request includes funding to repair and maintain the aging administrative, storage and supply facilities at Fort Greely, Alaska and Vandenberg SFB, California.

Aegis Weapon System and Standard Missile. The Aegis missile defense program capitalizes on and evolves the existing U.S. Navy Aegis Weapon System and Standard Missile (SM) variants. Aegis provides a forward-deployable, mobile capability to detect and track ballistic missiles of all ranges, and has the ability to destroy short-range ballistic missiles (SRBMs) and medium-range ballistic missiles (MRBMs) in both the midcourse and terminal phases of flight and intermediate-range ballistic missiles in the midcourse phase of flight. The FY 2025 budget request supports continued advancement of the Aegis Weapon System to counter growing and more complex threats, including improvements in system and missile reliability as well as increases in Aegis engagement capacity and lethality. MDA continues to support the U.S. voluntary national contribution to the North Atlantic Treaty Organization ballistic missile defense. Aegis Ashore (AA) in Romania is operational, and construction on the AA Poland site was completed with the Chief of Naval Operations acceptance by the US Navy on December 15, 2023. This completes the MDA contribution to the European Phased Adaptive Approach architecture. No additional funding is requested in FY 2025. Both sites are designed to launch the (SM)-3 Block IB and Block IIA missiles.

- **Aegis (PE 0603892C).** MDA requests \$649.3 million in FY 2025 for Aegis Missile Defense. MDA continues to provide additional software capability development to upgrade IAMD performance in Baseline 9.2 (BMD 5.1) and Baseline 10 (BMD 6.0). BMD 6.0 will continue development and integration of missile defense capability with the Air and Missile Defense Radar, also known as the AN/SPY-6, for enhanced engagement capability and increased raid capacity. Additionally, MDA continues upgrading the SM-3 Block IB software to improve midcourse guidance that will back fit into existing inventory during scheduled SM-3 IB recertification periods. As part of the overall Aegis budget request, MDA is requesting \$165.5 million in FY 2025 for the Defense of Guam. This funds the development of the Aegis Guam System (AGS) software configuration for land based Defense of Guam capabilities integrated with dispersed AN/TPY-6 Radar and MK41 Vertical Launching Systems.

- **Land Based SM-3 (PE 0604880C).** MDA is requesting \$22.2 million in FY 2025 to operate and maintain the Aegis Ashore Missile Defense Test Complex (AAMDTC) located at the Pacific Missile Range Facility in Kauai, Hawaii. AAMDTC is an MDA test asset, which aids Aegis Weapon System development and capability improvements, and acts as a pathfinder for Host Nation system maintenance upgrades. This funding also supports development and implementation of altitude electromagnetic pulse hardening solutions for host nations. Land Based SM-3 provides an AA exo-atmospheric defense against short to intermediate-range ballistic missile threats in the later stages of flight
- **Aegis Testing (PE 0604878C).** MDA is requesting \$135 million in FY 2025 for the Aegis test program, which supports the IMTP. The Aegis Flight Test Program supports comprehensive testing of Aegis components and demonstrates their interoperability with the Missile Defense System. Using accredited M&S, the ground test program provides the objective evidence required to transition the capability to the Operational Capability Baseline. As part of the overall Aegis Test budget request, MDA is requesting \$6.1 million in FY 2025 for the Defense of Guam.
- **Aegis Procurement.** MDA requests a total of \$523.4 million in FY 2025 for Aegis procurement. This includes \$406.4 million for procuring 12 Aegis SM-3 Block IIA missiles. MDA also requests \$85 million for the SM-3 Block IB missile, which includes funding for critical SM-3 Block IB spares and rotatable spare parts for the throttleable divert and attitude control system (TDACS). After FY 2024, the Department will discontinue the SM-3 BLK IB procurements in favor of SM-3 BLK IIA, and continue to evolve the BLK IIA missile within the Aegis Weapons System. The procurement budget also requests \$32 million for Aegis Weapon Systems consisting of Aegis shipset equipment, software, and installation materials. Appropriately configured Aegis ships and the AA sites in Romania and Poland can launch both missile variants.
- **Aegis Maintenance and Sustainment.** MDA is requesting \$75 million in FY 2025 in O&M funding. The Aegis program will perform missile recertification, repair efforts, and ordnance assessment/surveillance. This funding also supports sustainment of BMD computer programs, ship equipment, and AA, as well as Fleet integration support.

- **Defense of Guam (PE 0604102C).** MDA requests \$415.8 million in FY 2025 to continue the development of an integrated missile defense system for Guam defense against a range of missile threats. This Program supports the Pacific Deterrence Initiative. The budget request includes critical requirements to support the architecture. These efforts include the development of the AN/TPY-6 radar to provide persistent long-range midcourse discrimination, precision tracking and hit assessment to support the Defense of Guam capability against long-range missile threats in the Pacific theater. AN/TPY-6 provides a 360 degree integrated sensor coverage, enables remote operations, and supports In-Flight Interceptor via the AGS. This request also includes support activities to the AGS development which will interface with dispersed AN/TPY-6 and MK41 Vertical Launching Systems. The program continues AGS architecture development and systems engineering activities necessary to provide an integrated air and missile defense system on Guam against ballistic and air-breathing missile threats.
- **Defense of Guam Military Construction.** MDA requests a total of \$465.5 million for military construction in FY 2025 to support deployment of the Defense of Guam Enhanced IAMD. The funding will provide a Guam Defense System (GDS) Command Center (CC) Complex supporting missile defense command and control components, a Transportable Array Unit (TAU) Complex, and a launcher field complex on multiple sites on Guam.
- **Defense of Guam Procurement.** MDA requests \$22.6 million in FY 2025 to provide AGS and vertical launch equipment in order to support the final delivery schedule. Note: MDA is requesting a total of \$1.187 billion for the Defense of Guam in FY 2025 (excludes program-wide support funding), includes \$698.8 million in Research, Development, Test, and Evaluation (multiple PE's), \$22.6 million in Procurement and \$465.5 million in Military Construction.

THAAD Weapon System. THAAD is a globally-transportable, ground-based missile defense system that is highly effective against short-, medium-, and limited intermediate-range ballistic missile threats inside and outside the atmosphere in the terminal phase of flight. THAAD provides unique, cost-effective, and rapidly deployable capability to the CCMDs. MDA currently supports forward-deployment of two batteries stationed in the USINDOPACOM area of responsibility. Specific to THAAD, MDA's request includes:

- **Terminal Defense (PE 0603881C).** MDA is requesting \$367.3 million for THAAD development efforts in FY 2025. MDA will continue the development of THAAD system builds to increase interceptor capability and weapon system performance to address the current and evolving threat and to improve reliability, availability, and readiness. MDA will also begin the initial engineering efforts supporting integration of the THAAD weapon system into the Army Integrated Air and Missile Defense Battle Command System (IBCS) architecture. These development efforts will enhance THAAD's capability against global operational threats
- **Terminal Defense Testing (PE 0604876C).** MDA requests \$25.7 million for Terminal Defense Testing in FY 2025, consistent with the IMTP. This includes flight and ground testing, test operations and infrastructure, wargames, and exercises.
- **THAAD Procurement.** MDA is requesting \$247 million for THAAD procurement in FY 2025 for 12 THAAD Interceptors, Interceptor obsolescence mitigation efforts, the Stockpile Reliability Program, and THAAD Battery Ground Component obsolescence modifications. Procurement of 12 THAAD Interceptors in FY 2025 supports the minimum quantity required to maintain continuous production at the Prime and supplier level.
- **THAAD Operations and Maintenance.** MDA is requesting \$91.8 million for O&M in FY 2025 to support the maintenance and upkeep of all Missile Defense System-unique items of the fielded U.S. THAAD batteries and for all THAAD training devices. In FY 2025, MDA will provide support to eight THAAD batteries, including the two forward-based batteries stationed in the USINDOPACOM area of responsibility, and is prepared to support the U.S. Army in any future deployments around the world.

III. Technology

With a mission focused on warfighting outcomes, MDA is investing in innovative and disruptive technologies to provide leap-ahead capabilities to address the emergence of new and more advanced threats. This budget request will continue development of technology improvements for the current Missile Defense System, along with breakthrough technologies for integration into future missile defense architectures. These efforts include:

- **Hypersonic Defense (PE 0604181C).** MDA requests \$182.3 million in FY 2025 for Regional Hypersonic Defense to develop and deliver a glide phase intercept defensive capability with Industry. The glide phase intercept capability will provide a new layered defense architecture to counter hypersonic threats and will increase the effectiveness of existing terminal defense systems. This effort will continue to develop a new interceptor as well as modify the existing Aegis Weapon System to defeat hypersonic threats in the glide phase.
- **Advanced Research Program (PE 0603180C).** MDA is requesting \$19.4 million in FY 2025, to conduct innovative, revolutionary research and development with small and large businesses, universities, national laboratories, and allied nations to create and enable future missile defense capabilities aligned to the MDA Science and Technology Strategy. Key investments include development, characterization, and risk mitigation testing of advanced materials, seeker windows, power controls and propulsion systems, and maturation of kill vehicle and satellite communication and processing technology for engagement management of the Missile Defense System. The program develops, assesses and demonstrates the utility of emerging component technologies, then facilitates transition of the technologies into the Missile Defense System to address identified gaps and Warfighter needs. The program also manages the selection process and administers the Missile Defense Small Business Innovation Research program.
- **Advanced Concepts & Performance Assessment (PE 0603176C).** MDA is requesting \$17.9 million in FY 2025 to centralize advanced technology concept modeling, simulation, and performance analysis. Advanced Concepts & Performance Assessments focus on the exploration of novel and emerging capabilities that may have the potential to enhance missile defense. The request will fund independent government assessments of industry sensor, directed energy, and weapon system technology concepts and mature related tracking, discrimination, and sensor fusion algorithms. Assessment activities include development of Hypersonic Defense, Artificial Intelligence, Directed Energy lethality, and Machine Learning Initiatives, and Left-through-Right Integration key technology areas. MDA works collaboratively with OUSD(R&E) to assess the effectiveness of Directed Energy technologies against a variety of threats. The innovative structured concept definition and

assessment methodology enables MDA to validate focus areas, verify contractor technology solutions, and evaluate promising concepts for use in future missile defense architectures. This program element supports the monitoring and tracking of cybersecurity mitigations, as well as the exploration of cyber effects on emerging technology.

IV. Missile Defense Testing

MDA plans and executes a fully integrated test program that synchronizes the system under test with the Warfighters trained to operate the system under varying wartime conditions against current and emerging threats. The IMTP documents our rigorous test program (flight, ground, cyber, wargames, and exercises). MDA structures its test program to improve confidence in the missile defense capabilities under development and to ensure the capabilities transferred to the Warfighter are operationally effective, suitable, and survivable.

- **Missile Defense System Testing (PE 0603914C).** MDA is requesting \$367.5 million in FY 2025. MDA conducts regular intercept flight tests. These tests provide data to anchor models and simulations that can then be used to verify performance and confirm the technological progress of the Missile Defense System against missile threats. MDA also conducts regular, rigorous non-intercept tests, including sensor characterization flight tests, ground tests, cybersecurity and resiliency tests, wargames, and exercises. Developed in collaboration with external stakeholders, the IMTP identifies and incorporates all testing requirements into a comprehensive, highly integrated, cost-effective series of flight tests, ground tests, cybersecurity tests, exercises, and wargames. IMTP external stakeholders, include: the Director, Operational Test & Evaluation; Director, Developmental Test, Evaluation and Assessments; Commander, Joint Functional Component Command for Integrated Missile Defense representing CCMDs; Commander, Army Test and Evaluation Command; Commander, Air Force Operational Test and Evaluation Center; Commander, the Navy's Operational Test and Evaluation Force; and Commander, Joint Interoperability Test Command. For flight testing, the Agency incorporates operational realism. For system-level ground testing, all tests culminate in operational testing with Warfighters on console and independent operational assessments by the Missile Defense Systems, Operational Test

Agency Team. This ensures that Missile Defense System capabilities are credibly demonstrated and validated prior to delivery to the Warfighter.

The IMTP supports MDA's programming strategy and test priorities. The FY 2025 test program captures the following:

- FTM-37 is an intercept flight test that utilizes an Aegis BMD ship demonstrating the firing of an SM-3 Block IB Threat Upgrade, Technology Refresh guided missile against an SRBM.
 - FEM-02 is an experimental flight test of the Defense of Guam initial deployment architecture. The AGS using an engineering computer program will demonstrate an organic engagement firing an SM-3 Block IIA guided missile against an MRBM.
 - FTX-40 tests the Aegis Sea-Based Terminal using Baseline (BL) 9.2 software and demonstrates a simulated engagement firing an SM-6 simulated dynamic missile against a hypersonic glide vehicle.
 - FTM-30 is an intercept flight test where an Aegis BMD ship using BL 9.2 software demonstrates an engagement firing an SM-3 Block IIA guided missile against an MRBM with exo-atmospheric countermeasures.
 - Refinements on test planning for future system-level flight testing ground testing, and cybersecurity testing.
- **Missile Defense System Targets (PE 0603915C).** MDA is requesting \$604.7 million in FY 2025 to develop, produce, and launch an economical and reliable inventory of targets based on engineering assessments of threat intelligence data. The FY 2025 request enables the test, verification, and validation of the performance of the Missile Defense System against threats in support of the IMTP, and includes funding for the continued development of advanced targets, and development and production of more reliable and capable MRBM Target motors with enhanced maneuverability and range. As part of the overall MDA Targets budget request, MDA is requesting \$68.3 million in FY 2025 to provide targets required for testing related to the Defense of Guam. This includes non-recurring engineering and hardware for the development of the hypersonic target vehicle flight test re-entry vehicle.

- **Ground Test Facility Infrastructure (GTFI).** MDA is requesting \$80 million of Military Construction (Major MILCON) to support the relocation of critical Missile Defense System assets from off-post lease space to the Von Braun Complex. The FY 2025 funding of \$80 million represents the second increment of this effort.

V. Israeli Programs

MDA is requesting \$500 million for **Israeli programs** in FY 2025. This funding level remains consistent with the Memorandum of Understanding between the US and Israel that spans FY 2019 – FY 2028. This budget continues MDA's longstanding support of U.S.-Israeli Cooperative Programs, to include the co-development and co-production of the David's Sling Weapon System and the Arrow Weapon System. The Department continues to support co-production efforts for the Iron Dome Defensive System program to provide critical defense against short-range rockets, missiles, mortars, artillery shells, and against unmanned aerial vehicles.

Summary

MDA requests \$10.4 billion in FY 2025 for missile defense development efforts to continue building Warfighter confidence by focusing on readiness and sustainment, increasing capability and capacity of fielded homeland and regional defense systems, and increasing the speed of delivery of advanced technology to counter the advanced missile threat.

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**Missile Defense Agency
PB 2025 Missile Defense Agency
FY 2025 - FY 2029 Appropriation Summary
R-1 Exhibit
(\$ Thousands)**

Fiscal Year Amount Based on Business Rule CPS Version:					OFFLINE PB25 FY25 FY29 R12	OFFLINE PB25 FY25 FY29 R12	OFFLINE PB25 FY25 FY29 R12	OFFLINE PB25 FY25 FY29 R12	OFFLINE PB25 FY25 FY29 R12	OFFLINE PB25 FY25 FY29 R12	OFFLINE PB25 FY25 FY29 R12	
Line Number	Program Element	Budget Project	Program	Budget Activity	FY23 Actual	FY24	FY25	FY26	FY27	FY28	FY29	FY25-29
O&M												
11A	0208866C		O&M	NA	539,838	564,078	605,766	645,676	646,762	686,313	812,676	3,397,193
		MD08	Ground Base Midcourse	NA	187,045	174,789	184,280	164,687	162,851	222,765	249,896	984,479
		MD07	THAAD	NA	86,037	89,297	91,790	93,995	96,024	97,945	99,904	479,658
		MD09	AEGIS	NA	63,132	72,224	75,016	110,955	104,814	117,250	208,492	616,527
		MD11	BMDs Radars Program	NA	203,624	227,768	254,680	276,039	283,073	248,353	254,384	1,316,529
			Budget Activity 00 Total	NA	539,838	564,078	605,766	645,676	646,762	686,313	812,676	3,397,193
			O&M Total	NA	539,838	564,078	605,766	645,676	646,762	686,313	812,676	3,397,193
Procurement												
	0208866C		PROCUREMENT	01	1,636,347	1,283,685	1,048,331	1,505,830	1,693,805	2,360,962	2,293,804	8,902,732
		MD07	THAAD	01	239,994	216,782	246,995	476,227	645,357	656,946	674,361	2,699,886
		MD80	Next Generation Interceptor Procurement	01	0	0	0	298,294	308,683	1,010,519	954,025	2,571,521
		MD08	Ground Based Midcourse	01	11,300	0	20,796	88,586	82,206	0	0	191,588
		MD09	AEGIS BMD	01	402,235	374,756	85,000	0	0	0	0	85,000
		MD11	BMDs Sensors	01	4,606	29,108	57,130	32,154	45,247	29,594	19,481	183,606
		MD14	SM-3 Block IIA	01	669,975	432,824	406,370	382,663	386,947	450,039	434,041	2,060,060
		MD26	Arrow 3 Upper Tier System	01	80,000	80,000	50,000	50,000	50,000	50,000	50,000	250,000
		MD34	Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon	01	40,000	40,000	40,000	40,000	40,000	40,000	40,000	200,000
		MD73	Aegis Ashore Phase III	01	36,067	2,390	0	0	0	0	0	0
		MD83	Iron Dome	01	80,000	80,000	110,000	110,000	110,000	110,000	110,000	550,000
		MD90	Aegis BMD Hardware and Software	01	72,170	27,825	32,040	27,906	25,365	13,864	11,896	111,071
	MD65		Guam Defense Acquisition	01	26,514	169,627	22,602	1,716	0	0	0	24,318
		MD65	Defense of Guam Procurement	01	26,514	169,627	22,602	1,716	0	0	0	24,318
			Budget Activity 01 Total	01	1,662,861	1,453,312	1,070,933	1,507,546	1,693,805	2,360,962	2,293,804	8,927,050
			Procurement Total	01	1,662,861	1,453,312	1,070,933	1,507,546	1,693,805	2,360,962	2,293,804	8,927,050
RDT&E												
37	0603176C		Advanced Concepts and Performance Assessment	03	39,293	17,825	17,920	39,210	58,477	67,637	72,697	255,941
		MD71	Advanced Concepts and Performance Assessments	03	31,147	13,386	13,320	33,566	51,977	60,448	65,073	224,384
		MD40	Program-Wide Support	03	608	634	690	1,657	2,433	3,041	3,393	11,214
		MC71	Cyber Operations	03	7,538	3,805	3,910	3,987	4,067	4,148	4,231	20,343
38	0603180C		Advanced Research	03	84,996	21,461	19,354	23,432	24,863	26,418	26,894	120,961
		MD25	Advanced Technology Development	03	84,196	20,698	18,609	22,442	23,829	25,230	25,639	115,749
		MD40	Program-Wide Support	03	800	763	745	990	1,034	1,188	1,255	5,212
			Budget Activity 03 Total	03	124,289	39,286	37,274	62,642	83,340	94,055	99,591	376,902
123	0202057C		Safety Program Management	04	2,442	2,484	1,771	1,804	1,841	1,872	1,909	9,197
		MDSH	Safety Program Management	04	2,442	2,484	1,771	1,804	1,841	1,872	1,909	9,197
128	0305103C		Cyber Security Initiative	04	1,145	2,760	1,831	1,876	1,922	1,970	2,018	9,617
		MDCS	Cyber Security Initiative	04	1,145	2,760	1,831	1,876	1,922	1,970	2,018	9,617
78	0603881C		Ballistic Missile Defense Terminal Defense Segment	04	194,264	220,311	367,279	543,868	554,429	464,018	314,936	2,244,530
		MD07	THAAD	04	176,090	199,440	349,029	516,697	527,099	438,811	295,807	2,127,443
		MC07	Cyber Operations	04	10,353	12,140	3,189	3,250	3,313	3,380	3,446	16,578
		MD06	Patriot Advanced Capability-3 (PAC-3)	04	914	900	922	938	952	967	986	4,765
		MD40	Program-Wide Support	04	6,907	7,831	14,139	22,983	23,065	20,860	14,697	95,744
79	0603882C		Ballistic Missile Defense Midcourse Defense Segment	04	670,808	903,633	768,227	856,218	842,985	956,974	1,007,150	4,431,554
		MD08	Ground Based Midcourse	04	578,555	841,566	713,750	794,328	784,437	890,143	935,882	4,118,540
		MC08	Cyber Operations	04	30,443	29,035	24,903	25,919	23,686	24,035	24,501	123,044
		MD40	Program-Wide Support	04	61,810	33,032	29,574	35,971	34,862	42,796	46,767	189,970
81	0603884C		Ballistic Missile Defense Sensors	04	228,807	239,159	209,002	205,087	202,555	209,816	214,110	1,040,570
		MD11	BMDs Radars	04	198,873	209,931	182,032	176,073	174,633	180,518	183,885	897,141
		MC11	Cyber Operations	04	21,541	20,727	19,141	20,563	19,641	20,060	20,510	99,915
		MD40	Program-Wide Support	04	8,393	8,501	7,829	8,451	8,281	9,238	9,715	43,514
82	0603890C		BMD Enabling Programs	04	589,588	597,720	609,406	623,893	625,985	659,983	677,858	3,197,125

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Line Number	Program Element	Budget Project	Program	Budget Activity	FY23 Actual	FY24	FY25	FY26	FY27	FY28	FY29	FY25-29
		MD24	System Engineering & Integration	04	181,549	171,129	174,159	175,304	172,024	181,084	188,161	890,732
		MD21	Homeland Cruise Missile Defense Architecture	04	9,458	783	0	0	0	0	0	0
		MT23	Enabling - Test	04	43,440	44,248	47,778	48,040	48,972	49,952	50,951	245,693
		MD28	Intelligence & Security	04	41,925	56,654	58,068	59,637	60,808	67,256	68,353	314,122
		MD30	BMD Information Management Systems	04	88,463	91,609	93,988	97,316	96,040	102,974	104,948	495,266
		MC30	Cyber Operations	04	78,161	89,111	91,208	95,476	97,395	99,353	101,350	484,782
		MD31	Modeling & Simulation	04	68,221	65,702	63,883	63,237	64,752	67,861	69,695	329,428
		MC31	Engineering Cyber Operations	04	23,993	25,854	24,319	24,888	25,634	26,814	27,032	128,687
		MD32	Quality, Safety, and Mission Assurance	04	33,203	31,383	32,757	33,630	34,318	35,019	35,735	171,459
		MD40	Program-Wide Support	04	21,175	21,247	23,246	26,365	26,042	29,670	31,633	136,956
83	0603891C		Special Programs - MDA	04	317,568	552,888	495,570	555,344	572,888	485,975	415,899	2,525,676
		MD27	Special Programs	04	317,568	552,888	495,570	555,344	572,888	485,975	415,899	2,525,676
84	0603892C		AEGIS BMD	04	586,329	693,727	649,255	602,818	539,786	649,556	714,388	3,155,803
		MD09	Aegis BMD	04	331,877	446,480	397,228	233,885	217,318	336,690	364,666	1,549,787
		MM09	Aegis BMD SM-3 Development	04	83,758	42,323	62,064	152,807	103,096	62,782	56,930	437,679
		MC09	Cyber Operations	04	3,336	5,972	6,574	6,608	6,782	6,962	7,135	34,061
		MX09	Aegis BMD Development Support	04	139,525	173,105	158,780	184,255	190,342	214,146	252,552	1,000,075
		MD40	Program-Wide Support	04	27,833	25,847	24,609	25,263	22,248	28,976	33,105	134,201
85	0603896C		Ballistic Missile Defense Command and Control, Battle Management	04	587,689	554,201	569,662	570,632	587,929	618,050	651,885	2,998,158
		MD01	Command & Control, Battle Management, Communications (C2BMC)	04	370,102	336,417	342,318	335,968	342,430	367,759	394,504	1,782,979
		MC01	Cyber Operations	04	8,194	8,261	8,189	8,344	8,511	8,683	8,857	42,584
		MT01	C2BMC Test	04	57,587	51,849	57,926	59,930	67,170	65,556	66,869	317,451
		MX01	Command & Control, Battle Management, Communications (C2BMC)	04	129,802	138,665	139,480	142,259	145,342	148,249	151,214	726,544
		MD40	Program-Wide Support	04	22,004	19,009	21,749	24,131	24,476	27,803	30,441	128,600
86	0603898C		Ballistic Missile Defense Joint Warfighter Support	04	50,942	48,248	47,723	48,921	50,062	51,376	52,565	250,647
		MD03	Joint Warfighter Support	04	17,393	19,606	20,861	21,184	21,650	22,066	22,526	108,287
		MT03	Joint Warfighter Support Test	04	31,059	26,763	24,857	25,499	26,155	26,823	27,405	130,739
		MC03	Cyber Operations	04	153	164	168	171	174	177	181	871
		MD40	Program-Wide Support	04	2,337	1,715	1,837	2,067	2,083	2,310	2,453	10,750
87	0603904C		Missile Defense Integration and Operations Center (MDIOC)	04	47,629	50,549	54,525	56,851	58,115	59,600	61,362	290,453
		MD22	Missile Defense Integration and Operations Center (MDIOC)	04	45,214	48,081	51,737	53,746	54,980	56,190	57,752	274,405
		MC22	Cyber Operations	04	622	671	689	703	717	731	746	3,586
		MD40	Program-Wide Support	04	1,793	1,797	2,099	2,402	2,418	2,679	2,864	12,462
88	0603906C		Regarding Trench	04	12,146	12,564	27,900	29,700	29,900	31,200	31,500	150,200
		MD35	Regarding Trench	04	12,146	12,564	27,900	29,700	29,900	31,200	31,500	150,200
89	0603907C		Sea Based X-Band Radar (SBX)	04	163,297	177,868	197,339	176,888	162,741	177,598	188,253	902,819
		MX46	Sea Based X-Band Radar Development Support	04	157,318	171,486	189,742	169,413	155,971	169,614	179,468	864,208
		MD40	Program-Wide Support	04	5,979	6,382	7,597	7,475	6,770	7,984	8,785	38,611
90	0603913C		Israeli Cooperative Programs	04	300,000	300,000	300,000	300,000	300,000	300,000	300,000	1,500,000
		MD26	Arrow Weapon System	04	173,000	173,000	173,000	173,000	173,000	173,000	173,000	865,000
		MD34	Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon	04	127,000	127,000	127,000	127,000	127,000	127,000	127,000	635,000
91	0603914C		Ballistic Missile Defense Test	04	376,650	360,455	367,491	418,514	383,362	435,626	438,825	2,043,818
		MT04	BMDS Test Program	04	355,559	339,182	344,791	392,108	358,520	406,974	409,094	1,911,487
		MC04	Cyber Operations	04	7,735	8,333	8,552	8,719	8,893	9,071	9,252	44,487
		MD40	Program Wide Support	04	13,356	12,940	14,148	17,687	15,949	19,581	20,479	87,844
92	0603915C		Ballistic Missile Defense Targets	04	572,380	570,258	604,708	584,070	429,635	515,282	584,771	2,718,466
		MC05	Cyber Operations	04	1,870	1,752	1,775	1,810	1,847	1,883	1,921	9,236
		MT05	BMDS Targets Program	04	549,853	548,058	579,654	557,578	409,914	490,234	555,561	2,592,941
		MD40	Program Wide Support	04	20,657	20,448	23,279	24,682	27,874	23,165	27,289	116,289
96	0604102C		Guam Defense Development	04	383,252	397,578	415,794	247,793	183,214	303,003	218,941	1,368,745
		MD65	Defense of Guam Development	04	368,802	385,132	399,787	237,322	175,592	289,381	208,724	1,310,806
		MD40	Program Wide Support	04	14,450	12,446	16,007	10,471	7,622	13,622	10,217	57,939

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Line Number	Program Element	Budget Project	Program	Budget Activity	FY23 Actual	FY24	FY25	FY26	FY27	FY28	FY29	FY25-29
97	0604115C		Technology Maturation Initiatives	04	16,000	0	0	0	0	0	0	0
		MD98	Directed Energy Demonstrator Development	04	16,000	0	0	0	0	0	0	0
100	0604181C		Hypersonic Defense	04	513,267	208,997	182,283	193,100	205,122	250,208	327,698	1,158,411
		MD29	Hypersonic Defense	04	505,407	190,555	175,266	184,940	196,589	238,960	312,405	1,108,160
		MD40	Program Wide Support	04	7,860	18,442	7,017	8,160	8,533	11,248	15,293	50,251
115	0604873C		Long Range Discrimination Radar (LRDR)	04	65,991	103,517	100,882	63,560	56,020	64,457	72,759	357,678
		MD96	Long Range Discrim Radar (LRDR)	04	63,263	99,837	96,998	60,874	53,689	61,559	69,364	342,484
		MD40	Program Wide Support	04	2,728	3,680	3,884	2,686	2,331	2,898	3,395	15,194
116	0604874C		Improved Homeland Defense Interceptors	04	1,795,728	2,130,838	1,697,121	1,034,859	1,406,953	625,913	404,970	5,169,816
		MD80	Next Generation Interceptor Development (NGI)	04	1,759,383	2,056,063	1,631,788	991,128	1,348,422	597,775	386,071	4,955,184
		MD40	Program Wide Support	04	36,345	74,775	65,333	43,731	58,531	28,138	18,899	214,632
117	0604876C		Ballistic Missile Defense Terminal Defense Segment Test	04	67,789	47,577	25,673	61,982	120,465	56,615	55,131	319,866
		MT07	THAAD Test	04	65,256	45,886	24,685	59,363	115,453	54,070	52,558	306,129
		MD40	Program Wide Support	04	2,533	1,691	988	2,619	5,012	2,545	2,573	13,737
118	0604878C		Aegis BMD Test	04	165,619	193,484	135,019	169,731	143,292	154,413	168,707	771,162
		MT09	AEGIS BMD Test	04	158,982	186,236	129,436	162,558	137,331	147,471	160,834	737,630
		MD40	Program Wide Support	04	6,637	7,248	5,583	7,173	5,961	6,942	7,873	33,532
119	0604879C		Ballistic Missile Defense Sensor Test	04	88,326	111,049	96,864	104,578	160,011	172,749	183,147	717,349
		MT11	BMDs Radars Test	04	85,119	106,820	93,135	100,159	153,354	164,983	174,600	686,231
		MD40	Program Wide Support	04	3,207	4,229	3,729	4,419	6,657	7,766	8,547	31,118
120	0604880C		Land Based SM-3 (LBSM3)	04	23,277	22,163	22,220	22,500	22,899	22,996	23,495	114,110
		MD68	AEGIS Ashore	04	20,984	20,316	20,124	20,270	20,647	20,672	21,083	102,796
		MC68	Cyber Operations	04	1,900	1,233	1,241	1,265	1,290	1,290	1,316	6,402
		MD40	Program-Wide Support	04	393	614	855	965	962	1,034	1,096	4,912
121	0604887C		Ballistic Missile Defense Midcourse Defense Segment Test	04	84,335	41,824	40,006	50,994	122,374	126,853	137,676	477,903
		MT08	Midcourse Test	04	80,374	40,160	38,466	48,839	117,283	121,150	131,251	456,989
		MD40	Program Wide Support	04	3,961	1,664	1,540	2,155	5,091	5,703	6,425	20,914
133	1206895C		Ballistic Missile Defense System Space Programs	04	125,695	109,483	119,561	122,691	125,114	44,489	55,956	467,811
		MD33	MD Space Exp Center (MDSEC)	04	29,465	35,367	37,307	39,019	39,814	40,616	51,434	208,190
		MD42	Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping	04	89,964	68,538	76,027	76,600	78,200	0	0	230,827
		MC33	MD Space Exp Center (MDSEC)	04	1,547	1,690	1,759	1,799	1,837	1,873	1,911	9,179
		MD40	Program-Wide Support	04	4,719	3,888	4,468	5,273	5,263	2,000	2,611	19,615
			Budget Activity 04 Total	04	8,030,963	8,653,335	8,107,112	7,648,272	7,889,599	7,440,592	7,305,909	38,391,484
173	0605502C		Small Business Innovation Research - MDA	06	111,224	0	0	0	0	0	0	0
		MD45	Small Business Innovation Research	06	111,224	0	0	0	0	0	0	0
209	0901598C		Management HQ - MDA	06	26,352	28,363	29,033	29,632	30,245	30,870	31,508	151,288
		MD38	Management Headquarters	06	26,352	28,363	29,033	29,632	30,245	30,870	31,508	151,288
			Budget Activity 06 Total	06	137,576	28,363	29,033	29,632	30,245	30,870	31,508	151,288
			RDT&E Total	06	8,292,828	8,720,984	8,173,419	7,740,546	8,003,184	7,565,517	7,437,008	38,919,674
MILCON												
	0603888C		BMD TEST and TARG MILCON	NA	0	147,975	80,000	0	0	0	0	80,000
		MM44	BMDs Test Infrastructure Building (BTB)	NA	0	147,975	80,000	0	0	0	0	80,000
	22299902		MINOR MILCON	NA	0	0	5,277	5,468	5,404	5,324	5,442	26,915
		MM14	Minor MILCON	NA	0	0	5,277	5,468	5,404	5,324	5,442	26,915
	31299903		MILCON PLANNING and DESIGN	NA	47,063	1,035	4,745	600	600	600	600	7,145
		MM32	MILCON Planning Design	NA	47,063	1,035	4,745	600	600	600	600	7,145
	33399903		MILCON PLANNING AND DESIGN	NA	0	0	465,479	343,054	170,356	0	0	978,889
		MM65	Guam Defense Major MILCON	NA	0	0	465,479	267,389	170,356	0	0	903,224
		MM80	NGI Major MILCON	NA	0	0	0	75,665	0	0	0	75,665
			Budget Activity 00 Total	NA	47,063	149,010	555,501	349,122	176,360	5,924	6,042	1,092,949
			MILCON Total	NA	47,063	149,010	555,501	349,122	176,360	5,924	6,042	1,092,949
			Program Total		10,542,590	10,887,384	10,405,619	10,242,890	10,520,111	10,618,716	10,549,530	52,336,866

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Reporting Requirement Reference	Reporting Requirement Language	Budget Documentation Location
<p><i>FY23 DoD Appropriations Bill 2023, Report of the Committee on Appropriations (to accompany H.R. 8236), Report 117-388, pp. 52-53</i></p>	<p>JUSTIFICATION DOCUMENTS</p> <p>The Committee is concerned that some of the justification books and documents provided by the Department of Defense and the Services do not provide an adequate accounting for the funding requested. Neither documentation from the Pacific Deterrence Initiative (PDI) nor the European Deterrence Initiative (EDI) books match the information for additional funds included in the Services' justification documents. Nor do the descriptions of activities seem to change. In examining the documents, some of the descriptions are exactly the same year to year. Therefore, the Committee directs that the PDI and EDI justification documents be augmented with the submission of the fiscal year 2024 justification materials to include the following:</p> <p>(1) Each individual activity receiving funds will include the amount of increase in funding (not an overall top line increase);</p> <p>(2) Each individual activity will also include the baseline of funds from the previous fiscal year. Each augmented program or activity will specify which service, account, subactivity group or program element line is increasing.</p>	<p>Submitted in the FY2025 Budget Justification Materials in PE 0604102C (Guam Defense Development); 0603892C (Aegis BMD); 0603896C (BMD C2BMC); 0603914C (BMD Test); 0603915C (BMD Targets); 0604878C (Aegis BMD Test); 0604879C (BMD Sensor Test); and 0208902C (Defense of Guam Procurement)</p>
<p><i>FY22 National Defense Authorization Act (S. 1605), Public Law 117-81, p. 566</i></p>	<p>NEXT GENERATION INTERCEPTORS FOR MISSILE DEFENSE OF THE UNITED STATES HOMELAND</p> <p>The Director of the Missile Defense Agency shall develop a funding plan that includes funding lines across the future-years defense program under section 221 of title 10, United States Code, for the next generation interceptor that – (1) while applying lessons learned from the redesigned kill vehicle program, incorporating recommendations from the Comptroller General of the United States, and implementing “fly-before-you-buy” principles, produces and begins deployment of the next generation interceptor as early as practicable; (2) includes acquiring at least 20 operational next generation interceptors; and (3) includes transition plans to replace the current inventory of silo-based boosters with follow-on systems prior to the end of the useful lifecycle of the boosters.</p>	<p>Submitted in the FY2025 Budget Justification Materials in PE 0604874C (Improved Homeland Defense Interceptors)</p>
<p><i>FY19 National Defense Authorization Act (H.R. 5515), Report 115-863, pp. 257-258; FY20 National Defense Authorization Act (S. 1790), Report 116-333, p. 338</i></p>	<p>CONSOLIDATED BUDGET DISPLAY FOR THE DEPARTMENT OF DEFENSE SMALL BUSINESS INNOVATION RESEARCH PROGRAM AND SMALL BUSINESS TECHNOLOGY TRANSFER PROGRAM</p> <p>The Secretary of Defense, acting through the Under Secretary of Defense for Research and Engineering, shall include in the materials submitted to Congress by the Secretary of Defense in support of the budget of the President for each fiscal year (as submitted to Congress under section 1105 of title 31, United States Code), a budget display for the funds assessed for the Small Business Innovation Research Program or the Small Business Technology Transfer Program (as such terms are defined, respectively, in section 9(e) of the Small Business Act (15 U.S.C. 638(e))) of the Department of Defense during the previous fiscal year.</p> <p>MODIFICATIONS TO BUDGET DISPLAY REQUIREMENTS FOR THE DEPARTMENT OF DEFENSE SMALL BUSINESS INNOVATION RESEARCH PROGRAM AND SMALL BUSINESS TECHNOLOGY TRANSFER PROGRAM</p> <p>Section 857 of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Public Law 115-232; 132 Stat. 1891) is amended - (1) in subsection (a)— (A) by inserting “Under Secretary of Defense (Comptroller) and the” before “Under Secretary of Defense for Research and Engineering”; and (B) by striking “a budget display” and inserting “one or more budget displays”; (2) in subsection (b), by striking “The budget display” and inserting “The budget displays”; and (3) in subsection (d), by striking “The budget display” and inserting “The budget displays”.</p>	<p>Submitted in the FY2025 Budget Justification Materials in PE 0605502C (Small Business Innovation Research – MDA)</p>

<i>FY04 National Defense Authorization Act (H.R. 1588) Report 108-354, pp. 30-31</i>	BUDGET JUSTIFICATION MATERIALS In the budget justification materials submitted to Congress in support of the Department of Defense budget for any fiscal year (as submitted with the budget of the President under section 1105(a) of title 31), the Secretary of Defense shall specify, for each ballistic missile defense system element for which the Missile Defense Agency is engaged in planning for production and initial fielding, the following information: (1) The production rate capabilities of the production facilities planned to be used for production of that element. (2) The potential date of availability of that element for initial fielding. (3) The estimated date on which the administration of the acquisition of that element is to be transferred from the Director of the Missile Defense Agency to the Secretary of a military department.	MDA to provide Missile Defense Accountability Report (MDAR) to Congressional Defense Committees. The MDAR partially satisfies the requirement through its schedule baseline. Exhibit P-21 – Budget Production Schedule
<i>FY04 National Defense Authorization Act (H.R. 1588), Report 108-354, pp. 30-31</i>	FUTURE-YEARS DEFENSE PROGRAM The Secretary of Defense shall include in the future-years defense program submitted to Congress each year under section 221 of this title an estimate of the amount necessary for procurement for each ballistic missile defense system element, together with a discussion of the underlying factors and reasoning justifying the estimate.	Exhibit P-21 – Budget Production Schedule
<i>FY96 National Defense Authorization Act (H.R. 1530), Report 104-406, p. 53</i>	BALLISTIC MISSILE DEFENSE PROGRAM ELEMENTS (d) Management and Support. – Each program element shall include requests for the amounts necessary for the management and support of the programs, projects, and activities contained in that program element.	Exhibit R-2As – MD40 Program-Wide Support Budget Projects

ACRONYMS	DEFINITION
A	
A&A	Assessment and Authorization
A&AS	Advisory and Assistance Services
AA	Adversarial Assessment
AAEA	Aegis Ashore Engineering Agent
AAMDS	Aegis Ashore Missile Defense System
AAMDTC	Aegis Ashore Missile Defense Test Complex
AAW	Anti-Air Warfare
ABEWS	Airborne Early Warning System
ABMA	Automated Battle Management Aides
ACAS	Assured Compliance Assessment Solution
ACB	Advanced Capability Build
ACD	Advance Capability Development; Adversarial Cybersecurity Developmental Test and Evaluation
ACD&P	Advanced Component Development & Prototypes
ACL	Achievable Capabilities List
ACPA	Advanced Concepts and Performance Assessment
ACS	Aegis Combat System
ADP	Adversary Data Package
ADPE	Automatic Data Processing Equipment
AEDC	Arnold Engineering Development Center
AEU	Antenna Equipment Unit
AFB	Air Force Base
AGB	Alternate Glide Body
AI/ML	Artificial Intelligence/Machine Learning
AI&T	Assembly, Integration and Test
AIDPMO	Army Intermodal and Distribution Platform Management Office
AIE	Annual Integration Event
ALC	Army Logistics Center
ALO	Aegis Light-Off
AMCOM	Army Aviation and Missile Command
AMDR	Air and Missile Defense Radar
AMRDEC	Aviation and Missile Research, Development and Engineering Center
AN/SPY-1	Joint Army-Navy equipment nomenclature: S -Water (surface ship), P - Radar, Y - Surveillance (target detecting and tracking) and Control (fire control and/or air control), 1 - model number [AN/SPY-1 is an equipment nomenclature, not an Acronym]
AN/TPY-2	Joint Army-Navy equipment nomenclature: T - Transportable (ground), P - Radar, Y - Surveillance (target detecting and tracking) and Control (fire control and/or air control), 2 - model number [AN/TPY-2 is an equipment nomenclature, not an Acronym]
AO	Authorizing Official
AOA	Analysis of Alternatives
AOR	Area of Responsibility
APLITS	Approved Products List Integrated Tracking System
APNT	Assured Position Navigation and Timing
ARAV	Aegis Readiness Assessment Vehicles
ARE	Aegis Remote Engagement
ARSTRST	(US) Army Forces Strategic Command
ASD(R&E)	Assistant Secretary of Defense Research and Engineering
ASP	Advanced Signal Processor
ASUW	Anti-Surface Warfare
AT&L	Acquisition, Technology and Logistics
ATD	Advanced Technology Development; Assistant to the Director; Assistant Test Directors
ATEC	Army Test and Evaluation Command
ATK	Alliant Techsystems, Inc.
ATO	Authorization to Operation; Authority to Operate
AUPP	Average Unit Production Price
AUR	All Up Round
AVMC	Aviation and Missile Center
AWS	Arrow Weapon System; AEGIS Weapon System
B	

ACRONYMS	DEFINITION
BAA	Broad Agency Announcement
BAM	BMDS Asset Management
BBR	BOA Baseline Release
BCM	BMDS C2BMC Model
BCN	BMDS Communications Network
BL	Baseline
BM	Battle Management; Ballistic Missile
BMC	Battle Management Center
BMD	Ballistic Missile Defense
BMDQ	Ballistic Missile Defense Qualification
BMS	Building Management System
BMDS	Ballistic Missile Defense System
BMDCCS CS	BMDS Computing Suite, Computing Suite Upgrade
BNOSC	BMDS Network Operations and Security Center
BOA	BMDS Overhead Persistent Infrared Architecture
BoD	Boards of Director; Beneficial Occupancy Date
BORRS	BMDS Operational Readiness Reporting System
BSC	Battlespace Characterization
BSO	BMDS Safety Officers
BST	BMDS System Track
BTS	BMDS Test Site
BVT	Boost Vehicle Test
BWO	BMDS Watch Officers
C	
C-UAS	Counter-Unmanned Aerial Systems
C&A	Certification and Accreditation
C/FFP	Cost Fixed Firm Price
C2	Command and Control
C2BMC	Command and Control, Battle Management, and Communications
C2P	Command and Control Processor
C4I	Command, Control, Communications, Computers and Intelligence
CA	Certification Authority
CANES	Consolidated Afloat Networks and Enterprise Services
CAPE	Cost Assessment and Program Evaluation
CARD	Cost Analysis and Requirements Document
CBAU	Consolidated Booster Avionics Upgrade
CCA	Circuit Card Assemblies
CCaR	Comprehensive Cost and Requirements
CCC	C2BMC Command Center
CCDC	Capabilities Development Command
CCM	Counter Counter-Measures
CCMD	Combatant Commander; Combatant Commands
CD	Concept Descriptions; Cobra Dane
CDA	Continuous Digital Assessment
CDI	Continuous Development and Integration
CDR	Critical Design Review
CDS	Cross Domain Solution
CEC	Critical Engagement Condition; Cooperative Engagement Capability
CECOM	Communications Electronics Command
CENAU	Corps of Engineers North Atlantic Union
CENTCOM	Central Command
CERT	Computer Emergency Response Team
CEU	Cooling Equipment Unit
CFBLNet	Combined Federated Battle Laboratories Network
CFTE	Combined Flying Training Event
CG	US Navy ship hull classification symbol for - Guided Missile Cruiser [CG is not an Acronym]
CI	Counterintelligence
CI/CAT	Continuous Integration/Continuous Agile Testing
CIC	Counterintelligence in Cyberspace

ACRONYMS	DEFINITION
CID	Critical Item Development; Combat Identification
CIDS	Critical Items Description Specifications
CIL	Computer in the Loop
CIO	Chief Information Officer
CIP	Capability Insertion Packages
CKV	Common Kill Vehicle
CLAN	Classified Local Area Network
CLE	Command and Launch Equipment
Cloud ECART	Electronic Content and Records Tool
Cloud LMS	Electronic Learning Management System
CLS	Contractor Logistics Support
CMD-H	Cruise Missile Defense of the Homeland
CND	Computer Network Defense
CNDSP	Computer Network Defense Service Provider
CNET	Classified Network
COCOM	Combatant Command
COE	Common Operating Environment
COMNET	Communications Network
COMSEC	Communication Security
CONOPS	Concept of Operations
CONPLANS	Contingency Plans
CONUS	Continental United States
COOP	Calibrated Orbiting Objects Program ; Cyber Continuity of Operations
CoS	Colorado Springs
COTS	Commercial Off The Shelf
CP	Capability Packages
CPU	Congressional Plus Up
CPAF	Cost Plus Award Fee
CPCR	Computer Program Change Request
CPFF	Cost Plus Fixed Fee
CPI	Critical Program Information
CPIF	Cost Plus Incentive Fee
CPTS	Computer Program Test Site
CS	Combat System
CSCS	Center for Surface Combat Systems
CSFS	Clear Space Force Station
CSS	Contractor Support Services
CSSC	C2BMC System Support Center
CSSP	Cyber Security Service Provider
CSTB	Combat System Test Bed
CTB	C2BMC Test Bed
CTM	Core Truth Models
CTTO	Concurrent Test, Training and Operations
CTV	Control Test Vehicle
CTV-01	Controlled Test Vehicle-01
CU	Capability Upgrade
CUI	Controlled Unclassified Information
CVI	Cooperative Vulnerability Identification
CVPA	Cyber Vulnerability Penetration Assessment
CVT	Controls Validation Testing
CY	Calendar Year
D	
DA	Defend Area
DAA	Defense Appropriations Act; Designated Approving Authority
DAC	Divert Attitude Control
DACS	Divert and Attitude Control System
DARPA	Defense Advanced Research Projects Agency
DASD(DT&E)	Deputy Assistant Secretary of Defense, Developmental Test and Evaluation
DAU	Defense Acquisition University

ACRONYMS	DEFINITION
DCD	Defense Courier Division
DDG	US Navy ship hull classification symbol for - Guided Missile Destroyer [DDG is not an Acronym]
DDL	Dual-band Data Link; Digital Data Link
DECC	Defense Enterprise Computing Center
DEDD	Directed Energy Demonstrator Development
DESH	MDA/DESH - Missile Defense Agency (MDA)/Modeling & Simulation Huntsville (DESH) [office symbol within MDA Engineering Directorate, not an Acronym]
DETSIM	Detection Simulation
DEVSECOPS	Development, Security and Operations
DFAR	Defense Federal Acquisition Regulation
DHP	Data Handling Plan
DIA	Defense Intelligence Agency
DIACAP	DoD Information Assurance Certification and Accreditation Process; DoD Information Assurance Certification and Accreditation Program
DIB	Defense Industrial Base
DISA	Defense Information Systems Agency
DISN	Defense Information System Network
DL	Data Link
DLA	Defense Logistics Agency
dLNA	Digital Low Noise Amplifier
DMS	Diminishing Manufacturing Sources
DMSMS	Diminishing Manufacturing Sources and Material Shortages
DNOSC	Directorate Network Operations Security Center
DO	Delivery Order
DoD	Department of Defense
DODIC	DoD Identification Code
DODIN	DoD Information Network
DoG	Defense of Guam
DOT&E	Director of Operational Test and Evaluation
DOTMLPF	Doctrine, Organization, Training, Material, Leadership and Education, and Personnel and Facilities
DPALS	Diode Pumped Alkali Laser System
DPAS	Defense Property Accountability System
DREN	Defense Research Engineering Network
DREX	Digital Receiver/Exciter
DRSN	Defense Red Switch Network
DSC	Development and Sustainment Contract
DSCS	Defense Satellite Communication System
DSDD	Discrimination Sensor Demonstrator Development
DSS	Defense Security Service
DSWS	David's Sling Weapon System
DT&E	Developmental Test and Evaluation
DTRA	Defense Threat Reduction Agency
DTS	Distributed Training System
DTSS	Directorate of Test Support System
DVSG	DISN Video Services Global
DW	Defense Wide
DWCF	Defense Working Capital Fund
E	
ET-17	Engineering Topic 17
ET&E	Engineering Test and Evaluation
E/CCA	Element/Component Characteristics for Analysis
EA	Executing Agent; Engineering Assessment
EA/EP	Electronic Attack/Electronic Protection
EADSIM	Extended Air Defense Simulation
EAL	Evaluated Assurance Level
EAS	Eareckson Air Station
ECART	Electronic Content and Records Tool
ECE	Element Cybersecurity Experiments
ECP	Engineering Change Proposal

ACRONYMS	DEFINITION
ECS	Element Capability Specification; Engineering Change Summary
EDISS	End to end Digital Integrated System-level Simulation
EDISS	Enterprise Digital Integrated System Simulation
EDP	Early Digital Product
EE	Engineering Evaluation
EEU	Electronics Equipment Unit
EHF	Extremely High Frequency
EIS	Environmental Impact Statement
EKV	Exoatmospheric Kill Vehicle
eMASS	Enterprise Mission Assurance Support Service
EMD	Engineering Manufacturing Development
EME	Electromagnetic Environment
EMRL	Engineering and Manufacturing Readiness Level
EO/IR	Electro-Optical/Infrared
EOC	Engagement Operations Center
EOQ	Economic Order Quantity
EOQ AP	Economic Order Quantity Advance Procurement
EoR	Engage-on-Remote
EP	Electronic Protection
EPAA	European Phased Adaptive Approach
EPFR	Element Post Flight Reconstructions
EQLB	Executive Quick Look Briefing
ERB	Engineering Review Board
ERT	Element Review Team
ES	Elevated Sensor; Element Specification
ESI	External System Interface; Enterprise Software Initiative
ESL	External Sensors Lab; Enterprise Sensors Laboratory
ESOH	Environmental, Safety and Occupational Health
ESPN	Enterprise Sensor Processing Node
ESS	Electronic Security System; Endpoint Security Services
ET	Embedded Test
ETEDDS	End to End Distributed Development System
EUCOM	European Command
EVMS	Earned Value Management System
EWR	Early Warning Radar
EWS	Enterprise Work Stations
F	
FAR	Federal Acquisition Regulation
FBI	Federal Bureau of Investigation
FBM	Forward Base Mode
FCL	Fiber Combined Laser
FCS	Fire Control Section; Fire Control System (SPY/FCS - AN/SPY radar Fire Control System)
FDE	Force Developers Evaluation
FENSR	Force Engagement and Sensor Coordination - Raid
FFP	Firm Fixed Price
FFPLOE	Firm Fixed Prices Level of Effort
FFRDC	Federally Funded Research and Development Center
FGA	Fort Greely, Alaska
FGACC	Fort Greely, Alaska Communication Center
FILEMAN	File Manager
FISMA	Federal Information Security Management Act
FMA	Foreign Material Acquisition; Foreign Military Asset
FMS	Foreign Military Sales
FOC	Full Operational Capability
FOIA	Freedom of Information Act
FPA	Focal Plane Array
FPAF	Fixed Price Award Fee
FPEPA	Fixed Price with Economic Price Adjustment
FPIF	Fixed Price Incentive Firm

ACRONYMS	DEFINITION
FPIS	Fixed Price Incentive Successive
FQT	Formal Qualification Testing
FRACAS	Failure Reporting, Analysis, and Corrective Action System
FRCS	Facility-related control systems
FSRM	Facilities, Sustainment, Restoration, and Modernization
FT	Flight Test
FTCN	Flight Test Communication Network
FTG	Flight Test GMD
FTM	Flight Test Mission
FTT	Flight Test - THAAD
FY	Fiscal Year
FYDP	Future Years Defense Program; Fiscal Year Defense Plan
G	
GBI	Ground Based Interceptor
GBR-P	Ground Based Radar Prototype
GCC	Geographic Combatant Commands
GCN	Global Command Network; GMD Communications Network
GDIL	GMD Development Integration Lab
GDS	Guam Defense System
GEM	Global Engagement Manager; Guidance Enhancement Missiles (PATRIOT)
GEO	Geosynchronous Earth Orbits
GEP	Ground Entry Point
GEU	Guidance Electronics Unit
GFC	GMD Fire Control
GFC / C	GMD Fire Control and Communications
GFE	Government Furnished Equipment
GFI	Government Furnished Information
GFS	Government Furnished Services
GM	Ground-based Midcourse
GMD	Ground-based Midcourse Defense
GNC	Guidance, Navigation and Control
GNOSC	Global Network Operations and Security Center
GOTS	Government Off-The-Shelf
GP	Green Pine
GPI	Glide Phase Intercept
GPS	Global Positioning System
GS	Ground Systems; Guidance Section
GSA	General Service Administration
GSIL	GMD Software Integration Lab
GSS	Global Combatant Command
GT	Ground Test
GTD	Ground Test Distributed
GTI	Ground Test Integrated
GTISS	Ground Test Integrated System-level Simulation
GTRI	Georgia Tech Research Institute
GTX	Ground Test (Element to Element)
GWS	GMD Weapon System
H	
HA	Hit Assessment
HALO	High Altitude Observatory
HARRT	HMD Risk Reduction and Testing
HBTS	Hypersonic and Ballistic Tracking Space Sensor
HD	Hypersonic Defense
HDAWG	Homeland Defense Architecture Working Group
HDR-H	Homeland Defense Radar - Hawaii
HEMP	High Altitude Electromagnetic Pulse
HEMTT	Heavy Expanded Mobility Tactical Truck
HEO	Highly Elliptical Orbits
HES	Homeland Defense Radar - Hawaii Equipment Shelter

ACRONYMS	DEFINITION
HGV	Hypersonic Glide Vehicle
HIL	Human-in-the-Loop; Hardware-in-the-Loop
HLD	Homeland Defense
HMD	Hypersonic Missile Defense
HMI	Human Machine Interface
HRTS	Human Resource Tracking System
HRTS/PTS	Human Resource Tracking System/Personnel Tracking System
HTT	Hardened Transportable Terminal
HVAC	Heating, Ventilation, and Air Conditioning
HWIL	Hardware-in-the-loop
I	
I&T	Integration & Test
IA	Information Assurance
IAI	Israel Aircraft Industries; Israel Aerospace Industries
IAM	Information Assurance Manager
IAMD	Integrated Air and Missile Defense
IAR	Intra-agency Acquisition Review
IAVA	Information Assurance Vulnerability Alerts
IAW	In Accordance With
IBCS	Integrated Battle Command System
IBR	Integrated Baseline Review
IC	Intelligence Community
ICBM	Intercontinental Ballistic Missiles
ICD	Interface Control Document
ICP	Interface Change Proposal
ICS	Industrial Control System
ICTA	Information Technology Networks and Systems
IDDE	Integrated Digital Data Environment
IDIQ	Indefinite Delivery Indefinite Quantity
IDMP	Integrated Data Management Plan
IDS	Interface Description Specifications
IDT	In-Flight Interceptor Communications System Data Terminal
IEP	Integrated Engagement Plan
IESS	Integrated Electrical Security System
IFICS	In-Flight Interceptor Communications System
IFC	Integrated Fire Controls
IFCN	Integrated Fire Control Network
IHLD	Improved Homeland Defense Interceptors
ILP	Initial Lot Production
ILS	Integrated Logistics Support
IM	Insensitive Munitions
IMAP	Integrated Master Assessment Plan
IMD	Integrated Missile Defense
IMDO	Israeli Missile Defense Organization
IMoD	Israeli Ministry of Defense
IMPACT	Information Management Program Activity Control Tool
IMTP	Integrated Master Test Plan
IMU	Inertial Measurement Unit
INFOSEC	Information Security
INSURV	Inspection and Survey
IOC	Initial Operational Capability
IPR	In-Process Review
IPT	Integrated Product Team
IR	Infra-red
IRBM	Intermediate-Range Ballistic Missiles
IRES	Integrated Research & Development for Enterprise Solutions
IRD	Initial Requirement Documents
IRM	Information Resources Management
ISA	Installation Support Agreements

ACRONYMS	DEFINITION
ISA&I	Israeli System Architecture and Integration
ISCM	Information System Continuous Monitoring
ISF	In-service fleet
ISIM	International Simulation
ISSM	Information Systems Security Manager
ISSO	Information System Security Officer
ISSAM	Information Assurance System Security Manager
IST BAA	Innovation, Science, and Technology Broad Agency Announcement
ISTC	Integrated Software Test Center
IT	Integrated Test; Information Technology
ITB	Institutional Training Base; Israeli Test Bed
ITC	Integration and Test Contract
IV&V	Independent Verification and Validation
IWS	Indications and Warning System; Integrated Warfare Systems
J	
JADC2	Joint All Domain Command and Control
JEON	Joint Emergent Operational Need
JEWL	Joint Early Warning Laboratory
JFCC	Joint Functional Component Command
JFCC-IMD	Joint Functional Component Command - Integrated Missile Defense
JHU	John Hopkins University
JHU/APL	John's Hopkins University/Applied Physics Laboratory
JIAMDO	Joint integrated Air and Missile Defense Organization
JIE	Joint Information Environment
JITC	Joint Interoperability Test Command
JLVC	Joint Live Virtual Constructive
JMAC	Joint Multi-Platform Advanced Combat Identification
JNIC	Joint National Integration Center, Schriever AFB, CO
JRDC	JNIC Research and Development Contract
JRMET	Joint Reliability and Maintainability Evaluation Team
JSP	Joint Service Provider
JTIDS	Joint Tactical Information Distribution System
JTIFC	Joint Tactical integrated Fire Control
JTMC	Joint Track Management Capability
JWSP	Joint Warfighter Support Program
K	
KIDD	Kinetic Intercept Debris Distribution
KP	Knowledge Points
KTF	Kauai Test Facility
KV	Kill Vehicle
KW	Kinetic Warhead
L	
LBSM3	Land Based SM-3 (early name for Aegis Ashore)
LCC	Launcher Control Center; Local Control Center
LES	LRDR Equipment Shelter
LHCT	Long Haul Communications Transport
LHD	Layered Homeland Defense
LLNL	Lawrence Livermore National Laboratory
LM	Lockheed Martin
LMMT	Link Monitoring and Management Tool
LM-RMS	Lockheed Martin Rotary and Mission Systems
LMSSC	Lockheed Martin Space Systems Company
LNA	Low Noise Amplifiers
LNO	Liaison Officer
LoR	Launch on Remote
LRDR	Long Range Discrimination Radar
LRDS	Long Range Detection Suite
LRS&T	Long Range Surveillance and Track

ACRONYMS	DEFINITION
LRU	Line Replaceable Unit'
LSC	Launch Site Controller
LSE	Launch Support Equipment
LSS	Launch Support Systems
LTPO	Lower Tier Project Office
LVC	Live, Virtual, Constructive
M	
M&S	Materials and Structure; Modeling and Simulation
MAIDIQ	Multi-Awarded IDIQ
MAIS	Major Automated Information System
MAJCOM	Major Command
MAP	MDA Assurance Plan; MDA Assurance Provisions
MAR	MDA Assurance Representative
MARAD	Maritime Administration
MARS	Modular Analysis and Reporting Suite
MBIT	Missile Built in Tests
MBRV	Modified Ballistic Reentry Vehicle
MBSE	Model Based Systems Engineering
MCC-T	Mission Control Center - Targets
MCF	Mission Control Facility
MCS	Mobile Communications Suite
MD	Missile Defense
MDA	Missile Defense Agency
MDACNET	Missile Defense Agency Classified Net
MDAHQ	Missile Defense Agency Headquarters
MDAP	Major Defense Acquisition Program
MDAR	Missile Defense System Accountability Report
MDDC	Missile Defense Data Center
MDDE	Missile Defeat and Enhancements
MDEB	Missile Defense Executive Board
MDIOC	Missile Defense Integration Operations Center
MDOC	Missile Defense Operations Centers
MDR	Mission Data Review
MDS	Missile Defense System
MDSC	Missile Defense Space Center
MDSEA	Missile Defense Space Enterprise Architecture
MDSEC	Missile Defense Space Experimentation Center
MDST	Missile Defense Space Warning Tool
MEDDS	Mission Execution and Display Distribution System
MEDIC	Multi-band Electronic attack Digital Injection Capability
MEIT	Multi-Element Integration and Test
MFRL	Modification and Fielding Requirements List
MFU	Missile Firing Unit
MHA	Management Headquarters Activity
MICS	MDA Integrated Communications Services
MiDAESS	Missile Defense Agency Engineering and Support Services
MILCON	Military Construction; Military Construction funding (type of Appropriation)
MILSATCOM	Military Satellite Communications
MIL-STD	Military Standards
MIP	Master Integration Plan
MIPR	Military Interdepartmental Purchase Request
MIS	MDSDC Interchange System; MDSEC Interchange System
MISL	Missile Intelligence Secure Link
MIT	Miniature Interceptor Technology; Massachusetts Institute of Technology
MIT/LL	Massachusetts Institute of Technology, Lincoln Laboratory, Lexington, MA
MMR	Multi-Mission Radar
MMU	Mass Modal Unit
MOC	Missile Defense Agency Operations Center
MOKV	Multi Object Kill Vehicle

ACRONYMS	DEFINITION
MOU	Memorandum of Understanding
MPAN	Missile Power Application Non-Launch
MPG	Mission Processing Group
MPL	ManPower Loading
MRBM	Medium-Range Ballistic Missiles
MRP	Missile Reprogramming
MRP-T	Missile Round Pallet-Transportable
MS	Mobile Sensor
MSC	Military Sealift Command; Mission Support Center
MSCT	Multi-Source Correlator Tracker
MSE	Missile Segment Enhancement
MSI	Mobile Sensor Integration
MSVP	Missions Specific Vendor Plug-in
MTC2	Maritime Command and Control
MTOE	Modified Table of Organization and Equipment
MVC	Mission Voice Communications
MW/MD	Missile Warning/Missile Defense
MW/SS	Missile Warning/Space Surveillance
MYP	Multi-Year Procurement
N	
NATO	North Atlantic Treaty Organization
NAVFAC	Naval Facilities Engineering Command
NAVSEA	Naval Sea Systems Command
NAWC	Naval Air Warfare Center
NCR	National Capital Region
NDAA	National Defense Authorization Act
NEPA	National Environmental Policy Act
NGI	Next Generation Interceptors
NGAS	Northrop Grumman Aerospace Systems
NGSS	Northrop Grumman Space Systems
NICE	National Initiative for Cybersecurity Education
NIPRNET	Non secure Internet Protocol Router Network
NIST	National Institute of Standards and Technology
NORAD	North American Aerospace Defense Command
NORTHCOM	Northern Command
NOSC	Network Operations Security Center
NRL	Naval Research Laboratory, Washington, DC
NSA	National Security Agency
NSWC	Naval Surface Warfare Center
O	
O&M	Operations and Maintenance
O&S	Operations and Sustainment
OA	Open Architecture: Operational Acceptance
OCB	Operational Capability Baseline
OCL	OPIR Laboratories
OCO	Overseas Contingency Operations
OCONUS	Outside of CONUS
OEM	Original Equipment Manufacturer
OGA	Other Government Agency
OMB	Office of Management and Budget
OPIR	Overhead Persistent Infrared
OPLAN	Operations Plan
OPSEC	Operations Security
OPTISIG	Optical Signatures In-Line Generator
OQE	Objective Qualitative Evidence
ORNL	Oak Ridge National Laboratory
OSC	Operations Support Center; Optical Signatures Code
OSC/OPTISIG	Optical Signatures Code/Optical Signature Inline Generator
OSD	Office of the Secretary of Defense

ACRONYMS	DEFINITION
OSF	Objective Simulation Framework
OSH	Occupational Safety and Health
OSI	Open Systems Architecture Signal Injectors
OSM	Object Sighting Message; Open Systems Architecture Sensor Models
OSPT	Operations Support Planning Team
OTA	Operational Test Agencies
OUSD/AT&L	Office of Under Secretary of Defense/Acquisitions, Technology and Logistics
P	
P&P	Policy and Procurement
PA	Performance Assessments; Project Arrangement
PAA	Phased Adaptive Approach
PAAWNS	Protected Anti-Jam/Anti-Scintillation Wideband Net-Centric System
PAC-3	Patriot Advanced Capability-3
PACOM	Pacific Command
PA IDT	Phased Array IDT
PATRIOT	Phased Array Tracking Radar Intercept on Target
PAV	Performance Assessment and Verification
PB	President's Budget
PCIL	Prime Consolidated Integration Lab
PCL	Prioritized Capabilities List
PCO	Procurement Contracting Office
PCRSS	Pacific Collector Range Safety System
PDC	Power Distribution Centers
PDI	Pacific Deterrence Initiative
PDR	Preliminary Design Review
PDS	Power Distribution System
PE	Program Element
PEELS	Parametric Endo/Exo-atmospheric Lethality Simulation
PEO IWS	Program Executive Office - Integrated Warfare Systems
PFR	Post Flight Reconstruction
PIA	Post Intercept Assessment
PID	Post Intercept Debris
PIDS	Prime Item Development Specifications
PLET	Phenomenology, Lethality, Environment, Threat
PM	Program Manager
PM/IAM	Program Manager/Information Assurance Manager
PMAP	Process Mission Assurance Plan
PMDCATS	Program Manager - Communications and Transmission Systems
PME	Primary Mission Equipment
PMI	Preventative Maintenance Inspection
PMP	Parts, Materials and Processes
PMPCB	Parts, Materials, and Process Board Requirements
PMRF	Pacific Missile Range Facility, Barking Sands, Kauai, HI
PM SHIELD	Project Manager for Short and Intermediate Effectors for Layered Defense
PMT	Pre-Mission Test
PNT	Positioning, Navigation and Timing
POA&M	Plan of Action and Milestones
POC	Point of Contact
PoP	Period of Performance
PPU	Prime Power Unit
PRIDE	Program Resource Internet Database Environment
PRR	Production Readiness Review
PWS	Program-Wide Support
PY	Prior Year
Q	
QLIK Sense	Missile Defense Agency Enterprise Data Visualization Tool
QRT	Quick Response Team
QSMA	Quality Safety and Mission Assurance

ACRONYMS	DEFINITION
R	
R&C	Readiness and Control
RAFU	Radar Field Upgrade
RAM-T	Reliability, Availability, and Maintainability and Testability
RAR	Risk Assessment Report
RASP	Rapid Scenario Prototype
RCCTO	Rapid Capabilities and Critical Technologies Office
RCS	Radar Cross Section
RDC	Radar Development Contract
RDEC	Research, Development, and Engineering Center
RDT&E	Research, Development, Test & Evaluation/Engineering
RECS	Research and Development Enterprise Collaboration Services
RF	Radio Frequency
RFA	Requests for Analyses
RFI	Requests for Information
RFP	Request for Proposal
RFT	Requests for Allied Participations in Tests
RKV	Redesigned Kill Vehicle
RMF	Risk Management Framework
RTS	Ronald Reagan Test Site, Kwajalein, Marshall Islands
RV	Reentry Vehicle
S	
SAF	Secretary of the Air Force
SAMD	Space Applications for Missile Defense
SAP	Special Access Programs
SAS	Sub-array suites
SATCOM	Satellite Communications
SBIR	Small Business Innovative Research;
SBIR/STTR	Small Business Innovative Research/Small Business Technology Transfer
SBIRS	Space Based Infrared System; Space-Based Infrared Sensors
SBOM	Software bill of materials
SBS	Sea Based Systems
SBT	Sea Based Terminal
SBX	Sea Based Test X-Band Radar
SC2RM	System-level Supply Chain and Cyber Risk Management
SCA	Security Controls Assessment (or Assessor)
SCADA	Supervisory Control And Data Acquisition
SCARE	Software Change Analysis Review Environment
SCG	Security Classification Guides
SCIF	Sensitive Compartmented Information Facility
SCMS	Site Control Monitoring System
SCN	Specification Change Notices; System Change Notices
SCOUT	Simultaneous Correlation of Unambiguous Tracks
SCR	SM-3 Cooperative Development; System Capability Review
SCRM	Supply Chain Risk Management
SCTM	Security Controls Traceability Matrix
SDA	Space Domain Awareness
SDR	System Design Review; Software Design Review
SE&I	Systems Engineering and Integration
SECDEF	Secretary of Defense
SEI	Systems Engineering & Integration
SGP	Super Green Pine
SI	Special Instruction
SIAO	Senior Information Assurance Officer
SIAO/CA	Senior Information Assurance Officer (SIAO)/Certification Authority (CA)
SIEM	System Information and Event Management
SIGNIT	Signal Intelligence
SIPRNET	Secret Internet Protocol Router Network
SISO	Senior Information Security Officer

ACRONYMS	DEFINITION
SITR	System Engineering, Integration, Test, and Readiness
SIU	Simulation Interface Units
SIV	Silo Interface Vault
SKA	Space-based Kill Assessment
SLD	System Level Integrated Discrimination
SLEP	Service Life Extension Program
SM	Standard Missile
SM-3	Standard Missile -3
SMAC	Shot Management Analysis Cell
SMDC	Space and Missile Defense Command, U.S. Army
SMDC/ARSTRST	Space and Missile Defense Command/Army Forces Strategic Command
SME	Subject Matter Expert
SNL	Sandia National Lab
SOC	Space Object Catalog
SOI	Space Object Identification
SP	Special Publication
SPAWAR	Naval Space and Warfare Command; Space and Naval Warfare Systems Command
SPFR	System Post Flight Reconstruction
SPMT	System Pre Mission Test
SpOC	Space Operations Command
SPPN	Special Purpose Processing Node
SPS	Standard Procurement System
SRBM	Short-Range Ballistic Missiles
SRBMD	Short Range Ballistic Missile Defense
SRD	Systems Requirements Document
SRP	Stockpile Reliability Program
SRR	System Requirements Review; Software Readiness Review
SS/CPAF	Soul Source/ Cost Plus Award Fee
SS/CPFF	Soul Source/ Cost Plus Fixed Fee
SSA	Space Situational Awareness
SSC	System Security Concept
SSF	Single Stimulation Framework
SSL	Space Sensor Layer
SSN	Space Surveillance Network
SSO	Special Security Office
STEM	Science, Technology, Engineering, and Mathematics
STOC	System Test and Operations Center
STRATCOM	Strategic Command
STSS	Satellite Tracking and Surveillance System; Space Tracking and Surveillance System
STTR	Small Business Technology Transfer
SWDC	Specialized Warfighter Development Contract
SWES	Software Evaluation Station
SWIR	Software Increment Reviews
SWUP	Software Upgrade
SYMP	Symposium
SysML	Systems Modeling Language
T	
T&E	Test and Evaluation
TACAIR	Technical Authority; Tactical Air
TALSS	THAAD Active Leak Sensor System
TC	Targets and Countermeasures

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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 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603176C I Advanced Concepts and Performance Assessment							
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	204.633	39.293	17.825	17.920	-	17.920	39.210	58.477	67.637	72.697	Continuing	Continuing
MD71: Advanced Concepts and Performance Assessments	121.133	31.147	13.386	13.320	-	13.320	33.566	51.977	60.448	65.073	Continuing	Continuing
MD40: Program-Wide Support	4.828	0.608	0.634	0.690	-	0.690	1.657	2.433	3.041	3.393	Continuing	Continuing
MC71: Cyber Operations	78.672	7.538	3.805	3.910	-	3.910	3.987	4.067	4.148	4.231	Continuing	Continuing
Program MDAP/MAIS Code: 362												
Note N/A												
A. Mission Description and Budget Item Justification The Advanced Concepts and Performance Assessment (ACPA) Program Element delivers a government concept that integrates concept definition, simulation, analysis, and testbed capability. ACPA's focus is on the exploration of novel and/or emerging capabilities that may have the potential to enhance the Missile Defense System. ACPA centralizes assessment of advanced missile defense technology and delivers insight into the performance of proposed concepts extending the Missile Defense Agency's (MDA) ability to address evolving threats for the Warfighter. Working with national laboratories and industry, MDA will invest in the analysis and assessment of directed energy system components to determine their effectiveness and capability for missile defense. Subject Matter Experts provide independent assessments of government, university, and industry technology concepts, used in concert with systems engineering requirements, to support acquisition strategy decisions and define technology focus areas. The innovative structured concept definition and assessment methodology enables MDA to quickly validate focus areas, verify contractor technology solutions, and evaluate promising concepts in future Missile Defense System architectures. This methodology significantly enhances MDA's ability to assess technology concepts while decreasing the cost of development by: - Delivering Independent model-based simulations of industry technology concepts to inform the systems engineering process - Quantifying expectations through algorithms, digital simulation, hardware-in-the-loop, and/or demonstration events prior to expensive live fire test events - Executing end-to-end testing of technology concepts integrated with weapon systems through Command and Control network architectures - Maturing and conducting assessments of new technologies to evaluate their readiness for transition to the future Missile Defense System - Supports early coordination with the program elements to promote efficient integration into the Missile Defense System and provide additional capability to meet the Warfighter needs Performance assessment of advanced concepts is the key enabler for government evaluation of technology in the earliest stages of development and maximizes the efficiency of technology investments. Performance assessment is used to quantify capability expectations of innovative concepts to counter the expanding regional and homeland missile threats, including ballistic and cruise missiles, and hypersonic vehicles.												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency				Date: March 2024	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)		PE 0603176C I Advanced Concepts and Performance Assessment			
B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	39.737	17.825	18.301	-	18.301
Current President's Budget	39.293	17.825	17.920	-	17.920
Total Adjustments	-0.444	0.000	-0.381	-	-0.381
• 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	-0.300	0.000			
• Other Adjustment	-0.144	0.000	-0.381	-	-0.381
Change Summary Explanation					
N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 0603176C / Advanced Concepts and Performance Assessment				Project (Number/Name) MD71 / Advanced Concepts and Performance Assessments			
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
MD71: Advanced Concepts and Performance Assessments	121.133	31.147	13.386	13.320	-	13.320	33.566	51.977	60.448	65.073	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note N/A												
A. Mission Description and Budget Item Justification Advanced Concepts and Performance Assessments (ACPA) centralizes advanced technology concept modeling, simulation, software, and analysis. Integrating models of promising disruptive technical solutions into Missile Defense System system-level simulations enables leadership to make data driven acquisition and technology investment decisions. Assess concepts that improve or adapt existing systems, that incorporate mobile sensors and interceptors that can be surged into zones of crisis or conflict are also deemed disruptive. Examples of efforts required to quantify the contribution of disruptive technologies may include, but not be limited to environmental experimentation and phenomenological characterization required for new sensor concepts, advanced weapon technologies, and emerging directed energy concepts. Using a technology development testbed approach, ACPA enables assessment and characterization of incremental technology improvements to inform requirements and evaluate missile defense elements, components, and/or sub-component technologies and to assess maturity as it relates to readiness for transition to the future Missile Defense System. ACPA promotes informed decision making early in the acquisition life-cycle to maximize investments and successful transition into the Missile Defense System. Coupled with characterization efforts, ACPA develops innovative left-through-right-of-launch modeling capabilities including physics-based representations in the areas of cyber, sensor technologies, lethality and survivability, communications, and sensor support. ACPA is focusing on Science and Technology initiatives which increase interoperability and leverages expertise with allied and service partners. ACPA capitalizes on the innovation of small businesses, universities, Federally Funded Research and Development Centers (FFRDCs), and University Affiliated Research Centers (UARCs) to pursue a broad range of hardware, software, models, algorithms, trade studies, and analysis. These innovations bring together government developed models representing existing and future missile defense architectures, technology concepts, and advanced algorithms to provide detailed assessments of concept performance and inform investment decisions. These innovations, combined with a robust high performance computing infrastructure, provide a unique in-house government capability to demonstrate and assess technology concepts for emerging technology risk reduction, to mature concepts with laboratory, ground, and flight test data, and where possible, apply concepts in simulated exercises with weapon systems across representative communication architectures.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: Advanced Concepts and Performance Assessment									16.147	13.386	13.320	
Articles:									-	-	-	

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency			Date: March 2024		
Appropriation/Budget Activity 0400 / 3		R-1 Program Element (Number/Name) PE 0603176C / Advanced Concepts and Performance Assessment	Project (Number/Name) MD71 / Advanced Concepts and Performance Assessments		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>Description: Provide quantitative assessments that define the benefits of technology investments and inform requirements using an integrated concept definition, simulation, and performance analysis capability. A staff of diverse Subject Matter Experts delivers independent government performance evaluations which exercise kinetic and non-kinetic missile defense concept representations against the broad spectrum of evolving threats.</p> <p>- Assess electro-optical infrared and advanced sensor technologies and quantify impacts on Missile Defense System to address future threat capabilities</p> <p>- Provide independent government assessments of industry sensor, directed energy and weapon system technology concepts, and the ability of these systems to be integrated for a more effective Missile Defense System</p> <p>- Evaluate lethality impacts and weapons effectiveness of emerging concepts</p> <p>- Examine pathfinder solutions and demonstrate the utility of directed energy for missile defense</p> <p>- Study on-orbit satellite capabilities and contribution to defense against advanced threats</p> <p>- Assess and identify promising intercept capabilities across all phases of flight</p> <p>- Perform concept performance against emerging advanced threats including hypersonic threat testing scenarios</p> <p>- Mature advanced technology concepts in a testbed environment and through lab, ground, and flight demonstrations</p> <p>- Apply concepts in simulated exercises with weapon systems</p> <p>- Work with the Missile Defense System Architect and Missile Defense Agency (MDA) Systems Engineer to design concepts, build models and assess technology concepts' contributions to future Missile Defense System architectures</p> <p>- Develop and extend modeling techniques, including incorporation of artificial intelligence</p> <p>- Focus research and engineering activities from university and small business partners to identify suitable technology and concepts that improve Missile Defense System performance through a rapid innovation model based on an engineering test bed</p> <p>- Assess multi-domain data fusion concept for current or future weapon systems</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <p>- SEE ABOVE</p> <p>FY 2025 Plans:</p> <p>- SEE ABOVE</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>N/A</p>					
Title: Hypersonic Hardware-in-the-Loop			15.000	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 / 3				R-1 Program Element (Number/Name) PE 0603176C / Advanced Concepts and Performance Assessment			Project (Number/Name) MD71 / Advanced Concepts and Performance Assessments				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2023	FY 2024	FY 2025	
<div>Articles:</div> <div>Description: Develop an independent government hypersonic testbed supporting assessment and maturation of industry and/or government technology approaches. Leverage existing facilities and extend ballistic and/or hypersonic kill vehicle hardware-in-the-loop (HWIL) by integrating with evolving hypersonic sensor HWIL capabilities. Provide a prototype platform consisting of technologies necessary to evaluate the potential of new kill vehicle concepts to identify, track, and engage emerging threats; including vehicles with dynamically changing aerothermal signatures. Assess, mature, and integrate high-fidelity environmental truth models and/or representations for aerothermal, aero-optics and/or jet interaction for hypersonic flight environments to provide accurate simulations for digital scene injections into kill vehicle concept representations in HWIL facilities. Bolster prototype development and maturation by upgrading hypersonic HWIL capabilities through pathfinder process integrating agile continuous integration and/or continuous delivery capabilities.</div> <div>FY 2024 Plans: N/A</div> <div>FY 2025 Plans: N/A</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement: N/A</div>								-	-	-	
Accomplishments/Planned Programs Subtotals								31.147	13.386	13.320	
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
• 0603180C: Advanced Research	84.996	21.461	19.354	-	19.354	23.432	24.863	26.418	26.894	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
Utilize various contracting strategies with small businesses, FFRDCs, UARCs, and other Government Agencies to maximize the contribution to MDA and inform Better Buying Power acquisition decisions.											

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 0603176C / Advanced Concepts and Performance Assessment				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: Program-Wide Support	4.828	0.608	0.634	0.690	-	0.690	1.657	2.433	3.041	3.393	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency										Date: March 2024			
Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 0603176C / Advanced Concepts and Performance Assessment				Project (Number/Name) MC71 / 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	
MC71: Cyber Operations	78.672	7.538	3.805	3.910	-	3.910	3.987	4.067	4.148	4.231	Continuing	Continuing	
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-			
Note N/A													
A. Mission Description and Budget Item Justification This project supports the monitoring and tracking of Cybersecurity mitigations as required in the Department of Defense (DoD) Instruction Number 8510.01, as amended which establishes Risk Management Framework (RMF) requirements for DoD Information Technology (IT). Funds in this project implement and sustain DoD-required RMF and associated Controls Validation Testing activities, analysis of validation results, risk assessments and reviews of proposed Program Manager/Information Assurance System Security Manager Plans of Action and Milestones (POAMs) for enabling modeling and simulation mission systems. This project captures the RMF documentation (artifacts, validation results, Information Assurance (IA) risk assessment results, and the Missile Defense Agency (MDA) Authorizing Official and Chief Information Officer accreditation decisions) into the Defense Information Systems Agency's Enterprise Mission Assurance Support Service system. Hardware and software upgrades required to meet DoD standards are supported by funding in this project. Independent verification and validation team actions ensure the availability, integrity, authentication, confidentiality and non-repudiation of the MDA mission, test and administrative systems. Activities in the project are necessary to comply with the Federal Information Security Management Act.													
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025		
Title: Information Assurance / Cyber Network Defense Articles: Description: Funds RMF, network defense, and information technology requirements including: - Conduct Cybersecurity and/or IA engineering and architecture planning - Maintain hardware and/or software currency to meet DoD-mandated cybersecurity requirements - Support monitoring and tracking of Cybersecurity mitigations detailed in IT security POAM - Develop DoD RMF certification and accreditation packages - Conduct controls validation testing of systems and to provide POAM to mitigate IA deficiencies - Conduct annual IA reviews to assess compliance in implementing and maintaining IA controls Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans:									7.538	3.805	3.910		
									-	-	-		

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024		
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603176C / Advanced Concepts and Performance Assessment	Project (Number/Name) MC71 / Cyber Operations		
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		7.538	3.805	3.910
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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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 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603180C / <i>Advanced Research</i>
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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	259.099	84.996	21.461	19.354	-	19.354	23.432	24.863	26.418	26.894	Continuing	Continuing
MD25: <i>Advanced Technology Development</i>	253.126	84.196	20.698	18.609	-	18.609	22.442	23.829	25.230	25.639	Continuing	Continuing
MD40: <i>Program-Wide Support</i>	5.973	0.800	0.763	0.745	-	0.745	0.990	1.034	1.188	1.255	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

N/A

A. Mission Description and Budget Item Justification

The Advanced Research Program conducts leading edge technology research and development efforts to enable future missile defense capabilities. The Missile Defense Agency (MDA) executes this mission by capitalizing on the creativity and innovation of the brightest minds in our Nation's universities, small and large businesses, national laboratories, other government agencies, and allied countries. In accordance with identified Agency requirements and Warfighter needs, the program develops, assesses and demonstrates the utility of emerging component technologies. After successful maturation and demonstration activities, the program facilitates transition of the technologies to the Missile Defense System through a Commercialization and Transition Office and other MDA programs.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	85.323	21.461	22.024	-	22.024
Current President's Budget	84.996	21.461	19.354	-	19.354
Total Adjustments	-0.327	0.000	-2.670	-	-2.670
• 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	-0.327	0.000			
• Other Adjustment	0.000	0.000	-2.670	-	-2.670

Change Summary Explanation

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

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 0603180C / <i>Advanced Research</i>				Project (Number/Name) MD25 / <i>Advanced Technology Development</i>			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MD25: <i>Advanced Technology Development</i>	253.126	84.196	20.698	18.609	-	18.609	22.442	23.829	25.230	25.639	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

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

A. Mission Description and Budget Item Justification

The Missile Defense Agency's (MDA) Advanced Technology Development Program pursues a broad range of emerging technologies targeted for application into the Missile Defense System. MDA explores potential new Missile Defense System capabilities by leveraging the creativity and innovation of the Nation's industry, universities, and national laboratories to develop advanced technologies. MDA also pursues advanced technology development through cooperative international research agreements between U.S., foreign entities and universities of allied nations. The program manages the selection process and administers the Missile Defense Small Business Innovation Research (SBIR) program element, 0605502C. SBIR topics and projects are selected annually based on needs across the Missile Defense System and executed in partnership with sponsoring intra-agency organizations. These mechanisms foster a cooperative environment between small businesses, prime contractors, and MDA elements to yield reduced cost and increased returns on investment for successful technology integration efforts.

MDA's Advanced Technology Development Project assesses the feasibility and technical performance of the advanced research and development efforts through in-house means and partnerships with Department of Defense and other government agency laboratories. MDA provides independent assessments, demonstration and experimentation environments, and other concept assessment capabilities. The output of the experimentation, demonstration, and laboratory efforts provide risk reduction, transition feasibility, performance assessments, concept assessment data and analysis, and an overall improvement in the state-of-the-art of advanced technology evaluation. The culmination of research, development, and assessment is the commercialization and transition of promising technologies into the Missile Defense System.

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

		FY 2023	FY 2024	FY 2025
Title: Advanced Research		84.196	20.698	18.609
Articles:		-	-	-
Description: This activity funds technology and research initiatives executed through continuous cycles of development, maturation, and assessment of component technologies identified by emerging weapon and sensor system concepts.				
Recurring tasks include:				
- Conduct systems engineering, integration, research, and material solution analysis to identify initiatives and technology to include missiles, sensors, and command and control components in the defense against current and future threats				

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024	
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603180C / <i>Advanced Research</i>	Project (Number/Name) MD25 / <i>Advanced Technology Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<ul style="list-style-type: none"> - Provide assessment and maturation of critical technologies to address future threat capabilities - Pursue advanced technology investments for defense against ballistic and non-ballistic hypersonic threats - Develop breakthrough technology and innovative solutions from private industry, qualified accredited educational institutions, and non-profit organizations to include: <ul style="list-style-type: none"> -- Additive manufacturing technology initiatives for interceptor propulsion and structural components -- Materials development, assessment, and processing techniques -- Advanced threat component technologies -- Electro-optical and infrared sensor and communication systems -- Radar and radio frequency communication systems -- Interceptor and space systems component technologies -- Left through right of launch integration - Assess and evaluate advanced technology investments to extract risk-reduction information and determine transition feasibility - Execute the Broad Agency Announcement (BAA) addressing breakthrough technologies and innovative solutions from private industry, qualified accredited educational institutions, and non-profit organizations to include: <ul style="list-style-type: none"> -- Artificial intelligence related to machine learning, big data, and Decision Theory -- Computer Science, Signal and Data Processing -- Directed energy technology -- Future Missile Defense System concept development -- Kill Web Algorithms, Probability and Decision Theory -- Modeling and simulation -- Radar and radio frequency sensor systems -- Phenomenology - Utilize NanoSat technology demonstrations and sounding rockets to conduct maturation testing and reduce risk for new and advanced technologies for the Missile Defense System - Continue to assess incoming innovative technology white papers and pursue awards for those that align with Agency priorities and budget, emphasizing component technologies that address advanced threat challenges - Leverage university research opportunities including allied nations to enhance Missile Defense System advanced technology initiatives and build stronger relationships with allies and partners - Manage the selection process of SBIR and technology application programs to assist MDA funded technology developers in finding and entering technology transfer opportunities to missile defense applications <p>Specific and/or unique accomplishment to each FY are as follows:</p> <p>FY 2024 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 / 3	R-1 Program Element (Number/Name) PE 0603180C / <i>Advanced Research</i>	Project (Number/Name) MD25 / <i>Advanced Technology Development</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Continue NanoSat Testbed Initiative: Commence next series of experimentation focused on improved engagement management techniques - Continue High Temperature Seeker Window Assessment: Mature and evaluate seeker windows that support existing and future missions <p><i>FY 2025 Plans:</i> SEE ABOVE</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Decrease from FY 2024 to FY 2025 reflects efficiencies realized in MDA Advisory and Assistance Services</p>			
Accomplishments/Planned Programs Subtotals	84.196	20.698	18.609

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>
• 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
• 0604181C: <i>Hypersonic Defense</i>	513.267	208.997	182.283	-	182.283	193.100	205.122	250.208	327.698	Continuing	Continuing

Remarks

D. Acquisition Strategy

The acquisition strategy to conduct technology development agreements consists of partnering with accredited universities, small businesses, and nonprofit organizations. MDA awards competitive procurements via the MDA Innovation, Science, and Technology BAA and the SBIR and the Small Business Technology Transfer program.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 0603180C / <i>Advanced Research</i>				Project (Number/Name) MD40 / <i>Program-Wide Support</i>			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MD40: <i>Program-Wide Support</i>	5.973	0.800	0.763	0.745	-	0.745	0.990	1.034	1.188	1.255	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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.

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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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>
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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	3,183.325	194.264	220.311	367.279	-	367.279	543.868	554.429	464.018	314.936	Continuing	Continuing
MD07: <i>THAAD</i>	2,573.835	176.090	199.440	349.029	-	349.029	516.697	527.099	438.811	295.807	Continuing	Continuing
MC07: <i>Cyber Operations</i>	56.334	10.353	12.140	3.189	-	3.189	3.250	3.313	3.380	3.446	Continuing	Continuing
MD06: <i>Patriot Advanced Capability-3 (PAC-3)</i>	411.296	0.914	0.900	0.922	-	0.922	0.938	0.952	0.967	0.986	Continuing	Continuing
MD40: <i>Program-Wide Support</i>	141.860	6.907	7.831	14.139	-	14.139	22.983	23.065	20.860	14.697	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

The increase from FY 2024 to FY 2025 provides funding to begin the initial engineering efforts supporting the integration of the Terminal High Altitude Area Defense (THAAD) weapon system into the Army Integrated Air and Missile Defense Battle Command System (IBCS) architecture and provides for additional capability upgrades to the THAAD Interceptor as part of the THAAD System Build 6.0 - Updated THAAD with Increased Threat Space.

A. Mission Description and Budget Item Justification

The Ballistic Missile Defense Terminal Defense Segment provides vital forward-deployable capabilities to support regional defensive Missile Defense System operations. The THAAD system provides Combatant Commands a globally-transportable, rapidly-deployable capability to intercept and destroy short-range, medium-range, and limited intermediate-range missile threats inside or outside the atmosphere during terminal phase of flight. This Program Element investigates concepts and continues the development and integration of multiple, independent THAAD system builds to address the evolving threat, improve reliability, availability and readiness, defense planning, and improved capability to engage short-range ballistic missile, medium-range ballistic missile, and limited intermediate-range ballistic missile threats.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>
Previous President's Budget	195.216	220.311	239.705	-	239.705
Current President's Budget	194.264	220.311	367.279	-	367.279
Total Adjustments	-0.952	0.000	127.574	-	127.574
• 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	-3.454	0.000			
• Other Adjustment	2.502	0.000	127.574	-	127.574

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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 / BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 0603881C / Ballistic Missile Defense Terminal Defense Segment
<p><u>Change Summary Explanation</u></p> <p>The increase in FY 2025 provides funding to begin the initial engineering efforts supporting the integration of the THAAD weapon system into the Army IBCS architecture and provides for additional capability upgrades to the THAAD Interceptor as part of the THAAD System Build 6.0 - Updated THAAD with Increased Threat Space.</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 0603881C / Ballistic Missile Defense Te rminal Defense Segment				Project (Number/Name) MD07 / THAAD			
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
MD07: THAAD	2,573.835	176.090	199.440	349.029	-	349.029	516.697	527.099	438.811	295.807	Continuing	Continuing
Quantity of RDT&E Articles	50	-	-	-	-	-	-	-	-	-		

Note

The increase from FY 2024 to FY 2025 provides funding to begin the initial engineering efforts supporting the integration of the Terminal High Altitude Area Defense (THAAD) weapon system into the Army Integrated Air and Missile Defense Battle Command System (IBCS) architecture and provides for additional capability upgrades to the THAAD Interceptor as part of the THAAD System Build 6.0 - Updated THAAD with Increased Threat Space. The increase also includes the realignment of cyber budget for Weapon system specific cyber development or component modification efforts from Budget Project MC07 to MD07 THAAD Development accomplishment in accordance with Department guidance.

A. Mission Description and Budget Item Justification

The THAAD system provides a capability to intercept and destroy short-range, medium-range, and limited intermediate-range missile threats inside or outside the atmosphere during the terminal phase of flight. THAAD continues the development and integration of multiple, independent system builds to address the evolving threat, improve reliability, availability and readiness, defense planning, and improved capability to engage Short-Range Ballistic Missile, Medium-Range Ballistic Missile, and limited Intermediate-Range Ballistic Missile threats.

THAAD Development continues the development and integration of multiple, independent system builds to deliver enhanced system capabilities and expand the defense of allies and deployed forces from short to limited intermediate-range threats.

Program Operations provides strategic planning, program integration, cost estimating, contracting, financial management, internal reviews and audits, earned-value management and program assessments for the THAAD Program Office.

Project Redwood details are provided at a Higher Classification reported in accordance with Title 10, United States Code, Section 119 (a)(1) in the Special Access Program Annual Report to Congress.

THAAD Program Support provides communications and interoperability efforts to support the Materiel Release process, maintaining safety and mission assurance and the ability to operate on multiple networks.

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

	FY 2023	FY 2024	FY 2025
Title: Terminal High Altitude Area Defense (THAAD) Development	112.459	137.376	285.526
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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>	Project (Number/Name) MD07 / <i>THAAD</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>Description: The THAAD Development program continues the development and integration of multiple, independent system builds to deliver enhanced system capabilities and expand the defense of allies and deployed forces from short-to-intermediate-range threats.</p> <p>System Build 5.0: THAAD Updates to Maintain Mission Assurance (Development scheduled to complete in 2Q FY 2025)</p> <ul style="list-style-type: none"> - Interface Change Proposal: Implements necessary Link-16 software interface changes to align with Missile Defense System interoperability. - Maintenance Updates: Provides required maintenance updates and implements deferred content from accelerated Joint Emergent Operational Need (JEON) fielding timelines. - Missile Segment Enhancement (MSE) Safety Integration: Integrates additional MSE safety improvements and the ability to manually emplace a MSE Launcher. - External Integration: Project Manager for Short and Intermediate Effectors for Layered Defense (PM SHIELD) integration and support. - Configuration 3 System Integration and Cyber Modernization: Updates THAAD weapon system to integrate new hardware addressing obsolescence, cyber vulnerabilities and various supportability issues to ensure continuity of Authority to Operate (ATO) approvals. - THAAD Radio Frequency (RF) Remote Launcher: Delivers the capability to increase the defended area footprint of a single THAAD Battery by enabling RF communications from the THAAD Fire Control and Communication (TFCC) to Remoted THAAD launchers. - Navy/Transportable Radar Surveillance and Control-2 (AN/TPY-2) Radar: Integrates the latest AN/TPY-2 radar software (CX 6.0) into the THAAD weapon system, which ensures system functionality and interoperability providing the capability to track and discriminate evolving threats. - Assured Position Navigation and Timing (APNT): Implement protective measures that increase assurance of reliable Position Navigation and Timing (PNT) data. APNT supports a Department of Defense (DoD) mandate to ensure the integrity and availability of PNT data for the THAAD weapon system. - Remote Workstation: External TFCC hardware and software connectivity allowing for the capability to remote from the TFCC tactical shelter to a remote location. - Dual Monitor: Integrate Dual Monitor capabilities for the ability to provide human factor improvements through additional monitor viewing space to be utilized within the TFCC and in support of Remote Workstation capability to support external Tactical Operation Centers (TOCs) and other external Remote Workstations. - Architecture Improvements: Improvements in Software and Hardware Architecture to increase modularity, interoperability and reduce obsolete software and architecture structures. 			

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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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>	Project (Number/Name) MD07 / <i>THAAD</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<ul style="list-style-type: none"> - Common Planner: Provides a common force operations planning capability with the objective of achieving a common software baseline across all current THAAD force operations planning platforms. - Cyber Security Updates: Provides THAAD Weapon System software development efforts consistent with DoD cybersecurity requirements. <p>System Build 6.0: Updates THAAD with Increased Threat Space (Development scheduled to complete in 4Q FY 2027)</p> <ul style="list-style-type: none"> - Updated THAAD/MSE with Increased Threat Space: Provides the capability to plan and execute engagements against advanced threats. - THAAD Interceptor Software Upgrades: Provides updated engagement algorithm development to the THAAD Interceptor to improve performance against existing and emerging threats. - AN/TPY-2 Radar: Integrates the latest AN/TPY-2 radar software (CX 7.0) into the THAAD weapon system, which ensures system functionality and interoperability providing the capability to track and discriminate evolving threats. - Cyber Security Updates: Provides THAAD Weapon System software development efforts consistent with DoD cybersecurity requirements. - THAAD Evaluation Center (TEC) Upgrades: Provides for the upgrade of the THAAD labs at the TEC to Battery Configuration 3 production representative hardware. - External Integration: PM SHIELD integration and support. <p>Recurring efforts include:</p> <ul style="list-style-type: none"> - Support element Models and Simulations (M&S) related activities, to include Verification, Validation and Accreditation (VV&A) and Continuous Digital Assessment on the path of accredited models and simulations for Missile Defense System assessment. - Support M&S related activities in element and Missile Defense System test events in the approved Integrated Master Test Plan such as requirements, design, development, and VV&A. - Design, develop, test, and field the releases of THAAD system software to ensure continued performance and operation of fielded batteries. - Support laboratory assets and equipment to enable future development, and to isolate, identify, and remedy root causes of equipment and software deficiencies identified by the warfighter. - Perform requirements development, engineering analysis, and performance verification for THAAD development and Missile Defense System integration to ensure THAAD compliance with the Missile Defense System Specification, Missile Defense System Description Document, and Master Integration Plan. - Perform Independent Verification and Validation (IV&V) of software and software assurance risk report. - Perform THAAD Weapon System software development efforts consistent with DoD cybersecurity requirements. 			

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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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>	Project (Number/Name) MD07 / <i>THAAD</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
Specific and/or unique accomplishments to each FY are as follows:			
<p><i>FY 2024 Plans:</i></p> <p>System Build 4.0</p> <ul style="list-style-type: none"> - Field System Build 4.0 (4.0 Global) to all THAAD batteries <p>System Build 5.0</p> <p>Provides for development and integration efforts to include:</p> <ul style="list-style-type: none"> - Interface Change Proposal: Implements necessary Link-16 software interface changes to align with Missile Defense System interoperability. - Maintenance Updates: Provides required maintenance updates and implements deferred content from accelerated JEON fielding timelines. - MSE Safety Integration: Integrates additional MSE safety improvements and the ability to manually emplace MSE Launcher. - External Integration: PM SHIELD integration and support. - Configuration 3 system Integration and Cyber Modernization: Updates THAAD weapon system to integrate new hardware addressing obsolescence, cyber vulnerabilities and various supportability issues to ensure continuity of ATO approvals. - THAAD RF Remote Launcher: Delivers the capability to increase the defended area footprint of a single THAAD Battery by enabling RF communications from the TFCC to Remoted THAAD launchers. - AN/TPY-2 Radar: Integrates latest AN/TPY-2 radar software (CX 6.0) into THAAD weapon system which ensures system functionality and interoperability providing the capability to track and discriminate evolving threats. - APNT: Implement protective measures that increase assurance of reliable PNT data. APNT supports a Department of Defense mandate to ensure the integrity and availability of PNT data for the THAAD weapon system. - Remote Workstation: External TFCC hardware and software connectivity allowing for the capability to remote from the TFCC tactical shelter to a remote location. - Dual Monitor: Integrate Dual Monitor capabilities for the ability to provide human factor improvements through additional monitor viewing space to be utilized within the TFCC and in support of Remote Workstation capability to support external TOCs and other external Remote Workstations. - Architecture Improvements: Improvements in Software and Hardware Architecture to increase modularity, interoperability and reduce obsolete software and architecture structures. - Common Planner: Provides a common force operations planning capability with the objective of achieving a common software baseline across all current THAAD force operations planning platforms. <p>System Build 6.0</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 0603881C / Ballistic Missile Defense Terminal Defense Segment	Project (Number/Name) MD07 / THAAD		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<p>- Conduct systems engineering and integration analysis in support of the Full THAAD/MSE Integration capability.</p> <p>FY 2025 Plans:</p> <p>- Complete development of THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance.</p> <p>- Continue for development of THAAD System Build 6.0 - Updated THAAD with Increased Threat Space including THAAD Interceptor capability upgrades to improve performance against existing and emerging threats.</p> <p>- Provide initial engineering efforts supporting the integration of the THAAD weapon system into the Army IBCS architecture.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Increase from FY 2024 to FY 2025 provides funding to begin the initial engineering efforts supporting the integration of the THAAD weapon system into the Army IBCS architecture and provides for additional capability upgrades to the THAAD Interceptor as part of the THAAD System Build 6.0 - Updated THAAD with Increased Threat Space. The increase also reflects the realignment of cyber budget for Weapon system specific cyber development or component modification efforts from Budget Project MC07 to MD07 in accordance with Department guidance.</p>				
<p>Title: Program Operations</p> <p align="right">Articles:</p> <p>Description: Program Operations provides strategic planning, program integration, contracting, acquisition, engineering, financial management, internal reviews and audits, and program assessments for the THAAD Program Office.</p> <p>Recurring efforts include:</p> <p>-Provide technical and business management support activities to provide Program and Agency Leadership with critical program status and decision quality data.</p> <p>-Ensure THAAD program compliance with internal and external direction, policies, and regulations to deliver critical capability within a consistent and disciplined process.</p> <p>-Conduct internal program reviews to measure program progress against the six Missile Defense Agency approved baselines.</p> <p>-Continue a Mission Assurance and Manufacturing Engineering Program to include Quality, Configuration Management, Manufacturing, Engineering, and Safety in all phases of the system life cycle, throughout the supply chain, and at all levels of assembly emphasizing high yield rates which minimize test and rework costs.</p> <p>-Provide Quality Safety and Mission Assurance (QSMA) operations to ensure compliance with Missile Defense Agency requirements for design, test, manufacturing, quality, safety and reliability to ensure high quality products are delivered to the Warfighter.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p>		52.426 -	50.732 -	49.047 -

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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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>		Project (Number/Name) MD07 / <i>THAAD</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
FY 2024 Plans: -SEE ABOVE. FY 2025 Plans: -SEE ABOVE. FY 2024 to FY 2025 Increase/Decrease Statement: N/A.					
Title: Project Redwood- Details at a Higher Classification Articles: Description: This project is reported in accordance with Title 10, United States Code, Section 119 (a)(1) in the Special Access Program (SAP) Annual Report to Congress. FY 2024 Plans: -SEE ABOVE. FY 2025 Plans: -SEE ABOVE. FY 2024 to FY 2025 Increase/Decrease Statement: Further details are reported in accordance with Title 10, United States Code, Section 119(a)(1) in the SAP Annual Report to Congress.			9.570 -	9.288 -	12.324 -
Title: THAAD Program Support Articles: Description: This activity provides support for efforts such as communications and interoperability upgrades to operate on joint, service, or allied communications networks. This activity provides support for safety and mission assurance requirements, and support of independent government offices as part of the Materiel Release process. Recurring efforts include: - Interoperability development and maintenance to ensure the weapon system is authorized to operate on joint, service, or allied communications networks. - Safety confirmation and verification testing, preparation and approvals of System Safety Risk Assessments, issuance of hazard classifications and safety releases, insensitive munitions approvals and waivers, and independent oversight and support in the areas of reliability, availability, and maintainability and quality assurance.			1.635 -	2.044 -	2.132 -

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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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>	Project (Number/Name) MD07 / <i>THAAD</i>	

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: FY 2024 Plans: -SEE ABOVE. FY 2025 Plans: -SEE ABOVE. FY 2024 to FY 2025 Increase/Decrease Statement: N/A.			
Accomplishments/Planned Programs Subtotals	176.090	199.440	349.029

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0208866C MD07: <i>THAAD Operation and Maintenance</i>	86.037	89.297	91.790	-	91.790	93.995	96.024	97.945	99.904	Continuing	Continuing
• 0208866C MD07: <i>THAAD Procurement</i>	239.994	216.782	246.995	-	246.995	476.227	645.357	656.946	674.361	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
• 0604876C: <i>Ballistic Missile Defense Terminal Defense Segment Test</i>	67.789	47.577	25.673	-	25.673	61.982	120.465	56.615	55.131	Continuing	Continuing

Remarks

D. Acquisition Strategy

The THAAD program awards Task Orders on the Advanced Capability Development (ACD) Indefinite Delivery Indefinite Quantity (IDIQ) contract for THAAD development. The ACD contract is comprised of seven separate task orders with varying contract types such as firm fixed price, fixed price incentive firm, cost plus incentive fee, and cost plus fixed fee. The discrete task orders allow management and tracking of development work. The ACD contract ordering period ends in January 2025, with the final delivery period for all ordered work to end in January 2026. As such, the THAAD program plans to award a new IDIQ contract called THAAD Follow on Development Contract (TFODC) by January 2025. TFODC will support continued development for TH 6.0, future THAAD system builds, engineering and design support, testing efforts, obsolescence mitigation and software sustainment.

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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 0603881C / Ballistic Missile Defense Terminal Defense Segment	Project (Number/Name) MD07 / THAAD
<p>THAAD also utilizes other contracts with industry as well as agreements with other U.S. Government organizations in order to develop, test and upgrade the THAAD Weapon system.</p>		

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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 0603881C / Ballistic Missile Defense Terminal Defense Segment						Project (Number/Name) MD07 / THAAD			
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
Terminal High Altitude Area Defense (THAAD) Development - Advanced Capability Development	SS/IDIQ	LOCKHEED MARTIN CORPORATION : AL	1,102.887	47.090	Nov 2022	83.152	Nov 2023	148.475	Nov 2024	-		148.475	Continuing	Continuing	Continuing
Terminal High Altitude Area Defense (THAAD) Development - MDA Program Support (Prior)	MIPR	Various : Various	15.386	0.000		0.000		0.000		-		0.000	0.000	15.386	15.386
Terminal High Altitude Area Defense (THAAD) Development - Requirements and Design - Industry	C/CPAF	BOEING : AL	30.397	6.990	Dec 2022	5.665	Dec 2023	5.420	Dec 2024	-		5.420	Continuing	Continuing	Continuing
Terminal High Altitude Area Defense (THAAD) Development - Software Development	MIPR	Various : Various	17.631	4.664	Nov 2022	0.277	Nov 2023	0.296	Nov 2024	-		0.296	Continuing	Continuing	Continuing
Terminal High Altitude Area Defense (THAAD) Development - Software Development (PM Shield)	MIPR	DOD - USA - SHORT AND INTERMEDIATE EFFECTORS FOR LAYERED DEFENSE (SHIELD) : AL	0.000	13.169	Nov 2022	13.852	Nov 2023	32.229	Nov 2024	-		32.229	Continuing	Continuing	Continuing
Terminal High Altitude Area Defense (THAAD) Development - Software Support (Prior)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	14.147	0.000		0.000		0.000		-		0.000	0.000	14.147	14.147
Terminal High Altitude Area Defense (THAAD) Development - THAAD IBCS Integration	SS/IDIQ	TBD : TBD	0.000	0.000		0.000		59.900	Nov 2024	-		59.900	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 0603881C / Ballistic Missile Defense Terminal Defense Segment				Project (Number/Name) MD07 / THAAD					
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
Terminal High Altitude Area Defense (THAAD) Development - THAAD Radar Improvements	SS/CPAF	Raytheon : MA	10.000	0.000		0.000		0.000		-		0.000	0.000	10.000	10.000
Terminal High Altitude Area Defense (THAAD) Development - Verification and Assessment - CSS / TEAMS	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	19.570	0.260	Nov 2022	0.681	Nov 2023	1.110	Nov 2024	-		1.110	Continuing	Continuing	Continuing
JEON - Advanced Capability Development	SS/IDIQ	Lockheed Martin : Various	177.889	0.000		0.000		0.000		-		0.000	0.000	177.889	177.889
JEON - MDA Program Support	Various	Various : Various	0.509	0.000		0.000		0.000		-		0.000	0.000	0.509	0.509
JEON - OGA JEON Support (GOVT)	MIPR	US Army Tank Automotive Research, Development, and Engineering Center (TARDEC), Army Test and Evaluation Command (ATEC) : Warren, MI / Huntsville, AL	19.359	0.000		0.000		0.000		-		0.000	0.000	19.359	19.359
THAAD Layered Homeland Defense - THAAD Layered Homeland Defense	Various	Lockheed Martin / U.S. Army Combat Capabilities Development Command (CCDC) : Sunnyvale, CA / Huntsville, AL	35.059	0.000		0.000		0.000		-		0.000	0.000	35.059	35.059
Subtotal			1,442.834	72.173		103.627		247.430		-		247.430	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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>						Project (Number/Name) MD07 / <i>THAAD</i>			
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
Terminal High Altitude Area Defense (THAAD) Development - IT Program Support	C/CPAF	JACOBS TECHNOLOGY INC. : Various	18.626	2.740	Nov 2022	2.949	Nov 2023	3.027	Nov 2024	-		3.027	Continuing	Continuing	Continuing
Terminal High Altitude Area Defense (THAAD) Development - Models & Simulations	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	321.677	25.922	Nov 2022	26.494	Nov 2023	28.650	Nov 2024	-		28.650	Continuing	Continuing	Continuing
Terminal High Altitude Area Defense (THAAD) Development - Models & Simulations - Various Support	Various	Various : Various	0.000	2.713	Nov 2022	0.000		2.040	Nov 2024	-		2.040	0.000	4.753	4.753
Terminal High Altitude Area Defense (THAAD) Development - Software IV&V	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	7.180	3.911	Nov 2022	4.306	Nov 2023	4.379	Nov 2024	-		4.379	Continuing	Continuing	Continuing
Terminal High Altitude Area Defense (THAAD) Development - Survivability Planning / Intercept Evaluation	MIPR	Various : Various	0.000	5.000	Apr 2023	0.000		0.000		-		0.000	0.000	5.000	5.000
Program Operations - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	22.855	24.168	Oct 2022	24.169	Oct 2023	23.801	Oct 2024	-		23.801	Continuing	Continuing	Continuing
Program Operations - Contractor Support Services (MDS Eng)	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	9.443	10.909	Nov 2022	10.119	Nov 2023	8.028	Nov 2024	-		8.028	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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>						Project (Number/Name) MD07 / <i>THAAD</i>			
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Operations - Contractor Support Services (QSMA)	C/CPFF	AI SOLUTIONS, INC. : AL	1.166	1.083	Nov 2022	1.343	Nov 2023	1.721	Nov 2024	-		1.721	Continuing	Continuing	Continuing
Program Operations - Contractor Support Services (Various)	C/CPFF	Various : Various	428.118	1.852	Nov 2022	1.695	Nov 2023	1.756	Nov 2024	-		1.756	Continuing	Continuing	Continuing
Program Operations - Program Operations (CCDC)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	4.613	4.746	Nov 2022	5.006	Nov 2023	5.106	Nov 2024	-		5.106	Continuing	Continuing	Continuing
Program Operations - Program Operations (FFRDC)	MIPR	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : MD	3.277	3.174	Nov 2022	2.962	Nov 2023	3.015	Nov 2024	-		3.015	Continuing	Continuing	Continuing
Program Operations - Program Operations (IT Support)	C/CPFF	Various : Various	0.282	1.451	Nov 2022	0.508	Nov 2023	0.408	Nov 2024	-		0.408	Continuing	Continuing	Continuing
Program Operations - Travel	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	0.644	0.990	Nov 2022	1.132	Nov 2023	1.332	Nov 2024	-		1.332	Continuing	Continuing	Continuing
Project Redwood- Details at a Higher Classification - Special Programs	SS/FP	Various : Various	133.826	9.570	Nov 2022	9.288	Nov 2023	12.324	Nov 2024	-		12.324	Continuing	Continuing	Continuing
THAAD Program Support - Mission Support	MIPR	ATEC / SMDC / CCDC / MDA : WSMR, NM / Huntsville, AL	36.982	0.000		0.000		0.000		-		0.000	0.000	36.982	36.982
THAAD Program Support - Mission Support (CCDC)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT	1.030	1.060	Nov 2022	1.199	Nov 2023	1.222	Nov 2024	-		1.222	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 0603881C / Ballistic Missile Defense Terminal Defense Segment						Project (Number/Name) MD07 / THAAD			
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
		COMMAND (CCDC) : AL													
THAAD Program Support - Mission Support (Prime)	SS/IDIQ	LOCKHEED MARTIN CORPORATION : Various	0.600	0.000		0.000		0.000		-		0.000	0.000	0.600	0.600
THAAD Program Support - Mission Support (Various)	MIPR	Various : Various	1.068	0.575	Dec 2022	0.845	Dec 2023	0.910	Dec 2024	-		0.910	Continuing	Continuing	Continuing
THAAD Program Support - Prior year no longer funded in the FYDP	Various	Various : Various	136.579	0.000		0.000		0.000		-		0.000	0.000	136.579	136.579
Subtotal			1,127.966	99.864		92.015		97.719		-		97.719	Continuing	Continuing	N/A
Remarks N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Operations - Contractor Support Services (Various)	C/CPFF	Various : Various	3.035	4.053	Nov 2022	3.798	Nov 2023	3.880	Nov 2024	-		3.880	Continuing	Continuing	Continuing
Subtotal			3.035	4.053		3.798		3.880		-		3.880	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			2,573.835	176.090		199.440		349.029		-		349.029	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 0603881C / Ballistic Missile Defense Terminal Defense Segment			Project (Number/Name) MD07 / THAAD				
	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract	

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 0603881C / Ballistic Missile Defense Terminal Defense Segment										Project (Number/Name) MD07 / THAAD										
Significant Event Complete ▲ Significant Event Planned △				Milestone Decision Complete ★ Milestone Decision Planned ☆				Element Test Complete ◆ Element Test Planned ◇				System Level Test Complete ● System Level Test Planned ○				Complete Activity ◆ Planned Activity ◇																		
														FY 2023			FY 2024			FY 2025			FY 2026			FY 2027			FY 2028			FY 2029		
THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance Incremental Engineering Technical Review (IETR) #1														▲																				
THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance IETR #2														▲																				
THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance Formal Qualification Testing IETR #3																	▲																	
THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance Incremental Engineering Technical Review (IETR) #4																				△														
THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance Incremental Engineering Technical Review (IETR) #5																							△											
THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance FQT																							△											
THAAD System Build 6.0 - Updated THAAD with Increased Threat Space IETR #6																							△											
THAAD System Build 6.0 - Updated THAAD with Increased Threat Space IETR #7																										△								
THAAD System Build 6.0 - Updated THAAD with Increased Threat Space IETR #8																										△								
THAAD System Build 6.0 - Updated THAAD with Increased Threat Space IETR #9																										△								
THAAD System Build 6.0 - Updated THAAD with Increased Threat Space FQT																													△					
THAAD System Build 7.0 - Additional Ballistic Missile Threat Space and Representative Threats for THAAD Engagements IETR #10																													△					
THAAD System Build 7.0 - Additional Ballistic Missile Threat Space and Representative Threats for THAAD Engagements IETR #11																																△		
THAAD System Build 7.0 - Additional Ballistic Missile Threat Space and Representative Threats for THAAD Engagements IETR #12																																△		
THAAD System Build 7.0 - Additional Ballistic Missile Threat Space and Representative Threats for THAAD Engagements IETR #13																																△		
THAAD System Build 7.0 - Additional Ballistic Missile Threat Space and Representative Threats for THAAD Engagements IETR #14																																△		

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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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>	Project (Number/Name) MD07 / <i>THAAD</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance Incremental Engineering Technical Review (IETR) #1	1	2023	1	2023
THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance IETR #2	2	2023	2	2023
THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance Formal Qualification Testing IETR #3	1	2024	1	2024
THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance Incremental Engineering Technical Review (IETR) #4	2	2024	2	2024
THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance Incremental Engineering Technical Review (IETR) #5	4	2024	4	2024
THAAD System Build 5.0 - THAAD Updates to Maintain Mission Assurance FQT	2	2025	2	2025
THAAD System Build 6.0 - Updated THAAD with Increased Threat Space IETR #6	3	2025	3	2025
THAAD System Build 6.0 - Updated THAAD with Increased Threat Space IETR #7	1	2026	1	2026
THAAD System Build 6.0 - Updated THAAD with Increased Threat Space IETR #8	3	2026	3	2026
THAAD System Build 6.0 - Updated THAAD with Increased Threat Space IETR #9	1	2027	1	2027
THAAD System Build 6.0 - Updated THAAD with Increased Threat Space FQT	3	2027	3	2027
THAAD System Build 7.0 - Additional Ballistic Missile Threat Space and Representative Threats for THAAD Engagements IETR #10	3	2027	3	2027
THAAD System Build 7.0 - Additional Ballistic Missile Threat Space and Representative Threats for THAAD Engagements IETR #11	1	2028	1	2028
THAAD System Build 7.0 - Additional Ballistic Missile Threat Space and Representative Threats for THAAD Engagements IETR #12	3	2028	3	2028
THAAD System Build 7.0 - Additional Ballistic Missile Threat Space and Representative Threats for THAAD Engagements IETR #13	1	2029	1	2029

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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 0603881C / Ballistic Missile Defense Terminal Defense Segment	Project (Number/Name) MD07 / THAAD	

Events	Start		End	
	Quarter	Year	Quarter	Year
THAAD System Build 7.0 - Additional Ballistic Missile Threat Space and Representative Threats for THAAD Engagements IETR #14	3	2029	3	2029

Note
Incremental Engineering Technical Review (IETR): A formal milestone review held at the end of each Iterative Phase to review delivered capability and approve entry/exit criteria required for previous and subsequent Iterative Phase(s). The IETR may include Weapon System Component or System level reviews. The IETR will review material in alignment with approved Technical Review Plan (TRP) to include, but not limited to, the applicable content for the following: Cost / Schedule Review, System Requirements Review (SRR) ETR requirements evaluation, Preliminary Design Review (PDR) ETR requirements evaluation, Critical Design Review (CDR) ETR requirements evaluation, Test Results review, Requirements trace review, Code Status review, Risk/Issue review, Objective Evidence/Justification review, Test Readiness Review, and Approved Documentation Review.

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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 0603881C / Ballistic Missile Defense Terminal Defense Segment				Project (Number/Name) MC07 / 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
MC07: Cyber Operations	56.334	10.353	12.140	3.189	-	3.189	3.250	3.313	3.380	3.446	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note Decrease from FY 2024 to FY 2025 reflects the realignment of cyber budget for Weapon system specific cyber development or component modification efforts from Budget Project MC07 to MD07 Terminal High Altitude Area Defense (THAAD) Development accomplishment in accordance with Department guidance.												
A. Mission Description and Budget Item Justification Cyber Operations sustain the Missile Defense Agency (MDA) Risk Management Framework (RMF) and Controls Validation Testing (CVT) activities; analysis of validation results, risk assessments; reviews of proposed Program Manager/Information Assurance Manager Plans of Action and Milestones for MDA THAAD mission systems; and supports THAAD authorizations to operate in the Missile Defense System.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: Network / System Certification and Accreditation (C&A) Articles: Description: Funding in this project sustains MDA RMF and CVT activities, analysis of validation results, risk assessments, monitoring and tracking of cybersecurity mitigations, and all other activities necessary to comply with the Federal Information Security Management Act. Recurring efforts include: - Conduct cybersecurity/information assurance engineering and architecture planning for THAAD information technology systems. - Develop and test cybersecurity/information assurance control measures for THAAD systems. - Develop THAAD RMF for Department of Defense Information Technology Certification and accreditation packages. - Support CVT of THAAD mission, test, and training systems. - Develop Plan of Action and Milestones to resource and remediate information assurance deficiencies. - Conduct annual information assurance reviews on the THAAD enclaves to assess compliance in implementing and maintaining Information Assurance controls. - Perform Information Assurance Vulnerability Alert to mitigate potential system vulnerabilities. Specific and/or unique accomplishments to each FY are as follows:									10.353	12.140	3.189	
									-	-	-	

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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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>				Project (Number/Name) MC07 / <i>Cyber Operations</i>			

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<i>FY 2024 Plans:</i> -SEE ABOVE.			
<i>FY 2025 Plans:</i> -SEE ABOVE.			
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Decrease from FY 2024 to FY 2025 reflects the realignment of cyber budget for Weapon system specific cyber development or component modification efforts from Budget Project MC07 to MD07 THAAD Development accomplishment in accordance with Department guidance.			
Accomplishments/Planned Programs Subtotals	10.353	12.140	3.189

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0208866C MD07: <i>THAAD Operation and Maintenance</i>	86.037	89.297	91.790	-	91.790	93.995	96.024	97.945	99.904	Continuing	Continuing
• 0208866C MD07: <i>THAAD Procurement</i>	239.994	216.782	246.995	-	246.995	476.227	645.357	656.946	674.361	Continuing	Continuing
• 0604876C: <i>Ballistic Missile Defense Terminal Defense Segment Test</i>	67.789	47.577	25.673	-	25.673	61.982	120.465	56.615	55.131	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
THAAD utilizes contracts with industry as well as agreements with other U.S. Government organizations in order to develop, test and upgrade the THAAD Weapon system.											

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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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>						Project (Number/Name) MC07 / <i>Cyber Operations</i>			
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
Network / System Certification and Accreditation (C&A) - Mayhem Cybersecurity Tool	MIPR	DOD - USA - ARMY CONTRACTING COMMAND (ACC) PICATINNY ARSENAL (PICA) : NJ	0.175	0.115	Nov 2022	0.115	Nov 2023	0.115	Nov 2024	-		0.115	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Network / System Certification and Accreditation (C&A)	SS/IDIQ	LOCKHEED MARTIN CORPORATION : AL	9.521	8.216	Nov 2022	9.246	Nov 2023	0.000		-		0.000	0.000	26.983	26.983
Subtotal			9.696	8.331		9.361		0.115		-		0.115	Continuing	Continuing	N/A
Remarks N/A															
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
Network / System Certification and Accreditation (C&A) - CND/IA Advisory and Assistance Services	C/CPFF	Various : Various	5.302	0.000		0.000		0.000		-		0.000	0.000	5.302	5.302
Network / System Certification and Accreditation (C&A) - Contract Support Services (CCRM)	C/CPFF	Various : Various	0.460	0.465	Nov 2022	0.478	Nov 2023	0.708	Nov 2024	-		0.708	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) -	C/CPFF	SYSTEM HIGH CORPORATION : VA	1.106	0.000		0.000		0.000		-		0.000	0.000	1.106	1.106

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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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>						Project (Number/Name) MC07 / <i>Cyber Operations</i>			
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
Contract Support Services (CHS)															
Network / System Certification and Accreditation (C&A) - Contract Support Services (CND)	C/CPFF	Various : Various	1.077	1.135	Nov 2022	1.150	Nov 2023	1.173	Nov 2024	-		1.173	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Cybersecurity Engineering	SS/IDIQ	LOCKHEED MARTIN CORPORATION : Various	38.139	0.000		0.000		0.000		-		0.000	0.000	38.139	38.139
Network / System Certification and Accreditation (C&A) - Network / System Certification and Accreditation (Various)	Various	Various : Various	0.554	0.422	Oct 2022	1.151	Oct 2023	1.193	Oct 2024	-		1.193	Continuing	Continuing	Continuing
Subtotal			46.638	2.022		2.779		3.074		-		3.074	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			56.334	10.353		12.140		3.189		-		3.189	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 0603881C / Ballistic Missile Defense Terminal Defense Segment								Project (Number/Name) MC07 / Cyber Operations							
Significant Event Complete ▲				Milestone Decision Complete ★				Element Test Complete ◆				System Level Test Complete ●				Complete Activity ◆							
Significant Event Planned △				Milestone Decision Planned ☆				Element Test Planned ◇				System Level Test Planned ○				Planned Activity ◇							
								FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029			
MC07 Completed Cyber Operations								◆	◆	◆	◆												
MC07 Planned Cyber Operations												◇	◇	◇	◇	◇	◇	◇	◇	◇	◇		

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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 0603881C / Ballistic Missile Defense Terminal Defense Segment	Project (Number/Name) MC07 / Cyber Operations	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MC07 Completed Cyber Operations	1	2023	4	2023
MC07 Planned Cyber Operations	1	2024	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 0603881C / Ballistic Missile Defense Terminal Defense Segment				Project (Number/Name) MD06 / Patriot Advanced Capability-3 (PAC-3)			
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
MD06: Patriot Advanced Capability-3 (PAC-3)	411.296	0.914	0.900	0.922	-	0.922	0.938	0.952	0.967	0.986	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note N/A.												
A. Mission Description and Budget Item Justification PAC-3 is an operational, land-based weapon built upon the proven U.S. Army Phased Array Tracking Radar Intercept on Target (PATRIOT) air and missile defense infrastructure. The Army is responsible for production and further development of the PAC-3 System and Missile Segment Enhancements (MSE); the Missile Defense Agency (MDA) remains responsible for any Missile Defense System interoperability and integration efforts. The Army will utilize MDA funds to further the integration of PATRIOT with the Missile Defense System. Previously this project included the Army's portion of the Joint Emergent Operational Need (JEON) including: 1) PATRIOT launch on remote to utilize Terminal High Altitude Area Defense's (THAAD's) capability to detect and track threat ballistic missiles at longer ranges and utilize MSE's full kinematic capability 2) THAAD/MSE Integration Part 1 that integrates MSE launchers and missiles into the THAAD weapon system enabling a more tightly integrated upper/lower tier defensive capability												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: General Support									0.914	0.900	0.922	
Articles:									-	-	-	
Description: MDA funds PATRIOT participation in Missile Defense System interoperability integration efforts.												
FY 2024 Plans: -SEE ABOVE.												
FY 2025 Plans: -SEE ABOVE.												
FY 2024 to FY 2025 Increase/Decrease Statement: N/A.												
Accomplishments/Planned Programs Subtotals									0.914	0.900	0.922	

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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 0603881C / Ballistic Missile Defense Terminal Defense Segment				Project (Number/Name) MD06 / Patriot Advanced Capability-3 (PAC-3)			

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

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• 0208866C MD07: THAAD Operation and Maintenance	86.037	89.297	91.790	-	91.790	93.995	96.024	97.945	99.904	Continuing	Continuing
• 0208866C MD07: THAAD Procurement	239.994	216.782	246.995	-	246.995	476.227	645.357	656.946	674.361	Continuing	Continuing
• 0604876C: Ballistic Missile Defense Terminal Defense Segment Test	67.789	47.577	25.673	-	25.673	61.982	120.465	56.615	55.131	Continuing	Continuing

Remarks

D. Acquisition Strategy

The planned acquisition strategy for PATRIOT support is to use a support agreement to provide Military Interdepartmental Purchase Requests to the U.S. Army to further the integration of PATRIOT with the Missile Defense System.

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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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>						Project (Number/Name) MD06 / <i>Patriot Advanced Capability-3 (PAC-3)</i>			
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
JEON - PM SHIELD - JEON	MIPR	Various : Various	397.585	0.000		0.000		0.000		-		0.000	0.000	397.585	397.585
Subtotal			397.585	0.000		0.000		0.000		-		0.000	0.000	397.585	N/A
Remarks N/A															
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
General Support - General Support	MIPR	Various : Various	13.711	0.914	Nov 2022	0.900	Nov 2023	0.922	Nov 2024	-		0.922	Continuing	Continuing	Continuing
Subtotal			13.711	0.914		0.900		0.922		-		0.922	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			411.296	0.914		0.900		0.922		-		0.922	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 0603881C / Ballistic Missile Defense Terminal Defense Segment										Project (Number/Name) MD06 / Patriot Advanced Capability-3 (PAC-3)									
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							
MD06 Completed Patriot Advanced Capability-3 (PAC-3) General Support										◆	◆	◆	◆																
MD06 Planned Patriot Advanced Capability-3 (PAC-3) General 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 0603881C / Ballistic Missile Defense Terminal Defense Segment	Project (Number/Name) MD06 / Patriot Advanced Capability-3 (PAC-3)	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD06 Completed Patriot Advanced Capability-3 (PAC-3) General Support	1	2023	4	2023
MD06 Planned Patriot Advanced Capability-3 (PAC-3) General Support	1	2024	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 0603881C / Ballistic Missile Defense Te rminal Defense Segment				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: Program-Wide Support	141.860	6.907	7.831	14.139	-	14.139	22.983	23.065	20.860	14.697	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	6.907	7.831	14.139
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			

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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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Increase from FY 2024 to FY 2025 provides the PWS allocation 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.</p>			
Accomplishments/Planned Programs Subtotals		6.907	7.831
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>						Project (Number/Name) MD40 / <i>Program-Wide Support</i>			
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services #3	C/FFP	HUNTSVILLE REHABILITATION FOUNDATION : Various	0.000	0.000		0.000		1.026	Nov 2024	-		1.026	Continuing	Continuing	Continuing
Program Wide Support - Agency Facilities and Maintenance	MIPR	Various : VA	12.138	0.000		0.125	Nov 2023	1.388	Nov 2024	-		1.388	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations Management	Various	Various : Multi: AL, CA, CO, VA	7.109	0.000		0.000		0.000		-		0.000	0.000	7.109	0.000
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Allot	Various : MDA Multi: AL, CO, CA, VA,	18.700	0.000		0.000		0.000		-		0.000	0.000	18.700	0.000
Program Wide Support - Agency Operations and Support International and Materiel and Readiness	MIPR	Various : Multi: AL, VA, Aust, Japan	3.492	0.000		0.000		0.000		-		0.000	0.000	3.492	0.000
Program Wide Support - Agency Operations and Support Services	C/CPFF	STRATEGIC ALLIANCE BUSINESS GROUP LLC : Multi: AL, CO, VA	95.096	4.683	Nov 2022	0.000		0.000		-		0.000	0.000	99.779	0.000
Program Wide Support - Agency Operations and Support Services #2	C/FFP	Various : Multi: AK, AL, CA, CO, HI, NY, VA	0.018	0.000		0.502	Nov 2023	11.725	Nov 2024	-		11.725	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations, Sustainment and GPC	C/CPFF	JACOBS TECHNOLOGY INC. : AK, AL, CA, HI, NY, VA	0.005	2.224	Nov 2022	2.254	Nov 2023	0.000		-		0.000	0.000	4.483	0.000
Program Wide Support - FFRDC/UARC	FFRDC	Various : Multi: AL, VA	1.787	0.000		0.000		0.000		-		0.000	0.000	1.787	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 0603881C / <i>Ballistic Missile Defense Terminal Defense Segment</i>						Project (Number/Name) MD40 / <i>Program-Wide Support</i>			
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	3.515	0.000		0.000		0.000		-		0.000	0.000	3.515	0.000
Subtotal			141.860	6.907		2.881		14.139		-		14.139	Continuing	Continuing	N/A
Remarks N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operation and Support Services	C/CPFF	STRATEGIC ALLIANCE BUSINESS GROUP LLC : Various	0.000	0.000		4.950	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		4.950		0.000		-		0.000	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			141.860	6.907		7.831		14.139		-		14.139	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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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 0603881C / Ballistic Missile Defense Terminal Defense Segment	Project (Number/Name) MD40 / Program-Wide Support	

Schedule Details

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

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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					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0603882C I Ballistic Missile Defense Midcourse Defense Segment							
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	9,223.215	670.808	903.633	768.227	-	768.227	856.218	842.985	956.974	1,007.150	Continuing	Continuing
MD08: Ground Based Midcourse	8,700.161	578.555	841.566	713.750	-	713.750	794.328	784.437	890.143	935.882	Continuing	Continuing
MC08: Cyber Operations	235.873	30.443	29.035	24.903	-	24.903	25.919	23.686	24.035	24.501	Continuing	Continuing
MD40: Program-Wide Support	287.181	61.810	33.032	29.574	-	29.574	35.971	34.862	42.796	46.767	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Decrease from Fiscal Year (FY) 2024 to FY 2025 reflects:

- Completion of the manufacturing and delivery of Ground Based Interceptor Capability Enhancement I Service Life Extension Program (SLEP) kits in FY 2024 to support SLEP upgrades
- Completion of prime Program Management, Systems Engineering, Modeling and Simulation, and Cyber Security support on the Development and Sustainment Contract in 1Q FY 2025
- Completion of Modeling and Simulation and Software Assessments using the Army's Combat Capabilities Development Command organization in 1Q FY 2025
- Reduction due to delivery of long lead material for the Ground-Based Midcourse Defense (GMD) Communication Network (GCN)/GMD Network and Infrastructure (GNI) in FY 2024
- Reduction of GMD Weapon System software and Ground Support Systems (GSS) interface development due to selection of a single Next Generation Interceptor Prime contractor to continue development through the Next Generation Interceptor Critical Design Review and beyond
- Delayed initiation of GMD Fire Control (GFC) Build 11 development from 1Q FY 2025 to 4Q FY 2025

A. Mission Description and Budget Item Justification

The Ground Based Midcourse Defense Segment enables the GMD System, as an Element of the Missile Defense System, to provide the combatant commands, including U.S. Northern Command (USNORTHCOM), with a continuously available (24 hours a day, 7 days a week, 365 days a year) Midcourse Weapon System to protect the United States against Ballistic Missiles. GMD contributes to the Missile Defense System by acquiring, developing, demonstrating, deploying, and sustaining a Midcourse Weapon System that includes: a currently operational GMD Weapon System with Ground Based Interceptors; development of a GMD Weapon System integrated with a mixed fleet of Ground Based Interceptors and Next Generation Interceptors; improving Warfighter capabilities; and a Ground Based Interceptor SLEP to improve reliability upgrades for existing Ground Based Interceptor components.

The GMD Weapon System leverages integration of Missile Defense sensors from across the globe. The GMD Weapon System consists of the Ground Based Interceptor and Ground Systems and Fire Control. Each Ground Based Interceptor delivers a single kill vehicle to counter allocated threats in space during the midcourse phase of the threat's ballistic trajectory. The Ground Systems and Fire Control consists of the GFC, GCN/GNI, In Flight Interceptor Communications System Data Terminal (IDT), and GSS. The GFC currently consists of two GMD fire control nodes in Fort Greely, Alaska (FGA) and at the Missile Defense Integration and Operations Center in Colorado Springs, Colorado, which plans the midcourse engagement and provides the Human-In-Control interface to the Warfighter to support

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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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>
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decision-making and command execution. The GCN is the fire control network for the GMD Weapon System and network connection to the Missile Defense System with the GNI serving as a common secure platform improving real-time cyber integration and the ability to detect and respond to cyber events. The IDTs are currently located at FGA; Vandenberg Space Force Base, California (VSFB); Eareckson Air Station, Alaska; and Fort Drum, New York and provide communications from the GFC to the in-flight interceptors. The GSS consists of the Launch Support System and Missile Field/Launch Site Components currently located in FGA and VSFB and provide the hardware and software interfaces between the GFC and the mixed fleet of interceptors including both Ground Based Interceptors and Next Generation Interceptors.

The GMD improvements will provide the Warfighter an integrated cost-effective solution that is lethal across the specified threat space, upgradeable to address future and advancing threats, and is integrated with the Missile Defense System as demonstrated through flight, ground, and cyber testing. The GMD program will develop a GMD Weapon System integrated with a mixed fleet of Ground Based Interceptors and Next Generation Interceptors and execute a Ground Based Interceptor SLEP to increase reliability and modernize the Weapon System to provide a highly reliable, responsive and capable system to protect the United States against Ballistic Missiles. The GMD program will continue to develop and field improved stand-alone and integrated Missile Defense System discrimination upgrades improving the ability to counter the allocated threats and address future and advancing threats. In addition, the budget requested continues to support GMD Weapon System upgrades for the planned first Next Generation Interceptor delivery no later than FY 2028, which addresses the number one priority requirement in the USNORTHCOM Operational Needs for missile defense of the homeland.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	689.018	903.633	852.567	-	852.567
Current President's Budget	670.808	903.633	768.227	-	768.227
Total Adjustments	-18.210	0.000	-84.340	-	-84.340
• 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	-13.009	0.000			
• Other Adjustment	-5.201	0.000	-84.340	-	-84.340

Change Summary Explanation

Decrease in FY 2025 reflects:

- Reduction of GWS software and Launch Support Equipment interface development due to selection of a single Next Generation Interceptor Prime Contractor
- Delayed initiation of GWS 11 software development from 1Q FY 2025 to 4Q FY 2025
- Aligned GWS 10B software development and Phased Array IDT development to contractor baselines from the Initial Baseline Review resulting in a re-phase of content and associated cost estimates between FY 2024, FY 2025, and FY 2026

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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 0603882C / Ballistic Missile Defense Midcourse Defense Segment				Project (Number/Name) MD08 / Ground Based Midcourse			
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
MD08: Ground Based Midcourse	8,700.161	578.555	841.566	713.750	-	713.750	794.328	784.437	890.143	935.882	Continuing	Continuing
Quantity of RDT&E Articles	63	-	-	-	-	-	-	-	-	-		

Note

Decrease from Fiscal Year (FY) 2024 to FY 2025 reflects:

- Completion of the manufacturing and delivery of Ground Based Interceptor Capability Enhancement (CE)-I Service Life Extension Program (SLEP) kits in FY 2024 to support SLEP upgrades
- Completion of prime Program Management, Systems Engineering, and Modeling and Simulation on the Development and Sustainment Contract (DSC) in 1Q FY 2025
- Completion of Modeling and Simulation and Software Assessments on the Combat Capabilities Development Command in 1Q FY 2025
- Reduction due to delivery of long lead material for the Ground-Based Midcourse Defense (GMD) Communication Network (GCN)/GMD Network and Infrastructure (GNI) in FY 2024
- Reduction of GMD Weapon System (GWS) software and Ground Support Systems interface development due to selection of a single Next Generation Interceptor Prime contractor to continue development through the Next Generation Interceptor Critical Design Review (CDR) and beyond
- Delayed initiation of GMD Fire Control (GFC) Build 11 development from 1Q FY 2025 to 4Q FY 2025

A. Mission Description and Budget Item Justification

The Ground Based Midcourse Defense Segment enables the GMD System, as an Element of the Missile Defense System, to provide the combatant commands, including U.S. Northern Command (USNORTHCOM), with a continuously available (24 hours a day, 7 days a week, 365 days a year) Midcourse Weapon System to protect the United States against Ballistic Missiles. GMD contributes to the Missile Defense System by acquiring, developing, demonstrating, deploying, and sustaining a Midcourse Weapon System that includes: a currently operational GMD Weapon System with Ground Based Interceptors; development of a GMD Weapon System integrated with a mixed fleet of Ground Based Interceptors and Next Generation Interceptors; improving Warfighter capabilities; and a Ground Based Interceptor SLEP to improve reliability upgrades for existing Ground Based Interceptor components.

The GMD Weapon System leverages integration of Missile Defense sensors from across the globe. The GMD Weapon System consists of the Ground Based Interceptor and Ground Systems and Fire Control. Each Ground Based Interceptor delivers a single kill vehicle to counter allocated threats in space during the midcourse phase of the threat's ballistic trajectory. The Ground Systems and Fire Control consists of the GFC, GCN/GNI, In Flight Interceptor Communications System Data Terminal (IDT), and Ground Support Systems (GSS). The GFC currently consists of two GMD fire control nodes in Fort Greely, Alaska (FGA) and at the Missile Defense Integration and Operations Center (MDIOC) in Colorado Springs, Colorado, which plans the midcourse engagement and provides the Human-In-Control interface to the Warfighter to support decision-making and command execution. The GCN is the fire control network for the GMD Weapon System and network connection to the Missile Defense System with the GNI serving as a common secure platform improving real-time cyber integration and the ability to detect and respond to cyber events. The IDTs are currently located at FGA; Vandenberg Space Force Base, California (VSFB); Eareckson Air Station, Alaska (EAS); and Fort Drum, New York (FDN) and provide communications from the GFC to the in-flight interceptors. The GSS consists of the Launch Support System and Missile Field/Launch Site

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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 0603882C / Ballistic Missile Defense Midcourse Defense Segment	Project (Number/Name) MD08 / Ground Based Midcourse		
Components currently located in FGA and VSFB and provide the hardware and software interfaces between the GFC and the mixed fleet of interceptors including both Ground Based Interceptors and Next Generation Interceptors.				
The GMD improvements will provide the Warfighter an integrated cost-effective solution that is lethal across the specified threat space, upgradeable to address future and advancing threats, and is integrated with the Missile Defense System as demonstrated through flight, ground, and cyber testing. The GMD program will develop a GMD Weapon System integrated with a mixed fleet of Ground Based Interceptors and Next Generation Interceptors and execute a Ground Based Interceptor SLEP to increase reliability and modernize the Weapon System to provide a highly reliable, responsive and capable system to protect the United States against Ballistic Missiles. The GMD program will continue to develop and field improved stand-alone and integrated Missile Defense System discrimination upgrades improving the ability to counter the allocated threats and address future and advancing threats. In addition, the budget requested continues to support GMD Weapon System upgrades for the planned first Next Generation Interceptor delivery no later than FY 2028, which addresses the number one Homeland Defense priority in the USNORTHCOM Operational Needs.				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
Title: Ground Based Interceptor		59.710	85.448	91.873
Articles:		-	-	-
Description: Each Ground Based Interceptor delivers a single kill vehicle to counter allocated threats in space during the midcourse phase of the threat's ballistic trajectory. The Ground Based Interceptor project conducts the analysis and testing necessary to characterize the reliability and service life of the operational Ground Based Interceptor fleet and uses the data to support USNORTHCOM in management of the Ground Based Interceptor fleet, development of fleet maintenance strategies, and extend the Ground Based Interceptor service life. In addition, the Ground Based Interceptor project uses the Ground Based Interceptor service life data to inform GMD Weapon System/Ground Based Interceptor SLEP project accomplishments in order to execute reliability upgrades for existing Ground Based Interceptor components. The Ground Based Interceptor project also continues to develop and field software upgrades to implement stand-alone and integrated Missile Defense System discrimination upgrades improving the ability to counter the allocated threats.				
Recurring efforts include: -Collect and analyze operational Ground Based Interceptor fleet reliability, availability, maintainability, and testability data in order to support USNORTHCOM in management of the Ground Based Interceptor fleet and development of fleet maintenance strategies via the DSC and In-Service Ground Based Interceptor Fleet contracts. -Conduct Ground Based Interceptor reliability program activities to develop and test replacement components to extend the Ground Based Interceptor service life via the DSC, the Booster Sustainment Contract (BSC), and the Ground Based Interceptor test and sustainment acquisition. -Conduct rocket motor propellant studies and stockpile reliability functional testing of naturally aged Ground Based Interceptor parts removed from previously operational Ground Based Interceptors during upgrade/modification to understand performance				

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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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>	Project (Number/Name) MD08 / <i>Ground Based Midcourse</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<p>and aging characteristics in order to support USNORTHCOM in management of the Ground Based Interceptor fleet, development of fleet maintenance strategies, and extend the Ground Based Interceptor service life.</p> <p>-Conduct Ground Based Interceptor Development and Integration Laboratory (GDIL) operations to support integrated Ground Based Interceptor to GMD Weapon System design, interface, and procedure verification via the DSC and the Ground Based Interceptor test and sustainment acquisition.</p> <p>-Conduct analysis of Exoatmospheric Kill Vehicle (EKV) Maintenance Built-In Test (MBIT) data to include failure analysis as required via the DSC and the EKV Sustainment Contract (ESC).</p> <p>-Conduct EKV space chamber testing operations to support Ground Based Interceptor analysis of emerging threats and analysis of performance improvements from discrimination upgrades via the DSC and the ESC.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <p>-Increase of GDIL operations in support of SLEP activities</p> <p>-Continue CE-II EKV software development, which provides additional discrimination and homeland threat space updates</p> <p>-Begin execution of Ground Test (GT) Re-Plan to include re-phasing of Ground Based Interceptor configuration design verification testing</p> <p>-Continue transition from Development and Sustainment Contract (DSC) to In-service Ground Based Interceptor Fleet contracts to demonstrate and deploy new Homeland Defense Increment Capabilities to establish well-defined Capability-based baselines and an enduring Readiness baseline</p> <p>-Increase SRP activities as additional components are made available from SLEP</p> <p>FY 2025 Plans:</p> <p>-Complete transition of Ground Based Interceptor activities from the DSC to the In-service Ground Based Interceptor Fleet Contracts which include the BSC, the ESC, and the Ground Based Interceptor test and sustainment acquisition for reliability program activities, MBIT testing and analysis, EKV Hardware-in-the-Loop (HWIL) 10V chamber testing, and GDIL operations.</p> <p>-Complete EKV Capability Enhancement - II (CE-II) and CE-II Block 1 (BLK 1) Software Version (ESW) 12.0 design</p> <p>-Complete ESW 12.0 CDR</p> <p>-Initiate ESW 12.0 Formal Qualification Testing</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Increase from FY 2024 to FY 2025 provides for transition from the DSC, and continued initiation of new efforts on the In-Service Ground Based Interceptor Fleet contracts to sustain the Ground Based Interceptor reliability program, MBIT analysis, EKV HWIL 10V chamber testing, and GDIL operations.</p>				
Title: Ground Systems & Fire Control		160.424	335.368	287.306

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p align="right">Articles:</p> <p>Description: The Ground Systems (GS) and Fire Control enables USNORTHCOM command, control, and operations of the GMD Weapon System as part of the Missile Defense System. The Ground Systems and Fire Control consists of the GFC, GCN/GNI, IDT, and GSS. The GFC currently consists of two GMD fire control nodes in FGA and at the MDIOC in Colorado Springs, Colorado, which plans the midcourse engagement and provides the Human-In-Control interface to the Warfighter to support decision-making and command execution. The GCN is the fire control network for the GMD Weapon System and network connection to the Missile Defense System with the GNI serving as a common secure platform improving real-time cyber integration and the ability to detect and respond to cyber events. The IDTs are currently located at FGA; VSFB; EAS; and FDN and provide communications from the GFC to the in-flight interceptors. The GSS consists of the Launch Support System, Missile Field/Launch Site Components currently located in FGA and VSFB and provide the hardware, and software interfaces between the GFC and the interceptors.</p> <p>Recurring efforts include:</p> <ul style="list-style-type: none"> -Collect and analyze operational Ground Systems and Fire Control reliability, availability, maintainability, and testability data in order to support USNORTHCOM in management of the interceptor fleet and development of fleet maintenance strategies -Collect and analyze flight, ground, and cyber testing data in order to implement Ground Systems and Fire Control software and hardware updates, improvements, and fixes to address test findings -Conduct Ground Systems and Fire Control design trade studies and engineering analyses to inform development -Conduct analysis of design performance countering the allocated threats -Conduct activities to support achieving Knowledge Points and milestone technical review entrance/exit criteria -Conduct Parts, Materials, and Processes Board Requirements approvals -Conduct incremental delivery of the Development, Security, and Operations software factory for continuous delivery and integration of Ground Systems and Fire Control software updates -Continue development of FGA Communications Center <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> -GS software Build 8 (GS-8) updates and field Missile Defense System Increment 6B.2 -Improve KV use of off-board discrimination data and provide mixed fleet planning optimizing use of interceptor types to expand battle space 		-	-
			FY 2025
			-

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024	
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>-GS-9 Final Engineering Release / integration into GWS 10A to: Improve track accuracy; Incorporate SKA; add advanced discrimination for multiple sensors increasing performance; implement Missile Defense System Track to fuse data from multiple sensors and provide GMD with improved track accuracy and additional discrimination features</p> <p>-GWS Build 10A to support Missile Defense System Increment 6C/7/8/9: Implement Weapon System improvements to GS-9 to deliver GMD capability to support Ballistic Missile Defense System Track</p> <p>-GWS Build 10B to support Missile Defense System Increment 10: Implementation of Development Security Operations (DevSecOps), support for Next Generation Interceptor flight tests, Next Generation Interceptor operational support, development and weapon system improvements for PA-IDT, additional threats, Interceptor Mixed Fleet Planning, discrimination improvements, and software re-architecture</p> <p>-Incorporation of dual path Next Generation Interceptor designs into the GMD Weapon System to support Flight Testing of a selected Next Generation Interceptor Design</p> <p>-Complete development, testing and integration of Fort Greely, Alaska (MF)-4 and increase Silo capacity and modernize SIV equipment in existing Silos</p> <p>-Development of the PA IDT antenna to enable on-demand communication with additional interceptors throughout flight with increased frequency of communication events. This two-way communication will enable kill vehicles to provide additional target scene information to GFC enabling enhanced situational awareness for the Warfighter and improved battle management and allow multiple updates to the Next Generation Interceptor regarding the target object map informed by on-the-ground discrimination. This upgrade integrates both Next Generation Interceptor designs into the PA-IDT development and also addresses obsolescence with the current IDT configuration by replacing aged equipment and processors</p> <p>-Development and testing of an integrated GNI that provides a common secure platform across all GWS components, improves real-time cyber integration, and improves the operator's ability to detect and respond to cyber events</p> <p>FY 2025 Plans:</p> <p>-Incorporate the Next Generation Interceptor design into the GMD Weapon System to support ground and flight testing for the selected Next Generation Interceptor Design</p> <p>-Continue GWS Build 10B (GFC, GCN/GNI, IDT, and GSS) to support Missile Defense System Increment 10: maturation of interface designs and integration of Next Generation Interceptor into the Weapon System, development and weapon system improvements for Phased Array (PA)-IDT, additional threats, Interceptor Mixed Fleet Planning, discrimination improvements, and software re-architecture</p> <p>-Continue development of the PA-IDT antenna to enable on-demand communication with additional interceptors throughout flight with increased frequency of communication for enhanced Warfighter situational awareness, improved battle management, and enabling multiple in-flight updates to the Next Generation Interceptor, and addresses obsolescence with the current IDT configuration</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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>	Project (Number/Name) MD08 / <i>Ground Based Midcourse</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
-Complete the PA-IDT post-Preliminary Design Review (PDR) activities, design, and CDR				
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects: -Reduction of GWS software and GSS interface development due to selection of a single Next Generation Interceptor Prime contractor to continue development through the Next Generation Interceptor CDR and beyond -Reduction due to delivery of long lead material for GNI in FY 2024				
Title: Systems Engineering and Program Management		277.164	310.777	257.320
Articles:		-	-	-
Description: The GMD Systems Engineering and Program Management provides the essential engineering and programmatic functions to enable the Government, as the GMD Weapon System Integrator, deliver the Warfighter an integrated cost-effective solution that is lethal across the specified threat space, upgradeable to address future and advancing threats, and is integrated with the Missile Defense System as demonstrated through flight, ground, and cyber testing.				
GMD Element Engineering consists of GMD Systems Engineering, GMD Product Engineering, and the GMD Technical Direction Agent (TDA). GMD Element Engineering provides the essential engineering functions for the development, fielding, and sustainment of the GMD Element. GMD Element Engineering, with support from Missile Defense System engineering, enables participation in ground test and digital events that provide data for assessments supporting the GMD deliveries to the Warfighter. This provides architecture analysis, development and flow-down of Missile Defense System-level performance and interface requirements, Missile Defense System integration, performance analysis, and modeling and simulation, including framework support and environmental modeling.				
GMD Systems Engineering develops and integrates GMD capabilities and products with efficient processes, common tools, and with a digital engineering foundation to include: performance and interface requirements development and verification; performance and testing analyses; modeling and simulation development, integration, and delivery of verification, and validation data to support accreditation decisions; digital acquisition infrastructure; software assurance and independent verification and validation; technical integration; engineering development and early integration lab development, maintenance, and operations; and maintenance of the GMD Technical Baseline.				
GMD Product Engineering delivers sound and integrated engineering and manufacturing processes and products through engineering controls, management, and verification; independent test, analysis, and assessment of failed and high risk events and engineering efforts; hardware and software readiness; and industrial and manufacturing readiness. GMD Product Engineering provides key functions and products such as: an integrated GMD Weapon System design; risk, issues, and				

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024	
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>opportunities management; interface designs; failure review boards; and the maintenance of the GMD Operational Capability Baseline.</p> <p>GMD Program Management provides for prime contractor management of the DSC and the System Integration, Test, and Readiness (SITR) contract activities to ensure technical content delivery in line with cost, schedule, and performance objectives. This effort includes program and business management; program administration; subcontract management; technical and testing oversight and support; quality, safety, and mission assurance; configuration and baseline management; integrated logistics support; and infrastructure to develop, test, and sustain the GMD Weapon System.</p> <p>The GMD TDA provides the technical expertise and program execution experience required to offer the MDA independent analysis, unbiased and objective weapon system level-oriented advice on technical issues and product development, and recommendations on technical issues and product development challenges faced in the GMD Program.</p> <p>Recurring engineering and management efforts include:</p> <ul style="list-style-type: none"> - Conduct activities to support achieving Knowledge Points and milestone technical review entrance/exit criteria - Develop and maintain GMD performance and interface requirements - Verify GMD Element performance and interface requirements - Execute GMD performance and test analyses - Develop, integrate, and deliver GMD models and simulations supporting multiple intended uses - Develop and deliver verification and validation data to support accreditation decisions - Expand the GMD digital acquisition infrastructure including the Integrated Digital Data Environment and GMD Software Factory - Execute Software Independent Verification and Validation and Software Assurance - Execute GMD technical integration - Conduct GMD Development and Early Integration risk reduction testing and analysis - Maintain GMD risks, issues, and opportunities - Execute GMD discrimination design trade studies and engineering analyses - Develop and maintain GMD interface designs - Execute Integrated Logistics Support - Conduct Quality, Safety and Mission Assurance - Execute program administration, business management, and subcontract management - Maintain the GMD Technical Baselines <p>Recurring GMD TDA efforts include:</p> <ul style="list-style-type: none"> - Offer objective advice on technical issues and product development challenges facing the GMD Program 			

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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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>		Project (Number/Name) MD08 / <i>Ground Based Midcourse</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Facilitate the implementation of consistent engineering processes - Perform independent evaluation of GMD Weapon System designs, design maturity, and technical approach and make recommendations on technical issues and alternatives - Provide independent assessment of integrated system performance and mission effectiveness - Identify and assess risks; evaluate risk mitigation approaches; and make recommendations on alternative approaches and prioritization of risk reduction activities - Conduct special studies to investigate and identify solutions to specific problems that might involve alternate approaches, new architectures, or integration of new activities - Evaluate future mission needs and explore advanced/evolutionary concepts and technologies <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> -Maintain the Technical Baseline for GMD Increment 6B, GMD Increment 6C/7, and GMD Increment 10 -Complete GMD Increment 6B M&S, software independent validation & verification (IV&V)/Assurance, Verification, Performance Assessment, and Technical Integration Activities required for component deliveries -Establish the Operational Capability Baseline for GMD Increment 6B -Execute GMD Increment 6C/7 Incremental Element Reviews, including GMD Increment 6C/7 Critical Design Review (CDR) -Execute GMD Increment 10 Incremental Element Reviews, including GMD Increment 10 Preliminary Design Review -Conduct independent assessments for GWS design development -Conduct independent assessments for Next Generation Interceptor design developments -Develop GMD Interceptor to GMD Weapon System interface requirements and interface designs for GMD Increment 10 considering competing Next Generation Interceptor designs through each Next Generation Interceptor CDR -Continue GMD Increment 10 Technical integration using Digital Engineering to integrate a multi-interceptor GMD Weapon System -Continue GMD technical integration for competing Next Generation Interceptor designs with an integrated GWS -Continue GMD technical integration for a mixed interceptor fleet consisting of a Ground Based Interceptor and considering dual Next Generation Interceptor designs through each Next Generation Interceptor CDR -Expand GMD Increment 10 Government Development and Early Integration Lab Capabilities -Complete GMD Integration Lab initial capability and transition to the Sitr Contractor as a Government owned, Contractor operated facility -Complete GMD Modeling & Simulation Lab transition to the Sitr Contractor as a Contractor owned and operated facility <p>FY 2025 Plans:</p>					

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>	Project (Number/Name) MD08 / <i>Ground Based Midcourse</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<ul style="list-style-type: none"> - Execute GMD Incremental Element and support component technical reviews - Integrate and deliver the GMD Simulation (GMDSIM) in support of the Integrated GTI-13 Sprint 2 ground test - Deliver GMDSIM verification and validation data to support an accreditation decision for GTI-13 Sprint 2 - Complete software independent verification and validation and software assurance of GFC Build 10A - Initiate requirements verification closures in support of GFC Build 10A operational fielding decisions - Execute software independent verification and validation and software assurance of Next Generation Interceptor boost vehicle software and payload software - Initiate GMD development and early integration risk reduction testing and analysis - Expand GMD Development Lab capabilities incorporating the GMD Weapon System integrated with a mixed fleet of Ground Based Interceptors and Next Generation Interceptors - Continue maturation of interface designs incorporating the Next Generation Interceptor and Ground Based Interceptor into the integrated GWS 10B products (GFC, GCN/GNI, IDT, and GSS) <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects:</p> <ul style="list-style-type: none"> - Completion of prime Program Management, Systems Engineering, and M&S support on the DSC in 1Q FY 2025 - Completion of M&S and Software Assessments by the Combat Capabilities Development Command in 1Q FY 2025 			
<p>Title: Program Operations</p> <p align="right">Articles:</p> <p>Description: Program Operations provides:</p> <ul style="list-style-type: none"> -Technical and business management support, financial management, cost and schedule performance analysis, cost estimation analysis, configuration management, and integration activities to ensure the program meets cost, schedule, and performance goals -Program compliance with internal and external direction, policies, and regulations to deliver critical capability within a consistent and disciplined process -Mission Assurance and Manufacturing processes to include quality, configuration management, manufacturing, and safety in all phases of the system life cycle, throughout the supply chain, and at all levels of assembly emphasizing high yield rates which minimize test and rework costs -Core infrastructure and unified communications services to accomplish the GMD mission -Internal Agency program reviews to measure program progress against approved baselines <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p>		48.057 -	62.436 -
		56.104 -	

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<div>- Fund Contractor support surge to implement Government as the system integrator</div> <div>- Increase Civilian labor and contractor program management to support the government's role as the Weapon System Integrator</div> <div>FY 2025 Plans:</div> <div>- SEE ABOVE</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement:</div> <div>- Decrease from FY 2024 to FY 2025 reflects efficiencies realized in Missile Defense Agency (MDA) Advisory and Assistance Services</div>				
<div>Title: GMD Weapon System/GBI Service Life Extension Program (SLEP)</div> <div>Articles:</div> <div>Description: The GMD program develops a GMD Weapon System integrated with a mixed fleet of interceptors and executes a Ground Based Interceptor Service Life Extension Program to increase reliability and modernize the interceptor fleet until fielding of the Next Generation Interceptor.</div> <div>Recurring efforts include:</div> <div>-Conduct SLEP upgrades on the operational Ground Based Interceptor fleet</div> <div>-Conduct repairs on the operational Ground Based Interceptor fleet</div> <div>-Conduct Ground Based Interceptor emplacements and de-emplacements in support of SLEP upgrades</div> <div>Specific and/or unique accomplishments to each FY are as follows:</div> <div>FY 2024 Plans:</div> <div>-Purchase, manufacture, and delivery of four additional CE-I SLEP kits and emplacement</div> <div>-Continue Ground Based Interceptor emplacements and de-emplacements in support of Ground Based Interceptor SLEP upgrades</div> <div>-Continue executing steady-state Ground Based Interceptor SLEP activities</div> <div>FY 2025 Plans:</div> <div>- Execute one Ground Based Interceptor SLEP upgrade and continue Stockpile Reliability Program</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement:</div> <div>Decrease from FY 2024 to FY 2025 reflects completion of the manufacturing and delivery of Ground Based Interceptor CE-I SLEP kits in FY 2024 to support SLEP upgrades.</div>		33.200 -	47.537 -	21.147 -
Accomplishments/Planned Programs Subtotals		578.555	841.566	713.750

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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>
• 0208866C:MD08: <i>GMD Procurement</i>	11.300	0.000	20.796	-	20.796	88.586	82.206	0.000	0.000	Continuing	Continuing
• 0208866C:MD08: <i>Midcourse Defense</i> <i>Operation and Maintenance</i>	187.045	174.789	184.280	-	184.280	164.687	162.851	222.765	249.896	Continuing	Continuing
• 0604874C: <i>Improved</i> <i>Homeland Defense Interceptors</i>	1,795.728	2,130.838	1,697.121	-	1,697.121	1,034.859	1,406.953	625.913	404.970	Continuing	Continuing
• 0604887C: <i>Ballistic</i> <i>Missile Defense Midcourse</i> <i>Defense Segment Test</i>	84.335	41.824	40.006	-	40.006	50.994	122.374	126.853	137.676	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Ground-Based Midcourse Defense (GMD) program will continue to execute testing, development, and evolutionary acquisition through incremental development. The Agency acquisition strategy ensures GMD components are upgraded to improve both GMD Component performance and GMD Element performance in order to retain the proven GMD contribution to the integrated Missile Defense System. This acquisition approach reduces obsolescence risk, provides incremental capability improvements, and allows decision makers to make informed trades between cost, schedule, and performance while rapidly delivering improved operational and technological capabilities.

Missile Defense Agency (MDA) competitively awarded the Development and Sustainment Contract (DSC) to The Boeing Company in December 2011. This contract included development, fielding, test, systems engineering, integration, and configuration management; equipment manufacturing and upgrade; training, operations, and sustainment of the GMD Element and associated support facilities. In January 2018, the DSC was extended with a new period of performance through 1Q FY 2024. The DSC Extension includes supporting test, engineering, software, and performance-based logistics scope. In 2022, the MDA Ground Test Replan resulted in the extension of minimal contract line items to support testing, engineering, hardware and software until December 2024 to complete the delivery of Missile Defense System Increment 6B.2; while performance-based logistics will transition to a new contract after December 2023. The DSC structure breaks out major efforts into separate Contract Line Item Numbers with individual incentives for management insight, accounting, and property accountability.

MDA implemented a robust Program Board structure allowing more Government insight and decisions into the technical baseline and has changed business processes for greater Government involvement in program decisions consistent with the Government's ownership of the technical baseline. In addition, GMD utilizes Government laboratory modeling and simulation and analysis capabilities to augment the current DSC efforts. These efforts utilize existing, competitively awarded contracts by MDA and Other Government Agencies including Vandenberg Space Force Base, California; Missile Defense Integration and Operations Center; U.S. Army Combat

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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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>	Project (Number/Name) MD08 / <i>Ground Based Midcourse</i>
<p>Capabilities Development Command Aviation & Missile Center (formerly known as U.S. Army Aviation and Missile Research, Development and engineering Center); and Pacific Missile Range Facility, HI.</p> <p>Other GMD contracts will satisfy future GMD Element requirements beyond DSC's support and Missile Defense System Increment 6B.2. These contracts initiated and are executing concurrently with the DSC and provide for transition periods while the DSC scope is completing to provide continuity of effort. Each of the new contracts are structured to break out major efforts into separate Contract Line Item Numbers with individual incentives for management insight, accounting, and property accountability.</p> <p>MDA competitively awarded two best value contracts on March 24, 2021 to Lockheed Martin and Northrop Grumman for technology and product development of Next Generation Interceptor and maintained both contracts through the PDR. Each Contractor's design development and component testing leading to completion of a PDR and Knowledge Point #1 provides significant risk reduction and confidence to select a single Next Generation Interceptor All Up Round design to proceed to the Critical Design Review and beyond. MDA established future knowledge points and flight tests to evaluate Next Generation Interceptor components and GMD Weapon System performance during continued development and to support future production decisions.</p> <p>MDA awarded/plans to award sole source contracts to the GMD's Ground Based Interceptor In-Service Fleet (ISF) original equipment manufacturers to perform service life extensions and maintain the existing fleet, execute repairs, and develop software. These contracts are intended primarily to ensure fleet viability until replacement interceptors Next Generation Interceptor are fielded. ISF is constrained to the legacy interceptor fleet and its component boosters and kill vehicles. The Boost Vehicle Sustainment Contract was awarded to Northrop Grumman in September 2021. The EKV Sustainment Contract was awarded in June 2023 to Raytheon Missile Systems. The Ground Based Interceptor Integration and Test acquisition is planned for award in FY 2024.</p> <p>The GMD Weapon System (GWS) Contract was competitively awarded to Northrop Grumman Systems Corporation in July 2022 to provide design, development, production, product level testing, sustainment planning, and maintenance of the current Weapon System. The GWS contractor is responsible for developing weapon system solutions, including fire control and communication systems improvements, required to update the legacy system to remain effective while the Next Generation Interceptor is under development, as well as, preparing for the seamless introduction of Next Generation Interceptor and other future Missile Defense System capabilities. The GWS contract will update the system interface for the addition of Next Generation Interceptors to the fleet, provide the Warfighter capability to operate the GMD Weapon System with a mixed fleet of Ground Based Interceptors and Next Generation Interceptors, and identify and develop solutions for message exchanges between the GMD Weapon System and in-flight kill vehicles. All of this must be accomplished while maintaining a robust cyber defense network capable of detecting and defending against current and future cybersecurity threats.</p> <p>MDA also competitively awarded a System Integration, Test, and Readiness (SITR) Contract to provide, along with the Technical Direction Agent, a synergistic approach in executing the GMD Element-level engineering, integration, test, and readiness of the GMD Weapon System, which operates with the current Ground-Based Interceptor and is adding infrastructure for the integration and testing of Next Generation Interceptor. The SITR contract was awarded on September 1, 2022 to The Boeing Company. The SITR contractor is charged with being the Government's technical partner for day-to-day operation and sustainment of the GMD Weapon System alongside the United States Northern Command Warfighters. While the Government maintains overall system integration responsibilities and authority, the SITR contractor will assume a supporting role responsible for ensuring overall GMD integration including physical and logical integration of the GMD Components to include</p>		

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<p>Next Generation Interceptor, GMD Element, and MDA enterprise level integration, planning and execution of all necessary testing to verify and validate requirements compliance.</p> <p>GMD Increment 6C, 10, and 11 will be executed with the SITR and GWS contracts.</p> <p>GMD also uses MDA Consolidated Support contracts for engineering and technical support; studies, analyses, and evaluations; and management and professional services to GMD functional organizations and program offices. With a focus to achieve Small Business goals, MDA is leveraging existing MDA Consolidated Support contracts and will utilize MDA competitively awarded new contracts to acquire Fiscal Years 2020-2030 Advisory and Assistance Services support.</p> <p>The Next Generation Interceptor will be an integrated capability of the greater GMD Element, and will provide a fully qualified, production representative Next Generation Interceptor All Up Round (AUR). Once the Next Generation Interceptor AUR is accepted by the Government, it will be integrated into the GMD Element and supported by the SITR Contract while the GWS Contract will support developing the interfaces necessary for the seamless integration of Next Generation Interceptor. The funding for the development of the Next Generation Interceptor is in Program Element 0604874C Improved Homeland Defense Interceptors.</p>		

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Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0603882C / Ballistic Missile Defense Mi dcourse Defense Segment				Project (Number/Name) MD08 / Ground Based Midcourse					
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
Ground Based Interceptor - Additional Boosters	C/CPIF	BOEING : Various	238.297	0.000		0.000		0.000		-		0.000	0.000	238.297	0.000
Ground Based Interceptor - All Up Round Development	C/CPIF	BOEING : Various	16.965	0.000		0.000		0.000		-		0.000	0.000	16.965	0.000
Ground Based Interceptor - Booster Development	C/CPIF	BOEING : Various	125.000	0.000		0.000		0.000		-		0.000	0.000	125.000	0.000
Ground Based Interceptor - Configuration 2 CBAU Booster Development	C/CPIF	BOEING : Various	54.550	0.000		0.000		0.000		-		0.000	0.000	54.550	0.000
Ground Based Interceptor - EKV Spares	C/CPIF	BOEING : Various	8.111	0.000		0.000		0.000		-		0.000	0.000	8.111	0.000
Ground Based Interceptor - Flight Rotations for MDS Testing	C/CPIF	BOEING : Various	73.950	0.000		0.000		0.000		-		0.000	0.000	73.950	0.000
Ground Based Interceptor - GBI Parts Testing & Reverse Flow	C/CPIF	BOEING : Various	7.203	0.000		0.000		0.000		-		0.000	0.000	7.203	0.000
Ground Based Interceptor - GBI Prime Product Support	C/CPIF	BOEING : Various	533.748	0.000		0.000		0.000		-		0.000	0.000	533.748	0.000
Ground Based Interceptor - GBI Relocations & Emplacements	C/CPIF	BOEING : Various	17.239	0.000		0.000		0.000		-		0.000	0.000	17.239	0.000
Ground Based Interceptor - GBI Repairs & Upgrades - DSC	C/CPIF	BOEING : Various	0.000	5.000	Nov 2022	0.000		0.000		-		0.000	0.000	5.000	0.000
Ground Based Interceptor - Government Reliability Program	MIPR	Various : Various	36.427	0.000		0.000		0.000		-		0.000	0.000	36.427	0.000
Ground Based Interceptor - Integration for Flight Test	C/CPIF	BOEING : Various	14.757	0.000		0.000		0.000		-		0.000	0.000	14.757	0.000

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Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0603882C / Ballistic Missile Defense Midcourse Defense Segment				Project (Number/Name) MD08 / Ground Based Midcourse					
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
Ground Based Interceptor - Interceptor Manufacturing Support	Various	Various : Various	41.934	0.000		0.000		0.000		-		0.000	0.000	41.934	0.000
Ground Based Interceptor - Interceptors #48-58 (CE-II)	C/CPIF	BOEING : Various	716.580	0.000		0.000		0.000		-		0.000	0.000	716.580	0.000
Ground Based Interceptor - Logistics and Safety Support	C/CPIF	VENTURI, INC. : Various	4.967	0.000		0.000		0.000		-		0.000	0.000	4.967	0.000
Ground Based Interceptor - Logistics and Safety Support - Scott AFB	MIPR	DOD - USAF - SCOTT AIR FORCE BASE (SCOTT AFB) : IL	2.296	0.000		0.000		0.000		-		0.000	0.000	2.296	0.000
Ground Based Interceptor - Operational Spares	C/CPIF	BOEING : Various	28.962	0.000		0.000		0.000		-		0.000	0.000	28.962	0.000
Ground Based Interceptor - Prime Interceptor Manufacturing & Lab Support	C/CPIF	BOEING : Various	69.376	0.000		0.000		0.000		-		0.000	0.000	69.376	0.000
Ground Based Interceptor - Prime Reliability Program	C/CPIF	BOEING : Various	109.360	0.000		0.000		0.000		-		0.000	0.000	109.360	0.000
Ground Based Interceptor - Software Maintenance & Updates	C/CPIF	BOEING : Various	163.534	0.000		0.000		0.000		-		0.000	0.000	163.534	0.000
Ground Based Interceptor - Software Maintenance & Updates - DSC	C/CPIF	BOEING : Various	0.000	0.000		1.295	Nov 2023	0.000		-		0.000	0.000	1.295	0.000
Ground Based Interceptor - Software Maintenance & Updates -ESC	C/CPIF	RTX Corporation : Various	0.000	9.921	Nov 2022	9.477	Nov 2023	12.336	Nov 2024	-		12.336	Continuing	Continuing	Continuing
Ground Systems & Fire Control - Ft. Greely Comm Center-Copper Current	C/CPIF	COPPER CURRENT INC. : AK	0.000	1.496	Nov 2022	0.000		0.000		-		0.000	0.000	1.496	0.000

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Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0603882C / Ballistic Missile Defense Mi dcourse Defense Segment				Project (Number/Name) MD08 / Ground Based Midcourse					
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
Ground Systems & Fire Control - Ft. Greely Comm Center	C/CPIF	NORTHROP GRUMMAN : Various	0.200	0.100	Nov 2022	1.522	Nov 2023	0.989	Nov 2024	-		0.989	Continuing	Continuing	Continuing
Ground Systems & Fire Control - GS-8 Software & Hardware Development	C/CPIF	BOEING : Various	156.490	0.000		8.210	Nov 2023	0.000		-		0.000	0.000	164.700	0.000
Ground Systems & Fire Control - GS-8 Software & Hardware Development- Various	C/Various	Various : Various	0.000	0.500	Nov 2022	0.000		0.000		-		0.000	0.000	0.500	0.000
Ground Systems & Fire Control - GS-9 Software & Hardware Development - DSC	C/CPIF	BOEING : Various	136.682	24.262	Nov 2022	26.808	Nov 2023	0.896	Nov 2024	-		0.896	0.000	188.648	0.000
Ground Systems & Fire Control - GWS-10A Software & Hardware Development	MIPR	Various : AL	0.000	0.148	Jan 2023	0.000		0.000		-		0.000	0.000	0.148	0.000
Ground Systems & Fire Control - GWS-10A Software & Hardware Development - GWS	C/CPIF	NORTHROP GRUMMAN : Various	101.767	34.280	Nov 2022	162.737	Nov 2023	9.424	Nov 2024	-		9.424	Continuing	Continuing	Continuing
Ground Systems & Fire Control - GWS-10A Software & Hardware Development - Various	C/CPIF	NORTHROP GRUMMAN : Various	7.856	0.000		0.000		0.000		-		0.000	0.000	7.856	0.000
Ground Systems & Fire Control - GWS-10B Software & Hardware Development - GWS	C/CPIF	NORTHROP GRUMMAN : Various	0.000	20.142	Nov 2022	23.484	Nov 2023	186.124	Nov 2024	-		186.124	Continuing	Continuing	Continuing
Ground Systems & Fire Control - GWS-11 Software and Hardware Development	C/CPIF	NORTHROP GRUMMAN : Various	0.000	0.000		0.000		18.732	Nov 2024	-		18.732	Continuing	Continuing	Continuing

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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
Ground Systems & Fire Control - Government Fort Drum IDT	MIPR	Various : Various	0.576	0.000		0.000		0.000		-		0.000	0.000	0.576	0.000
Ground Systems & Fire Control - Government Missile Field 4 (20 Silos)	MIPR	Various : Various	19.656	0.000		0.000		0.000		-		0.000	0.000	19.656	0.000
Ground Systems & Fire Control - Government Software Development	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	19.362	0.000		0.000		0.000		-		0.000	0.000	19.362	0.000
Ground Systems & Fire Control - LSE2 to NGI Interface - GWS	C/CPIF	NORTHROP GRUMMAN : Various	0.000	2.000	Nov 2022	0.000		6.432	Nov 2024	-		6.432	Continuing	Continuing	Continuing
Ground Systems & Fire Control - MF-1: two silos to ensure the number of fielded GBIs does not decrease through the FYDP	C/CPIF	BOEING : Various	14.958	0.000		0.000		0.000		-		0.000	0.000	14.958	0.000
Ground Systems & Fire Control - Phased Array IDT Development - GWS	C/CPIF	NORTHROP GRUMMAN : Various	58.172	51.225	Nov 2022	83.160	Nov 2023	64.634	Nov 2024	-		64.634	Continuing	Continuing	Continuing
Ground Systems & Fire Control - Prime CLE Re-Architecture	C/CPIF	BOEING : Various	46.609	0.000		0.000		0.000		-		0.000	0.000	46.609	0.000
Ground Systems & Fire Control - Prime Communications Infrastructure	C/CPIF	BOEING : Various	9.968	0.000		0.000		0.000		-		0.000	0.000	9.968	0.000
Ground Systems & Fire Control - Prime Fort Drum IDT	C/CPIF	BOEING : Various	10.063	0.000		0.000		0.000		-		0.000	0.000	10.063	0.000

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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
Ground Systems & Fire Control - Prime Ground Systems Software Development	C/CPIF	BOEING : Various	621.011	0.000		0.000		0.000		-		0.000	0.000	621.011	0.000
Ground Systems & Fire Control - Prime MF-1 Repair and Refurbishment	C/CPIF	BOEING : Various	38.925	0.000		0.000		0.000		-		0.000	0.000	38.925	0.000
Ground Systems & Fire Control - Prime On Demand Communications	C/CPAF	Boeing : Various	35.609	0.000		0.000		0.000		-		0.000	0.000	35.609	0.000
Ground Systems & Fire Control - Prime Technology Refresh - DSC	C/CPIF	BOEING : Various	585.678	14.879	Nov 2022	0.351	Nov 2023	0.000		-		0.000	0.000	600.908	0.000
Ground Systems & Fire Control - Test Phased Array IDT Transportable Asset - GWS	C/CPIF	NORTHROP GRUMMAN : Various	3.852	0.000		28.510	Nov 2023	0.000		-		0.000	0.000	32.362	0.000
GMD Weapon System/ GBI Service Life Extension Program (SLEP) - GMD Weapon System/Ground Based Interceptor Service Life Extension Program (SLEP) -DSC	C/CPIF	BOEING : Various	449.726	0.000		33.619	Nov 2023	0.000		-		0.000	0.000	483.345	0.000
GMD Weapon System/ GBI Service Life Extension Program (SLEP) - GMD Weapon System/Ground Based Interceptor Service Life Extension Program (SLEP) -ESC	C/CPIF	RAYTHEON : Various	0.000	0.000		13.509	Nov 2023	0.000		-		0.000	0.000	13.509	0.000
Subtotal			4,580.416	163.953		392.682		299.567		-		299.567	Continuing	Continuing	N/A
Remarks Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.															

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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
Ground Based Interceptor - GBI Integration for Flight Test - DSC	C/CPAF	BOEING : Various	0.000	4.012	Nov 2022	0.000		0.000		-		0.000	0.000	4.012	0.000
Ground Based Interceptor - GBI Parts Testing & Reverse Flow	IA	DOE - DEPARTMENT OF ENERGY (DOE) : Various	0.000	3.021	Jan 2023	0.000		0.000		-		0.000	0.000	3.021	0.000
Ground Based Interceptor - GBI Relocations & Emplacements - SITR	C/CPAF	BOEING : Various	0.000	0.000		0.000		0.561	Nov 2024	-		0.561	Continuing	Continuing	Continuing
Ground Based Interceptor - Government Reliability Program - NORTHROP GRUMMAN	C/CPIF	NORTHROP GRUMMAN : Various	0.000	0.000		1.569	Nov 2023	2.285	Nov 2024	-		2.285	Continuing	Continuing	Continuing
Ground Based Interceptor - Government Reliability Program - NSWC	MIPR	NSWC (Naval Surface Warfare Center) : Various	2.467	1.076	Jan 2023	1.784	Jan 2024	2.120	Dec 2024	-		2.120	Continuing	Continuing	Continuing
Ground Based Interceptor - Government Reliability Program - Various	C/CPIF	Various : Various	0.000	0.184	Nov 2022	0.278	Nov 2023	0.281	Nov 2024	-		0.281	Continuing	Continuing	Continuing
Ground Based Interceptor - Kill Vehicle Space Chamber Testing - AEDC	MIPR	Arnold AFB/ Arnold Engineering Development Center (AEDC) : TN	17.119	1.390	Jan 2023	2.958	Jan 2024	3.101	Dec 2024	-		3.101	0.000	24.568	0.000
Ground Based Interceptor - Kill Vehicle Space Chamber Testing - Air Force Research Laboratory (AFRL)	MIPR	Air Force Research Laboratory (AFRL) : FL	0.351	0.000		0.766	Jan 2024	0.703	Nov 2024	-		0.703	0.000	1.820	0.000
Ground Based Interceptor - Kill Vehicle Space Chamber Testing - Boeing	C/CPIF	BOEING : Various	6.278	0.000		9.974	Nov 2023	0.000		-		0.000	0.000	16.252	0.000

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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
Ground Based Interceptor - Kill Vehicle Space Chamber Testing - CCDC	MIPR	USA CCDC AVIATION AND MISSILE CENTE : AL	0.000	3.399	Jan 2023	2.736	Jan 2024	3.332	Dec 2024	-		3.332	0.000	9.467	0.000
Ground Based Interceptor - Kill Vehicle Space Chamber Testing - ESC	C/CPIF	RAYTHEON : Various	3.314	0.000		2.828	Nov 2023	1.043	Nov 2024	-		1.043	0.000	7.185	0.000
Ground Based Interceptor - Kill Vehicle Space Chamber Testing- (AFMETCAL)	MIPR	Air Force Metrology and Calibration Program Office (AFMETCAL) : Various	1.368	1.663	Jan 2023	1.443	Jan 2024	1.191	Jan 2025	-		1.191	0.000	5.665	0.000
Ground Based Interceptor - Logistics & Safety Support - Army Aviation and Missile Command (AMCOM) Logistics Center (ALC)	MIPR	Army Aviation and Missile Command (AMCOM) Logistics Center (ALC) : AL	3.017	2.756	Jan 2023	3.110	Jan 2024	3.309	Jan 2025	-		3.309	Continuing	Continuing	Continuing
Ground Based Interceptor - Logistics & Safety Support - CCDC	MIPR	USA CCDC AVIATION AND MISSILE CENTE : AL	1.142	0.000		0.000		1.212	Jan 2025	-		1.212	Continuing	Continuing	Continuing
Ground Based Interceptor - Logistics & Safety Support - Various	Various	Various : Various	1.033	0.507	Nov 2022	1.706	Nov 2023	1.159	Nov 2024	-		1.159	Continuing	Continuing	Continuing
Ground Based Interceptor - Logistics and Safety Support - GSA Support Equipment	MIPR	GSA - GENERAL SERVICES ADMINISTRATION (GSA) : Various	0.000	0.000		0.000		1.214	Nov 2024	-		1.214	Continuing	Continuing	Continuing
Ground Based Interceptor - Logistics and Safety Support -Scott AFB	MIPR	TRANSCOM INC : Various	0.000	2.100	Jan 2023	1.918	Jan 2024	0.000		-		0.000	0.000	4.018	0.000
Ground Based Interceptor - Prime Interceptor Manufacturing & Lab Support - Boeing	C/CPAF	BOEING : Various	0.000	8.959	Nov 2022	0.000		0.000		-		0.000	0.000	8.959	0.000

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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
Ground Based Interceptor - Prime Interceptor Manufacturing & Lab Support - Various	Various	Various : Various	0.000	0.478	Jan 2023	0.000		0.000		-		0.000	0.000	0.478	0.000
Ground Based Interceptor - Prime Interceptor Manufacturing & Lab Support-ESC	C/CPIF	RTX Corporation : Various	0.000	0.000		0.000		3.986	Nov 2024	-		3.986	Continuing	Continuing	Continuing
Ground Based Interceptor - Prime Product Support	C/CPIF	Various : Various	0.000	2.292	Nov 2022	0.000		0.000		-		0.000	0.000	2.292	0.000
Ground Based Interceptor - Prime Product Support - BSC	C/CPIF	NORTHROP GRUMMAN : Various	0.000	0.000		1.219	Nov 2023	15.625	Nov 2024	-		15.625	Continuing	Continuing	Continuing
Ground Based Interceptor - Prime Product Support - DSC	C/CPIF	BOEING : Various	27.352	1.727	Nov 2022	24.816	Nov 2023	0.000		-		0.000	0.000	53.895	0.000
Ground Based Interceptor - Prime Product Support - ESC	C/CPIF	RAYTHEON : Various	0.000	6.010	Nov 2022	7.129	Nov 2023	14.034	Nov 2024	-		14.034	Continuing	Continuing	Continuing
Ground Based Interceptor - Prime Product Support - ISF	C/CPIF	BOEING : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	0.000
Ground Based Interceptor - Prime Product Support - Integration & Test Contract (ITC)	C/CPAF	BOEING : Various	0.000	0.000		0.000		17.509	Nov 2024	-		17.509	Continuing	Continuing	Continuing
Ground Based Interceptor - Prime Product Support - Raytheon	C/CPIF	RAYTHEON : Various	1.586	0.000		0.000		0.000		-		0.000	0.000	1.586	0.000
Ground Based Interceptor - Prime Product Support - SITR	C/CPAF	BOEING : Various	0.042	0.000		0.000		0.000		-		0.000	0.000	0.042	0.000
Ground Based Interceptor - Prime Reliability Program	C/CPIF	BOEING : Various	6.400	5.215	Nov 2022	1.810	Nov 2023	0.000		-		0.000	0.000	13.425	0.000

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Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>						Project (Number/Name) MD08 / <i>Ground Based Midcourse</i>			
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
Ground Based Interceptor - Prime Reliability Program - BSC	C/CPIF	NORTHROP GRUMMAN : Various	0.000	0.000		3.075	Nov 2023	2.858	Nov 2024	-		2.858	Continuing	Continuing	Continuing
Ground Based Interceptor - Prime Reliability Program - ESC	C/CPIF	RAYTHEON : Various	0.000	0.000		2.181	Nov 2023	0.000		-		0.000	0.000	2.181	0.000
Ground Based Interceptor - Prime Reliability Program -SITR	C/CPAF	BOEING : Various	0.000	0.000		3.376	Nov 2023	4.014	Nov 2024	-		4.014	Continuing	Continuing	Continuing
Ground Based Interceptor - Relocations & Emplacements	C/CPIF	BOEING : Various	0.519	0.000		0.000		0.000		-		0.000	0.000	0.519	0.000
Ground Systems & Fire Control - Fort Greely Communications Center	C/CPIF	NORTHROP GRUMMAN : Various	4.949	0.000		0.000		0.000		-		0.000	0.000	4.949	0.000
Ground Systems & Fire Control - GS-9 Software and Hardware Development-Variou	C/CPIF	Various : Various	2.282	0.000		0.000		0.000		-		0.000	0.000	2.282	0.000
Ground Systems & Fire Control - GWS-10B Software and Hardware Development GWS	C/CPIF	NORTHROP GRUMMAN : Various	0.550	0.000		0.000		0.000		-		0.000	0.000	0.550	0.000
Ground Systems & Fire Control - Government Missile Field 4 (20 Silos)	MIPR	Army Corps of Engineers : AK	6.371	0.000		0.000		0.000		-		0.000	0.000	6.371	0.000
Ground Systems & Fire Control - Government Software Development	Various	Various : Various	3.252	4.122	Jan 2023	0.586	Jan 2024	0.075	Nov 2024	-		0.075	Continuing	Continuing	Continuing
Ground Systems & Fire Control - Government Software Development - CECOM	MIPR	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : Various	0.000	1.700	Jan 2023	0.000		0.000		-		0.000	0.000	1.700	0.000

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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
Ground Systems & Fire Control - Government Software Development - NMR	C/CPAF	NETWORK MANAGEMENT RESOURCES, INC. : Various	0.000	4.414	Nov 2022	0.000		0.000		-		0.000	0.000	4.414	0.000
Ground Systems & Fire Control - Government Software Development - Venturi	C/CPAF	VENTURI, INC. : Various	0.000	1.156	Nov 2022	0.000		0.000		-		0.000	0.000	1.156	0.000
Ground Systems & Fire Control - Prime Missile Field 4 (20 Silos)	C/CPIF	BOEING : Various	7.511	0.000		0.000		0.000		-		0.000	0.000	7.511	0.000
Ground Systems & Fire Control - Prime Technology Refresh	C/CPIF	BOEING : Various	0.102	0.000		0.000		0.000		-		0.000	0.000	0.102	0.000
Systems Engineering and Program Management - Advanced Architecture - Program Ops (TEAMS)	C/CPIF	PARSONS GOVERNMENT SERVICES INC. : CA	0.000	2.729	Oct 2022	0.000		3.925	Nov 2024	-		3.925	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Advanced Architecture - Program Ops Support	C/CPIF	PARSONS GOVERNMENT SERVICES INC. : CA	0.000	0.287	Nov 2022	0.000		0.000		-		0.000	0.000	0.287	0.000
Systems Engineering and Program Management - Government Civilian Salaries	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	9.262	15.829	Oct 2022	7.500	Oct 2023	7.874	Oct 2024	-		7.874	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Government Discrimination Improvements - Aerospace	MIPR	DOD - USSF - SPACE AND MISSILE SYSTEMS CENTER (SMC) : Various	1.546	2.260	Jan 2023	0.000		0.000		-		0.000	0.000	3.806	0.000
Systems Engineering and Program Management - Government Discrimination Improvements - Boeing	C/CPIF	BOEING : Various	0.000	1.553	Nov 2022	0.000		0.000		-		0.000	0.000	1.553	0.000

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Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0603882C / Ballistic Missile Defense Midcourse Defense Segment				Project (Number/Name) MD08 / Ground Based Midcourse					
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
Systems Engineering and Program Management - Government Discrimination Improvements - Various	Various	Various : Various	0.000	0.619	Jan 2023	0.000		0.000		-		0.000	0.000	0.619	0.000
Systems Engineering and Program Management - Government EKV HWIL Tests in Space Chamber	MIPR	AEDC : TN	39.996	0.000		0.000		0.000		-		0.000	0.000	39.996	0.000
Systems Engineering and Program Management - Government Modeling and Simulation	MIPR	USA CCDC AVIATION AND MISSILE CENTE : AL	222.973	25.270	Jan 2023	7.090	Jan 2024	2.443	Jan 2025	-		2.443	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Government Modeling and Simulation - Decibel	C/CPIF	DECIBEL RESEARCH, INC : Various	6.666	4.414	Nov 2022	0.000		0.000		-		0.000	0.000	11.080	0.000
Systems Engineering and Program Management - Government Modeling and Simulation - Various	Various	Various : Various	0.060	0.000		0.000		0.000		-		0.000	0.000	0.060	0.000
Systems Engineering and Program Management - Government Systems Engineering & Integration - JACOBS TECHNOLOGY INC.	C/CPIF	JACOBS TECHNOLOGY INC. : AL	17.242	21.752	Nov 2022	10.605	Nov 2023	17.500	Nov 2024	-		17.500	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Government Systems Engineering & Integration - MODERN TECHNOLOGY SOLUTIONS, INC.	C/CPIF	MODERN TECHNOLOGY SOLUTIONS, INC. : Various	1.097	0.000		0.000		0.000		-		0.000	0.000	1.097	0.000
Systems Engineering and Program Management - Government Systems	C/CPAF	NTSI LLC : AL	0.000	1.242	Nov 2022	0.000		1.776	Nov 2024	-		1.776	Continuing	Continuing	Continuing

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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
Engineering & Integration - NTSI															
Systems Engineering and Program Management - Government Systems Engineering & Integration - Air Force Space and Missile Systems Center (SMC)	MIPR	Air Force Space and Missile Systems Center (SMC) : Various	1.500	2.040	Jan 2023	0.000		0.000		-		0.000	0.000	3.540	0.000
Systems Engineering and Program Management - Government Systems Engineering & Integration - C3AI, Inc.	MIPR	C3 AI : Various	0.880	0.000		0.000		0.000		-		0.000	0.000	0.880	0.000
Systems Engineering and Program Management - Government Systems Engineering & Integration - CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	7.222	7.499	Jan 2023	2.868	Jan 2024	1.460	Nov 2024	-		1.460	0.000	19.049	0.000
Systems Engineering and Program Management - Government Systems Engineering & Integration - CECOM	MIPR	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : Various	0.000	1.219	Jan 2023	0.000		2.320	Nov 2024	-		2.320	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Government Systems Engineering & Integration - KODA	C/CPIF	KODA Technologies, Inc. : AL	0.000	2.556	Nov 2022	0.000		0.000		-		0.000	0.000	2.556	0.000
Systems Engineering and Program Management - Government Systems Engineering & Integration - NSWC	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) CRANE DIVISION : Various	2.114	2.021	Jan 2023	0.000		0.000		-		0.000	0.000	4.135	0.000

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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
Systems Engineering and Program Management - Government Systems Engineering & Integration - PARSONS GOVERNMENT SERVICES INC.	C/CPIF	PARSONS GOVERNMENT SERVICES INC. : Various	58.747	37.502	Nov 2022	48.110	Nov 2023	38.303	Nov 2024	-		38.303	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Government Systems Engineering & Integration - TORCH TECHNOLOGIES INC	C/CPIF	TORCH TECHNOLOGIES INC : Various	1.594	0.000		1.534	Nov 2023	0.000		-		0.000	0.000	3.128	0.000
Systems Engineering and Program Management - Government Systems Engineering & Integration Classified Performer	C/CPIF	Various : Various	4.500	5.352	Nov 2022	0.000		0.000		-		0.000	0.000	9.852	0.000
Systems Engineering and Program Management - Government Systems Engineering & Integration-Colsa	C/CPAF	COLSA CORPORATION : AL	0.000	0.000		3.250	Nov 2023	0.000		-		0.000	0.000	3.250	0.000
Systems Engineering and Program Management - Government Systems Engineering & Integration-METI	C/CPIF	BOEING : Various	1.565	0.000		0.000		0.000		-		0.000	0.000	1.565	0.000
Systems Engineering and Program Management - Government Systems Engineering & Integration-Variou	Various	Various : Various	0.000	5.388	Jan 2023	0.000		0.751	Dec 2024	-		0.751	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Government Systems	C/CPIF	PARSONS GOVERNMENT SERVICES INC. : AL	346.433	0.000		0.586	Nov 2023	0.000		-		0.000	0.000	347.019	0.000

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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
Engineering, Integration and Discrimination Improvements															
Systems Engineering and Program Management - Information Management & Technology Ops	C/CPAF	JACOBS TECHNOLOGY INC. : Various	75.193	13.979	Nov 2022	11.325	Nov 2023	13.161	Nov 2024	-		13.161	Continuing	Continuing	Continuing
Systems Engineering and Program Management - M&S Industry Support	C/CPAF	Northrop Grumman : Various	2.539	0.000		0.000		0.000		-		0.000	0.000	2.539	0.000
Systems Engineering and Program Management - M&S Support CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : Various	4.238	0.000		0.000		0.000		-		0.000	0.000	4.238	0.000
Systems Engineering and Program Management - M&S Support - Various	Various	Various : Various	0.938	0.000		0.000		0.000		-		0.000	0.000	0.938	0.000
Systems Engineering and Program Management - Prime Design, Readiness, Analysis and Reporting	C/CPIF	BOEING : Various	23.672	0.000		0.000		0.000		-		0.000	0.000	23.672	0.000
Systems Engineering and Program Management - Prime Discrimination Improvements - DSC	C/CPIF	BOEING : Various	136.745	2.500	Nov 2022	0.000		0.000		-		0.000	0.000	139.245	0.000
Systems Engineering and Program Management - Prime EKV HWIL Tests in Space Chamber	C/CPIF	BOEING : Various	70.656	0.000		0.000		0.000		-		0.000	0.000	70.656	0.000
Systems Engineering and Program Management - Prime Modeling and Simulation - DSC	C/CPIF	BOEING : Various	274.760	5.501	Nov 2022	0.000		0.000		-		0.000	0.000	280.261	0.000

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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
Systems Engineering and Program Management - Prime Modeling and Simulation - MASC-F	C/CPIF	LOCKHEED MARTIN CORPORATION : Various	0.000	4.755	Nov 2022	0.000		0.000		-		0.000	0.000	4.755	0.000
Systems Engineering and Program Management - Prime Modeling and Simulation - SITR	C/CPAF	BOEING : Various	5.573	10.847	Nov 2022	30.570	Nov 2023	30.792	Nov 2024	-		30.792	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Prime Program Management - DSC	C/CPIF	BOEING : Various	552.862	19.529	Nov 2022	52.877	Nov 2023	36.617	Nov 2024	-		36.617	0.000	661.885	0.000
Systems Engineering and Program Management - Prime Program Management - SITR	C/CPAF	BOEING : Various	1.054	8.333	Nov 2022	11.984	Nov 2023	12.139	Nov 2024	-		12.139	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Prime System Engineering & Integration - Koda Inc	C/CPIF	KODA Technologies, Inc. : AL	1.600	0.000		0.000		0.000		-		0.000	0.000	1.600	0.000
Systems Engineering and Program Management - Prime System Engineering and Integration - DSC	C/CPIF	BOEING : Various	573.817	5.455	Nov 2022	16.218	Nov 2023	0.000		-		0.000	0.000	595.490	0.000
Systems Engineering and Program Management - Prime System Engineering and Integration - SITR	C/CPAF	BOEING : Various	8.633	22.959	Nov 2022	48.673	Nov 2023	36.670	Nov 2024	-		36.670	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Systems Engineering & Analysis	Various	Various : Various	70.387	0.000		3.935	Nov 2023	5.133	Nov 2024	-		5.133	Continuing	Continuing	Continuing
Systems Engineering and Program Management -	C/CPIF	PARSONS GOVERNMENT SERVICES INC. : AL	42.086	0.000		4.304	Nov 2023	4.014	Nov 2024	-		4.014	Continuing	Continuing	Continuing

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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
Systems Engineering & Analysis - CSS Support															
Systems Engineering and Program Management - Systems Engineering & Analysis – FFRDC / UARC	Various	Various : Various	20.979	0.000		2.026	Jan 2024	1.859	Dec 2024	-		1.859	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Systems Engineering & Analysis – Industry Support	C/CPIF	BOEING : AL	45.232	0.000		4.357	Oct 2023	4.043	Nov 2024	-		4.043	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Systems Engineering and Analysis - Discrimination Engineering & Analysis	C/CPIF	BOEING : Various	42.401	0.000		9.787	Nov 2023	2.621	Nov 2024	-		2.621	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Systems Engineering and Analysis - Lockheed M&S Support	C/CPAF	LOCKHEED MARTIN CORPORATION : Various	0.342	0.000		0.000		0.000		-		0.000	0.000	0.342	0.000
Systems Engineering and Program Management - Systems Engineering and Analysis - M&S Support	MIPR	DOD - USA - ENGINEERING AND SUPPORT CENTER, HUNTSVILLE (HNC) : AL	63.541	0.000		0.420	Nov 2023	0.416	Nov 2024	-		0.416	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Technical Direction Agent	C/CPAF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : Various	150.255	16.609	Nov 2022	32.758	Nov 2023	33.503	Nov 2024	-		33.503	Continuing	Continuing	Continuing
Systems Engineering and Program Management - Technical Direction Agent - DOE	IA	DOE - DEPARTMENT OF ENERGY (DOE) : Various	0.000	2.170	Jan 2023	0.000		0.000		-		0.000	0.000	2.170	0.000

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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
Systems Engineering and Program Management - Technical Direction Agent - Various	MIPR	Various : Various	1.350	0.115	Jan 2023	0.000		0.000		-		0.000	0.000	1.465	0.000
Systems Engineering and Program Management - Technical Direction Agent - CMU FFRDC	MIPR	DOD - USAF - AIR FORCE LIFE CYCLE MANAGEMENT CENTER (AFLCMC) : AL	2.233	6.115	Jan 2023	0.000		0.000		-		0.000	0.000	8.348	0.000
Systems Engineering and Program Management - Technical Direction Agent -Space Dynamics Lab UARC	C/CPHF	SPACE DYNAMICS LABORATORY : AL	1.510	3.535	Nov 2022	0.000		0.000		-		0.000	0.000	5.045	0.000
Systems Engineering and Program Management - Technical Direction Agent-MIT/LL FFRDC	MIPR	MASSACHUSETTS INSTITUTE OF TECHNOLOGY : Various	3.667	0.000		0.000		0.000		-		0.000	0.000	3.667	0.000
Systems Engineering and Program Management - Technical Direction Agent-MITRE	MIPR	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : AL	5.701	5.680	Jan 2023	0.000		0.000		-		0.000	0.000	11.381	0.000
Systems Engineering and Program Management - Technical Direction-Agent Aerospace	MIPR	DOD - USSF - SPACE AND MISSILE SYSTEMS CENTER (SMC) : Various	7.177	9.550	Jan 2023	0.000		0.000		-		0.000	0.000	16.727	0.000
Program Operations - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	417.636	26.853	Oct 2022	30.130	Oct 2023	30.064	Oct 2024	-		30.064	Continuing	Continuing	Continuing
Program Operations - Contract Support Services - Various	C/CPFF	Various : Various	518.999	0.000		0.000		0.000		-		0.000	0.000	518.999	0.000

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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
Program Operations - FFRDC Support - CECOM	MIPR	Communications Electronics Command (CECOM) : AL	1.489	2.412	Jan 2023	1.408	Jan 2024	0.000		-		0.000	0.000	5.309	0.000
Program Operations - FFRDC Support - MIT/LL	MIPR	MIT/LL : Various	57.491	0.000		0.000		0.000		-		0.000	0.000	57.491	0.000
Program Operations - FFRDC Support - Various	Various	Various : Various	0.000	0.000		0.000		0.643	Dec 2024	-		0.643	Continuing	Continuing	Continuing
Program Operations - Information Technology Services - NMR	C/CPAF	NETWORK MANAGEMENT RESOURCES, INC. : Various	1.474	1.216	Jan 2023	0.000		0.000		-		0.000	0.000	2.690	0.000
Program Operations - Information Technology Services - Various	C/CPAF	Various : Various	0.000	0.628	Jan 2023	1.672	Nov 2023	0.772	Nov 2024	-		0.772	Continuing	Continuing	Continuing
Program Operations - Information Technology Services - DISA	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : Various	0.181	0.000		0.000		0.000		-		0.000	0.000	0.181	0.000
Program Operations - Information Technology Services - Jacobs	C/CPAF	JACOBS TECHNOLOGY INC. : Various	20.574	3.013	Jan 2023	3.298	Nov 2023	3.382	Nov 2024	-		3.382	Continuing	Continuing	Continuing
Program Operations - Other Government Agencies	Various	Various : Various	60.426	0.706	Jan 2023	0.771	Jan 2024	0.877	Dec 2024	-		0.877	Continuing	Continuing	Continuing
Program Operations - Safety and Quality	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	0.583	0.000		0.000		0.000		-		0.000	0.000	0.583	0.000
Program Operations - Travel	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	16.612	1.199	Oct 2022	1.395	Oct 2023	1.474	Oct 2024	-		1.474	Continuing	Continuing	Continuing
GMD Weapon System/ GBI Service Life Extension Program (SLEP) - GMD	C/CPIF	BOEING : Various	0.000	28.891	Nov 2022	0.000		0.000		-		0.000	0.000	28.891	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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>						Project (Number/Name) MD08 / <i>Ground Based Midcourse</i>			
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
Weapon System/Ground Based Interceptor Service Life Extension Program (SLEP) - DSC															
GMD Weapon System/ GBI Service Life Extension Program (SLEP) - GMD Weapon System/Ground Based Interceptor Service Life Extension Program (SLEP) - Various	Various	Various : Various	0.000	0.570	Nov 2022	0.000		0.000		-		0.000	0.000	0.570	0.000
GMD Weapon System/ GBI Service Life Extension Program (SLEP) - GMD Weapon System/Ground Based Interceptor Service Life Extension Program (SLEP) -ESC	C/CPAF	RAYTHEON : Various	0.000	0.000		0.000		9.346	Nov 2024	-		9.346	Continuing	Continuing	Continuing
GMD Weapon System/ GBI Service Life Extension Program (SLEP) - GMD Weapon System/Ground Based Interceptor Service Life Extension Program (SLEP)- BSC	C/CPAF	NORTHROP GRUMMAN : Various	0.000	3.739	Nov 2022	0.000		2.465	Nov 2024	-		2.465	Continuing	Continuing	Continuing
GMD Weapon System/ GBI Service Life Extension Program (SLEP) - GMD Weapon System/Ground Based Interceptor Service Life Extension Program (SLEP)-ITC	C/CPAF	BOEING : Various	0.000	0.000		0.000		9.336	Nov 2024	-		9.336	Continuing	Continuing	Continuing
GMD Weapon System/ GBI Service Life Extension Program (SLEP) - GMD Weapon System/Ground	C/CPAF	BOEING : Various	0.000	0.000		0.409	Nov 2023	0.000		-		0.000	0.000	0.409	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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>						Project (Number/Name) MD08 / <i>Ground Based Midcourse</i>			
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
Based Interceptor Service Life Extension Program (SLEP)-SITR															
Subtotal			4,105.008	402.572		425.122		395.291		-		395.291	Continuing	Continuing	N/A
Remarks Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Operations - Contract Support Services - Vet Tech	C/CPIF	Veterans Technology, LLC : AL	1.525	1.551	Nov 2022	2.015	Nov 2023	2.826	Nov 2024	-		2.826	Continuing	Continuing	Continuing
Program Operations - Contract Support Services - ARES	C/CPIF	ARES CORPORATION : AL	1.273	1.221	Nov 2022	1.567	Nov 2023	0.000		-		0.000	0.000	4.061	0.000
Program Operations - Contract Support Services - SABG	C/CPIF	STRATEGIC ALLIANCE BUSINESS GROUP LLC : AL	0.000	3.928	Nov 2022	7.376	Nov 2023	4.303	Nov 2024	-		4.303	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 0603882C / Ballistic Missile Defense Midcourse Defense Segment				Project (Number/Name) MD08 / Ground Based Midcourse					
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Operations - Contract Support Services - AI SOLUTIONS, INC.	C/CPIF	AI SOLUTIONS, INC. : AL	2.217	0.000		2.864	Nov 2023	2.269	Nov 2024	-		2.269	Continuing	Continuing	Continuing
Program Operations - Contract Support Services - MACAULAY-BROWN, INC	C/CPIF	MACAULAY-BROWN, INC : AL	0.700	0.000		1.045	Nov 2023	0.000		-		0.000	0.000	1.745	0.000
Program Operations - Contract Support Services - MP Solutions LLC	C/CPIF	MP SOLUTIONS, LLC : AL	0.768	0.000		0.000		0.000		-		0.000	0.000	0.768	0.000
Program Operations - Contract Support Services - SAS	C/CPIF	STRATEGIC ALLIANCE SOLUTIONS LLC : AL	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	0.000
Program Operations - Contract Support Services - Various	C/CPIF	Various : Various	0.484	2.111	Nov 2022	0.000		3.089	Nov 2024	-		3.089	Continuing	Continuing	Continuing
Program Operations - Contract Support Services - Venturi	C/CPIF	VENTURI, INC. : AL	1.624	0.000		1.919	Nov 2023	2.198	Nov 2024	-		2.198	Continuing	Continuing	Continuing
Program Operations - Contract Support Services - Yorktown	C/CPIF	YORKTOWN SYSTEMS GROUP, INC. : AL	1.685	0.000		1.863	Nov 2023	0.000		-		0.000	0.000	3.548	0.000
Program Operations - Contract Support Services -BCF SOLUTIONS, INC.	C/CPIF	BCF SOLUTIONS, INC. : AL	4.461	3.219	Nov 2022	5.113	Nov 2023	0.000		-		0.000	0.000	12.793	0.000
Program Operations - Contract Support Services Programming, Planning, and Acquisition	C/CPAF	TBD : AL	0.000	0.000		0.000		4.207	Nov 2024	-		4.207	Continuing	Continuing	Continuing
Subtotal			14.737	12.030		23.762		18.892		-		18.892	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-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 0603882C / Ballistic Missile Defense Midcourse Defense Segment					Project (Number/Name) MD08 / Ground Based Midcourse				
		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		8,700.161	578.555		841.566		713.750		-		713.750	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					R-1 Program Element (Number/Name)										Project (Number/Name)									
0400 / 4					PE 0603882C / Ballistic Missile Defense Midcourse Defense Segment										MD08 / Ground Based Midcourse									
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							
GMD Weapon System/Ground Based Interceptor SLEP					◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇				
Stockpile Reliability Program Testing					◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇				
GMD Increment 6C/7 Incremental Element Reviews						◇	◇	◇	◇	◇	◇	◇												
GMD Increment 10 Continuous Incremental Element Reviews							◇	◇	◇	◇	◇	◇	◇	◇	◇	◇								
Integrate and Emplace FTG-12 Flight Test Vehicle					◇	◇	◇	◇	◇															
GCN Modernization					◆	◆	◆	◆																
IDT Modernization and Processor Upgrades					◇	◇	◇	◇	◇	◇	◇	◇												
MF-4/MF-1 Modernization/Expansion					◇	◇	◇	◇	◇	◇	◇	◇												
Ground Systems Software 8 Development, Test, & Fielding					◇	◇	◇	◇	◇	◇	◇	◇												
Ground Systems Software 8 Formal Qualification Testing (FQT)							▲																	
CE-II Block 1 Ground Based Interceptor Delivery 2							◆																	
Delivery of Three Configuration 2 (C2) Boost Vehicles OBV 72,73, and 74							◇	◇	◇	◇														
Ground Systems Software 8 Operational Capability Baseline (OCB)											△													
Ground Systems Software 9 Development					◇	◇	◇	◇	◇															
Ground Systems Software 9 FQT							▲																	
Exo-Atmospheric Kill Vehicle (EKV) SW 11.0 Development & Testing					◇	◇	◇	◇	◇	◇	◇	◇												
EKV SW 11.0 OCB												△												
EKV SW 24.0 Development & Testing					◇	◇	◇	◇	◇	◇	◇													
EKV SW 24.0 OCB												△												
Ground Weapon System (GWS) 10A Development, Test & Fielding					◇	◇	◇	◇	◇	◇	◇	◇	◇											
GWS 10A FQT									△															
GWS 10A OCB													△											
GWS 10B Development, Test & Fielding					◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇							
GWS 10B.1 FQT													△											

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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 0603882C / Ballistic Missile Defense Midcourse Defense Segment								Project (Number/Name) MD08 / Ground Based Midcourse								
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				
GWS 10B OCB																								
EKV Software (ESW) 12.0 Development and Fielding									◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇					
ESW 12.0 System Requirements Review (SRR)										▲														
ESW 12.0 Critical Design Review (CDR)													△											
ESW 12.0 FQT													△											
ESW 12.0 OCB																			△					
Phased Array IDT (PA-IDT) Development								◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇					
Test PA-IDT Asset Development, Test & Fielding								◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇						
PA-IDT SRR										▲														
PA-IDT PDR												△												
PA-IDT CDR														△										
PA-IDT FQT															△									
PA-IDT Operational Verification																		△						
Fort Greely Communications Center									◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇		
Hawaii IDT																		◇	◇	◇	◇	◇	◇	

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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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>	Project (Number/Name) MD08 / <i>Ground Based Midcourse</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GMD Weapon System/Ground Based Interceptor SLEP	1	2023	4	2029
Stockpile Reliability Program Testing	1	2023	4	2029
GMD Increment 6C/7 Incremental Element Reviews	3	2023	4	2025
GMD Increment 10 Continuous Incremental Element Reviews	1	2024	4	2027
Integrate and Emplace FTG-12 Flight Test Vehicle	1	2023	1	2024
GCN Modernization	1	2023	4	2023
IDT Modernization and Processor Upgrades	1	2023	4	2024
MF-4/MF-1 Modernization/Expansion	1	2023	1	2025
Ground Systems Software 8 Development, Test, & Fielding	1	2023	4	2024
Ground Systems Software 8 Formal Qualification Testing (FQT)	3	2023	3	2023
CE-II Block 1 Ground Based Interceptor Delivery 2	4	2023	4	2023
Delivery of Three Configuration 2 (C2) Boost Vehicles OBV 72,73, and 74	4	2023	3	2024
Ground Systems Software 8 Operational Capability Baseline (OCB)	4	2024	4	2024
Ground Systems Software 9 Development	1	2023	1	2024
Ground Systems Software 9 FQT	4	2023	4	2023
Exo-Atmospheric Kill Vehicle (EKV) SW 11.0 Development & Testing	1	2023	4	2024
EKV SW 11.0 OCB	4	2024	4	2024
EKV SW 24.0 Development & Testing	1	2023	3	2024
EKV SW 24.0 OCB	4	2024	4	2024
Ground Weapon System (GWS) 10A Development, Test & Fielding	1	2023	1	2026
GWS 10A FQT	2	2024	2	2024
GWS 10A OCB	1	2026	1	2026

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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 0603882C / Ballistic Missile Defense Midcourse Defense Segment		Project (Number/Name) MD08 / Ground Based Midcourse	
		Start		End	
Events		Quarter	Year	Quarter	Year
GWS 10B Development, Test & Fielding		1	2023	1	2028
GWS 10B.1 FQT		2	2026	2	2026
GWS 10B OCB		1	2028	1	2028
EKV Software (ESW) 12.0 Development and Fielding		4	2023	1	2028
ESW 12.0 System Requirements Review (SRR)		4	2023	4	2023
ESW 12.0 Critical Design Review (CDR)		2	2025	2	2025
ESW 12.0 FQT		3	2025	3	2025
ESW 12.0 OCB		1	2028	1	2028
Phased Array IDT (PA-IDT) Development		1	2023	4	2027
Test PA-IDT Asset Development, Test & Fielding		1	2023	3	2026
PA-IDT SRR		4	2023	4	2023
PA-IDT PDR		3	2024	3	2024
PA-IDT CDR		4	2025	4	2025
PA-IDT FQT		4	2026	4	2026
PA-IDT Operational Verification		4	2027	4	2027
Fort Greely Communications Center		3	2023	4	2028
Hawaii IDT		1	2027	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 0603882C / Ballistic Missile Defense Midcourse Defense Segment				Project (Number/Name) MC08 / 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
MC08: Cyber Operations	235.873	30.443	29.035	24.903	-	24.903	25.919	23.686	24.035	24.501	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Decrease from FY 2024 to FY 2025 reflects completion of prime Cyber Security support on the Development and Sustainment Contract (DSC) in 1Q FY 2025.

A. Mission Description and Budget Item Justification

The Ground-Based Midcourse Defense (GMD) Cyber Operations project provides cybersecurity and cyber resiliency to maintain and operate all mission and mission support systems. The GMD systems must maintain Network and System Certification and Accreditation for operation on all GMD networks and nodes. Cybersecurity and Cyber Resiliency efforts harden the GMD system against a cyber-attack and reduces system vulnerabilities. The strategy implements cybersecurity and cyber resiliency systems throughout the lifecycle to flow requirements to the Ground Based Interceptor, Next Generation Interceptor, and GMD Weapon System to influence system development. In addition, Cybersecurity and Cyber Resiliency efforts include developmental cyber testing and assessments to reduce cyber vulnerabilities prior to fielding.

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

	FY 2023	FY 2024	FY 2025
Title: Network / System Certification and Accreditation (C&A)	7.328	7.851	8.430
Articles:	-	-	-
<p>Description: GMD Systems maintain a defensive cyber posture through analysis of system software and hardware. By conducting annual cybersecurity reviews, all GMD systems are evaluated to ensure the systems are authorized per the Risk Management Framework (RMF) to assess compliance in implementing and maintaining cybersecurity controls. GMD develops RMF assessment and authorization packages required to ensure all GMD networks and nodes maintain an authority to operate.</p> <p>Recurring efforts include:</p> <ul style="list-style-type: none"> -Assess, implement, document, and validate cybersecurity control families for GMD representative systems comprising computing and logic bearing components to support the GMD Development, Test, Training, and Operational systems -Ensure compliance with security mandates to maintain continued authorization to operate -Ensure the cyber workforce is trained and qualified -Support modification of Installation Support Agreements for assigned real property to ensure Facility-Related Control Systems and supporting GMD facilities are cyber-secure <p>FY 2024 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 0603882C / Ballistic Missile Defense Midcourse Defense Segment	Project (Number/Name) MC08 / Cyber Operations		
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				
Title: Cyber Security and Cyber Resiliency		23.115	21.184	16.473
Articles:		-	-	-
Description: Cybersecurity and Cyber Resiliency efforts harden the GMD system against a cyber-attack and reduce system vulnerabilities. The strategy implements cybersecurity and cyber resiliency systems throughout the life cycle to flow requirements to the Next Generation Interceptor, Ground Based Interceptor, and GMD Weapon System to influence system development. Early cyber testing is completed to identify vulnerabilities and fixes early in the design process.				
Recurring efforts include: - Implement the GMD cybersecurity risk process across all systems to execute risk-based decisions on cybersecurity controls - Implement robust cyber resiliency by developing requirements that flow to component level designs, allowing the GMD Weapon System to operate in a cyber-contested environment - Support testing on developmental systems in a virtualized environment by integrating cyber test events allowing execution of specific cyber threat vectors on developmental software in an effort to identify capability flaws that will be assessed through the cyber risk process - Support Cooperative Vulnerability and Penetration Assessment to discover unknown vulnerabilities and determine effectiveness of mitigations from development level cyber testing - Support Adversarial Assessment penetration to determine effectiveness of cyber-attacks in an operational environment along with the effectiveness of the operational and technical mitigations implemented from developmental cyber testing - Implement software and hardware fixes to address weaknesses found during testing - Develop intermediate cybersecurity processes and procedures that provide operators, maintainers, and Warfighter specific steps to recognize and react to cyber-attacks through defensive cyber operations - Develop and execute quarterly cybersecurity training scenarios allowing fire control operators and network defenders to train in a cyber-contested environment while in an engagement scenario - Provide training opportunities for fire control operators and cyber incident responders to test Tactics, Techniques, and Procedures - Provide Risk Management Framework support to include authorization and assessment for the GMD Weapon System - Support of cyber designs, integration, and test verification				

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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 0603882C / Ballistic Missile Defense Mi dcourse Defense Segment				Project (Number/Name) MC08 / 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:											
FY 2024 Plans: - Provide Cyber Security support including authorizations and assessments for GMD Increment 6B Ground Test Re-plan - Transition the GMD DSC to the GMD future contracts: SITR contract, GWS contract, Ground Based Interceptor In-Service Fleet BSC, ESC, and Ground Based Interceptor ITC											
FY 2025 Plans: - Provide Cyber Security support including authorizations and assessments for GMD Increment 6B Ground Test Re-plan - Transition the GMD DSC to the GMD future contracts: System Integration, Test, & Readiness (SITR) contract, GMD Weapon System (GWS) contract, Ground Based Interceptor In-Service Fleet Boost Vehicle Sustainment Contract (BSC), Exo-atmospheric Kill Vehicle (EKV) Sustainment Contract (ESC), and Ground Based Interceptor Integration and Test acquisition											
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects completion of prime Cyber Security support on the DSC in 1Q FY 2025											
Accomplishments/Planned Programs Subtotals									30.443	29.035	24.903
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• 0208866C: MD08: GMD Procurement	11.300	0.000	20.796	-	20.796	88.586	82.206	0.000	0.000	Continuing	Continuing
• 028866C: MD08: Midcourse Defense Operation and Maintenance	187.045	174.789	184.280	-	184.280	164.687	162.851	222.765	249.896	0.000	1,346.313
• 0604874C: Improved Homeland Defense Interceptors	1,795.728	2,130.838	1,697.121	-	1,697.121	1,034.859	1,406.953	625.913	404.970	Continuing	Continuing
• 0604887C: Ballistic Missile Defense Midcourse Defense Segment Test	84.335	41.824	40.006	-	40.006	50.994	122.374	126.853	137.676	Continuing	Continuing
Remarks											

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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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>	Project (Number/Name) MC08 / <i>Cyber Operations</i>
<p><u>D. Acquisition Strategy</u></p> <p>The Ground-Based Midcourse Defense (GMD) program will continue to execute testing, development, and evolutionary acquisition through incremental development. The Agency acquisition strategy ensures GMD components are upgraded to improve both GMD Component performance and GMD Element performance in order to retain the proven GMD contribution to the integrated Missile Defense System. This acquisition approach reduces obsolescence risk, provides incremental capability improvements, and allows decision makers to make informed trades between cost, schedule, and performance while rapidly delivering improved operational and technological capabilities.</p> <p>Missile Defense Agency (MDA) competitively awarded the Development and Sustainment Contract (DSC) to The Boeing Company in December 2011. This contract included development, fielding, test, systems engineering, integration, and configuration management; equipment manufacturing and upgrade; training, operations, and sustainment of the GMD Element and associated support facilities. In January 2018, the DSC was extended with a new period of performance through 1Q FY 2024. The DSC Extension includes supporting test, engineering, software, and performance-based logistics scope. In 2022, the MDA Ground Test Replan resulted in the extension of minimal contract line items to support testing, engineering, hardware and software until December 2024 to complete the delivery of Missile Defense System Increment 6B.2; while performance-based logistics will transition to a new contract after December 2023. The DSC structure breaks out major efforts into separate Contract Line Item Numbers with individual incentives for management insight, accounting, and property accountability.</p> <p>MDA implemented a robust Program Board structure allowing more Government insight and decisions into the technical baseline and has changed business processes for greater Government involvement in program decisions consistent with the Government's ownership of the technical baseline. In addition, GMD utilizes Government laboratory modeling and simulation and analysis capabilities to augment the current DSC efforts. These efforts utilize existing, competitively awarded contracts by MDA and Other Government Agencies including Vandenberg Space Force Base, California; Missile Defense Integration and Operations Center; U.S. Army Combat Capabilities Development Command Aviation & Missile Center (formerly known as U.S. Army Aviation and Missile Research, Development and engineering Center); and Pacific Missile Range Facility, HI.</p> <p>Other GMD contracts will satisfy future GMD Element requirements beyond DSC's support and Missile Defense System Increment 6B.2. These contracts initiated and are executing concurrently with the DSC and provide for transition periods while the DSC scope is completing to provide continuity of effort. Each of the new contracts are structured to break out major efforts into separate Contract Line Item Numbers with individual incentives for management insight, accounting, and property accountability.</p> <p>MDA competitively awarded two best value contracts on March 24, 2021 to Lockheed Martin and Northrop Grumman for technology and product development of Next Generation Interceptor maintained both contracts through the Preliminary Design Review. Each Contractor's design development and component testing leading to completion of a PDR and Knowledge Point #1 provides significant risk reduction and confidence to select a Next Generation Interceptor All Up Round design to proceed to the Critical Design Review and beyond. MDA established future knowledge points and flight tests to evaluate Next Generation Interceptor components and GMD Weapon System performance during continued development and to support future production decisions.</p> <p>MDA awarded/plans to award sole source contracts to the GMD's Ground Based Interceptor In-Service Fleet (ISF) original equipment manufacturers to perform service life extensions and maintain the existing fleet, execute repairs, and develop software. These contracts are intended primarily to ensure fleet viability until replacement</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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>	Project (Number/Name) MC08 / <i>Cyber Operations</i>
<p>interceptors Next Generation Interceptor are fielded. ISF is constrained to the legacy interceptor fleet and its component boosters and kill vehicles. The Boost Vehicle Sustainment Contract was awarded to Northrop Grumman in September 2021. The EKV Sustainment Contract was awarded in June 2023 to Raytheon Missile Systems. The Ground Based Interceptor Integration and Test acquisition is planned for award in FY 2024.</p> <p>The GMD Weapon System (GWS) Contract was competitively awarded to Northrop Grumman Systems Corporation in July 2022 to provide design, development, production, product level testing, sustainment planning, and maintenance of the current Weapon System. The GWS contractor is responsible for developing weapon system solutions, including fire control and communication systems improvements, required to update the legacy system to remain effective while the Next Generation Interceptor is under development, as well as, preparing for the seamless introduction of Next Generation Interceptor and other future Missile Defense System capabilities. The GWS contract will update the system interface for the addition of Next Generation Interceptors to the fleet, provide the Warfighter capability to operate the GMD Weapon System with a mixed fleet of Ground Based Interceptors and Next Generation Interceptors, and identify and develop solutions for message exchanges between the GMD Weapon System and in-flight kill vehicles. All of this must be accomplished while maintaining a robust cyber defense network capable of detecting and defending against current and future cybersecurity threats.</p> <p>MDA also competitively awarded a System Integration, Test, and Readiness (SITR) Contract to provide, along with the Technical Direction Agent, a synergistic approach in executing the GMD Element-level engineering, integration, test, and readiness of the GMD Weapon System, which operates with the current Ground-Based Interceptor and is adding infrastructure for the integration and testing of Next Generation Interceptor. The SITR contract was awarded on September 1, 2022 to The Boeing Company. The SITR contractor is charged with being the Government's technical partner for day-to-day operation and sustainment of the GMD Weapon System alongside the United States Northern Command Warfighters. While the Government maintains overall system integration responsibilities and authority, the SITR contractor will assume a supporting role responsible for ensuring overall GMD integration including physical and logical integration of the GMD Components to include Next Generation Interceptor, GMD Element, and MDA enterprise level integration, planning and execution of all necessary testing to verify and validate requirements compliance.</p> <p>GMD Increment 6C, 10, and 11 will be executed with the SITR and GWS contracts.</p> <p>GMD also uses MDA Consolidated Support contracts for engineering and technical support; studies, analyses, and evaluations; and management and professional services to GMD functional organizations and program offices. With a focus to achieve Small Business goals, MDA is leveraging existing MDA Consolidated Support contracts and will utilize MDA competitively awarded new contracts to acquire Fiscal Years 2020-2030 Advisory and Assistance Services support.</p> <p>The Next Generation Interceptor will be an integrated capability of the greater GMD Element, and will provide a fully qualified, production representative Next Generation Interceptor All Up Round (AUR). Once the Next Generation Interceptor AUR is accepted by the Government, it will be integrated into the GMD Element and supported by the SITR Contract while the GWS Contract will support developing the interfaces necessary for the seamless integration of Next Generation Interceptor. The funding for the development of the Next Generation Interceptor is in Program Element 0604874C Improved Homeland Defense Interceptors.</p> <p>The Integrated Research and Development for Enterprise Solutions contract is used to provide cyber related equipment, licenses, and support.</p>		

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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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>						Project (Number/Name) MC08 / <i>Cyber Operations</i>			
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
Cyber Security and Cyber Resiliency - Cyber Security and Cyber Resiliency - GMD Cybersecurity Program - Army Corps of Engineers	MIPR	Army Corps of Engineers/ Huntsville : Various	0.043	1.344	Jan 2023	0.000		0.000		-		0.000	0.000	1.387	0.000
Subtotal			0.043	1.344		0.000		0.000		-		0.000	0.000	1.387	N/A
Remarks Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.															
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
Network / System Certification and Accreditation (C&A) - Civilian Salaries	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	8.788	1.130	Oct 2022	1.166	Oct 2023	1.252	Oct 2024	-		1.252	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Contract Support Services	C/CPFF	Various : Various	36.542	0.000		0.000		0.000		-		0.000	0.000	36.542	0.000
Cyber Security and Cyber Resiliency - Cyber Security and Cyber Resiliency - Cybersecurity	C/CPAF	Various : Various	24.719	0.000		0.000		0.000		-		0.000	0.000	24.719	0.000
Cyber Security and Cyber Resiliency - Cyber Security and Cyber Resiliency - Facility-Related Control Systems Contract Method	C/CPFF	Booz Allen Hamilton : Various	2.583	0.000		0.000		0.000		-		0.000	0.000	2.583	0.000
Cyber Security and Cyber Resiliency - Cyber Security	C/CPAF	BOEING : Various	97.621	18.989	Nov 2022	7.619	Nov 2023	0.000		-		0.000	0.000	124.229	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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>						Project (Number/Name) MC08 / <i>Cyber Operations</i>			
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
and Cyber Resiliency - GMD Cybersecurity Program															
Cyber Security and Cyber Resiliency - Cyber Security and Cyber Resiliency - GMD Cybersecurity Program - ESC	C/CPIF	RAYTHEON : AZ	0.000	0.000		2.997	Nov 2023	6.163	Nov 2024	-		6.163	Continuing	Continuing	Continuing
Cyber Security and Cyber Resiliency - Cyber Security and Cyber Resiliency - GMD Cybersecurity Program - BSC	C/CPIF	NORTHROP GRUMMAN : Various	0.000	0.000		0.000		0.753	Nov 2024	-		0.753	Continuing	Continuing	Continuing
Cyber Security and Cyber Resiliency - Cyber Security and Cyber Resiliency - GMD Cybersecurity Program - Communications Electronics Command (CECOM)	MIPR	Communications Electronics Command (CECOM) : AL	0.000	0.804	Jan 2023	1.081	Jan 2024	1.056	Dec 2024	-		1.056	Continuing	Continuing	Continuing
Cyber Security and Cyber Resiliency - Cyber Security and Cyber Resiliency - GMD Cybersecurity Program - ITC	C/CPIF	BOEING : Various	0.000	0.000		2.171	Nov 2023	1.627	Nov 2024	-		1.627	Continuing	Continuing	Continuing
Cyber Security and Cyber Resiliency - Cyber Security and Cyber Resiliency - GMD Cybersecurity Program - SITR	C/CPAF	BOEING : Various	0.000	0.000		5.790	Nov 2023	5.908	Nov 2024	-		5.908	Continuing	Continuing	Continuing
Cyber Security and Cyber Resiliency - Cyber Security and Cyber Resiliency - GMD Cybersecurity Program - Various	Various	Various : Various	0.000	1.978	Nov 2022	1.526	Nov 2023	0.966	Nov 2024	-		0.966	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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>						Project (Number/Name) MC08 / <i>Cyber Operations</i>			
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
Cyber Security and Cyber Resiliency - Cyber Security and Cyber Resiliency - Ground Systems Software Cybersecurity	C/CPIF	BOEING : Various	58.391	0.000		0.000		0.000		-		0.000	0.000	58.391	0.000
Subtotal			228.644	22.901		22.350		17.725		-		17.725	Continuing	Continuing	N/A
Remarks Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.															
Management Services (\$ 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
Network / System Certification and Accreditation (C&A) - Contract Support Services - Booz-Allen Hamilton Inc	C/CPFF	BOOZ ALLEN HAMILTON INC. : AL	1.857	2.453	Nov 2022	1.766	Nov 2023	2.328	Nov 2024	-		2.328	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Contract Support Services - Decisive Analytics Corp.	C/CPFF	DECISIVE ANALYTICS CORPORATION : AL	1.280	0.000		0.000		0.000		-		0.000	0.000	1.280	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 0603882C / Ballistic Missile Defense Midcourse Defense Segment					Project (Number/Name) MC08 / Cyber Operations				
Management Services (\$ 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
Network / System Certification and Accreditation (C&A) - Contract Support Services - Parsons	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	3.460	1.858	Nov 2022	3.723	Nov 2023	3.918	Nov 2024	-		3.918	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Contract Support Services - Various	C/CPFF	Various : AL	0.589	1.887	Nov 2022	1.196	Nov 2023	0.932	Nov 2024	-		0.932	Continuing	Continuing	Continuing
Subtotal			7.186	6.198		6.685		7.178		-		7.178	Continuing	Continuing	N/A
Remarks															
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.															
			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			235.873	30.443		29.035		24.903		-		24.903	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 0603882C / Ballistic Missile Defense Midcourse Defense Segment	Project (Number/Name) MC08 / Cyber Operations	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Network and System Certification and Accreditation (C&A)	1	2023	4	2029
Cybersecurity and Cyber Resiliency	1	2023	4	2029
Cooperative Vulnerability Penetration Assessment (CVPA)	1	2023	4	2029
Adversarial Assessment (AA)	1	2023	4	2029
Computer Network Defense (CND)	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 0603882C / Ballistic Missile Defense Midcourse Defense Segment				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: Program-Wide Support	287.181	61.810	33.032	29.574	-	29.574	35.971	34.862	42.796	46.767	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)

Title: Program Wide Support		FY 2023	FY 2024	FY 2025
Articles:		61.810	33.032	29.574
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		-	-	-

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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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Decrease from FY 2024 to FY 2025 reflects the PWS allocation on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.</p>			
Accomplishments/Planned Programs Subtotals		61.810	33.032
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>						Project (Number/Name) MD40 / <i>Program-Wide Support</i>			
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities and Maintenance	MIPR	Various : Multi: AK, AL, CA, VA	6.920	0.000		0.000		0.000		-		0.000	0.000	6.920	0.000
Program Wide Support - Agency Facilities and Maintenance SRM	MIPR	Army Corps of Engineers : Multi: AK, AL, CA, HI, NY, VA	3.652	0.496	Nov 2022	0.000		0.000		-		0.000	0.000	4.148	0.000
Program Wide Support - Agency Operations Management	C/CPAF	Various : Multi: AL, CA, CO, VA	17.922	0.000		0.000		0.000		-		0.000	0.000	17.922	0.000
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Allot	MDA : Multi: AK, AL, CA, CO, VA	169.786	52.305	Oct 2022	24.771	Oct 2023	26.664	Oct 2024	-		26.664	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Other Agency Services (MIPR)	MIPR	Various : Multi: AK, AL, CO, CA, HI, VA	26.617	0.522	Sep 2023	0.000		0.000		-		0.000	0.000	27.139	0.000
Program Wide Support - Agency Operations and Support Services	C/FFP	Cherokee Nation Red Wing : Various	0.000	8.202	Nov 2022	2.337	Nov 2023	0.000		-		0.000	0.000	10.539	0.000
Program Wide Support - Agency Operations and Support Services #2	C/FFP	VENTURI, INC. : Various	0.000	0.000		0.000		2.910	Nov 2024	-		2.910	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 0603882C / <i>Ballistic Missile Defense Midcourse Defense Segment</i>						Project (Number/Name) MD40 / <i>Program-Wide Support</i>			
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations, Sustainment and GPC	C/FFP	JACOBS TECHNOLOGY INC. : Multi: AK, AL, CA, HI, NY, VA	0.800	0.285	Nov 2022	0.000		0.000		-		0.000	0.000	1.085	0.000
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	24.092	0.000		0.000		0.000		-		0.000	0.000	24.092	0.000
Subtotal			249.789	61.810		27.108		29.574		-		29.574	Continuing	Continuing	N/A
Remarks Support is allocated on a pro-rata basis and therefore, fluctuates by year based on the adjusted RDT&E profile															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services	C/CPFF	LSINC : AL	37.392	0.000		5.924	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			37.392	0.000		5.924		0.000		-		0.000	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 0603882C / Ballistic Missile Defense Midcourse Defense Segment					Project (Number/Name) MD40 / Program-Wide Support				
	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	287.181	61.810			33.032		29.574		-		29.574	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 0603882C / Ballistic Missile Defense Midcourse Defense Segment										Project (Number/Name) MD40 / Program-Wide Support									
Significant Event Complete ▲					Milestone Decision Complete ★					Element Test Complete ◆					System Level Test Complete ●					Complete Activity ◆									
Significant Event Planned △					Milestone Decision Planned ☆					Element Test Planned ◇					System Level Test Planned ○					Planned Activity ◇									
										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 0603882C / Ballistic Missile Defense Mi dcourse Defense Segment	Project (Number/Name) MD40 / Program-Wide Support	

Schedule Details

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

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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 / BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 Program Element (Number/Name) PE 0603884C / Ballistic Missile Defense Sensors							
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	2,822.142	228.807	239.159	209.002	-	209.002	205.087	202.555	209.816	214.110	Continuing	Continuing
MD11: BMDS Radars	2,601.505	198.873	209.931	182.032	-	182.032	176.073	174.633	180.518	183.885	Continuing	Continuing
MC11: Cyber Operations	74.103	21.541	20.727	19.141	-	19.141	20.563	19.641	20.060	20.510	Continuing	Continuing
MD40: Program-Wide Support	146.534	8.393	8.501	7.829	-	7.829	8.451	8.281	9.238	9.715	Continuing	Continuing
Program MDAP/MAIS Code: 362												

Note

Decrease from Fiscal Year (FY) 2024 to FY 2025 reflects completion of backlogged software trouble reports, software development for Digital Receiver Exciter/Signal Processing, and development of Common X-Band software version 6.0.

A. Mission Description and Budget Item Justification

The Missile Defense System network of layered sensors provides essential situational awareness and fire control data for the command and control of Missile Defense System weapon systems, such as Ground-Based Midcourse Defense (GMD), Aegis Ballistic Missile Defense (BMD), and Terminal High Altitude Area Defense (THAAD). The suite of remote ground-based sensors provides early warning, midcourse, and terminal missile defense threat data. This data enables layered detection and tracking of missile targets, providing fire-control quality position, velocity, and discrimination data through GMD Fire Control, or Command and Control, Battle Management and Communications (C2BMC).

Overlapping coverage of geographically diverse sensors provides improved threat track data, reduces the impact of the loss of any one sensor, and reduces the potential impact of countermeasures. The extended coverage and accuracy provided by a network of layered sensors increases the defensive footprint and reduces the number of target engagements required, thereby conserving interceptor inventory and maintaining a high probability of successful engagement. Networked forward-based sensors enable C2BMC to pair the best sensor coverage with the best available weapon system to provide the most effective defense against missile threats.

This Program Element (PE) includes Missile Defense System threat discrimination improvements, which will enhance Missile Defense System effectiveness against the evolving adversary threat. The result will be a Missile Defense System architecture more capable of discriminating and destroying reentry vehicles with a higher degree of confidence, improving Warfighter shot doctrine, and more efficiently using interceptor inventory. Missile Defense System threat discrimination improvements are funded from the Enabling (0603890C), Midcourse (0603882C), BMD Sensors (0603884C), C2BMC (0603896C), and Aegis BMD (0603892C) PEs.

The Missile Defense System Sensors Program contributes to regional and homeland missile defense by developing, delivering, and deploying/redeploying Army Navy/Transportable Radar Surveillance and Control-2 (AN/TPY-2) radars for operations or tests. AN/TPY-2 radars can be configured to operate as either a THAAD Fire Unit Radar (terminal mode) or a Forward-Based Radar. These radars are transportable and add flexibility to respond to geographical changes in threats. Radars provide early warning tracking and discrimination data through all phases of missile flight. Through the Missile Defense System C2BMC and coalition data links, the AN/TPY-2

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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 0603884C I Ballistic Missile Defense Sensors				
provides fire control data to enable remote Standard Missile-3 engagements by Aegis BMD and to cue deployed THAAD and U.S. and partner Phased Array Tracking Radar to Intercept on Target batteries.						
The Missile Defense System sensor network includes: the U.S. Space Force (USSF) COBRA DANE (CD) Radar at Eareckson Air Station, AK, and the USSF Upgraded Early Warning Radars (UEWRs) at Beale Air Force Base, CA; Cape Cod Space Force Station (SFS), MA; Clear SFS, AK; Royal Air Force Fylingdales, United Kingdom; and Thule Air Base, Greenland, for defense of the homeland.						
This program element supports sensors Modeling and Simulation development of digital and hardware-in-the-loop models to support Integrated Master Test Plan events and system-level digital testing for Missile Defense System assessments of the Long Range Discrimination Radar, AN/TPY-2, Sea-Based X-Band, UEWR, and CD radar.						
This program element also supports the planning and deployment of persistent radars.						
Cyber Operations sustain the Risk Management Framework (RMF) and Controls Validation Testing activities, analysis of validation results, risk assessments, reviews of plans of action and milestones, and alignment and integration to the Tier 2 Cybersecurity Service Provider for the Ground Sensors mission systems. Cyber Operations supports the execution of lab-based developmental cyber testing (Baseline Assessment Technical Testing, Cooperative Vulnerability Identification and Adversarial Cybersecurity Developmental Test and Evaluation) for all major mission system software version releases. These efforts position Ground Sensor assets to complete transition to National Institute of Standards and Technology Special Publication 800-53 Revision 5 requirements (e.g., RMF 2.0) and enhance software supply chain security by developing and maintaining the software bill of materials for all developed and delivered Ground Sensors mission and mission support software as directed in the President's Executive Order on Improving the Nation's Cybersecurity dated May 12, 2021.						
B. Program Change Summary (\$ in Millions)		FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget		230.502	239.159	212.191	-	212.191
Current President's Budget		228.807	239.159	209.002	-	209.002
Total Adjustments		-1.695	0.000	-3.189	-	-3.189
• 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		-4.388	0.000			
• Other Adjustment		2.693	0.000	-3.189	-	-3.189
Change Summary Explanation						
N/A						

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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 0603884C / Ballistic Missile Defense Sensors				Project (Number/Name) MD11 / BMDS Radars			
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
MD11: BMDS Radars	2,601.505	198.873	209.931	182.032	-	182.032	176.073	174.633	180.518	183.885	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Decrease from Fiscal Year (FY) 2024 to FY 2025 reflects completion of backlogged software trouble reports, software development for Digital Receiver Exciter/Signal Processing, and development of Common X-Band software (CX) version CX 6.0.

A. Mission Description and Budget Item Justification

The Missile Defense System Radars project includes development of future Army Navy/Transportable Radar Surveillance and Control-2 (AN/TPY-2), U.S. Space Force (USSF) COBRA DANE (CD), Long Range Discrimination Radar (LRDR), Sea Based X-Band (SBX), and USSF Upgraded Early Warning Radars (UEWR) capabilities through system engineering; software development; and testing support.

Modeling and Simulation (M&S) efforts include enhanced sensor models, development of Radio Frequency scene generators, integration of digital simulations into the Missile Defense System M&S architecture, and Verification, Validation, and Accreditation of radar models. This project also funds participation and support for Missile Defense System element ground and flight test campaigns and Warfighter games and exercises.

This project provides development of discrimination advanced algorithms for Missile Defense System radars to counter evolving threats. The discrimination improvement effort will develop and field integrated element capabilities to improve Missile Defense System ability to identify lethal and non-lethal objects. Sensors will continue development of discrimination improvement midterm design and test support for Missile Defense System radars and far-term trade analysis and planning.

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

	FY 2023	FY 2024	FY 2025
Title: Basic Development Program	23.816	35.330	29.452
Articles:	-	-	-
<p>Description: The Basic Development Program includes development and testing of software maintenance updates to address software trouble reports identified on fielded software versions and flight/ground test events. Software improvement efforts also include optimization of increased processing capabilities. The Basic Development Program also analyzes software performance during flight and ground testing to support Materiel Release for software deliveries. The Materiel Release Closure Plan for the AN/TPY-2 ensures the Reliability, Availability, and Maintainability Program promotes reliability growth in the suite of AN/TPY-2 radars via product improvements.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 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 0603884C / Ballistic Missile Defense Sensors	Project (Number/Name) MD11 / BMDs Radars		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<div>- Continue development and testing of software maintenance updates</div> <div>- Continue resolution of software trouble reports identified on fielded software versions CX 3.0 and CX 4.0</div> <div>- Continue analysis of software performance during flight test and ground test to support Material Release of software version CX 5.0</div> <div>- Upgrade developmental Hardware in the Loop (HWIL) lab equipment</div> <div>FY 2025 Plans:</div> <div>- Initiate development, testing and software trouble report resolution CX 7.0 software</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement:</div> <div>Decrease from FY 2024 to FY 2025 reflects completion of backlogged software trouble reports identified on fielded software versions CX 3.0 and CX 4.0.</div>				
<div>Title: BMDs Radars Modeling & Simulation (M&S)</div> <div>Articles:</div> <div>Description: Missile Defense System Radars M&S efforts include development and maintenance of enhanced sensor models, development and maintenance of radio frequency scene generators, integration of simulations into the Missile Defense System M&S architecture, and Verification, Validation, and Certification (VV&C) of radar models, including high fidelity models used for performance assessment. This project also supports war games, Warfighter exercises and training, execution of element-level ground test campaigns and element-level post-flight reconstructions, and the development of M&S frameworks and truth models required to anchor M&S. These activities include:</div> <div>- Develop and sustain Digital and HWIL representations of various simulations and models to include the tactical versions of AN/TPY-2, LRDR, SBX, UEWRs, and CD, to include development of real-world capabilities in high fidelity ground test and performance assessment models to keep pace with evolving threats and Missile Defense System, continuing LRDR and AN/TPY-2 modeling, along with increasing modeling efforts on the Missile Defense Agency (MDA) standalone radars</div> <div>- Continue development of additional capabilities in high fidelity digital models for AN/TPY-2, SBX, LRDR, UEWR, and CD</div> <div>- Continue development of additional capabilities in high fidelity ground test models for AN/TPY-2, SBX, LRDR and UEWR to keep pace with evolving threats and Missile Defense System</div> <div>- Perform VV&C of radar models, including electronic protection and objective debris mitigation, for use in performance assessments</div> <div>- Support technical and performance assessments including Ground Test and Continuous Digital Assessment using Open Systems Architecture Sensor Models, Open Systems Architecture Signal Injectors, and Multi-band Electronic Attack Digital Injection Capability, to include planning, execution, analysis and reporting</div>		48.633 -	50.534 -	50.761 -

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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 0603884C / <i>Ballistic Missile Defense Sensors</i>	Project (Number/Name) MD11 / <i>BMDS Radars</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<ul style="list-style-type: none"> -Develop HWIL and integrated digital improvements to the MDA Ground Test Architecture that provides assessment data, supplemental to ground and flight tests, in areas that those venues cannot address - Continue HWIL and digital agile system requirements analysis and software development of incremental versions for continuous deliveries of enhanced M&S capabilities - Continue Integration, Test, and Verification of incremental software versions - Conduct continuous agile system requirements analysis, software development, integration, and test of incremental versions for enhanced M&S capabilities - Conduct element-level and support system-level verification and validation activities <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: Capability Development Program</p> <p>Articles:</p> <p>Description: The Capability Development Program provides engineering support to enable compliance with Missile Defense System system specification threat capabilities and addresses advanced threats. This task includes the redesign of select components to address obsolescence and improve reliability of the system. This task continues electronic protection and objective debris mitigation development efforts to reduce or eliminate the effect of corporate clutter and electronic attacks on sensors. It develops, designs, and tests sensor mid-term discrimination improvements for X-Band radars, including SBX threat discrimination improvements. This effort funds participation in far-term discrimination improvement threat model specifications, develops discrimination and countermeasure mitigation capability development, and funds studies of future sensor improvements. Additional software development activities include Terminal High Altitude Area Defense Missile Segment Enhancement fielding and integration, X86 performance optimization to enhance processing speed, improvements to cybersecurity posture, additional development of sensor electronic protection for AN/TPY-2 and LRDR, and developmental information system enhancements. This effort includes threat updates and verification, core standards system engineering, and required updates to models, simulation, and performance assessment updates.</p>		76.348 -	71.977 -
		52.748 -	

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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 0603884C / <i>Ballistic Missile Defense Sensors</i>	Project (Number/Name) MD11 / <i>BMDs Radars</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
Specific and/or unique accomplishments to each FY are as follows:			
<p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Complete development of a next generation Electronic Equipment Unit to resolve obsolescence associated with the legacy Receiver/Exciter and X86 servers (CX 6.0) - Complete development of initial Arbitrary Waveform and advanced signal processing capability (CX 7.0) - Continue AN/TPY-2 Advanced Electronic Protection (EP) Development (CX 6.0) for Enhanced AN/TPY-2 (Forward Based Mode) Protections and Mitigations - Continue SBX EP Algorithm Development & Integration for SBX Stand Alone Radar Protections and Mitigations (XBR 4.3) - Development of SBX EP models and simulation capability - Continue LRDR discrimination studies and development efforts to address updated Homeland Defense Ballistic Missile Threat Space <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Complete development of initial Arbitrary Waveform and advanced signal processing capability (CX 7.0) <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects completion of Digital Receiver Exciter/Signal Processing development and completion of CX 6.0 development, delivering incremental system capability to the Warfighter.</p>			
<p>Title: Sensors Directorate Operations</p> <p align="right">Articles:</p> <p>Description: Sensors Directorate Operations provides strategic planning, program integration, contracting, acquisition, engineering, financial management, internal reviews and audits, and program assessments for the Ground Sensors Directorate.</p> <p>Recurring activities include:</p> <ul style="list-style-type: none"> - Provide technical and business management support activities to provide critical program status and decision-quality data - Ensure Ground Sensors program compliance with internal and external direction, policies, and regulations to deliver critical capability within a consistent and disciplined process - Conduct internal program reviews to measure program progress against the six MDA approved baselines - Continue a Mission Assurance and Manufacturing Engineering Program to include Quality, Configuration Management, Manufacturing, Engineering, and Safety in all phases of the system life cycle, throughout the supply chain, and at all levels of assembly, emphasizing high yield rates that minimize test and rework costs - Provide Quality Safety and Mission Assurance operations to ensure compliance with Agency requirements for design, test, manufacturing, quality, safety and reliability to ensure high-quality products are delivered to the Warfighter 		45.374 -	52.090 -
		49.071 -	

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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 0603884C / <i>Ballistic Missile Defense Sensors</i>	Project (Number/Name) MD11 / <i>BMDS Radars</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>- Provide End User Support, Unified Communications, Computer Network Defense Services, Business Automation, and Portal and Data Services to support the Sensors Directorate</p> <p>- Provide sustainment Integrated Product Support in accordance with the AN/TPY-2 Transition and Transfer Annex to the Missile Defense Agency/Army Overarching Memorandum Agreement and Army Regulation (AR700-127) regarding Integrated Logistics Support to ensure timely, structured transition and transfer of the Missile Defense System capability and associated components to the lead Service</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: Upgrade Clear Early Warning Radar</p> <p align="right">Articles:</p> <p>Description: Provides upgrade of USSF Clear Early Warning Radar Space Force Station (SFS) and USSF Cape Cod Early Warning Radar SFS, which includes adaptation of hardware and software to UEWR infrastructure, support to Missile Defense System communications and architecture work and installation onsite. This project also includes preparing and removing of legacy equipment at each UEWR site.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: N/A</p> <p>FY 2025 Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: N/A</p>		4.702 -	0.000 -
		0.000 -	0.000 -
Accomplishments/Planned Programs Subtotals		198.873	209.931
		182.032	

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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 0603884C / Ballistic Missile Defense Sensors				Project (Number/Name) MD11 / BMDS Radars			
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost	
• 0208866C MD11: BMDS Sensors Procurement	4.606	29.108	57.130	-	57.130	32.154	45.247	29.594	19.481	Continuing	Continuing	
• 0208866C MD11: Missile Defense System Radars Program, Operation and Maintenance	203.624	227.768	254.680	-	254.680	276.039	283.073	248.353	254.384	Continuing	Continuing	
• 0603882C: Ballistic Missile Defense Midcourse Defense Segment	670.808	903.633	768.227	-	768.227	856.218	842.985	956.974	1,007.150	Continuing	Continuing	
• 0603890C: BMD Enabling Programs	589.588	597.720	609.406	-	609.406	623.893	625.985	659.983	677.858	Continuing	Continuing	
• 0603896C: Ballistic Missile Defense Command and Control, Battle Management & Communication	587.689	554.201	569.662	-	569.662	570.632	587.929	618.050	651.885	Continuing	Continuing	
• 0603898C: Ballistic Missile Defense Joint Warfighter Support	50.942	48.248	47.723	-	47.723	48.921	50.062	51.376	52.565	Continuing	Continuing	
• 0603904C: Missile Defense Integration and Operations Center (MDIOC)	47.629	50.549	54.525	-	54.525	56.851	58.115	59.600	61.362	Continuing	Continuing	
• 0603907C: Sea Based X-Band Radar (SBX)	163.297	177.868	197.339	-	197.339	176.888	162.741	177.598	188.253	Continuing	Continuing	
• 0603914C: Ballistic Missile Defense Test	376.650	360.455	367.491	-	367.491	418.514	383.362	435.626	438.825	Continuing	Continuing	
• 0604181C: Hypersonic Defense	513.267	208.997	182.283	-	182.283	193.100	205.122	250.208	327.698	Continuing	Continuing	
• 0604873C: Long Range Discrimination Radar (LRDR)	65.991	103.517	100.882	-	100.882	63.560	56.020	64.457	72.759	Continuing	Continuing	
• 0604879C: Ballistic Missile Defense Sensor Test	88.326	111.049	96.864	-	96.864	104.578	160.011	172.749	183.147	Continuing	Continuing	
Remarks												

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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 0603884C / Ballistic Missile Defense Sensors	Project (Number/Name) MD11 / BMDS Radars
<p>D. Acquisition Strategy</p> <p>The Radar Development Contract (RDC) awarded on November 1, 2017, supports the Ground Sensors Directorate's X-Band Radars (XBR). Missile Defense System capability and performance requirements, which underpin continuing XBR development requirements, include but are not limited to, the AN/TPY-2 radar and the SBX radar. These requirements stem directly from formal Warfighter requirements as developed in the United States Strategic Command-led Warfighter involvement process. MDA's Achievable Capabilities List documents content from the Prioritized Capabilities List and Modification and Fielding Requirements List, which MDA then translates via the Missile Defense System architecture and system specifications into flow-down requirements, characteristics, and capability needs for individual Missile Defense System program specifications and approved through the systems engineering and baseline change management process for Missile Defense System programs to execute. The RDC supports the XBRs for product improvement, including developmental upgrades of software and development of hardware and software to meet enhanced capabilities and risk reduction measures; warfighter support, including wargames and exercise support; engineering services, including engineering support for delivered and accepted radars to facilitate maintenance efforts which may include, but are not limited to, hardware obsolescence studies, hardware redesign, technology insertion and refurbishment; Missile Defense System test subject matter expert (SME) support; modeling and simulation SME support; and cybersecurity. These support activities are for all AN/TPY-2 radars, in the Forward Based Mode and Terminal Mode, and the SBX Radar to include the Weather Air Search Radar located on the SBX platform.</p>		

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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 0603884C / Ballistic Missile Defense Sensors				Project (Number/Name) MD11 / BMDs Radars					
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
Basic Development Program - Basic Development - SBX	SS/CPAF	Raytheon : MA	3.971	1.913	Jun 2023	0.000		0.000		-		0.000	0.000	5.884	0.000
Basic Development Program - Information Assurance AN/TPY-2	SS/CPAF	Raytheon : MA	30.767	0.000		0.000		0.000		-		0.000	0.000	30.767	0.000
Basic Development Program - Information Assurance SBX	SS/CPAF	Raytheon : MA	1.303	0.000		0.000		0.000		-		0.000	0.000	1.303	0.000
Basic Development Program - Material Release Get Well Plan - AMCOM	MIPR	DOD - USA - AVIATION AND MISSILE COMMAND (AMCOM) SAFETY OFFICE : AL	0.580	0.000		0.000		0.330	Nov 2024	-		0.330	Continuing	Continuing	Continuing
Basic Development Program - Material Release Get Well Plan - ATEC	MIPR	ATEC : AL	1.734	0.000		0.000		0.000		-		0.000	0.000	1.734	0.000
Basic Development Program - Material Release Get Well Plan - CCDC	SS/CPAF	CCDC AVMC : AL	18.899	0.000		0.000		0.000		-		0.000	0.000	18.899	0.000
Basic Development Program - Sys Integration & Tech Assessments	MIPR	CCDC AVMC : AL	29.415	0.000		0.000		0.000		-		0.000	0.000	29.415	0.000
Basic Development Program - X-Band Software Enhancements/ Development	SS/CPAF	RAYTHEON : MA	181.226	15.001	Nov 2022	25.431	Nov 2023	19.606	Nov 2024	-		19.606	Continuing	Continuing	Continuing
Basic Development Program - X-Band Software Enhancements/ Development - CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND	8.348	6.902	Nov 2022	9.899	Nov 2023	9.516	Nov 2024	-		9.516	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 0603884C / Ballistic Missile Defense Sensors					Project (Number/Name) MD11 / BMDS Radars				
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
		MISSILE CENTER (AVMC) : AL													
BMDS Radars Modeling & Simulation (M&S) - M&S Development - Boeing	C/CPAF	Boeing : AL	0.248	0.000		0.000		0.000		-		0.000	0.000	0.248	0.000
BMDS Radars Modeling & Simulation (M&S) - M&S Development - Decibel	C/CPAF	Decibel : AL	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	0.000
BMDS Radars Modeling & Simulation (M&S) - M&S Development - HWIL and Digital modeling capabilities for IMTP	C/CPAF	RAYTHEON : Various	27.200	0.000		0.000		0.000		-		0.000	0.000	27.200	0.000
BMDS Radars Modeling & Simulation (M&S) - M&S Development - Northrop Grumman	C/CPAF	Northrop Grumman : AL	1.219	0.000		0.000		0.000		-		0.000	0.000	1.219	0.000
BMDS Radars Modeling & Simulation (M&S) - M&S Development - Raytheon	C/CPAF	RAYTHEON : MA	222.372	22.428	Dec 2022	28.229	Jan 2024	28.373	Nov 2024	-		28.373	Continuing	Continuing	Continuing
BMDS Radars Modeling & Simulation (M&S) - M&S Development-FFRDC/ UARC	FFRDC	JHU, MITRE : MD, AL	1.171	0.000		0.000		0.000		-		0.000	0.000	1.171	0.000
BMDS Radars Modeling & Simulation (M&S) - M&S Development-LM	SS/CPIF	LOCKHEED MARTIN CORPORATION : NJ	20.354	6.528	Nov 2022	5.378	Nov 2023	5.542	Nov 2024	-		5.542	Continuing	Continuing	Continuing
BMDS Radars Modeling & Simulation (M&S) - MEDIC Development-CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	3.600	4.539	Dec 2022	4.360	Nov 2023	4.139	Nov 2024	-		4.139	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 0603884C / Ballistic Missile Defense Sensors					Project (Number/Name) MD11 / BMDS Radars				
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
BMDS Radars Modeling & Simulation (M&S) - VV&C of Models - CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	83.980	10.969	Dec 2022	8.929	Dec 2023	7.285	Dec 2024	-		7.285	Continuing	Continuing	Continuing
BMDS Radars Modeling & Simulation (M&S) - VV&C of Models - GTRI	SS/CPFF	GTRI (Georgia Tech Research Institute) : GA	0.526	0.000		0.000		0.000		-		0.000	0.000	0.526	0.000
BMDS Radars Modeling & Simulation (M&S) - VV&C of Models - LM	SS/CPIF	LOCKHEED MARTIN CORPORATION : NJ	0.000	0.000		0.000		0.756	Nov 2024	-		0.756	Continuing	Continuing	Continuing
Capability Development Program - Electronic Protection - GTRI	SS/CPFF	GTRI : GA	0.521	0.000		0.000		0.000		-		0.000	0.000	0.521	0.000
Capability Development Program - Enhanced Discrimination -M&S - CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	16.314	0.000		2.422	Nov 2023	0.992	Nov 2024	-		0.992	Continuing	Continuing	Continuing
Capability Development Program - Enhanced Discrimination - MITRE	FFRDC	MITRE : AL	4.363	0.000		0.000		0.000		-		0.000	0.000	4.363	0.000
Capability Development Program - AN/TPY-2 Capability Development - CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	30.440	0.000		0.000		0.000		-		0.000	0.000	30.440	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 0603884C / Ballistic Missile Defense Sensors				Project (Number/Name) MD11 / BMDS Radars					
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
Capability Development Program - AN/TPY-2 Capability Development - GTRI	SS/CPFF	GTRI : GA	1.782	0.000		0.000		0.000		-		0.000	0.000	1.782	0.000
Capability Development Program - AN/TPY-2 Capability Development - JHU	SS/CPFF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	6.699	0.000		0.000		0.000		-		0.000	0.000	6.699	0.000
Capability Development Program - AN/TPY-2 Capability Development - NSWC	MIPR	Naval Surface Warfare Center : VA	0.094	0.000		0.000		0.000		-		0.000	0.000	0.094	0.000
Capability Development Program - AN/TPY-2 Capability Development - PRIME	SS/CPAF	RAYTHEON : MA	263.162	32.624	Nov 2022	19.132	Nov 2023	21.962	Nov 2024	-		21.962	Continuing	Continuing	Continuing
Capability Development Program - Communication Development	MIPR	Secretary of the Air Force (SAF) : Various	8.886	0.000		0.000		0.000		-		0.000	0.000	8.886	0.000
Capability Development Program - Control System Improvement Sustaining Support	C/CPFF	LOCKHEED MARTIN CORPORATION : CO	0.000	1.822	Dec 2022	0.000		0.000		-		0.000	0.000	1.822	0.000
Capability Development Program - Electronic Protection - CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	25.504	0.000		0.000		0.000		-		0.000	0.000	25.504	0.000
Capability Development Program - Electronic Protection - PRIME	C/CPAF	RAYTHEON : MA	75.324	11.646	Nov 2022	16.602	Nov 2023	0.000		-		0.000	0.000	103.572	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 0603884C / Ballistic Missile Defense Se nsors				Project (Number/Name) MD11 / BMDS Radars					
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
Capability Development Program - Enhanced Discrimination	C/CPAF	Raytheon : MA	357.142	14.641	Nov 2022	6.417	Nov 2023	4.507	Nov 2024	-		4.507	Continuing	Continuing	Continuing
Capability Development Program - Enhanced Discrimination - LM	SS/CPIF	Lockheed Martin : NJ	11.922	0.000		0.000		0.000		-		0.000	0.000	11.922	0.000
Capability Development Program - High Altitude Electromagnetic Pulse (HEMP) Hardening Testing	MIPR	DOD - USA - ABERDEEN TEST CENTER (ATC) : MD	0.960	0.440	Sep 2023	0.000		0.000		-		0.000	0.000	1.400	0.000
Capability Development Program - Network and Infrastructure Services	C/CPAF	Jacobs Engineering : AL, CO, MA, VA	18.100	5.920	Nov 2022	0.000		0.000		-		0.000	0.000	24.020	0.000
Capability Development Program - Post Intercept Assessment (PIA)	C/CPAF	Raytheon : MA	10.400	0.000		0.000		0.000		-		0.000	0.000	10.400	0.000
Capability Development Program - SBX Capability Development	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	1.660	0.000		0.000		0.000		-		0.000	0.000	1.660	0.000
Capability Development Program - SBX Capability Development - Raytheon	SS/CPAF	RAYTHEON : MA	22.904	4.472	Nov 2022	17.122	Nov 2023	16.451	Nov 2024	-		16.451	Continuing	Continuing	Continuing
Capability Development Program - Science & Technology	Various	Various : Various	0.000	3.228	Jun 2023	0.000		0.000		-		0.000	0.000	3.228	0.000
Capability Development Program - Science and Technology	C/CPFF	RAYTHEON : MA	1.800	0.000		0.000		0.000		-		0.000	0.000	1.800	0.000
Capability Development Program - UEWR	MIPR	CCDC AVMC : AL	6.345	0.000		0.000		0.000		-		0.000	0.000	6.345	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 0603884C / Ballistic Missile Defense Sensors				Project (Number/Name) MD11 / BMDS Radars					
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
Capability Development - CCDC															
Sensors Directorate Operations - AN/TPY-2 WSMR Support	MIPR	WSMR (White Sands Missile Range) : NM	1.837	0.000		0.000		0.000		-		0.000	0.000	1.837	0.000
Sensors Directorate Operations - Army Hybrid Program Office	MIPR	DOD - USA - AVIATION AND MISSILE COMMAND (AMCOM) LOGISTICS CENTER (ALC) : AL	11.304	0.000		0.000		0.000		-		0.000	0.000	11.304	0.000
Sensors Directorate Operations - Contractor Support Services	C/CPFF	Various : Various	281.674	0.000		0.000		0.000		-		0.000	0.000	281.674	0.000
Sensors Directorate Operations - FFRDC/ UARC	FFRDC	GTRI, JHU/APL, MITRE, MIT/LL : AL, GA, MA, MD, VA	119.623	0.000		0.000		0.000		-		0.000	0.000	119.623	0.000
Sensors Directorate Operations - Network and Infrastructure Services	C/CPAF	Jacobs Engineering : AL, AK, CA, CO, HI, NM, VA	48.897	0.000		0.000		0.000		-		0.000	0.000	48.897	0.000
Sensors Directorate Operations - Network and Infrastructure Services - Network Management	C/FFP	Network Management Resources, Inc : VA	0.662	0.000		0.000		0.000		-		0.000	0.000	0.662	0.000
Sensors Directorate Operations - Other Govt Agencies	MIPR	Various : Various	38.063	0.000		0.000		0.000		-		0.000	0.000	38.063	0.000
Upgrade Clear Early Warning Radar - Advanced Object Classification - CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	2.625	0.900	Aug 2023	0.000		0.000		-		0.000	0.000	3.525	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 0603884C / Ballistic Missile Defense Sensors					Project (Number/Name) MD11 / BMDs Radars				
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
Upgrade Clear Early Warning Radar - Advanced Object Classification - USSF	MIPR	DOD - USSF - US SPACE FORCE (USSF) : CO	1.268	3.582	Mar 2023	0.000		0.000		-		0.000	0.000	4.850	0.000
Upgrade Clear Early Warning Radar - Facilities Site Activation/Admin Comms	MIPR	Various : AL, MA, AK	8.072	0.220	Mar 2023	0.000		0.000		-		0.000	0.000	8.292	0.000
Upgrade Clear Early Warning Radar - Radar Upgrade -- Prime Contractor	C/CPAF	Raytheon : MA	134.513	0.000		0.000		0.000		-		0.000	0.000	134.513	0.000
Joint Emerging Operational Need (JEON) - Software Enhancements/ Development	C/CPAF	Raytheon : MA	70.900	0.000		0.000		0.000		-		0.000	0.000	70.900	0.000
High Altitude Electromagnetic Pulse (HEMP) Hardening - FBM Site Modifications	MIPR	Various : Various	5.800	0.000		0.000		0.000		-		0.000	0.000	5.800	0.000
High Altitude Electromagnetic Pulse (HEMP) Hardening - Hardened Transportable Terminal (HTT) Communications	MIPR	DISA : VA	1.227	0.000		0.000		0.000		-		0.000	0.000	1.227	0.000
High Altitude Electromagnetic Pulse (HEMP) Hardening - Hardened Transportable Terminal (HTT) Engineering, Development and Sustainment	MIPR	Tobyhanna Army Depot (TYAD) : PA	5.773	0.000		0.000		0.000		-		0.000	0.000	5.773	0.000
High Altitude Electromagnetic Pulse	C/Various	Various : Various	39.600	0.000		0.000		0.000		-		0.000	0.000	39.600	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						R-1 Program Element (Number/Name)					Project (Number/Name)				
0400 / 4						PE 0603884C / Ballistic Missile Defense Sensors					MD11 / BMDS Radars				
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
(HEMP) Hardening - Power Distribution Centers (PDC) and Commercial Power															
High Altitude Electromagnetic Pulse (HEMP) Hardening - Power Distribution System (PDS) Development and Integration	SS/CPAF	Raytheon : MA	16.600	0.000		0.000		0.000		-		0.000	0.000	16.600	0.000
Subtotal			2,291.673	147.775		143.921		119.459		-		119.459	Continuing	Continuing	N/A
Remarks															
N/A															
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
BMDS Radars Modeling & Simulation (M&S) - Network and Infrastructure Services	Various	Various : Various	0.000	0.793	Mar 2023	0.000		1.101	Mar 2025	-		1.101	Continuing	Continuing	Continuing
BMDS Radars Modeling & Simulation (M&S) - Network and Infrastructure Services - Jacobs	C/CPAF	JACOBS TECHNOLOGY INC. : Various	1.690	0.000		0.000		0.000		-		0.000	0.000	1.690	0.000
BMDS Radars Modeling & Simulation (M&S) - VV&C of Models - GTRI	SS/CPFF	GEORGIA TECH APPLIED RESEARCH CORPORATION : GA	0.791	0.000		0.879	Oct 2023	0.899	Nov 2024	-		0.899	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 0603884C / <i>Ballistic Missile Defense Sensors</i>						Project (Number/Name) MD11 / <i>BMDs Radars</i>			
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
BMDs Radars Modeling & Simulation (M&S) - Warfighter Exercises	SS/CPIF	RAYTHEON : MA	21.283	3.376	Dec 2022	2.759	Feb 2024	2.666	Jan 2025	-		2.666	Continuing	Continuing	Continuing
Capability Development Program - AN/TPY-2 Capability Development - GTRI	SS/CPFF	GEORGIA TECH APPLIED RESEARCH CORPORATION : GA	1.110	0.535	Nov 2022	1.521	Nov 2023	1.280	Nov 2024	-		1.280	Continuing	Continuing	Continuing
Capability Development Program - AN/TPY-2 Capability Development - JHU	SS/CPFF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	1.080	1.020	Nov 2022	1.417	Nov 2023	0.963	Nov 2024	-		0.963	Continuing	Continuing	Continuing
Capability Development Program - Network And Infrastructure Services	C/CPAF	JACOBS TECHNOLOGY INC. : Various	0.000	0.000		6.423	Nov 2023	6.593	Nov 2024	-		6.593	Continuing	Continuing	Continuing
Capability Development Program - X AN/TPY-2 Capability Development - MITRE	FFRDC	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : MD	0.366	0.000		0.921	Oct 2023	0.000		-		0.000	0.000	1.287	0.000
Sensors Directorate Operations - AN/TPY-2 WSMR Support	MIPR	DOD - USA - WHITE SANDS MISSILE RANGE (WSMR) : NM	1.019	1.516	Nov 2022	0.826	Oct 2023	0.917	Oct 2024	-		0.917	Continuing	Continuing	Continuing
Sensors Directorate Operations - Army Hybrid Program Office	MIPR	DOD - USA - AVIATION AND MISSILE COMMAND (AMCOM) LOGISTICS CENTER (ALC) : AL	0.957	0.968	Nov 2022	1.122	Dec 2023	1.144	Nov 2024	-		1.144	Continuing	Continuing	Continuing
Sensors Directorate Operations - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	258.007	20.848	Oct 2022	21.243	Oct 2023	21.526	Oct 2024	-		21.526	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 0603884C / <i>Ballistic Missile Defense Sensors</i>						Project (Number/Name) MD11 / <i>BMDs Radars</i>			
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
Sensors Directorate Operations - Contractor Support Services	Various	Various : Various	1.451	1.796	Nov 2022	0.696	Oct 2023	0.514	Oct 2024	-		0.514	Continuing	Continuing	Continuing
Sensors Directorate Operations - Contractor Support Services - Engineering	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : CA	5.240	6.482	Nov 2022	9.099	Oct 2023	7.638	Oct 2024	-		7.638	Continuing	Continuing	Continuing
Sensors Directorate Operations - Contractor Support Services - Logistics	C/CPFF	VENTURI, INC. : AL	1.107	1.797	Nov 2022	1.668	Oct 2023	2.239	Oct 2024	-		2.239	Continuing	Continuing	Continuing
Sensors Directorate Operations - Contractor Support Services - Quality and Mission Assurance	C/CPFF	AI SOLUTIONS, INC. : MD	0.867	0.885	Nov 2022	1.220	Oct 2023	0.384	Oct 2024	-		0.384	Continuing	Continuing	Continuing
Sensors Directorate Operations - Contractor Support Services - Warfighter Integration	C/CPFF	STRATEGIC ALLIANCE SOLUTIONS LLC : VA	2.859	1.485	Jan 2023	2.827	Oct 2023	1.649	Oct 2024	-		1.649	Continuing	Continuing	Continuing
Sensors Directorate Operations - FFRDC - MITRE	FFRDC	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : Various	4.078	4.339	Nov 2022	4.476	Nov 2023	4.926	Oct 2024	-		4.926	Continuing	Continuing	Continuing
Sensors Directorate Operations - Network and Infrastructure Services	C/CPAF	Various : Various	0.750	0.750	Jan 2023	1.070	Jan 2024	1.142	Jan 2025	-		1.142	Continuing	Continuing	Continuing
Sensors Directorate Operations - UARC - JHU/APL	SS/CPFF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : Various	2.166	2.260	Dec 2022	2.481	Nov 2023	2.198	Nov 2024	-		2.198	Continuing	Continuing	Continuing
Sensors Directorate Operations - UEWR	Various	Various : Various	0.000	0.000		0.200	Nov 2023	0.161	Nov 2024	-		0.161	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 0603884C / <i>Ballistic Missile Defense Sensors</i>						Project (Number/Name) MD11 / <i>BMDs Radars</i>			
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
Network and Infrastructure Services															
Subtotal			304.821	48.850		60.848		57.940		-		57.940	Continuing	Continuing	N/A
Remarks Operations and sustainment support for the USSF CD and AN/TPY-2 Radars Contract Logistics Support (CLS) are Operations and Maintenance Defense-Wide appropriations and are described in the MDA O-Documents.															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Management Services (\$ 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
Sensors Directorate Operations - Contractor Support Services - Acquisition	C/CPFF	BCF SOLUTIONS, INC. : VA	2.720	1.698	Dec 2022	3.362	Oct 2023	2.422	Oct 2024	-		2.422	Continuing	Continuing	Continuing
Sensors Directorate Operations - Contractor Support Services - Various	Various	Various : Various	2.291	0.550	Nov 2022	1.800	Oct 2023	2.211	Oct 2024	-		2.211	Continuing	Continuing	Continuing
Subtotal			5.011	2.248		5.162		4.633		-		4.633	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 0603884C / Ballistic Missile Defense Sensors					Project (Number/Name) MD11 / BMDS Radars				
	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	2,601.505	198.873		209.931		182.032		-		182.032	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-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 0603884C / <i>Ballistic Missile Defense Sensors</i>					Project (Number/Name) MD11 / <i>BMDs Radars</i>									
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		
GTD-08a (N/I) (Missile Defense System Ground Test)					◆														
(EX) AIR AND MISSILE DEFENSE EXERCISE 23					◆	◆	◆												
GTI-09 Sprint 2 (E/C) (Missile Defense System Ground Test)						◆	◆												
SICO-09-3 Ground Test						◆													
FTX-26 (OT) (SN, OT Target Only Flight Test)							▲												
FTX-49							▲												
FTG-12 (GM, DT/OT Intercept Flight Test)							▲												
(EX) AIR AND MISSILE DEFENSE EXERCISE 24							◇	◇	◇										
SICO 9-4 Ground Test							◇												
GTI-08b (N/I)								◇											
GTI-ISR (23) (Missile Defense System Ground Test)								◇											
GTI-08b Part 2								△											
GTD-08b (N/I)								◇	◇										
LR-08b (N/I)								△											
FEM-02									◇										
GTI-101 (E/C)										◇									
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)										◇									
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)											◇								
FTX-28 E1 (TH, DT/OT Tracking Exercise Flight Test)											△								
FTX-28 E3 (TH, DT/OT Tracking Exercise Flight Test)											△								
GTD-13 (N/I) (Missile Defense System Ground Test)											◇								
GTI-12 (E/C)											◇								
JFTX-01 E1 (JAPAN, DT Tracking Exercise Flight Test)												△							
JFTX-01 E2 (JAPAN, DT Tracking Exercise Flight Test)												△							

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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 0603884C / Ballistic Missile Defense Sensors										Project (Number/Name) MD11 / BMDS Radars									
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							
LR-13																	◇												
GTD-12 (E/C) (Missile Defense System Ground Test)																	◇												
GTI-14 Sprint 1 (N/I)																	◇												
FTG-16 (GM, DT Intercept Flight Test)																		△											
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)																		◇											
FTX-28 E2 (TH, DT/OT Tracking Exercise Flight Test)																		△											
FTT-26 (MRBM T1)																		△											
GTI-24 (I)																		◇											
TH CTV-04																		△											
FTG-17 (GM, DT/OT Intercept Flight Test)																			△										
GTD-14 (N/I) ((Missile Defense System Ground Test)																		◇											
GTI-ISR (27) (Missile Defense System Ground Test)																		◇											
GTI-15 (E/C)																			◇										
FTT-24 (Black Dagger)																			△										
GTD-24 (I)																			◇										
GTD-15 (E/C)																			◇										
FTG-18 (DT/OT)																			△										
GTI-ASI (28)																				◇									
GTI-16 Sprint 1 (N/I)																				◇									
TH CTV-03 (TH Flight Test)																					△								
GTI-16 Sprint 2 (N/I)																						◇							
FTO-04																							△						
GTD-16 (N/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 0603884C / <i>Ballistic Missile Defense Sensors</i>	Project (Number/Name) MD11 / <i>BMDS Radars</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GTD-08a (N/I) (Missile Defense System Ground Test)	1	2023	1	2023
(EX) AIR AND MISSILE DEFENSE EXERCISE 23	1	2023	3	2023
GTI-09 Sprint 2 (E/C) (Missile Defense System Ground Test)	2	2023	3	2023
SICO-09-3 Ground Test	2	2023	2	2023
FTX-26 (OT) (SN, OT Target Only Flight Test)	4	2023	4	2023
FTX-49	4	2023	4	2023
FTG-12 (GM, DT/OT Intercept Flight Test)	1	2024	1	2024
(EX) AIR AND MISSILE DEFENSE EXERCISE 24	1	2024	3	2024
SICO 9-4 Ground Test	2	2024	2	2024
GTI-08b (N/I)	3	2024	3	2024
GTI-ISR (23) (Missile Defense System Ground Test)	3	2024	3	2024
GTI-08b Part 2	3	2024	3	2024
GTD-08b (N/I)	4	2024	1	2025
LR-08b (N/I)	4	2024	4	2024
FEM-02	1	2025	1	2025
GTI-101 (E/C)	2	2025	2	2025
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)	2	2025	2	2025
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)	4	2025	4	2025
FTX-28 E1 (TH, DT/OT Tracking Exercise Flight Test)	1	2026	1	2026
FTX-28 E3 (TH, DT/OT Tracking Exercise Flight Test)	1	2026	1	2026
GTD-13 (N/I) (Missile Defense System Ground Test)	2	2026	2	2026
GTI-12 (E/C)	2	2026	2	2026

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Missile Defense Agency			Date: March 2024	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)		Project (Number/Name)	
0400 / 4	PE 0603884C / Ballistic Missile Defense Sensors		MD11 / BMDS Radars	
Events	Start		End	
	Quarter	Year	Quarter	Year
JFTX-01 E1 (JAPAN, DT Tracking Exercise Flight Test)	3	2026	3	2026
JFTX-01 E2 (JAPAN, DT Tracking Exercise Flight Test)	3	2026	3	2026
LR-13	3	2026	3	2026
GTD-12 (E/C) (Missile Defense System Ground Test)	3	2026	3	2026
GTI-14 Sprint 1 (N/I)	4	2026	4	2026
FTG-16 (GM, DT Intercept Flight Test)	2	2027	2	2027
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)	3	2027	3	2027
FTX-28 E2 (TH, DT/OT Tracking Exercise Flight Test)	3	2027	3	2027
FTT-26 (MRBM T1)	3	2027	3	2027
GTI-24 (I)	3	2027	3	2027
TH CTV-04	3	2027	3	2027
FTG-17 (GM, DT/OT Intercept Flight Test)	4	2027	4	2027
GTD-14 (N/I) ((Missile Defense System Ground Test)	4	2027	4	2027
GTI-ISR (27) (Missile Defense System Ground Test)	4	2027	4	2027
GTI-15 (E/C)	1	2028	1	2028
FTT-24 (Black Dagger)	2	2028	2	2028
GTD-24 (I)	3	2028	3	2028
GTD-15 (E/C)	3	2028	3	2028
FTG-18 (DT/OT)	3	2028	3	2028
GTI-ASI (28)	4	2028	4	2028
GTI-16 Sprint 1 (N/I)	4	2028	4	2028
TH CTV-03 (TH Flight Test)	2	2029	2	2029
GTI-16 Sprint 2 (N/I)	3	2029	3	2029
FTO-04	3	2029	3	2029
GTD-16 (N/I)	4	2029	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 0603884C / Ballistic Missile Defense Sensors				Project (Number/Name) MC11 / 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
MC11: Cyber Operations	74.103	21.541	20.727	19.141	-	19.141	20.563	19.641	20.060	20.510	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note N/A												
A. Mission Description and Budget Item Justification												
Sustain the Department of Defense Instruction (DoDI) 8510.01 Risk Management Framework (RMF) for Department of Defense (DoD) Information Technology (IT) requirement for the Missile Defense Agency (MDA) Ground Sensors Directorate and conduct Security Control Assessments (SCA) activities, analysis of validation results, risk assessments, and reviews of proposed Program Manager/Information System Security Manager (PM/ISSM) Plans of Action and Milestones (POA&M) for MDA Ground Sensors mission and mission support systems. It also includes support for external cybersecurity assessments and penetration testing of the Ground Sensors mission systems, both in laboratory developmental testing and during ground test activities, in accordance with Director, Operational Test and Evaluation directives and the Integrated Master Test Plan. It maintains the Assessment and Authorization (A&A) data repository, capturing the RMF documentation (artifacts, validation results, Cybersecurity Risk Assessment results, cybersecurity scorecard, and Authorizing Official (AO) authorization decisions) and POA&M for all MDA information systems. It positions Ground Sensors assets to complete transition to National Institute of Standards and Technology (NIST) Special Publication 800-53 Revision 5 requirements (i.e. RMF 2.0) once DoD requirements are released. This project supports aligning, developing, and implementing an integrated Tier 2 Cyber Security Service Provider (CSSP) capability on the Ground Sensors mission systems under the DoD Cybersecurity Discipline Implementation Plan and DoDI 8530.01 Cybersecurity Activities Support to DoD Information Network Operations.												
Provides the monitoring, prioritization, and tracking of Cybersecurity mitigation detailed in Information Technology security POA&Ms. The activities include preparation of A&A documentation and accreditation recommendations to the MDA Senior Information Security Officer/SCA and AO. Independent Verification and Validation team actions ensure the availability, integrity, authentication, confidentiality, and non-repudiation of the MDA mission, test, and administrative systems. These activities are necessary to comply with the Federal Information Security Management Act.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: Network / System Certification and Accreditation (C&A) Articles:									21.541	20.727	19.141	
									-	-	-	
Description: Cyber Operations funds Ground Sensors Directorate Information System Security Manager and Information System Security Officer civilian salaries and cybersecurity engineering and architecture planning for program information technology systems. This project plans and tests the cybersecurity controls for the Missile Defense System and maintains RMF authorizations for Ground Sensors managed information systems, conducts Controls Validation Testing/SCA of Ground Sensors mission and support systems, and provides and maintains POA&M to mitigate cybersecurity deficiencies. Cyber Operations conducts annual												

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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 0603884C / Ballistic Missile Defense Sensors				Project (Number/Name) MC11 / Cyber Operations			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025
<p>cybersecurity program reviews on the Sensors enclaves to assess compliance in implementing and maintaining controls. This effort supports the aligning, developing, and implementing an integrated Tier 2 CSSP capability on the Ground Sensors mission systems under the DoD Cybersecurity Discipline Implementation Plan and DoDI 8530.01 Cybersecurity Activities Support to DoD Information Network Operations. Develop and maintain the software bill of materials for all developed and delivered mission and mission support software as directed in the President's "Executive Order on Improving the Nation's Cybersecurity" dated May 12, 2021. Execution of developmental cybersecurity test events for Army Navy/Transportable Radar Surveillance and Control-2(AN/TPY-2), Sea-Based X-Band (SBX) radar, and Long Range Discrimination Radar (LRDR).</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none">- Funds Ground Sensors assets to complete transition to NIST Special Publication 800-53 revision 5 requirements (i.e. RMF 2.0) once DoD requirements are released.- Execution of two (2) operational cybersecurity test events (LRDR). <p>FY 2025 Plans:</p> <ul style="list-style-type: none">- Funds the development and delivery of itemized software subcomponent inventory used in Ground Sensors mission and mission support software. Inventory is required to implement software supply chain risk management procedures and increase the transparency and speed at which vulnerabilities are identified and remediated.- Execution of six (6) operational cybersecurity test events affecting LRDR, AN/TPY-2, and SBX, as well as four (4) developmental cybersecurity tests for LRDR and SBX in order to assess the cyber survivability of Ground Sensors systems in a cyber-contested environment. <p>FY 2024 to FY 2025 Increase/Decrease Statement: N/A</p>											
Accomplishments/Planned Programs Subtotals									21.541	20.727	19.141
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
• 0603896C: Ballistic Missile Defense Command and Control, Battle Management & Communication	587.689	554.201	569.662	-	569.662	570.632	587.929	618.050	651.885	Continuing	Continuing

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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 0603884C / <i>Ballistic Missile Defense Sensors</i>				Project (Number/Name) MC11 / <i>Cyber Operations</i>			

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
• 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
• 0604873C: <i>Long Range Discrimination Radar (LRDR)</i>	65.991	103.517	100.882	-	100.882	63.560	56.020	64.457	72.759	Continuing	Continuing
• 0604879C: <i>Ballistic Missile Defense Sensor Test</i>	88.326	111.049	96.864	-	96.864	104.578	160.011	172.749	183.147	Continuing	Continuing
• 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 Ground Sensors Directorate will execute the DoDI 8510.01 RMF for DoD IT requirements on several existing Radar Prime Contracts, including the Radar Development Contract, the Radar Test Contract, LRDR, and the Contractor Logistics Support contract. Ground Sensors will also employ Contracted Service Support resources through the Technical, Engineering, Advisory, and Management (TEAMS), TEAMS Next contracts, Federally Funded Research and Development support, and via Military Interdepartmental Purchase Request through Military Sealift Command. Ground Sensors will conduct SCA activities, developmental and operational cybersecurity testing, analyze validation results, accomplish risk assessments, and perform reviews of proposed PM/ISSM POA&M for MDA Ground Sensors mission and mission support systems.

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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 0603884C / Ballistic Missile Defense Sensors				Project (Number/Name) MC11 / Cyber Operations					
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
Network / System Certification and Accreditation (C&A) - AN/TPY 2 Cybersecurity Compliance	SS/CPAF	RAYTHEON : MA	2.406	5.327	Nov 2022	2.502	Oct 2023	2.044	Oct 2024	-		2.044	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Cybersecurity Compliance	SS/CPAF	RAYTHEON : Various	0.000	1.006	Mar 2023	0.000		0.000		-		0.000	0.000	1.006	0.000
Network / System Certification and Accreditation (C&A) - LRDR Cybersecurity Compliance	SS/FPIF	LOCKHEED MARTIN CORPORATION : NJ	1.152	0.000		1.682	Oct 2023	1.694	Oct 2024	-		1.694	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - SNR-G Cybersecurity Compliance	SS/FPIF	LOCKHEED MARTIN CORPORATION : NJ	0.000	0.000		0.000		0.847	Nov 2024	-		0.847	Continuing	Continuing	Continuing
Subtotal			3.558	6.333		4.184		4.585		-		4.585	Continuing	Continuing	N/A
Remarks N/A															
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
Network / System Certification and Accreditation (C&A) - AN/TPY 2 CSSP Development and Implementation	SS/CPAF	Raytheon : MA	18.866	0.000		0.000		0.000		-		0.000	0.000	18.866	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 0603884C / Ballistic Missile Defense Sensors				Project (Number/Name) MC11 / 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
Network / System Certification and Accreditation (C&A) - AN/TPY 2 Cybersecurity Compliance	SS/CPAF	RAYTHEON : MA	9.002	5.024	Dec 2022	1.676	Oct 2023	3.246	Oct 2024	-		3.246	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - CND/IA Advisory and Assistance Services (Booz Allen) - Consolidated in Contract Support Services	C/CPFF	Booz Allen Hamilton : AL, CO, VA	5.134	0.000		0.000		0.000		-		0.000	0.000	5.134	0.000
Network / System Certification and Accreditation (C&A) - CND/IA Advisory and Assistance Services (Torch Technologies) - Consolidated in Contract Support Services	C/CPFF	Torch Technologies : AL, CO, VA	2.641	0.000		0.000		0.000		-		0.000	0.000	2.641	0.000
Network / System Certification and Accreditation (C&A) - Civilian Salaries/Travel	Allot	MDA : AL, CO, VA	2.601	0.508	Oct 2022	0.500	Oct 2023	0.537	Oct 2024	-		0.537	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Contract Support Services	Various	Various : Various	7.843	0.559	Sep 2023	3.115	Nov 2023	1.867	Nov 2024	-		1.867	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Contract Support Services - Cybersecurity Engineering - BAH	C/CPFF	BOOZ ALLEN HAMILTON INC. : VARIOUS	0.000	0.000		3.377	Nov 2023	2.280	Nov 2024	-		2.280	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 0603884C / <i>Ballistic Missile Defense Sensors</i>						Project (Number/Name) MC11 / <i>Cyber Operations</i>			
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
Network / System Certification and Accreditation (C&A) - Contract Support Services - Cybersecurity Engineering - DAC	C/CPFF	DECISIVE ANALYTICS CORPORATION : AL	1.025	0.000		0.765	Nov 2023	0.912	Nov 2024	-		0.912	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Contract Support Services - Cybersecurity Engineering - Parsons	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : VA	1.658	0.733	Nov 2022	1.997	Nov 2023	1.042	Nov 2024	-		1.042	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Contract Support Services - Cybersecurity Engineering - System High Corporation	SS/CPFF	SYSTEM HIGH CORPORATION : Various	2.053	2.310	Nov 2022	0.000		0.000		-		0.000	0.000	4.363	0.000
Network / System Certification and Accreditation (C&A) - Cybersecurity Supply Chain Compliance	SS/CPAF	Raytheon : MA	9.849	0.000		0.000		0.000		-		0.000	0.000	9.849	0.000
Network / System Certification and Accreditation (C&A) - LRDR Cybersecurity Compliance	SS/FPIF	Lockheed Martin : NJ	5.321	0.000		0.000		0.000		-		0.000	0.000	5.321	0.000
Network / System Certification and Accreditation (C&A) - SBX Cybersecurity Compliance	MIPR	Military Sealift Command : VA	1.326	0.000		0.000		0.000		-		0.000	0.000	1.326	0.000
Network / System Certification and Accreditation (C&A) - SBX	C/CPIF	GRYPHON TECHNOLOGIES, L.C. : VARIOUS	1.275	1.293	May 2023	1.711	May 2024	1.028	May 2025	-		1.028	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 0603884C / <i>Ballistic Missile Defense Sensors</i>						Project (Number/Name) MC11 / <i>Cyber Operations</i>			
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
Cybersecurity Compliance - Gryphon															
Network / System Certification and Accreditation (C&A) - SBX Cybersecurity Compliance - PRIME	SS/CPAF	RAYTHEON : MA	1.730	3.360	May 2023	2.903	May 2024	2.171	May 2025	-		2.171	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Systems Engineering Cybersecurity - Jacobs	C/CPIF	JACOBS TECHNOLOGY INC. : Various	0.000	0.737	Nov 2022	0.000		1.129	Nov 2024	-		1.129	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Systems Engineering Cybersecurity - MITRE	FFRDC	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : MD	0.221	0.684	Nov 2022	0.499	Nov 2023	0.344	Nov 2024	-		0.344	Continuing	Continuing	Continuing
Subtotal			70.545	15.208		16.543		14.556		-		14.556	Continuing	Continuing	N/A
Remarks Decrease in Contract Support Services is offset by the breakout of the Jacobs Technology, Inc. performer for Systems Engineering Cybersecurity - Jacobs. Increase in AN/TPY-2 Cybersecurity Compliance is due to Risk Management Framework deliverables added to comply with National Institute of Standards and Technology (NIST) Special Publication (SP) 800-53 Revision 5 and Committee on National Security Systems Instruction (CNSSI) 1253.															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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 0603884C / Ballistic Missile Defense Sensors						Project (Number/Name) MC11 / Cyber Operations			
Management Services (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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			74.103	21.541		20.727		19.141		-		19.141	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 0603884C / Ballistic Missile Defense Sensors	Project (Number/Name) MC11 / Cyber Operations	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Risk Management Framework (RMF) Assessment and Authorization (A&A) package preparation and submission	1	2023	4	2029
Cyber Security Program Policy / Risk Management	1	2023	4	2029
Cyber Security Mitigation Monitoring and Tracking	1	2023	4	2029
Missile Defense System Cyber Security Policy Development	1	2023	4	2029
Integrated Cyber Security Service Provider	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 0603884C / Ballistic Missile Defense Sensors				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: Program-Wide Support	146.534	8.393	8.501	7.829	-	7.829	8.451	8.281	9.238	9.715	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency program elements (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	8.393	8.501	7.829
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			

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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 0603884C / <i>Ballistic Missile Defense Sensors</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Decrease from FY 2024 to FY 2025 reflects the PWS allocation on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.</p>			
Accomplishments/Planned Programs Subtotals		8.393	8.501
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0603884C / Ballistic Missile Defense Sensors				Project (Number/Name) MD40 / Program-Wide Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services #2	C/CPFF	HUNTSVILLE REHABILITATION FOUNDATION : Various	0.000	0.000		0.902	Nov 2023	4.274	Nov 2024	-		4.274	Continuing	Continuing	Continuing
Program Wide Support - Agency Facilities and Maintenance	MIPR	Army Garrison Resource : AL, CO, CA, VA	14.100	0.000		0.000		0.000		-		0.000	0.000	14.100	0.000
Program Wide Support - Agency Operations Management	C/CPAF	Various : Multi: AL, CA, CO, VA	8.600	0.000		0.000		0.000		-		0.000	0.000	8.600	0.000
Program Wide Support - Agency Operations and Support Other Agency Services	MIPR	Various : AK, AL, CO, CA, HI, MD, VA	13.481	0.000		0.000		0.000		-		0.000	0.000	13.481	0.000
Program Wide Support - Agency Operations and Support Services	C/FFP	VENTURI, INC. : Multi: AK, AL, CO, CA, HI, MD, VA	95.222	8.393	Nov 2022	3.095	Nov 2023	1.634	Nov 2024	-		1.634	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services #3	MIPR	GSA - GENERAL SERVICES ADMINISTRATION (GSA) : Various	0.000	0.000		0.171	Nov 2023	1.921	Nov 2024	-		1.921	Continuing	Continuing	Continuing
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	15.131	0.000		0.000		0.000		-		0.000	0.000	15.131	0.000
Subtotal			146.534	8.393		4.168		7.829		-		7.829	Continuing	Continuing	N/A
Remarks															
In accordance with the Financial Management Regulation cost category definitions, some items have transferred to appropriate cost categories.															

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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 0603884C / Ballistic Missile Defense Sensors						Project (Number/Name) MD40 / Program-Wide Support			
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services	C/CPFF	VENTURI, INC. : AL	0.000	0.000		4.333	Nov 2023	0.000		-		0.000	0.000	4.333	0.000
Subtotal			0.000	0.000		4.333		0.000		-		0.000	0.000	4.333	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			146.534	8.393		8.501		7.829		-		7.829	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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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 0603884C / Ballistic Missile Defense Sensors	Project (Number/Name) MD40 / Program-Wide Support	

Schedule Details

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

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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: Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 0603890C / 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		
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				
<div><div>- 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</div><div>- Provide Information Management tools and products supporting the development of Missile Defense System capabilities while safeguarding networks and critical program information</div><div>- Provide MDA secure communication networks, information technology systems, special purpose processing nodes, operations and monitoring centers, and disaster recovery and continuity of operations requirements</div><div>- Evaluate quality, technical safeguards, and mission assurance effectiveness</div><div>- Assess System ability to maintain integrity and superiority with advances in technology development</div></div> <p>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.</p>						
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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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				
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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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
<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	21.322
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) MD24 / System Engineering & Integration	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p>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.</p> <p>Recurring activities include:</p> <ul style="list-style-type: none"> - 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 			

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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
<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.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none">- 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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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"> - Narrow down ABMA options and start the maturation, demonstration and fielding of ABMAs for participation with JTIFC. <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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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
<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:</p> <ul style="list-style-type: none"> - 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>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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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
- Conduct specialized technical assessments and recommendations to resolve emerging technical issues and risk areas				
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.				
Title: Future Concepts and Planning		18.927	21.033	19.334
Articles:		-	-	-
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. - 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: -- 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 Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: - SEE ABOVE. FY 2025 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) 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 Articles: 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 -
Title: Discrimination Articles: 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 -

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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
<div>- Develop Electronic Attack and Electronic Protection models to support Missile Defense System requirements definition for Electronic Protection techniques</div> <div>- Define operational concepts for improved counter-countermeasure techniques and technologies</div> <div>- Establish discrimination and countermeasures mitigation test requirements and data collection plans</div> <div>- 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</div> <div>- Provide technical support for fielding improved threat discrimination capabilities</div> <div>Specific and/or unique accomplishments to each FY are as follows:</div> <div>FY 2024 Plans:</div> <div>- Develop techniques for Electronic Protection and Objective Debris Mitigation capabilities</div> <div>- Investigate high fidelity scene generation and electronic attack models and simulations for Systems Engineering analysis and concept development</div> <div>- Develop various threat-based models representing anticipated advisory countermeasures capabilities for use in engineering trade studies and analysis</div> <div>FY 2025 Plans:</div> <div>- SEE ABOVE.</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement:</div> <div>N/A</div>				
<div>Title: Risk Management</div> <div>Articles:</div> <div>Description: The Risk Management task identifies Missile Defense System element and component technical risks, and tracks status and risk mitigation progress.</div> <div>- Execute the risk management and mission readiness working group process</div> <div>- Maintain a risk database using the Failure Reporting and Corrective Action System</div> <div>- Review and approve program element risks, on quarterly basis</div> <div>FY 2024 Plans:</div> <div>- SEE ABOVE.</div> <div>FY 2025 Plans:</div>		8.440 -	8.331 -	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	
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
<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:</p> <p>- SEE ABOVE.</p> <p>FY 2025 Plans:</p> <p>- SEE ABOVE.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>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	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	

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 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 0603881C: Ballistic Missile	194.264	220.311	367.279	-	367.279	543.868	554.429	464.018	314.936	Continuing	Continuing
Defense Terminal Defense Segment											
• 0603882C: Ballistic	670.808	903.633	768.227	-	768.227	856.218	842.985	956.974	1,007.150	Continuing	Continuing
Missile Defense Midcourse											
Defense Segment											
• 0603884C: Ballistic	228.807	239.159	209.002	-	209.002	205.087	202.555	209.816	214.110	Continuing	Continuing
Missile Defense Sensors											
• 0603892C: AEGIS BMD	586.329	693.727	649.255	-	649.255	602.818	539.786	649.556	714.388	Continuing	Continuing
• 0603896C: Ballistic Missile	587.689	554.201	569.662	-	569.662	570.632	587.929	618.050	651.885	Continuing	Continuing
Defense Command and											
Control, Battle Management											
& Communication											
• 0603914C: Ballistic	376.650	360.455	367.491	-	367.491	418.514	383.362	435.626	438.825	Continuing	Continuing
Missile Defense Test											
• 0604102C: Guam	383.252	397.578	415.794	-	415.794	247.793	183.214	303.003	218.941	Continuing	Continuing
Defense Development											
• 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 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 - 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 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
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					
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
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					
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-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					
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
Architecture - Advanced Concepts Evaluation (AFLCMC)		ELECTRONICS COMMAND (CECOM) : MD													
Future Concepts and Planning - Advanced Architecture - Program Ops (TEAMS Next and GTRI)	C/Various	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					
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
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					
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 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
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					
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
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					
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
(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					
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
(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																	
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			
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

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: 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
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 / BMD Enabling Programs	Project (Number/Name) MD21 / Homeland Cruise Missile Defense Architecture		
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					
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
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			
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
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								
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 / BMD Enabling Programs	Project (Number/Name) MD21 / Homeland Cruise Missile Defense Architecture	

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: Enabling - Test	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
<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) 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			11.290 -	0.000 -	0.000 -
Title: Continuous Development & Integration (CDI) Environment 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			3.364 -	0.000 -	0.000 -
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		
Appropriation/Budget Activity 0400 / 4				R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs				Project (Number/Name) MT23 / Enabling - Test		

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
• 0603914C: Ballistic Missile Defense Test	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 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
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 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
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					
Test and Evaluation (\$ 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
		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					
Test and Evaluation (\$ 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
		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					
Test and Evaluation (\$ 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
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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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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) MT23 / Enabling - Test

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
<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	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<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>					
<p>Title: Threat Systems Engineering</p> <p align="right">Articles:</p> <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 			9.105 -	23.944 -	20.538 -

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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
<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: 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 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			
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
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					
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
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 0400 / 4						R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs				Project (Number/Name) 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-Various 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					
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 - 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					
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
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					R-1 Program Element (Number/Name)										Project (Number/Name)									
0400 / 4					PE 0603890C / BMD Enabling Programs										MD28 / Intelligence & Security									
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			
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 / BMD Enabling Programs	Project (Number/Name) MD28 / Intelligence & Security	

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
Title: End User Support		13.080	16.349	11.428
Articles:		-	-	-
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.				
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 End User Support to IT Planning and Solutions.				
Title: Special Purpose Processing Nodes (SPPN)		8.713	5.210	4.147
Articles:		-	-	-
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.				

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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:				
FY 2024 Plans: - SEE ABOVE.				
FY 2025 Plans: - Initiate the transition program-based Cloud and DevSecOps capabilities to Agency-wide capabilities.				
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.				
Title: Information Technology (IT) Planning and Solutions		16.539	16.903	26.554
Articles:		-	-	-
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 polices. 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.				
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:				

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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>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>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>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>
• 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</i>	194.264	220.311	367.279	-	367.279	543.868	554.429	464.018	314.936	Continuing	Continuing
<i>Defense Terminal Defense Segment</i>											
• 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: Management HQ - MDA	26.352	28.363	29.033	-	29.033	29.632	30.245	30.870	31.508	Continuing	Continuing

Remarks

D. Acquisition Strategy

The 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 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
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			
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
- 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			
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
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 / BMD Enabling Programs	Project (Number/Name) MD30 / BMD Information Management Systems

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: Cyber Operations	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		
Appropriation/Budget Activity 0400 / 4		R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs	Project (Number/Name) MC30 / Cyber Operations		
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
Title: Preventing Malicious Cybersecurity Activity			16.576	17.818	16.644
Articles:			-	-	-
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.					
Recurring Activities for Preventing Malicious Cyber Attacks: - 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.					
Specific and/or unique accomplishments to each FY are as follows:					
FY 2024 Plans: - SEE ABOVE.					
FY 2025 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) 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: FY 2024 Plans: - SEE ABOVE. FY 2025 Plans: - SEE ABOVE. 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.					
Title: Outside Federal Outreach - Defense Industrial Base Articles: 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. 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 realignment of civilian labor from Outside Federal Outreach to Defense Cyber Operations.			0.958 -	0.853 -	0.000 -
Title: Facility Related Control Systems (FRCS) Articles: Description: Provide FRCS program oversight to include policies, procedures, plans, reports and budgets to support agency FRCS. - 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.			0.927 -	0.998 -	1.024 -

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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) MC30 / <i>Cyber Operations</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<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
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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					
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
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					
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					
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
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

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: Modeling & Simulation	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	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>assessment. The following actions are required on a continuing basis to accomplish the M&S life cycle planning and requirements definition mission:</p> <ul style="list-style-type: none"> - 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 <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: BMDS Simulations & Tools</p> <p align="right">Articles:</p> <p>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:</p>			10.932 -	10.650 -	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) MD31 / Modeling & Simulation		
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		
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
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 Objective Simulation Framework (OSF)			12.016	12.261	0.000
Articles:			-	-	-
Description: The following actions are required on a continuing basis to accomplish the OSF mission: - 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					
Specific and/or unique accomplishments to each FY are as follows:					
FY 2024 Plans: - SEE ABOVE.					
FY 2025 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) 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	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>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:</p> <ul style="list-style-type: none"> - 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 <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: Missile Defense System M&S</p> <p align="right">Articles:</p> <p>Description: Missile Defense System M&S includes Core M&S development and sustainment of Frameworks, Core Truth Models, and Simulations and tools.</p> <p>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:</p> <ul style="list-style-type: none"> - Perform testing and integration of Core Truth Model capabilities into the OSF framework 			0.000 -	0.000 -	33.059 -

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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) MD31 / <i>Modeling & Simulation</i>	
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)

<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 Defense Terminal Defense Segment	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
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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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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603882C: <i>Ballistic</i> <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
• 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					
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					
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 - 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					
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 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					
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
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					
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 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 / BMD Enabling Programs		Project (Number/Name) MD31 / Modeling & Simulation			
	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
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																			
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 / BMD Enabling Programs	Project (Number/Name) MD31 / Modeling & Simulation	

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			
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: Engineering Cyber Operations	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	

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>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: 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 0400 / 4						R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs				Project (Number/Name) 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			
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 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					
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 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					
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
- 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			
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
(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-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) MC31 / Engineering Cyber Operations									
Significant Event Complete ▲				Milestone Decision Complete ★				Element Test Complete ◆				System Level Test Complete ●				Complete Activity ◆													
Significant Event Planned △				Milestone Decision Planned ☆				Element Test Planned ◇				System Level Test Planned ○				Planned Activity ◇													
										FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029							
Engineering Cyber Operations										◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇					

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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: 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
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 0400 / 4						R-1 Program Element (Number/Name) PE 0603890C / BMD Enabling Programs						Project (Number/Name) 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					
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 - 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 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	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 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: Program-Wide Support	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
<p>Maintenance) to keep the Department's inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> N/A</p>			
Accomplishments/Planned Programs Subtotals		21.175	21.247
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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

Schedule Details

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

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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 0603891C / <i>Special Programs - MDA</i>
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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	3,872.926	317.568	552.888	495.570	-	495.570	555.344	572.888	485.975	415.899	Continuing	Continuing
MD27: <i>Special Programs</i>	3,872.926	317.568	552.888	495.570	-	495.570	555.344	572.888	485.975	415.899	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

This program is reported in accordance with Title 10, United States Code, Section 119 in the annual Special Access Program Budget Justification submission to Congress.

A. Mission Description and Budget Item Justification

This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>
Previous President's Budget	316.977	552.888	496.365	-	496.365
Current President's Budget	317.568	552.888	495.570	-	495.570
Total Adjustments	0.591	0.000	-0.795	-	-0.795
• 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	-6.609	0.000			
• Other Adjustment	7.200	0.000	-0.795	-	-0.795

Change Summary Explanation

Further details are reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0603892C / AEGIS BMD							
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	6,439.527	586.329	693.727	649.255	-	649.255	602.818	539.786	649.556	714.388	Continuing	Continuing
MD09: Aegis BMD	4,009.029	331.877	446.480	397.228	-	397.228	233.885	217.318	336.690	364.666	Continuing	Continuing
MM09: Aegis BMD SM-3 Development	969.210	83.758	42.323	62.064	-	62.064	152.807	103.096	62.782	56.930	Continuing	Continuing
MC09: Cyber Operations	49.609	3.336	5.972	6.574	-	6.574	6.608	6.782	6.962	7.135	Continuing	Continuing
MX09: Aegis BMD Development Support	973.763	139.525	173.105	158.780	-	158.780	184.255	190.342	214.146	252.552	Continuing	Continuing
MD40: Program-Wide Support	437.916	27.833	25.847	24.609	-	24.609	25.263	22.248	28.976	33.105	Continuing	Continuing
Program MDAP/MAIS Code: 362												
Note												
Decrease from FY 2024 to FY 2025 reflects the cancellation of the prototype development and planned demonstration for Army/Navy Surface Radar Surveillance and Control (AN/SPY-1) Digital Receive Upgrade (DRU) (formerly Digital Low Noise Amplifier (dLNA)).												
A. Mission Description and Budget Item Justification												
The Sea-Based Weapon Systems mission is to deliver an enduring, operationally effective and supportable Ballistic Missile Defense (BMD) capability to defend the nation, deployed forces, friends and allies, and to increase this capability by delivering evolutionary improvements as part of Missile Defense System upgrades. The Sea-Based Weapon Systems element of the Missile Defense System capitalizes upon and evolves from the existing U.S. Navy Aegis Weapon System (AWS) and Standard Missile (SM) infrastructures. Sea-Based Weapon Systems provides a forward-deployable, mobile capability to detect and track Ballistic Missiles of all ranges, and the ability to destroy Short-Range Ballistic Missiles, Medium-Range Ballistic Missiles, and Intermediate-Range Ballistic Missiles in the midcourse phase of flight, and shorter range missiles in the terminal phase of flight. Sea-Based Weapon Systems also provides a Long Range Surveillance and Track capability to the Missile Defense System. Upgrades to both the Aegis BMD Weapon System and the SM-3 configuration enable Sea-Based Weapon Systems to provide effective, supportable defensive capability against longer range, threats and an enduring Aegis Ashore defensive capability.												
This Program Element also provides the development of the AWS Software configuration for the Aegis portion of the Defense of Guam (DoG), including capabilities for defense against advanced ballistic threats and integration of Land Based Radar configuration.												
This Program Element includes Missile Defense System threat discrimination improvements, which will enhance Missile Defense System effectiveness against the evolving adversary threat. The result will be a Missile Defense System architecture more capable of discriminating and destroying reentry vehicles with a higher degree of confidence, improving Warfighter shot doctrine, and more efficiently using interceptor inventory. Missile Defense System threat discrimination improvements												

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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 I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD
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are funded from the Enabling (0603890C), Midcourse (0603882C), BMD Sensors (0603884C), Command and Control, Battle Management, and Communications (0603896C), and Aegis BMD (0603892C) Program Elements.

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

Change Summary Explanation

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

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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 0603892C / AEGIS BMD				Project (Number/Name) MD09 / Aegis BMD			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MD09: Aegis BMD	4,009.029	331.877	446.480	397.228	-	397.228	233.885	217.318	336.690	364.666	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

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

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

A. Mission Description and Budget Item Justification

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

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

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

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

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

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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 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD		
<p>BMD 5.1.0 architecture to incorporate emerging Missile Defense System capabilities, War fighter improvements, SM-3 software updates, and improved Weapon System performance necessary to pace the threat. Aegis BL 9 (BMD 5.1.5 and 5.1.6) software spiral includes support for technology maturation and prototyping that will demonstrate enhanced Missile Defense tracking performance against longer range and more sophisticated threats in challenging and complex environments.</p> <p>Aegis BL 10 (BMD 6.0 and 6.0.1) provides deployed assets and the next software spiral for capability and performance improvements to Integrated Air and Missile Defense (IAMD). Aegis BL 10 (BMD 6.0) will provide deployed assets enhanced IAMD capability, while enabling Missile Defense System element utilization of SPY-6 data for remote engagement. Enhancements include significant improvements in IAMD planning, search, track, discrimination and force level (multi-asset) raid defense. Aegis BL 10 (BMD 6.0) will enable U.S. Navy ships to maintain greater stand-off range while increasing performance against complex threats. Aegis BL 10.1 (BMD 6.1) will integrate Sea Based Terminal Increment 3 capability with the SPY-6(V)1 radar and achieve alignment with Aegis Common Source Library capabilities equivalent to BMD 5.1.5.</p> <p>Aegis BL 10M (BMD 6M) adapts Aegis BL10 (BMD 6.x) developed for AN/SPY-6(V)1 and Flight III DDGs to work with the AN/SPY-6(V)4 radar as part of the DDG Modification (MOD) 2.0 program, replacing AN/SPY-1 radars on select Flight IIA DDGs.</p> <p>This Program Element also provides the development of the Aegis Weapon System Software configuration for the Aegis portion of the Defense of Guam (DoG), including capabilities for defense against advanced ballistic threats and integration of the Land Based Radar configuration.</p> <p>M&S Objective Simulation Framework (OSF) effort develops, maintains and deploys the framework hardware and software for use at element laboratories and Combatant Command (CCMD) locations to support IMTP events, Missile Defense System capability delivery assessments, War fighter training, exercises, and wargames.</p> <p>M&S Missile Defense System Simulations & Tools effort provides development and sustainment of digital products and the architecture framework, and delivery/ maintenance of infrastructure for Missile Defense System performance assessments.</p> <p>Missile Defense System Assessment and Verification, Validation & Assessment (VV&A) includes activities to support Missile Defense System Operational Capability Baseline (OCB) delivery decisions and Technical Capability Declarations, and anchor System M&S.</p>				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
Title: Systems Engineering & Integration		20.795	20.430	21.330
Articles:		-	-	-
Description: Perform requirements development, engineering analysis, capability integration, and performance verification for Aegis BMD development and Missile Defense System integration, including Aegis BMD compliance with the Missile Defense System Specification and Missile Defense System Description Document.				
Recurring Accomplishments:				
- Conduct system level performance analyses to support ongoing Missile Defense System Architecture and Systems Engineering efforts				

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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 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<div><div>- Perform top-down system level engineering analysis, capability integration, and performance verification for Aegis BMD development and Missile Defense System integration, including Aegis BMD compliance with the Missile Defense System Specification and Missile Defense System Description Document</div><div>- Identify architecture alternatives that improve the Missile Defense System's performance and are complementary to and interoperable with North Atlantic Treaty Organization systems and theaters around the world</div><div>- Define Missile Defense System technical content expectations and develop system requirements, to include integration of new capabilities</div><div>- Develop functional performance, interface, and design suitability requirements in collaboration with Aegis BMD engineers to ensure correct flow-down and allocation of Missile Defense System-level requirements to Aegis BMD</div><div>- Respond to Warfighter, Combatant Command and other requests for analyses and requests for information; provide analytical support for real-world events</div><div>- Conduct non-advocate assessments of Missile Defense System capabilities and limitations prior to capability delivery decisions to determine fielding readiness (including Theater/Regional BMD)</div><div>- Conduct extensive analysis of data collected in Missile Defense System test events to evaluate overall System operations and performance</div></div> <div>Specific and/or unique accomplishments to each FY are as follows:</div> <div>FY 2024 Plans: - SEE ABOVE.</div> <div>FY 2025 Plans: - SEE ABOVE.</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement: N/A</div>				
<div>Title: Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion</div> <div>Articles:</div> <div>Description: Aegis BMD Core System Engineering enables cross-baseline specification management and capability assessments to ensure consistent application of technical standards, processes, and procedures across the Aegis BMD program. Aegis BMD specific efforts include: systems engineering and architecture (process and execution), M&S, V&V, test and evaluation support, and ship integration. M&S V&V efforts in this accomplishment are performed at the Aegis BMD element level, which feed into the overall Missile Defense System level.</div> <div>Recurring Accomplishments:</div> <div>- Conduct U.S. Navy and Joint Link certifications required for Baseline certifications for operational deployment</div>		55.360 -	59.535 -	60.623 -

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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 0603892C / <i>AEGIS BMD</i>	Project (Number/Name) MD09 / <i>Aegis BMD</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<ul style="list-style-type: none"> - Support Ground Test Campaign for Missile Defense System to achieve OCB declaration - Execute V&V activities and provide results to MDA System Verification Team and the Operational Test Agency (OTA) in support of System-level accreditation for Ballistic Missile Defense System (BMDS) events - Provide M&S Requirements Management and Development - Conduct further development of Aegis BMD System Architecture and overarching system concepts - Conduct Missile Defense System level requirements allocation and Aegis BMD system requirements development, trace, validation and verification, and configuration management for coordination with all participating external agencies and organizations - Perform Command, Control, Computer, Communications and Intelligence (C4I) systems engineering to further develop Aegis BMD requirements, and to identify and resolve Missile Defense System interoperability issues - Define and coordinate development and implementation of C4I capabilities in U.S. Navy C4I programs of record to meet Aegis BMD requirements - Conduct Threat Engineering analysis and Requirements Assessment - Conduct Systems Engineering for Aegis BMD system-level M&S development and interfaces to the Missile Defense System architecture - Provide verified, validated, accredited models in support of U.S. Navy certification, MDA characterization of system-level performance, OTA assessment of operational capabilities, and representation of Aegis BMD capabilities in Missile Defense System test and exercise venues - Provide target engineering, test planning activities, and IMTP process/inputs for Aegis BMD - Conduct Performance Assessment and Verification processes which assess the sufficiency of Objective Quality Evidence to provide a traceable evidence to verify Element Specification requirements traced to Missile Defense System requirements - Provide oversight of all Aegis BMD analysis in support of systems assessment and verification supporting test and analysis requirements and test planning inputs to align with MDA and U.S. Navy test programs - Provide consolidated analysis and reporting for firing events <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Provide Digital Engineering improvements to ensure access to cloud based high-speed network communications, data, and tools for increased collaboration, analysis support, and fidelity across the development, analysis, test, and systems engineering efforts - Begin transitioning baseline development from current methodologies to Digital Engineering (Model Based Systems Engineering and Artificial Intelligence/Machine Learning) practices - Continue providing residual capability analysis of deployed Aegis BMDS and SM-3 versus threats not covered in design requirements, specifically to improve response time to the Combatant Command (COCOM) and Fleet requests for analysis 			

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

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

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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 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>Description: In alignment with U.S. Navy Aegis Baseline 9 Capability Packages (2022 and 2024), Aegis BMD 5.X will develop a series of unique Capability Insertion Packages (CIP) and AN/SPY-1 Radar sensitivity technology maturation and prototyping that expand detection, track, report, and defeat capabilities of emerging threat systems with increasingly complex engagement scenes and raid sizes. Aegis BMD capability packages are focused towards Aegis Baseline 9 DDGs and Aegis Ashore Missile Defense Systems. Annual capability upgrades are necessary to pace the evolving threat, improve system reliability, and incorporate technological growth.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: Deliver Aegis BMD 5.1.5 (Aligned with Navy Aegis Baseline 9 CP 2024): CIP Includes: Support includes the design, development, integration, and developmental test of BMD 5.1.5 capabilities listed above. FY2022 and FY2023 efforts included development in Technical Insertion (TI) 2012 Hybrid (TI-12H) and TI-16 Mod 0 hardware. In coordination with Navy, MDA is adding TI-16 Mod 1 hardware integration with U.S. Navy including updated system operating environment necessary to address cyber requirements. The addition of new hardware architecture and in an effort to maintain alignment with the U.S. Navy CP 2024 schedule, BMD 5.1.5 milestones (with integrated Sea-Based Terminal Increment 3) are adjusted from what was reported in PB23 (see R4).</p> <p>Perform AN/SPY-1 Radar sensitivity improvement technology maturation and prototyping of DRU (formerly dLNA):</p> <ul style="list-style-type: none"> - Conduct software code and test activities - Maturation of critical Radio Detection and Ranging (RADAR) technologies necessary to digitize receive chain of in-service AN/SPY-1 Radar to be demonstrated at Preliminary Design Review (PDR) for IPR #3 - Assemble prototype array - RADAR calibration techniques - Conduct near-field testing activities - Commence Multi-element Integration testing - Assessment of System performance against existing and emerging complex threat systems <p>FY 2025 Plans: Continue development and integration of Aegis BMD 5.1.5 with Navy Capability Package 2024 with TI-16 Mod 1 and integration with Red Hat Enterprise Linux version 8. CIP Includes: - Expanded Hypersonic Track and Report (Increment 2): Continues development and delivery of Hypersonic tracking and reporting with Missile Defense System performance requirements</p>			

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Appropriation/Budget Activity 0400 / 4		R-1 Program Element (Number/Name) PE 0603892C / AEGIS BMD		Project (Number/Name) MD09 / Aegis BMD	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Expanded Aegis BMD Threat Space: Provides integration of additional threats to the Aegis Weapon System (aligns with SM-3 Block IIA Build 8.2/8.3 software updates and threat set) - Aegis BMD Warfighter Improvements: Incorporates and integrates Warfighter feedback through enhancements to existing functionality - Enhanced Aegis Data Link: Provides interface update between AN/SPY-1 Radar and SM-3 missiles - Aegis Remote Engagement: Integrates interface updates with the Missile Defense System to use additional remote data sources for Aegis BMD engagements <p>Commence initial system requirements development to support Aegis BL9 (BMD 5.1.6) with Navy Capability Package 2026. CIP includes:</p> <ul style="list-style-type: none"> - Warfighter enhancements that address direct feedback from operators and provide the operator with critical capabilities required to pace the evolving threat. Enhancements include: - Minimum inventory hard stop: Adds flexibility for operator to manage interceptor inventory - Increased manual search sectors: Expands the minimum allowable freeform sectors, increasing manual radar doctrine search capability to enhance warfighter planning and radar detection - L201a/L202 design cases: Adds initial capability against evolving ballistic missile threats - SM-3 Block IB Enhanced Aegis Data Link: Provides interface update between AN/SPY-1 Radar and SM-3 Block IB missiles <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 cancels the prototype development and planned demonstration for AN/SPY-1 DRU (formerly dLNA).</p>					
<p>Title: Aegis BMD 6.x Development</p> <p align="right">Articles:</p> <p>Description: The U.S. Navy is developing the Advance Capability Build (ACB) 20 CS and the Air and Missile Defense Radar (AMDR), now designated SPY-6(V)1, for introduction on the first DDG Flight III. Aegis BMD 6.0 and Aegis BMD 6.0.1 will integrate Aegis BMD 5.1 capability with the ACB 20 Combat System, to include new SPY-6 requirements. Aegis BMD 6.0 and 6.0.1 exploit SPY-6 radar improvement to enhance Engagement and Search and Track capabilities to include discrimination, raid defense and expanded threat space. This will enable Missile Defense System element utilization of AN/SPY-6(V)1 data for remote engagements and will supplement deployed assets with simultaneous multi-mission capabilities (e.g. IAMD). AMDR will support a force-level (multi-asset) approach to raid defense and will enable U.S. Navy ships to have a greater stand-off range from threat environments.</p> <p>Recurring Accomplishments:</p> <ul style="list-style-type: none"> - CIDS, IDS and all supporting engineering documents and plans - Conduct design studies and concepts supporting development and integration 			57.326 -	68.691 -	44.490 -

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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 0603892C / <i>AEGIS BMD</i>		Project (Number/Name) MD09 / <i>Aegis BMD</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Conduct Aegis BMD performance analysis supporting IPR - Participate in program leadership and technical forums including Program Management Team, System Engineering Team, and Cross Product Teams for Integration and Test, M&S, Test, Evaluation & Certification, and Fleet Integration and Design - Develop computer program for Aegis BMD 6.0 supporting Software Increment Reviews - MDA/Navy co-funded effort to provide BMD capability on Flight III DDGs - Expanded BMD Tracking and reporting updates <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Aegis BMD 6.0 software development (Aligned with Aegis Baseline 10.0): - AN/SPY-6(V)1 and Aegis BMD 6.0 test efforts, defect correction, and performance analysis with focus on-ship/at-sea - Support ship execution of test and evaluation activities leading to Baseline Certification, Flt III and AMDR Initial Operational Capability assessment, and BMD 6.0 Operational Capability Baseline decision. <ul style="list-style-type: none"> - Aegis BMD 6.0.1 software development (Aligned with AEGIS baseline 10.1) Capabilities include: - BMD Engagement Control - Limit the number of simultaneous BMD engagements and weapons expended - Mobile Platform Planning - Off-ship IAMD plan development and on-ship mission plan import/export - Raid Evaluator - Add capability to evaluate against raid and display predicted raid performance for a mission plan solution - Provide additional performance improvements - Incorporate further design updates identified during BMD 6.0 development and provide further performance improvement for larger IAMD scenarios <p>FY 2025 Plans:</p> <p>Complete Aegis BMD 6.0 software development (Aligned with Aegis Baseline 10.0):</p> <ul style="list-style-type: none"> - AN/SPY-6(V)1 and Aegis BMD 6.0 test efforts, defect correction, and performance analysis with focus on-ship/at-sea - Support ship execution of test and evaluation activities leading to BMD 6.0 Operational Capability Baseline decision. <p>Continue Aegis BMD 6.0.1 software development (Aligned with Aegis Baseline 10.0.1) Capabilities include:</p> <ul style="list-style-type: none"> - BMD Engagement Control - Limit the number of simultaneous BMD engagements and weapons expended - Mobile Platform Planning - Off-ship IAMD plan development and on-ship mission plan import/export - Raid Evaluator - Add capability to evaluate against raid and display predicted raid performance for a mission plan solution - Provide additional performance improvements - Incorporate further design updates identified during BMD 6.0 development and provide further performance improvement for larger IAMD scenarios <p>Commence Aegis BMD 6.1 software development (Aligned with Aegis Baseline 10.1) Capabilities include:</p>					

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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 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>- Maintain System-level M&S framework</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans: - SEE ABOVE.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects alignment to MDA's M&S Enterprise needs and to scheduled IMTP events.</p>			
<p>Title: M&S BMDS Simulations &Tools</p> <p align="right">Articles:</p> <p>Description: This effort includes: development and sustainment of digital products and the architecture framework, and delivery/ maintenance of infrastructure for Missile Defense System performance assessments.</p> <p>Recurring Accomplishments:</p> <ul style="list-style-type: none"> - Integrate, test, and verify the M&S enterprise supporting Missile Defense System testing, assessment, exercises, and wargaming, including testing infrastructure. Guide and facilitate integration testing of MDA's M&S frameworks and core truth models, and all M&S components into virtual representations of the Missile Defense System that are credible, affordable, and provide decision makers with the data needed - Integrate, test, functionally qualify, and deliver M&S tools and complex test architectures to provide system test capabilities to support MDA IMTP based test events, wargames, and exercises - Continue the transition of real-time digital simulation capability to the OSF to support Intended Uses - Provide HWIL/M&S Benchmarking/Integration documentation and coordination - Conduct M&S system integration and verification to support M&S system architecture development. Provide developmental integration testing to support M&S system architecture integration <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans:</p>		5.210 -	4.355 -
		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 0603892C / AEGIS BMD		Project (Number/Name) MD09 / Aegis BMD	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects the completion of this effort.					
Title: BMDS Verification, Validation & Assessment (VV&A)			18.761	18.491	18.032
Articles:			-	-	-
Description: This activity includes Missile Defense System Assessment and VV&A activities to support OCB delivery decisions, and anchor System M&S. Recurring Accomplishments: <ul style="list-style-type: none"> - Verify Missile Defense System performance, and produce verification status reports - Conduct extensive analysis of data collected in System ground and flight test events, instrumental to understanding Missile Defense System operations and performance and anchoring models and simulations - Identify mitigation approaches for Missile Defense System performance issues uncovered during system level analysis and assessment - Maintain M&S VV&A database, and verification data for Missile Defense System Specification Change Notices - Develop, maintain, and update the M&S VV&A tool kit - Provide recommendations for improving assessment confidence, including M&S and testing issue resolutions - Conduct V&V in support of MDA System-level accreditation process in support of Missile Defense System Ground Test and performance assessment events - Conduct specified System-level post-flight reconstructions, element post-flight reconstructions, and pre-mission testing events so as to optimize the body of evidence and analysis supporting system-level Missile Defense System accreditation. Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: <ul style="list-style-type: none"> - SEE ABOVE. FY 2025 Plans: <ul style="list-style-type: none"> - SEE ABOVE. FY 2024 to FY 2025 Increase/Decrease Statement: N/A					
Title: RF Link Improvements			2.168	3.392	1.765
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 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>Description: Design, develop, and deliver RF Link Security Improvements that implement advance communications between Aegis BMD Weapon System and SM-3 Block IB and IIA missile variants. Product development and implementation will enable missile hardware enhancements in order to achieve the full requisite Missile RF Link Security Improvements. Priority will be on the BL 9 and SM-3 Block IIA followed by BL 9/10 and SM-3 Block IB.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <p>- Additional upgrades to Aegis BMD weapon system(s) and SM-3 BLK IB missile hardware and software to enhance missile-to-ship communications.</p> <p>- Replace Plate 3A (radio) & Computer Processing Unit Circuit Card Assembly with IIA Aegis Data Link to address obsolescence issues.</p> <p>FY 2025 Plans:</p> <p>- Complete RF Link Security Improvements between Aegis BL9 (BMD 5.1.5) Weapon System and SM-3 Block IIA</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Decrease from FY 2024 to FY 2025 reflects the completion of SM-3 Block IIA RF link missile enhancement within the BL9 (BMD 5.1.5) Weapon System.</p>					
<p>Title: Guam Defense Aegis BMD Development</p> <p align="right">Articles:</p> <p>Description: Develop the Aegis Weapon System Software configuration for land based DoG including capabilities for defense against advanced ballistic and hypersonic threats and integration of the Land Based AN/TPY-6 Radar configuration.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <p>- Finalize development of new weapon system specifications and continue development of distributed weapon system with relocatable array and launchers</p> <p>- Complete Aegis Guam system requirements compliant with Missile Defense System requirements and participate in DoG requirements review</p> <p>- Conduct element level, as well as Multi-Element level integration testing</p> <p>- Continue Aegis compliance threat space and performance analysis to inform requirements development and optimize Aegis Guam System performance</p>			53.225 -	80.400 -	165.530 -

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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 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD	

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

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

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

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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 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD
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C. Other Program Funding Summary (\$ in Millions)

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

Remarks

D. Acquisition Strategy

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

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

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

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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 0603892C / AEGIS BMD				Project (Number/Name) MD09 / Aegis BMD					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering & Integration - CSS	C/CPFF	Various : Various	28.510	1.285	Nov 2022	2.313	Nov 2023	0.000		-		0.000	0.000	32.108	0.000
Systems Engineering & Integration - FFRDC	FFRDC	Various : Various	1.372	0.000		0.000		0.000		-		0.000	0.000	1.372	0.000
Systems Engineering & Integration - GTRI	C/CPFF	GEORGIA TECH APPLIED RESEARCH CORPORATION : Various	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	0.000
Systems Engineering & Integration - Industry	C/CPAF	BOEING : VA	107.357	14.466	Nov 2022	12.475	Nov 2023	14.582	Nov 2024	-		14.582	Continuing	Continuing	Continuing
Systems Engineering & Integration - OGA	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	4.186	0.000		0.000		0.000		-		0.000	0.000	4.186	0.000
Systems Engineering & Integration - Threat	C/CPFF	SEG (Systems Engineering Group, Inc.) : AL	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	0.000
Systems Engineering & Integration - Various Systems Engineering	Various	Various : VA, AL	70.586	1.562	Nov 2022	0.976	Nov 2023	1.851	Nov 2024	-		1.851	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - ABS NIWC Pacific	MIPR	NIWC PAC : San Diego, CA	30.576	4.717	Nov 2022	9.200	Nov 2023	7.432	Nov 2024	-		7.432	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - ABS NSWC DD	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) DAHLGREN DIVISION (NSWCDD) : VA	0.000	3.011	Nov 2022	0.000		3.000	Nov 2024	-		3.000	Continuing	Continuing	Continuing

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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 0603892C / AEGIS BMD				Project (Number/Name) MD09 / Aegis BMD					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - ABS NSWC PHD	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) PORT HUENEME DIVISION (PHD) : CA	0.000	0.315	Nov 2022	0.000		0.300	Nov 2024	-		0.300	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - Advanced Concepts	C/CPFF	RAYTHEON : Various	4.629	2.000	Jan 2024	0.000		0.000		-		0.000	0.000	6.629	0.000
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - Discrimination Improvements	MIPR	Various : Various	17.640	0.000		1.849	Nov 2023	8.342	Nov 2024	-		8.342	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - M&S Improvements - Industry	C/CPFF	LOCKHEED MARTIN CORPORATION : VA	29.939	1.418	Nov 2022	1.238	Nov 2023	0.323	Nov 2024	-		0.323	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - M&S Improvements - Industry (Missile)	SS/IDIQ	RAYTHEON : AZ	0.000	0.782	Nov 2022	0.000		0.000		-		0.000	0.000	0.782	0.000
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - ABY Telescope	C/CPFF	Various : FL	6.000	6.000	Jun 2023	0.000		0.000		-		0.000	0.000	12.000	0.000
Aegis Ballistic Missile Defense (BMD) Technology Design and	MIPR	CECOM - MITRE : Dahlgren, VA	5.097	0.272	Nov 2022	0.000		0.000		-		0.000	0.000	5.369	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 0603892C / AEGIS BMD					Project (Number/Name) MD09 / Aegis BMD				
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Insertion - MD09 - C4I MITRE															
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - TD APL	SS/CPAF	JHU/APL : Columbia, MD	62.623	10.143	Nov 2022	12.143	Nov 2023	13.745	Nov 2024	-		13.745	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - TD IDT	MIPR	INNOVATIVE DEFENSE TECHNOLOGIES, LLC : VA	0.804	1.714	Nov 2022	3.274	Nov 2023	2.974	Nov 2024	-		2.974	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - TD LM	C/CPFF	Lockheed Martin : Moorestown, NJ	50.787	9.289	Nov 2022	7.495	Nov 2023	8.121	Nov 2024	-		8.121	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - TD MIT	MIPR	Hanscom AFB - MIT/ LL : Lexington, MA	31.980	3.316	Nov 2022	4.965	Nov 2023	5.216	Nov 2024	-		5.216	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - TD NSWCDD	MIPR	NSWC DD : Dahlgren, VA	63.105	9.105	Nov 2022	14.292	Nov 2023	10.104	Nov 2024	-		10.104	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 - TD Raytheon	SS/IDIQ	RAYTHEON : AZ	4.160	2.272	Nov 2022	5.079	Nov 2023	1.066	Nov 2024	-		1.066	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Technology Design and Insertion - MD09 Special Programs Classified Development	Various	Various : Various	0.000	0.400	Nov 2022	0.000		0.000		-		0.000	0.000	0.400	0.000
Aegis Ballistic Missile Defense (BMD)	MIPR	Various - MDA : AL,VA,CA	34.569	0.606	Sep 2023	0.000		0.000		-		0.000	0.000	35.175	0.000

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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 0603892C / AEGIS BMD				Project (Number/Name) MD09 / Aegis BMD					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Design and Insertion - Various - MDA															
Aegis BMD 4.x Development - MD09 - Dahlgren	MIPR	NSWC/DD : DAHLGREN, VA	179.756	1.394	Nov 2022	5.281	Nov 2023	3.138	Nov 2024	-		3.138	Continuing	Continuing	Continuing
Aegis BMD 4.x Development - MD09 - Lockheed Martin	SS/CPIF	LOCKHEED MARTIN : MOORESTOWN, NJ	1,001.285	13.004	Nov 2022	19.750	Nov 2023	11.734	Nov 2024	-		11.734	Continuing	Continuing	Continuing
Aegis BMD 4.x Development - MD09 Teams MDS Engineering	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : VA	0.000	2.412	May 2023	0.000		0.000		-		0.000	0.000	2.412	0.000
Aegis BMD 4.x Development - MD09- Aegis Tech Rep	MIPR	AEGIS Techrep : Moorestown, NJ	7.630	0.325	Nov 2022	1.655	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Aegis BMD 4.x Development - MD09- BMD 4.0 Dev-	Various	Various : Various	51.956	3.380	Nov 2022	1.407	Nov 2023	1.820	Nov 2024	-		1.820	Continuing	Continuing	Continuing
Aegis BMD 4.x Development - MD09-D	Allot	MDA : VA	33.053	0.000		0.000		0.000		-		0.000	0.000	33.053	0.000
Aegis BMD 5.x Development - MD09 - 5.x	SS/CPAF	LOCKHEED MARTIN : MOORESTOWN, NJ	799.645	45.709	Nov 2022	91.303	Nov 2023	20.208	Nov 2024	-		20.208	Continuing	Continuing	Continuing
Aegis BMD 5.x Development - MD09 - 5.x APL	SS/CPFF	JHU/APL/MD : COLUMBIA, MD	58.602	2.100	Nov 2022	6.340	Nov 2023	1.403	Nov 2024	-		1.403	Continuing	Continuing	Continuing
Aegis BMD 5.x Development - MD09 - 5.x DD	MIPR	NSWC/DD : DAHLGREN, VA	93.466	11.127	Nov 2022	16.485	Nov 2023	3.649	Nov 2024	-		3.649	Continuing	Continuing	Continuing
Aegis BMD 5.x Development - MD09 - 5.x PHD	MIPR	NSWC/PHD : PT HUENEME, CA	14.781	0.789	Nov 2022	5.072	Nov 2023	1.122	Nov 2024	-		1.122	Continuing	Continuing	Continuing
Aegis BMD 5.x Development - MD09 - Aegis Tech Rep	MIPR	Aegis Tech Rep : Moorestown, NJ	11.170	2.347	Nov 2022	7.608	Nov 2023	1.685	Nov 2024	-		1.685	Continuing	Continuing	Continuing

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

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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 0603892C / AEGIS BMD						Project (Number/Name) MD09 / Aegis BMD			
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis Layered Homeland Defense Development - Aegis Engineering - APL	SS/CPFF	JHU/APL : MD	2.387	0.000		0.000		0.000		-		0.000	0.000	2.387	0.000
Aegis Layered Homeland Defense Development - Aegis Engineering - DD	MIPR	NSWC DD : Dahlgren VA	2.379	0.000		0.000		0.000		-		0.000	0.000	2.379	0.000
Aegis Layered Homeland Defense Development - Aegis Engineering - LM	SS/CPFF	Lockheed Martin : Moorestown NJ	5.922	0.000		0.000		0.000		-		0.000	0.000	5.922	0.000
Aegis Layered Homeland Defense Development - Aegis Engineering - MIT/LL	FFRDC	MIT/LL : Lexington MA	3.241	0.000		0.000		0.000		-		0.000	0.000	3.241	0.000
Aegis Layered Homeland Defense Development - Aegis Weapon System - MD09 - LM	SS/CPFF	Lockheed Martin : Moorestown NJ	2.128	0.000		0.000		0.000		-		0.000	0.000	2.128	0.000
Modeling & Simulation Objective Simulation Framework - CSS - TEAMS	C/CPFF	YORKTOWN SYSTEMS GROUP, INC. : Various	42.240	1.172	Nov 2022	5.013	Nov 2023	2.415	Nov 2024	-		2.415	Continuing	Continuing	Continuing
Modeling & Simulation Objective Simulation Framework - CSS - TEAMS MDSE	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	87.142	3.047	Nov 2022	4.401	Nov 2023	4.195	Nov 2024	-		4.195	Continuing	Continuing	Continuing
Modeling & Simulation Objective Simulation Framework - Industry	C/CPAF	BOEING : Various	176.002	2.373	Nov 2022	0.000		2.591	Nov 2024	-		2.591	Continuing	Continuing	Continuing
Modeling & Simulation Objective Simulation Framework - M&S OSF - OGA	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	0.000	3.006	Nov 2022	0.000		0.000		-		0.000	0.000	3.006	0.000

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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 0603892C / AEGIS BMD				Project (Number/Name) MD09 / Aegis BMD					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Modeling & Simulation Objective Simulation Framework - M&S OSF - Software	C/CPAF	NORTHROP GRUMMAN : CO	0.000	4.499	Nov 2022	0.000		0.000		-		0.000	0.000	4.499	0.000
Modeling & Simulation Objective Simulation Framework - M&S OSF Engineering	Various	Various : AL, VA	25.695	0.726	Nov 2022	3.968	Nov 2023	1.267	Nov 2024	-		1.267	Continuing	Continuing	Continuing
Modeling & Simulation Objective Simulation Framework - Prime	C/CPFF	LOCKHEED MARTIN CORPORATION : Various	26.132	17.822	Nov 2022	22.903	Nov 2023	20.231	Nov 2024	-		20.231	Continuing	Continuing	Continuing
Aegis Layered Homeland Defense Development - Standard Missile - 3 (SM-3) Block IIA Development - MD09 - Raytheon	SS/CPIF	Raytheon : AZ	5.454	0.000		0.000		0.000		-		0.000	0.000	5.454	0.000
Aegis Layered Homeland Defense Development - Strategic Investment	MIPR	Various : Various	0.106	0.000		0.000		0.000		-		0.000	0.000	0.106	0.000
M&S BMDS Simulations &Tools - Sims & Tools	C/CPFF	Teledyne Brown Engineering : AL, CO	3.558	0.000		0.000		0.000		-		0.000	0.000	3.558	0.000
M&S BMDS Simulations &Tools - Sims & Tools - Industry	C/CPAF	Northrop Grumman : CO	40.308	0.000		0.000		0.000		-		0.000	0.000	40.308	0.000
M&S BMDS Simulations &Tools - Sims & Tools - Industry (2)	C/CPAF	NORTHROP GRUMMAN : CO	10.744	5.210	Nov 2022	4.355	Nov 2023	0.000		-		0.000	0.000	20.309	0.000
M&S BMDS Simulations &Tools - Sims & Tools - Industry (3)	C/CPAF	BOEING : AL	1.045	0.000		0.000		0.000		-		0.000	0.000	1.045	0.000
M&S BMDS Simulations &Tools - Sims & Tools - Various	Various	Various : AL, CO	2.078	0.000		0.000		0.000		-		0.000	0.000	2.078	0.000

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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 0603892C / AEGIS BMD				Project (Number/Name) MD09 / Aegis BMD					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
BMDS Verification, Validation & Assessment (VV&A) - Industry	C/CPAF	BOEING : AL	49.320	5.044	Nov 2022	6.677	Nov 2023	6.811	Nov 2024	-		6.811	Continuing	Continuing	Continuing
BMDS Verification, Validation & Assessment (VV&A) - Labs	MIPR	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : Various	14.685	1.778	Nov 2022	1.321	Nov 2023	1.360	Nov 2024	-		1.360	Continuing	Continuing	Continuing
BMDS Verification, Validation & Assessment (VV&A) - OGA	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	54.827	8.508	Nov 2022	7.488	Nov 2023	7.641	Nov 2024	-		7.641	Continuing	Continuing	Continuing
BMDS Verification, Validation & Assessment (VV&A) - UARC	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : Various	9.155	0.749	Nov 2022	1.709	Nov 2023	1.278	Nov 2024	-		1.278	Continuing	Continuing	Continuing
BMDS Verification, Validation & Assessment (VV&A) - Verification & Assessment	Various	MDA Various : Various	0.000	0.268	Nov 2022	0.000		0.942	Nov 2024	-		0.942	0.000	1.210	0.000
BMDS Verification, Validation & Assessment (VV&A) - Verification & Assessment - CSS Support	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	21.564	2.414	Nov 2022	1.296	Nov 2023	0.000		-		0.000	0.000	25.274	0.000
RF Link Improvements - Missile	SS/CIPIF	RAYTHEON : AZ	25.960	0.000		1.881	Dec 2023	0.000		-		0.000	0.000	27.841	0.000
RF Link Improvements - Missiles (Various)	Various	Various : Various	1.132	0.000		0.600	Dec 2023	0.000		-		0.000	0.000	1.732	0.000
RF Link Improvements - Weapon System	SS/CIPIF	Lockheed Martin : Moorestown, NJ	3.202	2.168	Nov 2022	0.911	Nov 2023	1.765	Nov 2024	-		1.765	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 0603892C / AEGIS BMD				Project (Number/Name) MD09 / Aegis BMD					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Guam Defense Aegis BMD Development - AFLCMC	MIPR	039664375 - TAMERAN GRAPHIC SYSTEMS, INC. : TBD	0.000	0.000		0.000		2.484	Nov 2024	-		2.484	Continuing	Continuing	Continuing
Guam Defense Aegis BMD Development - Aegis TechRep	MIPR	DOD - USN - AEGIS TECHNICAL REPRESENTATIVE (AEGIS TECHREP) : NJ	0.000	0.920	Nov 2022	0.000		3.641	Nov 2024	-		3.641	Continuing	Continuing	Continuing
Guam Defense Aegis BMD Development - Corvid	SS/FFP	Corvid Technologies Inc : NC	0.000	0.099	Oct 2022	0.000		0.000		-		0.000	0.000	0.099	0.000
Guam Defense Aegis BMD Development - JHU/APL	C/CPIF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	0.000	1.595	Nov 2022	3.533	Nov 2023	5.793	Nov 2024	-		5.793	Continuing	Continuing	Continuing
Guam Defense Aegis BMD Development - Lockheed Martin	C/CPIF	LOCKHEED MARTIN CORPORATION : NJ	0.000	43.131	Nov 2022	68.011	Nov 2023	117.030	Nov 2024	-		117.030	Continuing	Continuing	Continuing
Guam Defense Aegis BMD Development - MIT/LL	MIPR	DOD - USAF - AIR FORCE LIFE CYCLE MANAGEMENT CENTER (AFLCMC) : MA	0.000	0.819	Nov 2022	0.000		0.000		-		0.000	0.000	0.819	0.000
Guam Defense Aegis BMD Development - NAVSEA	MIPR	Program Executive Office (PEO) Integrated Warfare Systems (IWS)/1.0 : VA	0.000	1.834	Nov 2022	1.235	Nov 2023	8.939	Nov 2024	-		8.939	Continuing	Continuing	Continuing
Guam Defense Aegis BMD Development - NSWC Dahlgren	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) DAHLGREN	0.000	4.698	Nov 2022	6.773	Nov 2023	19.035	Nov 2024	-		19.035	Continuing	Continuing	Continuing

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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 0603892C / AEGIS BMD				Project (Number/Name) MD09 / Aegis BMD					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		DIVISION (NSWCDD) : VA													
Guam Defense Aegis BMD Development - NSWC Port Hueneme	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) PORT HUENEME DIVISION (PHD) : CA	0.000	0.129	Nov 2022	0.848	Nov 2023	8.442	Nov 2024	-		8.442	Continuing	Continuing	Continuing
Guam Defense Aegis BMD Development - SCSTC	MIPR	039664375 - TAMERAN GRAPHIC SYSTEMS, INC. : TBD	0.000	0.000		0.000		0.166	Nov 2024	-		0.166	Continuing	Continuing	Continuing
Subtotal			4,000.220	328.395		441.814		392.331		-		392.331	Continuing	Continuing	N/A
Remarks															
- In accordance with the Financial Management Regulation cost category definitions, some items have transferred to appropriate cost categories.															
- The \$49.019 million increase for Guam Defense Aegis BMD Development - Lockheed Martin from FY 2024 to FY 2025 supports the Pacific Deterrence Initiative (PDI) and provides analysis, development, integration, and testing of Aegis Guam System software to meet operational capability delivery in FY 2030.															
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost 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
Systems Engineering & Integration - Advanced Architecture - Program Ops (TEAMS)	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	8.809	3.151	Oct 2022	4.666	Nov 2023	4.897	Nov 2024	-		4.897	Continuing	Continuing	Continuing
Systems Engineering & Integration - Advanced Architecture - Program Ops Support	Various	Various : Various	0.000	0.331	Feb 2023	0.000		0.000		-		0.000	0.000	0.331	0.000
Subtotal			8.809	3.482		4.666		4.897		-		4.897	Continuing	Continuing	N/A

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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 0603892C / AEGIS BMD				Project (Number/Name) MD09 / Aegis BMD					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost 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
Remarks															
In accordance with the Financial Management Regulation cost category definitions, some items have transferred to appropriate cost categories.															
			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			4,009.029	331.877		446.480		397.228		-		397.228	Continuing	Continuing	N/A
Remarks															
Funding in the All Prior Years column represents a summary of Prior Years Total Costs for active contracts, MIPRs, and civilian salaries on the R-3. Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency														Date: March 2024																	
Appropriation/Budget Activity										R-1 Program Element (Number/Name)										Project (Number/Name)											
0400 / 4										PE 0603892C / AEGIS BMD										MD09 / Aegis BMD											
Significant Event Complete ▲					Milestone Decision Complete ★					Element Test Complete ◆					System Level Test Complete ●					Complete Activity ◆											
Significant Event Planned △					Milestone Decision Planned ☆					Element Test Planned ◇					System Level Test Planned ○					Planned Activity ◇											
										FY 2023			FY 2024			FY 2025			FY 2026			FY 2027			FY 2028			FY 2029			
BMD 5.1.4.0 OCB										★																					
BMD 5.1.4.1 EA											▲																				
BMD 6.0 IPR #8											★																				
BMD 5.1.4.1 CSCP												★																			
Defense of Guam Weapon System SRR												★																			
BMD 5.1.4.1 OCB													★																		
BMD 6.0 EA													▲																		
BMD 6.0.1 SRR														★																	
Defense of Guam IPR #1														★																	
BMD 6.0.1 IPR #9/PDR															☆																
BMD 5.1.5 EA																◇															
BMD 4.1.3 IPR #6																☆															
BMD 6.0 CSCP																☆															
Defense of Guam CDR																☆															
BMD 6.0.1 IPR #10/CDR																	☆														
BMD 4.1.3 EA																	☆														
BMD 4.1.3 IPR #7																	☆														
BMD 6.0 OCB																	☆														
BMD 6.0.1 EA #1																	☆														
Aegis Guam System IPR #2																	☆														
BMD 5.1.5 CSCP																		☆													
BMD 4.1.3 Cert																			△												
BMD 5.1.5 OCB																		☆													
BMD 4.1.3 OCB																				△											

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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 0603892C / AEGIS BMD								Project (Number/Name) MD09 / Aegis BMD							
Significant Event Complete ▲				Milestone Decision Complete ★				Element Test Complete ◆				System Level Test Complete ●				Complete Activity ◆							
Significant Event Planned △				Milestone Decision Planned ☆				Element Test Planned ◇				System Level Test Planned ○				Planned Activity ◇							
								FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029			
BMD 6.0.1 CSCP														☆									
BMD 6.0.1 OCB															☆								
BMD 5.1.6 CSCP																☆							
BMD 5.1.6 OCB																☆							
BMD 6.1 CSCP																☆							
BMD 6.1 OCB																		☆					
BMD 6M CSCP																				☆			

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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 0603892C / AEGIS BMD	Project (Number/Name) MD09 / Aegis BMD	

Schedule Details

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

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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 0603892C / AEGIS BMD		Project (Number/Name) MD09 / Aegis BMD
		Start		End
Events		Quarter	Year	Quarter Year
BMD 4.1.3 OCB		1	2026	1 2026
BMD 6.0.1 CSCP		2	2026	2 2026
BMD 6.0.1 OCB		1	2027	1 2027
BMD 5.1.6 CSCP		2	2027	2 2027
BMD 5.1.6 OCB		3	2027	3 2027
BMD 6.1 CSCP		4	2027	4 2027
BMD 6.1 OCB		4	2028	4 2028
BMD 6M CSCP		4	2029	4 2029

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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 0603892C / AEGIS BMD				Project (Number/Name) MM09 / Aegis BMD SM-3 Development			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MM09: Aegis BMD SM-3 Development	969.210	83.758	42.323	62.064	-	62.064	152.807	103.096	62.782	56.930	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

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

A. Mission Description and Budget Item Justification

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

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

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

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

	FY 2023	FY 2024	FY 2025
Title: Standard Missile-3 (SM-3) Block IB Development	22.702	15.823	10.180
Articles:	-	-	-
Description: This effort modernizes the SM-3 Block IB missile, which improves on the SM-3 Block IA performance and enables engagement of more sophisticated ballistic missiles and larger raid sizes SM-3 Block IB Threat Upgrade/Tech Refresh (previously IB Modernization) will provide the following: - Refreshed SM-3 KW Common Avionics Package will provide improved producibility and utilization of common components between the SM-3 Block IIA. SM-3 Block IB common components will be extendable to support different form/fit in circuit card			

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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 0603892C / AEGIS BMD		Project (Number/Name) MM09 / Aegis BMD SM-3 Development	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>assemblies across SM-3 Block IB and SM-3 Block IIA and will mitigate SM-3 Block IB hardware availability issues. Includes Back-fit of IIA Guidance Electronics Unit (GEU) ECP into IB</p> <p>- Refreshed SM-3 Block IB Guidance Section with the integration of Digital Data Link replacement of Plate 3A will resolve Plate 3A hardware availability issues</p> <p>Recurring Accomplishments:</p> <p>- Assess performance with weapons systems upgrades/modifications and against emerging threats</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: In addition to the above, the program plans the following accomplishments in FY 2024:</p> <p>- Expand threat space to combat evolving ballistic missile threats and facilitate availability of Blk IIA All Up Rounds (AURs) for more complex missions.</p> <p>- Develop Two phase software build with associated Formal Qualification Tests (FQTs). Address self-destruct, inertial midcourse guidance, fin rotation angle Built-in Test, normalized distance factor, discrimination updates, and exclusion angle improvements.</p> <p>- Leverage studies conducted for SM-3 exclusion angle and SM-3 Block IIA algorithms</p> <p>- Conduct Hardware/Software refresh of test/integration Hardware-in-the-Loop (HWIL)/Computer-in-the-Loop (CIL) workstations</p> <p>FY 2025 Plans: - Initiate Guidance System (GS) focused Software Upgrades (SWUP) addressing inertial midcourse guidance, self-destruct, fin rotation angle built-in-test; this effort also includes the computer in loop/hardware in loop upgrades supporting SWUP development. This software upgrade will be applied to currently fielded missiles during their periodic repair and recertification maintenance.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY2025 reflects the cancellation of the hardware portion of SM-3 BLK IB Software Upgrade (SWUP) due to termination of SM-3 BLK IB new production.</p>					
<p>Title: Standard Missile-3 (SM-3) Block IIA Development</p> <p style="text-align: right;">Articles:</p> <p>Description: The SM-3 Block IIA is required to meet EPAA Phase III. It will increase the area that can be defended by Aegis BMD, increase the probability of kill against a larger threat set, and leverage enhanced capability provided by BMDS sensor upgrades.</p> <p>Recurring Accomplishments:</p>			61.056 -	26.500 -	51.884 -

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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 0603892C / AEGIS BMD					Project (Number/Name) MM09 / Aegis BMD SM-3 Development		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2023	FY 2024	FY 2025
<div>- Conduct SM-3 Block IIA software update to support engagements against additional threats</div> <div>- Conduct End-to-End Distributed Development System integration testing and flight test support</div> <div>- Continue transition to production for all SM-3 Block IIA development efforts</div> <div>- Comply with Engineering Manufacturing Readiness level through the life cycle of SM-3 Block IIA</div> <div>Specific and unique accomplishments to each FY are as follow:</div> <div>FY 2024 Plans:</div> <div>- Completion of software Build 8.2 including Enhanced Aegis Data Link and continuation of Baseline 5 and 6 integration efforts. Includes transition to Production to support a Full Rate Production Decision and transition of GEU ECP to Production.</div> <div>FY 2025 Plans:</div> <div>Conduct SM-3 Block IIA CCA obsolescence recovery and qualify the CCA software, firmware, and hardware for the MC, IP, DP, and NC.</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement:</div> <div>Increase from FY 2024 to FY 2025 provides for the obsolescence recovery and qualification of the software, firmware, and hardware for the CCA for the MC, IP, DP, and NC of the SM-3 Block IIA missile. The obsolescence recovery and requalification addresses DMSMS / obsolete components on all four CCAs.</div>												
Accomplishments/Planned Programs Subtotals										83.758	42.323	62.064
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost	
• 0208866C: MD09: Aegis BMD Procurement	402.235	374.756	85.000	-	85.000	0.000	0.000	0.000	0.000	0.000	861.991	
• 0208866C: Aegis BMD Operation and Maintenance	63.132	72.224	75.016	-	75.016	110.955	104.814	117.250	208.492	Continuing	Continuing	
• 0208866C: MD14: SM-3 Block IIA	669.975	432.824	406.370	-	406.370	382.663	386.947	450.039	434.041	Continuing	Continuing	
• 0604878C: Aegis BMD Test	165.619	193.484	135.019	-	135.019	169.731	143.292	154.413	168.707	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
The Sea-Based Weapon Systems element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Sea-Based Weapon Systems program awarded sole source contracts to Raytheon and Lockheed Martin to continue development of the SM-3 and the Aegis BMD Weapon System, respectively.												

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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 0603892C / AEGIS BMD				Project (Number/Name) MM09 / Aegis BMD SM-3 Development					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Standard Missile-3 (SM-3) Block IB Development - JHU/APL	SS/CPFF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	6.843	3.970	Nov 2022	1.650	Nov 2023	1.200	Nov 2024	-		1.200	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IB Development - MM09 - 20117142332259	MIPR	NSWC/PHD : Port Hueneme, CA	0.199	0.000		0.000		0.000		-		0.000	0.000	0.199	0.000
Standard Missile-3 (SM-3) Block IB Development - MM09 - Various	MIPR	NSWC Corona : Corona, CA	1.053	0.000		0.000		0.000		-		0.000	0.000	1.053	0.000
Standard Missile-3 (SM-3) Block IB Development - MM09 Carderock	MIPR	NSWC Carderock : Bethesda, MD	0.882	0.000		0.000		0.000		-		0.000	0.000	0.882	0.000
Standard Missile-3 (SM-3) Block IB Development - SM-3 BLK IB Development (Raytheon)	SS/CPIF	RAYTHEON : AZ	205.869	16.983	Jan 2023	12.805	Jan 2024	8.180	Jan 2025	-		8.180	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IB Development - Various	MIPR	Various : Various	3.711	1.749	Nov 2022	1.368	Nov 2023	0.800	Nov 2024	-		0.800	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IIA Development - MM09 - SM-3 BLK IIA	MIPR	Brookhaven Lab - DOE : Uptown NY	3.830	0.000		0.000		0.000		-		0.000	0.000	3.830	0.000
Standard Missile-3 (SM-3) Block IIA Development - MM09 - SM-3 BLK IIA Draper	SS/CPIF	Draper Labatory : Cambridge MA	5.067	0.000		0.000		0.000		-		0.000	0.000	5.067	0.000
Standard Missile-3 (SM-3) Block IIA Development - New Jersey	C/CPFF	Lockheed Martin : Moorestown NJ	34.812	0.000		0.000		0.000		-		0.000	0.000	34.812	0.000
Standard Missile-3 (SM-3) Block IIA Development - SM-3 Block IIA Development -Engineering and Tech Support (APL)	SS/CPFF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	0.000	7.922	Dec 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing

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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 0603892C / AEGIS BMD				Project (Number/Name) MM09 / Aegis BMD SM-3 Development					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Standard Missile-3 (SM-3) Block IIA Development - SM-3 Block IIA MC/IP/ DP Circuit Card Assembly Obsolescence Recovery and Qualification	SS/CPFF	RAYTHEON : AZ	0.000	0.000		0.000		39.726	Dec 2024	-		39.726	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IIA Development - SM-3 Block IIA PEO/ IWS 3L Mk 29 Canister Systems Engineering Support (Labor and Travel)	SS/CPFF	BAE SYSTEMS INFORMATION AND ELECTRONIC SYSTEMS INTEGRATION I : MN	0.000	2.900	Dec 2022	0.000		0.000		-		0.000	0.000	2.900	0.000
Standard Missile-3 (SM-3) Block IIA Development - SM-3 Block IIA Vertical Launch System BMD Build 8 Missile Power Application Non-Launch	SS/CPFF	LOCKHEED MARTIN CORPORATION : MD	0.000	2.826	Dec 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IIA Development - Standard Missile-3 (SM-3) Block IIA Development - Integration (NSWCDD)	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) DAHLGREN DIVISION (NSWCDD) : VA	29.397	6.997	Oct 2022	2.110	Dec 2023	0.238	Dec 2024	-		0.238	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IIA Development - Standard Missile-3 (SM-3) Block IIA Development - Integration (Raytheon)	SS/CPIF	RAYTHEON : AZ	587.061	35.396	Nov 2022	22.706	Dec 2023	11.429	Dec 2024	-		11.429	Continuing	Continuing	Continuing
Standard Missile-3 (SM-3) Block IIA Development - Standard Missile-3 (SM-3) Block IIA Development - Integration (Various)	MIPR	Various : Various	90.486	0.761	Oct 2022	1.684	Dec 2023	0.491	Dec 2024	-		0.491	Continuing	Continuing	Continuing

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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 0603892C / AEGIS BMD				Project (Number/Name) MM09 / Aegis BMD SM-3 Development					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Standard Missile-3 (SM-3) Block IIA Development - TEAMS MDS Engineering	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : VA	0.000	4.254	May 2023	0.000		0.000		-		0.000	0.000	4.254	0.000
Subtotal			969.210	83.758		42.323		62.064		-		62.064	Continuing	Continuing	N/A
Remarks N/A															
			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			969.210	83.758		42.323		62.064		-		62.064	Continuing	Continuing	N/A
Remarks Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency														Date: March 2024									
Appropriation/Budget Activity							R-1 Program Element (Number/Name)							Project (Number/Name)									
0400 / 4							PE 0603892C / AEGIS BMD							MM09 / Aegis BMD SM-3 Development									
Significant Event Complete ▲		Milestone Decision Complete ★		Element Test Complete ◆		System Level Test Complete ●		Complete Activity ◆		Significant Event Planned △		Milestone Decision Planned ☆		Element Test Planned ◇		System Level Test Planned ○		Planned Activity ◇					
							FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029				
Build 8.2 and BMD 5.1.4.0 OCB							▲																
GEU-ECP (1st AUR Delivery with ECP)							▲																
IBTU Tech Refresh CDR								▲															
IB GU Qualification										△													
Build 8.3 FQT										△													
IBTU Tech Refresh Qualification										△													
IB SW FQT										△													
IB ECP Approval										△													
Build 8.3 and BMD 5.1.5 OCB										△													
PRD for SM-3 Block IIA MC/IP/DP/NC Re-Spin										△													
GEU-ECP Transition to Production											△												
IB SWUP Phase 1.0											△												
CDR for SM-3 Block IIA MC/IP/DP/NC Re-Spin													△										
SRR for SWUP Phase 1.0												△											
CDR for SWUP Phase 1.0													△										
FQT for SWUP Phase 1.0														△									

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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 0603892C / AEGIS BMD	Project (Number/Name) MM09 / Aegis BMD SM-3 Development	

Schedule Details

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

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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 0603892C / AEGIS BMD				Project (Number/Name) MC09 / Cyber Operations			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MC09: Cyber Operations	49.609	3.336	5.972	6.574	-	6.574	6.608	6.782	6.962	7.135	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

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

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

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

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

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

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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 0603892C / AEGIS BMD	Project (Number/Name) MC09 / Cyber Operations	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Monthly reviews of systems through the Enterprise Mission Assurance Support Services (eMass) System - Daily management of eMass System Plan of Action and Milestones. <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 monitoring for the Host Based Security System - Conduct Assured Compliance Assessment Solution Vulnerability scanning - Implement Security Information Event Management (i.e. ArcSight) requirements at remote sites - Provide on-site maintenance support for Cybersecurity activities at MDA sponsored Land Based Test Sites <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>			
Accomplishments/Planned Programs Subtotals	3.336	5.972	6.574

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

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

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

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

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

Remarks

D. Acquisition Strategy

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

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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 0603892C / AEGIS BMD						Project (Number/Name) MC09 / Cyber Operations			
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost 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
Network / System Certification and Accreditation (C&A) - DISA	MIPR	DISA : Falls Church, VA	0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	0.000
Network / System Certification and Accreditation (C&A) - CND/IA Advisory and Assistance Services	C/CPIF	TORCH TECHNOLOGIES INC : Huntsville, AL	2.747	0.000		0.000		0.000		-		0.000	0.000	2.747	0.000
Network / System Certification and Accreditation (C&A) - Cyber TEAMS/DREM	Various	Various : VA	1.565	0.766	Nov 2022	1.220	Nov 2023	1.267	Nov 2024	-		1.267	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Cyber TEAMS - MC09	C/CPFF	BOOZ ALLEN HAMILTON INC. : McLean, VA	17.548	0.000		0.000		0.000		-		0.000	0.000	17.548	0.000
Network / System Certification and Accreditation (C&A) - DD	MIPR	NSWC - DD : Dahlgren VA	1.300	0.000		0.000		0.000		-		0.000	0.000	1.300	0.000
Network / System Certification and Accreditation (C&A) - LBTS AWS Cyber Maintenance	MIPR	DOD - USN - NAVAL INFORMATION WARFARE CENTER (NIWC) PACIFIC : CA	0.000	0.000		1.260	Nov 2023	1.323	Nov 2024	-		1.323	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - LM	SS/CPAF	LOCKHEED MARTIN CORPORATION : Moorestown NJ	11.813	0.000		0.000		0.000		-		0.000	0.000	11.813	0.000
Network / System Certification and Accreditation (C&A) - PHD	MIPR	NSWC/PHD : Port Hueneme CA	0.501	0.000		0.000		0.000		-		0.000	0.000	0.501	0.000
Network / System Certification and Accreditation (C&A) - Program Operations - MC09 - CivSal	Allot	MDA : VA	1.139	0.251	Oct 2022	0.195	Oct 2023	0.537	Oct 2024	-		0.537	Continuing	Continuing	Continuing

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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 0603892C / AEGIS BMD	Project (Number/Name) MC09 / 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
Network / System Certification and Accreditation (C&A) - RMS	SS/CPAF	RAYTHEON : Tucson, AZ	4.106	0.000		0.000		0.000		-		0.000	0.000	4.106	0.000
Network / System Certification and Accreditation (C&A) - TEAMS - CCRM	C/CPFF	Various : VA	0.000	0.121	Nov 2022	3.297	Nov 2023	3.447	Nov 2024	-		3.447	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - TEAMS Cyber BMDS CSM	C/CPFF	SYSTEM HIGH CORPORATION : VA	0.000	2.198	Nov 2022	0.000		0.000		-		0.000	0.000	2.198	0.000
RF Link Improvements - SM-3	SS/CPFF	Raytheon : Tucson, AZ	8.390	0.000		0.000		0.000		-		0.000	0.000	8.390	0.000
RF Link Improvements - Weapon System	SS/CPIF	Lockheed Martin : Moorestown, NJ	0.400	0.000		0.000		0.000		-		0.000	0.000	0.400	0.000
Subtotal			49.609	3.336		5.972		6.574		-		6.574	Continuing	Continuing	N/A

Remarks

N/A

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

Remarks

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

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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 0603892C / AEGIS BMD								Project (Number/Name) MC09 / Cyber Operations							
Significant Event Complete ▲		Milestone Decision Complete ★		Element Test Complete ◆		System Level Test Complete ●				Complete Activity ◆															
Significant Event Planned △		Milestone Decision Planned ☆		Element Test Planned ◇		System Level Test Planned ○				Planned Activity ◇															
										FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029			
MC09 Cyber Operations.										◆	◆	◆	◆												
MC09 Cyber Operations														◇	◇	◇	◇	◇	◇	◇	◇	◇	◇		

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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 0603892C / AEGIS BMD	Project (Number/Name) MC09 / Cyber Operations	

Schedule Details

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

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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 0603892C / AEGIS BMD				Project (Number/Name) MX09 / Aegis BMD Development Support			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MX09: Aegis BMD Development Support	973.763	139.525	173.105	158.780	-	158.780	184.255	190.342	214.146	252.552	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

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

A. Mission Description and Budget Item Justification

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

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

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

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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 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
- SEE ABOVE.			
FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Title: Aegis Ballistic Weapon System Support		21.766	38.468
		-	-
Articles:			
Description: Provides system engineering for fielded Sea-Based Weapon Systems from warfighter feedback, investigation of BMDS Discrepancy Reports, and BMDS ground test observation analysis. It includes computer program defect corrections and supports assessment of flight test readiness. Recurring Accomplishments: - Update threat adaptation data to keep pace with emergent threats - Provide operation and sustainment of land based test sites used for the development of Aegis BMD baselines. Operation and sustainment includes Engineering, Logistics, Quality Assurance, Configuration Management and other support activities to both baseline development and the sites. - Provide support for contingency operations of national interest - Support upgrades to fielded Aegis BMD computer programs baselines approved as an Operational Capability Baseline (OCB) - Provide engineering support to OCB ships that participate in BMD test events - Provide test site usage for maintenance and support of baselines under development - Sustain the classified computing infrastructure needed for development efforts Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: - Provide capacity for increased development lab usage - Conduct hardware and software refresh at the land based test sites used for Aegis BMD baseline software development FY 2025 Plans: - Provide emergent software updates to in-service BMD baselines to include defect corrections, integration of Diminishing Manufacturing Source solutions, and urgent fleet operational needs required to sustain warfighting capacity - Conduct Modeling and Simulation runs supporting baseline capability development - Conduct integration, verification, and Hardware-in-the-Loop test events at test sites - Conduct hardware and software refresh for BL10 facilities for Aegis BMD baseline software development FY 2024 to FY 2025 Increase/Decrease Statement:		32.660	-

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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 0603892C / AEGIS BMD		Project (Number/Name) MX09 / Aegis BMD Development Support	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
Decrease from FY 2024 to FY 2025 reflects completion of hardware refresh upgrades at the Beowulf Modeling and Simulation lab used for the development of Aegis BMD baselines and the completion of hardware upgrades at the Ground Test Hardware in the Loop lab at BMDS Test Bed, San Diego (BTS) to support development, ground and flight testing.					
Title: Fleet Integration			19.178	26.196	26.335
Articles:			-	-	-
<p>Description: Provide support for Fleet operations and mission support to enable the conduct of sustained BMD operations; provide capability analysis in response to Geographic Combatant Commanders (COCOM) and Fleet Commander Requests for Analysis and Information (RFA/RFIs); provide operational and exercise support of deployed Aegis BMD capabilities; advocate warfighter capabilities and threat requirements developed from gap analysis, warfighter engagements, and fleet feedback; provide Doctrine, Organization, Training, materiel, Leadership and Education, Personnel, and Facilities support to Aegis BMD baseline development.</p> <p>Recurring Accomplishments:</p> <ul style="list-style-type: none"> - Provide system performance analysis in response to RFA/RFIs from Geographic COCOMs and Fleet Commanders, including assessments of Aegis Combat System capabilities against new and evolving threats. - Execute a warfighter feedback process to collect, organize, assess and disseminate warfighter feedback from combat system operators and technicians; shipboard leadership, Fleet and COCOM staffs, and the warfighter training community to identify system issues to support enhancement and to support the definition and development of future Aegis BMD baseline capabilities. - Review, define, and develop Joint and Fleet Doctrine and Tactics, Techniques, and Procedures for incorporation of Aegis BMD capability transition to warfighter and baseline acceptance into MDA OCB. - Support event planning, event participation, and provide Subject Matter Expert support to exercises, wargames, and ground test. - Develop and maintain system M&S for all Aegis BMD baseline variants to support joint and allied exercise and wargames. - Define, develop, and maintain a prioritized list of warfighter capabilities and provide requirements definition for warfighter capabilities in support of Aegis BMD development efforts. - Develop an annual prioritized list of warfighter threats in support of Aegis BMD baseline requirements. - Support the development of the Aegis BMD Handbook and support definition of warfighter acceptance requirements for Aegis BMD baselines certification and OCB assessment. - Develop Aegis BMD training simulations and scenarios to support shipboard training including BMD Qualification and higher level exercises. Maintain training scenarios for legacy Aegis Combat Training System and Advanced Training Domain (ATD). - Develop and maintain Aegis BMD Mission Planner (MP) re-host laptops for legacy baselines to support Fleet Maritime Operation Centers operational planning <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 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
FY 2024 Plans: - Support recurring cloud based services costs - Integrate Maritime Tactical Command and Control System (MTC2) Battle Management Aids to support integrated IAMD planning - Continue design, development, and delivery of IAMD planning capabilities in the Cerberus IAMD Planner to include new BMD baselines, new sensors, SBT Increment 2 and Increment 3, additional threats and begin planning for Hypersonic glide vehicle threats - Conduct Fleet Requests For Analysis (RFAs) in response to the evolving threat - Updates to shipboard and Fleet Maritime Operations Centers (MOC) mission planning systems - Conduct capability analysis, IAMD/BMD MP integration, doctrine development, and BMD/IAMD scenario development for BMD 6.0 with SPY-6 radar - Develop scenarios for the Navy's new ATD system FY 2025 Plans: - Field and sustain Cerberus IAMD Planner as part of the Collaborative IAMD Planning Program - Continue design, development, and delivery of IAMD planning capabilities in the Cerberus IAMD Planner to include expanded threat set, new BMD baselines and sensors, and new user requested features - Integrate with other Battle Management Aids hosted on MTC2 FY 2024 to FY 2025 Increase/Decrease Statement: - N/A					
Title: Infrastructure Upgrades Articles: Description: Provides management of Command, Control, Computer, Communications and Intelligence (C4I) aspects of the BTS San Diego upgrade plan to maintain Fleet representative C4I configurations to support testing, troubleshooting, and Fleet operations. Includes Information Technology (IT) services in support of the Aegis Research, Development, Testing and Evaluation mission to include: IT help-desk services; portal and data services; records management; business automation services; and desktop and Special Purpose Processing Nodes (SPPNs) maintenance and licenses. In addition, replaces critical IT infrastructure at end-of-life and to implement DoD mandated projects in support of the Joint Information environment (JIE) initiative. Recurring accomplishments: - Conduct Aegis IT services such as IT help-desk; portal and data services; records management; business automation services; and desktop and SPPN maintenance and licenses - Replacement of critical end-of-life equipment - Upgrades to IT infrastructure planning and implementation efforts to accomplish DoD mandated IT Projects (JIE and DoD Chief Information Officer Information Resources Management initiatives.			11.355 -	17.733 -	12.211 -

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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 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: - Update BTS San Diego with two additional Technology Insertion hardware baselines to align with Baseline (BL) 9 and BL 10 hardware configurations to support development testing and Ground/Flight Test requirements FY 2025 Plans: - Conduct configuration and data management to ensure M&S and software builds are identical in collateral and Special Access Program environment - Procurement of critical end-of-life IT equipment replacements FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects completion of hardware upgrades at the Ground Test Hardware in the Loop lab at BMDS Test Bed, San Diego (BTS) to support development, ground and flight testing.			
Accomplishments/Planned Programs Subtotals	139.525	173.105	158.780

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

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

Remarks

D. Acquisition Strategy

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

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

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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 0603892C / AEGIS BMD				Project (Number/Name) MX09 / Aegis BMD Development Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Operations - IT	Various	Various : Various	6.917	0.390	Dec 2022	0.740	Dec 2023	0.740	Dec 2024	-		0.740	Continuing	Continuing	Continuing
Program Operations - MDA Travel	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : VA	6.879	1.138	Oct 2022	1.253	Oct 2023	1.634	Oct 2024	-		1.634	Continuing	Continuing	Continuing
Program Operations - MX09 - GSA Procurement for MDA Historical Project	C/CPFF	Gryphon Technologies : VA	0.316	0.000		0.000		0.000		-		0.000	0.000	0.316	0.000
Program Operations - MX09 - Civ Sal	Allot	MDA : VA	160.218	36.193	Nov 2022	34.975	Nov 2023	35.790	Nov 2024	-		35.790	Continuing	Continuing	Continuing
Program Operations - MX09 - DD PM	MIPR	NSWC/DD : Dahlgren, VA	10.968	0.000		0.000		0.000		-		0.000	0.000	10.968	0.000
Program Operations - MX09 - NAVSEA Travel	MIPR	NAVSEA : Washington, DC	2.496	0.000		0.000		0.000		-		0.000	0.000	2.496	0.000
Program Operations - NAVSEA Civ Sal/ ReachBack/Training, Various	MIPR	DOD - USN - NAVAL SEA SYSTEMS COMMAND (NAVSEA) : VA	77.796	15.652	Nov 2022	17.521	Nov 2023	18.047	Nov 2024	-		18.047	Continuing	Continuing	Continuing
Program Operations - Program Ops Misc	Various	Various : Various	3.502	0.404	Nov 2022	0.300	Nov 2023	1.018	Nov 2024	-		1.018	Continuing	Continuing	Continuing
Program Operations - Service Level Agreement (SLA)	C/CPFF	JACOBS TECHNOLOGY INC. : Various	0.000	2.618	Dec 2022	0.000		0.000		-		0.000	0.000	2.618	0.000
Program Operations - TEAMS	C/CPFF	Various : Various	197.995	0.510	Nov 2022	4.070	Nov 2023	4.148	Nov 2024	-		4.148	Continuing	Continuing	Continuing
Program Operations - TEAMS - Acquisition	C/CPFF	BCF SOLUTIONS, INC. : VA	0.000	1.740	Nov 2022	0.000		0.000		-		0.000	0.000	1.740	0.000
Program Operations - TEAMS - C3PO	C/CPFF	Kepler Research, Incorporated : Various	0.000	0.644	Nov 2022	0.000		0.000		-		0.000	0.000	0.644	0.000
Program Operations - TEAMS - ITMA	C/CPFF	FIVE STONES RESEARCH CORPORATION : Various	0.000	0.550	Nov 2022	0.000		0.000		-		0.000	0.000	0.550	0.000

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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 0603892C / AEGIS BMD				Project (Number/Name) MX09 / Aegis BMD Development Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Operations - TEAMS - International Programs	C/CPFF	Allied Associates International, Inc (A2I) : Various	0.000	0.410	Nov 2022	0.000		0.000		-		0.000	0.000	0.410	0.000
Program Operations - TEAMS - Logistics	C/CPFF	VENTURI, INC. : Various	0.000	0.650	Nov 2022	0.000		0.000		-		0.000	0.000	0.650	0.000
Program Operations - TEAMS Acquisition	C/CPFF	Various : Various	0.000	0.000		2.426	Nov 2023	2.460	Nov 2024	-		2.460	Continuing	Continuing	Continuing
Program Operations - TEAMS Bus Op	C/CPFF	Veterans Technology, LLC : VA	0.000	4.083	Nov 2022	0.000		0.000		-		0.000	0.000	4.083	0.000
Program Operations - TEAMS Business Ops	C/CPFF	Various : Various	0.000	0.000		3.856	Nov 2023	3.909	Nov 2024	-		3.909	Continuing	Continuing	Continuing
Program Operations - TEAMS MDS Engineering	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : VA	0.000	14.550	Nov 2022	16.002	Nov 2023	10.588	Nov 2024	-		10.588	Continuing	Continuing	Continuing
Program Operations - TEAMS Next QMA	C/CPFF	AI SOLUTIONS, INC. : VA	0.000	1.420	Nov 2022	0.000		0.000		-		0.000	0.000	1.420	0.000
Program Operations - TEAMS Office Admin Bridge	C/CPFF	YORKTOWN SYSTEMS GROUP, INC. : VA	0.000	1.523	Nov 2022	0.000		0.000		-		0.000	0.000	1.523	0.000
Program Operations - TEAMS Office Admin	C/CPFF	Various : VA	0.000	0.000		2.186	Nov 2023	2.216	Nov 2024	-		2.216	Continuing	Continuing	Continuing
Program Operations - TEAMS Predictive Eng	C/CPFF	Various : VA	0.000	1.065	Nov 2022	1.413	Nov 2023	1.432	Nov 2024	-		1.432	Continuing	Continuing	Continuing
Program Operations - TEAMS Protocol & VIPC	C/FFP	Various : Various	0.000	0.776	Nov 2022	0.000		0.000		-		0.000	0.000	0.776	0.000
Program Operations - TEAMS QMA	C/CPFF	Various : VA	0.000	0.000		2.729	Nov 2023	2.310	Nov 2024	-		2.310	Continuing	Continuing	Continuing
Program Operations - TEAMS Warfighter Integration	C/CPFF	STRATEGIC ALLIANCE BUSINESS GROUP LLC : VA	0.000	2.910	Nov 2022	3.237	Nov 2023	3.282	Nov 2024	-		3.282	Continuing	Continuing	Continuing

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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 0603892C / AEGIS BMD				Project (Number/Name) MX09 / Aegis BMD Development Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis Ballistic Weapon System Support - D - Strategic Investment	MIPR	039664375 - TAMERAN GRAPHIC SYSTEMS, INC. : Various	2.140	0.000		0.000		0.000		-		0.000	0.000	2.140	0.000
Aegis Ballistic Weapon System Support - MX09 - ABS Various	MIPR	Various : Various	0.766	1.114	Nov 2022	1.063	Nov 2023	1.003	Nov 2024	-		1.003	Continuing	Continuing	Continuing
Aegis Ballistic Weapon System Support - MX09 - AW APL	SS/CPFF	JHU/APL : Columbia, MD	7.855	0.000		0.000		0.000		-		0.000	0.000	7.855	0.000
Aegis Ballistic Weapon System Support - MX09 - AW DD	MIPR	NSWC DD : Dahlgren, VA	28.808	2.107	Nov 2022	2.129	Nov 2023	1.980	Nov 2024	-		1.980	Continuing	Continuing	Continuing
Aegis Ballistic Weapon System Support - MX09 - AW LM	C/CPFF	Lockheed Martin : Moorestown, NJ	78.663	10.707	Nov 2022	11.251	Nov 2023	16.795	Nov 2024	-		16.795	Continuing	Continuing	Continuing
Aegis Ballistic Weapon System Support - MX09 - AW NAVSEA	MIPR	NAVSEA : Washington, DC	81.783	3.302	Nov 2022	20.881	Nov 2023	9.926	Nov 2024	-		9.926	Continuing	Continuing	Continuing
Aegis Ballistic Weapon System Support - MX09 - AW TECH REP	MIPR	Aegis Tech Rep : Moorestown, NJ	1.594	1.556	Nov 2022	0.000		0.000		-		0.000	0.000	3.150	0.000
Aegis Ballistic Weapon System Support - MX09 - AW Wallops	MIPR	SCSC : Wallops Island, VA	8.243	2.360	Nov 2022	3.144	Nov 2023	2.956	Nov 2024	-		2.956	Continuing	Continuing	Continuing
Aegis Ballistic Weapon System Support - MX09 - TD Various	MIPR	Various : San Diego, CA	33.163	0.000		0.000		0.000		-		0.000	0.000	33.163	0.000
Aegis Ballistic Weapon System Support - MX09 - AW PHD	MIPR	NSWC PHD : Port Hueneme, CA	0.956	0.620	Nov 2022	0.000		0.000		-		0.000	0.000	1.576	0.000
Fleet Integration - Fleet APL	SS/CPFF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS	58.574	5.232	Nov 2022	8.195	Nov 2023	7.195	Nov 2024	-		7.195	Continuing	Continuing	Continuing

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

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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 0603892C / AEGIS BMD				Project (Number/Name) MX09 / Aegis BMD Development Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Infrastructure Upgrades - MX-09 S Network	C/CPFF	Network Management Resources : Chantilly, VA	0.171	0.000		0.000		0.000		-		0.000	0.000	0.171	0.000
Infrastructure Upgrades - MX09 - ICT Funding	C/CPAF	JACOBS TECHNOLOGY INC. : Various	82.184	11.355	Nov 2022	11.898	Nov 2023	12.211	Nov 2024	-		12.211	Continuing	Continuing	Continuing
Infrastructure Upgrades - MX09 - S	MIPR	DOD - USN - NAVAL INFORMATION WARFARE SYSTEMS COMMAND (NAVWAR) : CA	0.446	0.000		0.000		0.000		-		0.000	0.000	0.446	0.000
Infrastructure Upgrades - MX09 - S APL	SS/CPAF	JHU/APL : Laurel, MD	6.957	0.000		0.000		0.000		-		0.000	0.000	6.957	0.000
Infrastructure Upgrades - MX09 - S Corona	MIPR	NSWC Corona : Corona, CA	5.332	0.000		0.000		0.000		-		0.000	0.000	5.332	0.000
Infrastructure Upgrades - MX09 - S LM	C/CPAF	Lockheed Martin : Moorestown, NJ	21.629	0.000		0.000		0.000		-		0.000	0.000	21.629	0.000
Infrastructure Upgrades - MX09 - S MIT	C/CPAF	MIT : Lexington, MA	1.306	0.000		0.000		0.000		-		0.000	0.000	1.306	0.000
Infrastructure Upgrades - MX09 - S RMS	C/CPAF	Raytheon : Tucson, AZ	6.920	0.000		0.000		0.000		-		0.000	0.000	6.920	0.000
Infrastructure Upgrades - MX09- NIWC	MIPR	DOD - USN - NAVAL INFORMATION WARFARE SYSTEMS COMMAND (NAVWAR) : CA	18.244	0.000		5.835	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Infrastructure Upgrades - MX09- S DD	MIPR	NSWC DD : Dahlgren, VA	3.843	0.000		0.000		0.000		-		0.000	0.000	3.843	0.000
Infrastructure Upgrades - MX09-Variou	MIPR	Various : Various	1.579	0.000		0.000		0.000		-		0.000	0.000	1.579	0.000

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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 0603892C / AEGIS BMD				Project (Number/Name) MX09 / Aegis BMD Development Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Emerging Operational Need (JEON) - MX09 AW JHU/APL	SS/CPFF	JHU/APL : Columbia, MD	0.480	0.000		0.000		0.000		-		0.000	0.000	0.480	0.000
Joint Emerging Operational Need (JEON) - MX09 AW Lockheed Martin	C/CPFF	Lockheed Martin : Moorestown, NJ	3.635	0.000		0.000		0.000		-		0.000	0.000	3.635	0.000
Joint Emerging Operational Need (JEON) - MX09 AW NSWC	MIPR	NSWC DD : Dahlgren, VA	0.685	0.000		0.000		0.000		-		0.000	0.000	0.685	0.000
Subtotal			973.763	139.525		173.105		158.780		-		158.780	Continuing	Continuing	N/A
Remarks															
N/A															
			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			973.763	139.525		173.105		158.780		-		158.780	Continuing	Continuing	N/A
Remarks															
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.															

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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 0603892C / AEGIS BMD					Project (Number/Name) MX09 / Aegis BMD Development Support									
Significant Event Complete ▲		Milestone Decision Complete ★		Element Test Complete ◆		System Level Test Complete ●				Complete Activity ◆									
Significant Event Planned △		Milestone Decision Planned ☆		Element Test Planned ◇		System Level Test Planned ○				Planned Activity ◇									
					FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029		
MX09 Aegis BMD Development 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 0603892C / AEGIS BMD	Project (Number/Name) MX09 / Aegis BMD Development Support	

Schedule Details

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

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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 0603892C / AEGIS BMD				Project (Number/Name) MD40 / Program-Wide Support			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MD40: Program-Wide Support	437.916	27.833	25.847	24.609	-	24.609	25.263	22.248	28.976	33.105	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

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

A. Mission Description and Budget Item Justification

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

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

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

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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 0603892C / AEGIS BMD	Project (Number/Name) MD40 / Program-Wide Support	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>Maintenance) to keep the Department's inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans: - SEE ABOVE.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects the PWS allocation on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.</p>			
Accomplishments/Planned Programs Subtotals		27.833	25.847
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>The acquisition strategy for MDA Consolidated Support consists of contract actions to industry for: a) Engineering and technical support; b) studies, analyses, and evaluations; and c) management and professional services to MDA functional organizations and program offices. With a focus to achieve Small Business goals, MDA is leveraging existing contracts and will competitively award new contracts to meet MDA's Fiscal Years 2020-2030 Advisory and Assistance Services (A&AS) support.</p>			

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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 0603892C / AEGIS BMD				Project (Number/Name) MD40 / Program-Wide Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities and Maintenance	MIPR	DOD - USA - ARMY GARRISON REDSTONE ARSENAL (USAG RSA) : AL	0.000	0.000		0.000		1.281	Nov 2024	-		1.281	Continuing	Continuing	Continuing
Program Wide Support - Agency Facilities and Maintenance SRM	MIPR	Army Corps of Engineers/ Huntsville : Various	0.000	0.000		0.000		1.854	Nov 2024	-		1.854	Continuing	Continuing	Continuing
Program Wide Support - Agency Facility Operations and Sustainment	MIPR	Various : Various	31.368	1.849	Nov 2022	0.000		0.000		-		0.000	0.000	33.217	0.000
Program Wide Support - Agency Operations Management	C/CPAF	Various : Multi: AL, CA, CO, VA	3.662	0.500	Sep 2023	0.000		0.000		-		0.000	0.000	4.162	0.000
Program Wide Support - Agency Operations and Support Civilian Salaries	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	351.737	23.370	Oct 2022	25.847	Oct 2023	21.474	Oct 2024	-		21.474	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	Various : Multi: AL, CA, CO, VA	46.459	2.114	Nov 2022	0.000		0.000		-		0.000	0.000	48.573	0.000
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	4.690	0.000		0.000		0.000		-		0.000	0.000	4.690	0.000
Subtotal			437.916	27.833		25.847		24.609		-		24.609	Continuing	Continuing	N/A
Remarks N/A															
			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			437.916	27.833		25.847		24.609		-		24.609	Continuing	Continuing	N/A
Remarks Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.															

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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 0603892C / AEGIS BMD										Project (Number/Name) MD40 / Program-Wide Support									
Significant Event Complete ▲				Milestone Decision Complete ★				Element Test Complete ◆				System Level Test Complete ●				Complete Activity ◆													
Significant Event Planned △				Milestone Decision Planned ☆				Element Test Planned ◇				System Level Test Planned ○				Planned Activity ◇													
										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 0603892C / AEGIS BMD	Project (Number/Name) MD40 / Program-Wide Support	

Schedule Details

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

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0603896C I Ballistic Missile Defense Command and Control, Battle Management & C ommunication							
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	5,296.966	587.689	554.201	569.662	-	569.662	570.632	587.929	618.050	651.885	Continuing	Continuing
MD01: Command & Control, Battle Management, Communications (C2BMC)	3,351.148	370.102	336.417	342.318	-	342.318	335.968	342.430	367.759	394.504	Continuing	Continuing
MC01: Cyber Operations	92.055	8.194	8.261	8.189	-	8.189	8.344	8.511	8.683	8.857	Continuing	Continuing
MT01: C2BMC Test	543.488	57.587	51.849	57.926	-	57.926	59.930	67.170	65.556	66.869	Continuing	Continuing
MX01: Command & Control, Battle Management, Communications (C2BMC) Development Support	1,093.956	129.802	138.665	139.480	-	139.480	142.259	145.342	148.249	151.214	Continuing	Continuing
MD40: Program-Wide Support	216.319	22.004	19.009	21.749	-	21.749	24.131	24.476	27.803	30.441	Continuing	Continuing
Program MDAP/MAIS Code: 362												
Note												
The increase from FY 2024 to FY 2025 provides for the establishment of secure and resilient networks/communications connections for the Defense of Guam.												
A. Mission Description and Budget Item Justification												
The C2BMC program is the integrating element of the Missile Defense System. It is a vital operational system that enables the U.S. President, Secretary of Defense and Combatant Commanders at strategic, regional and operational levels to systematically plan missile defense operations, to collectively see the battle develop, and to dynamically manage designated networked sensors and weapons systems to achieve global and regional mission objectives. Systems linked through C2BMC include Patriot, Terminal High Altitude Area Defense, Aegis Ballistic Missile Defense, Aegis Ashore, Ground-based Midcourse Defense, Army Integrated Air and Missile Defense Battle Command System, and sensors such as the Army Navy/Transportable Radar Surveillance and Control-2 Radar, Sea-Based X-Band Radar, Long Range Discrimination Radar, Homeland Defense, Space-Based Infrared System, and Ballistic Missile Defense Systems Overhead Persistent Infrared Architecture. The C2BMC program also works to increase coalition partners' capabilities and investigates concepts and explores system engineering issues associated with innovative space applications for a missile defense intercept and defeat system. C2BMC begins support to integrate existing sensor elements within Missile Defense Agency (MDA) and the Services into the Ballistic Missile Defense System Communications Network to establish a globally integrated sensor architecture to provide enhanced, dynamic space capabilities, and extend existing Ballistic Missile Defense System Communications Network and cybersecurity management to cover the expanded architecture. Under the MDA's Defense of Guam Program, the C2BMC program is integrating Missile Defense and Joint systems, establishing an expeditionary and permanent Command Center and providing required communication support throughout the island.												

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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: Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 0603896C / Ballistic Missile Defense Command and Control, Battle Management & Communication
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B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	589.374	554.201	574.275	-	574.275
Current President's Budget	587.689	554.201	569.662	-	569.662
Total Adjustments	-1.685	0.000	-4.613	-	-4.613
• 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	-7.684	0.000			
• Other Adjustment	5.999	0.000	-4.613	-	-4.613

Change Summary Explanation

The decrease in FY 2025 from PB 2024 to PB 2025 reflects the rephasing of C2BMC support for Guam architecture and schedule as part of the Pacific Deterrence Initiative (PDI).

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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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication				Project (Number/Name) MD01 / Command & Control, Battle Management, Communications (C2BMC)			
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
MD01: Command & Control, Battle Management, Communications (C2BMC)	3,351.148	370.102	336.417	342.318	-	342.318	335.968	342.430	367.759	394.504	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

Provides incremental development, deployment, and operational support of C2BMC capabilities required for Missile Defense System planning, situational awareness, sensor management, and engagement coordination. The FY 2019 National Defense Authorization Act section 869 recognized C2BMC for its implementation of this iterative practice and directed C2BMC's inclusion in a Community of Practice to advise on agile or iterative development.

C2BMC delivers capabilities incrementally with each software build (named as a Spiral or Capability Build), adding to or enhancing the capability of the previous build. C2BMC incremental delivery of Spiral 8.2 provides critical Homeland Defense for increased Ground-based Midcourse Defense (GMD) battlespace, improved threat tracking using multiple sensors communicating via Link 16, enhanced sensor tasking to meet track quality and discrimination timeliness requirements, Space Domain Awareness (SDA) tasking support, and improved cyber capabilities. Enhanced Homeland Defense also integrates the Ballistic Missile Defense System (BMDS) Overhead Persistent Infrared (OPIR) Architecture (BOA) with the Missile Defense System to enhance system level missile-tracking capabilities through earlier cueing of radars and weapon systems.

European Phased Adaptive Approach Phase 3/Engage-on-Remote (EOR) (Spiral 8.2-3) provides critical sensor management capability, greater engagement flexibility, improved OPIR-based cueing, and enhanced Aegis Ballistic Missile Defense (BMD) defended area by enabling Aegis to use Army Navy/Transportable Radar Surveillance and Control-2 Radar (AN/TPY-2) data for EOR engagements, providing a five-fold increase in defended area coverage in the US Central Command and US European Command area of responsibility compared to individual weapon system organic capability. Spiral 8.2-3 also includes SDA and integrates Mobile Sensor Integration Phase 1 and BOA data into the Missile Defense System.

Long Range Discrimination Radar (LRDR) Control for Homeland Defense Increment 6B.1/6B.2 (Spiral 8.2-5) enables increased homeland and regional defense by providing LRDR sensor management, creation and dissemination of a BMD System track inclusive of LRDR sensor data, hypersonic threat tracking, significant capability expansion of track and reporting Advance Threats for warfighter SDA; implements Link-16 reporting, integration of system level discrimination data, transmission of LRDR-based information to GMD Fire Control and other Missile Defense System elements; and operationalization of Space-based Kill Assessment (SKA) hit assessment for Homeland Defense.

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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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	Project (Number/Name) MD01 / <i>Command & Control, Battle Management, Communications (C2BMC)</i>
<p>Expanded Regional and Homeland Defense Increment 7 (Spiral 8.2-7) will provide BMDS System Track (BST) with System Level Discrimination Integration for GMD engagements; Expanded Active Sensor Bias Monitoring and Full Reporting; Refined Space and Intelligence Data; Expanded Hypersonic Tracking and Link-16 Reporting and Enhanced Aegis BMD Space Domain Awareness.</p> <p>Expanded Defense of Guam will provide C2BMC and BOA support to Guam including a C2BMC Downloadable Unified Client (DUC) on Island and Cruise Missile Indications and Warnings while preparing for Enhanced Integrated Air and Missile Defense upgrades for Guam defense.</p> <p>Increased BOA Raid Handling Increment 8/9 (BOA 8.1) will integrate and process additional OPIR sensors as well as improve performance to support detection and tracking of increased threat capabilities.</p> <p>Integration of GMD Next Generation Interceptor and Initial Homeland Defense Threat Space Increment 10 will support GMD with BST, Sensor Resource Management, Battle Management, and System Level Discrimination to support integration of new GMD interceptor with initial updated homeland ballistic missile threat space for GMD engagements.</p> <p>Additional Ballistic Missile Defense of Guam Increment 11 to support integration of Aegis Guam Weapon System including Guam Radar with established on-island systems with on-island C2BMC mission node to enable secure and resilient communications.</p> <p>C2BMC continues to develop incremental improvements to the Missile Defense System to keep pace with emerging threats worldwide by investing in the development, integration, and testing of advanced algorithms to improve track and discrimination capabilities and enhancing use of space based sensor data from sources such as the Space Based Infrared System, using the BMDS OPIR architecture. Related disciplines provide development and deployment support to C2BMC system capabilities. In support of Hypersonic Defense, C2BMC will provide contingency capability to demonstrate, develop and deploy a detection and warning for advanced threats. C2BMC continues Protected Anti-Jam/Anti-Scintillation Wideband Net-Centric System (PAAWNS) modem integration, installations, and technical refresh globally of the threat based communication network modernization against the advanced threat, while maintaining efficiencies in cost.</p> <p>C2BMC International Partner system engineering ensures allies and partners are integrated to the fullest extent possible with U.S. Missile Defense System capabilities. Collaborative system engineering, testing, and fielding facilitate interoperability with North Atlantic Treaty Organization (NATO) and partner nations such as Israel and Japan. C2BMC works with these nations to define and document international interfaces that are compatible with international standards and traceable to U.S. Missile Defense System requirements. C2BMC participates in test events and live fire exercises hosted by international partners to ensure U.S. missile defense weapons, sensors, and Space Command and Control (C2) systems are interoperable with international systems. C2BMC maintains and upgrades the U.S./NATO secure data sharing gateways located at Ramstein Air Base, Germany, for missile defense operations and training. C2BMC also supports development of Japan's BMD requirements to ensure interoperability of Japanese and U.S. BMD systems (sensors, shooters, C2) resulting in an integrated regional, operational, and strategic defense of Japan.</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 0603896C / Ballistic Missile Defense Command and Control, Battle Management & Communication	Project (Number/Name) MD01 / Command & Control, Battle Management, Communications (C2BMC)		
C2BMC Modeling and Simulation (M&S) maintains Missile Defense System simulation/stimulation tools and federated models to support development and verification of deployed C2BMC and BOA Spirals. The BMDS C2BMC Model (BCM) is used for Flight Test pre-mission analysis and exercises to represent a second C2 Suite for Cross-Area of Responsibility functionality, Early Digital Product for C2BMC performance assessment, and supports development and integration of GMD, AN/TPY-2, and Aegis software and models. The OPIR sensor M&S is used in the Ground Test Integrated System-level Simulation as the stimulus for BOA. The BCM program provides a cost effective means to assess and explore the performance space of the Missile Defense System beyond what can be physically tested via Flight Tests and Target of Opportunity collections.				
C2BMC develops, integrates, and tests advanced algorithms to improve discrimination capabilities and enhance the use of space-based sensor data. In support of Missile Defense Agency (MDA) discrimination improvements effort, C2BMC demonstrates, develops, and deploys multiple techniques to improve BMD System ability to identify lethal and non-lethal objects.				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
Title: C2BMC Development and Deployment		316.829	262.715	263.163
Articles:		-	-	-
Description: Provides funding for incremental development and deployment of C2BMC capabilities that link sensors and shooters to enable integrated Missile Defense System capabilities, integrate BOA with the Missile Defense System architecture to enhance missile tracking capabilities and enable much earlier cueing of radars and shooters, and fulfill Cybersecurity requirements. The Enterprise Sensors Laboratory (ESL) and Experimentation Laboratory produce key prototypes for further maturation in the C2BMC capability Spiral development process and enable integrated experimentation for C2BMC, ESL, OPIR products, and other Missile Defense System elements through robust connectivity to simulation frameworks, weapon systems, sensors, and operational assets. Expand capability to track and report Advanced Threats for warfighter Situational Awareness. Expanding SDA tasking and reporting to include AN/TPY-2, LRDR, and Aegis sensors.				
Recurring accomplishments include iterative development and procurement cycles for hardware, software, network capability system engineering tasks, and artifacts for technical engineering reviews; participation in test readiness reviews, pre-test engineering, and analysis of ground and flight test results, wargames, and exercises in accordance with the Missile Defense System Integrated Master Test Plan; site planning, scheduling, and hardware acquisition to support planned deployment of C2BMC Spirals/Capability Builds and BOA capabilities; updates and maintenance for BCM Missile Defense System simulation/stimulation (federated model) and verification scenarios for all C2BMC Spirals deployed and under development; Discrimination, operationalization of SKA Hit Assessment, and C2BMC capabilities; design and installation of operational sharing gateways; and collaboration with international partners to ensure future interoperability; and maintain Verification and Validation in support of Missile Defense System capability ground testing and participation in Missile Defense System ground tests. C2BMC will continue to design and prototype the next incremental capability addressing additional Homeland Defense and Mid-Term Discrimination requirements, inclusive of C2BMC Generation of BMD System Track (with System Level Discrimination Data Integration) for GMD				

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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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication	Project (Number/Name) MD01 / Command & Control, Battle Management, Communications (C2BMC)		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
Homeland Defense Engagements and Expanded Regional and Homeland Defense, and an expanded interface with the OPIR enterprise, which yields additional raid handling capacity, enhanced Aegis BMD engage on capability, and expanded hypersonic defense tracking and reporting.					
C2BMC will begin to integrate existing MDA and Service elements with C2BMC and the Ballistic Missile Defense System Communications Network (BCN) to establish a globally integrated sensor architecture to provide enhanced, dynamic space capabilities, and extend existing BCN network and cybersecurity management to cover the expanded architecture. The expanded sensor architecture will integrate ground-based radars from the U.S. Space Force Space Surveillance Network, orchestrated by C2BMC, and develop algorithms to fuse and/or correlate the data provided by these sensors in support of missile defense and space C2 missions.					
Specific and/or unique accomplishments for each FY are as follows:					
FY 2024 Plans: LRDR for Homeland Defense (Spiral 8.2-5), homeland defense focus: - Continue operations and sustainment of Spiral 8.2-5 capabilities					
C2BMC Additional and Expanded Regional and Homeland Defense focus: - Continue development of next iteration BOA in support of updated raid performance needed for Increment 8/9 - Initiate development of next iteration of C2BMC to include integration with Next Generation Interceptor and incorporation of new algorithms and performance needed for updated ballistic missile threat space for GMD engagements					
FY 2025 Plans: - Incorporate updated raid performance in BOA development needed for Increment 8/9 - Continue BOA development to incorporate C2BMC enhancements for Next Generation Interceptor integration and incorporation of new algorithms to support performance needed for updated ballistic missile threat space for GMD engagements					
FY 2024 to FY 2025 Increase/Decrease Statement: N/A					
Title: C2BMC Communications			34.062	35.212	25.687
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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	Project (Number/Name) MD01 / <i>Command & Control, Battle Management, Communications (C2BMC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>Description: The BCN ties together an expanding set of sensors and weapons systems to enable the National Command Authority and the commanders at the strategic, theater, and tactical levels to optimally engage missile threats. Recurring accomplishments include the following:</p> <ul style="list-style-type: none"> - Provide GMD Communications Network (GCN) Long Haul Communications Transport services and a robust, end-to-end, high availability, operational communications network infrastructure with diverse paths that quickly and unambiguously share information across the global Missile Defense System - Provide Missile Defense System communications via leased Defense Information Service Agency (DISA) circuits, and resolve real-time operational issues through DISA's Network Operations and Security Center - Provide effective network management to coordinate and integrate information across diverse equipment platforms, interface with other Department of Defense (DoD) communications systems, evolve information standards and capabilities, and adhere to the DoD Risk Management Framework - Complete the architecture design to establish BCN connectivity for Reagan Test Site and improve communications by adding a diverse, faster network around the Atoll. Assets to be connected include the Advanced Research Projects Office Long-Range Tracking and Instrumentation Radar, Space Fence, and Ground-Based Radar at Kwajalein Atoll. - Complete C-Band upgrade of terminals on the Sea-Based X-Band Radar (SBX). The Ka-Band terminal upgrade is scheduled to complete in Nov 2023. - Continue upgrade and technical refresh of the PAAWNS threat based communication network against the advanced threat of nuclear capabilities, while maintaining efficiencies in cost - Upgrade BCN capability by supporting all DoD teleports to enhance satellite communications - Complete circuit testing and turnover of GCN Modernization circuits for 14 of 14 GMD sites - Continue acquiring additional network circuits to support the threat based communication network modernization - Continue PAAWNS modem testing integration and installations globally - Continue GCN refresh from legacy to Optical equipment - Deploy two Hardened Transport Terminals-MDA to Site 512 and Japan - Continue to procure Wideband Uplink (WU) via Starshield to increase communications to SBX to help with WU curve at higher latitudes <p>Specific and/or unique accomplishments for each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Complete upgrade and integration of AN-TPY/2 High-Altitude Electromagnetic Pulse Hardened Transport Terminals (HEMPHTT) for increased protection of satellite communication systems at relevant sites 			

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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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	Project (Number/Name) MD01 / <i>Command & Control, Battle Management, Communications (C2BMC)</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
- Continue to support buildout of C2BMC nodes FY 2025 Plans: - Initiate PAAWNS Gen III development - Continue to support planning, requirements development, and installation of communications nodes for future Lighthouse and SDA sites FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects the completion of upgrades and integration of AN-TPY/2 HEMPHTTs at AN/TPY-2 sites to post fielding sustainment beginning in FY 2025				
Title: Guam Defense C2BMC Description: Deploy C2BMC BCN to support Guam defense to provide ballistic and hypersonic threat typing, tracking, reporting and integrating with Initial Integrated Air and Missile Defense Battle Command System and Aegis Weapon System. BOA updates to support regional raid tracking. Enterprise Sensor Processing Node (ESPN) to provide cruise missile typing, warning, and tracking. Integrate requirements for the Command Center and provide its common equipment. Initiate resilient networks/communications connections for the Defense of Guam. Upgrade C2BMC and BOA to include support of a C2BMC Mission Node on Island and enhanced BOA Raid capacity with traditional and advanced threats. This project supports the Pacific Deterrence Initiative. FY 2024 Plans: - Continue Initial Deployment including a C2BMC DUC on island and ESPN Cruise Missile Indications and Warnings - Continue Command Center planning and design, to include outfitting of common equipment for Initial Deployment Expeditionary Command Center and permanent Command Center - Initiate simulation/stimulation enablers and associated training capabilities FY 2025 Plans: - Continue support of ESPN capabilities - Continue Command Center planning and design - Establish secure and resilient networks/communications connections for the Defense of Guam - Continue BOA development for theater threat space - Continue C2BMC development, integration and testing FY 2024 to FY 2025 Increase/Decrease Statement:		19.211 -	38.490 -	53.468 -

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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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	Project (Number/Name) MD01 / <i>Command & Control, Battle Management, Communications (C2BMC)</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
The \$15 million Pacific Deterrence Initiative increase from FY2024 to FY2025 provides for the establishment of secure and resilient networks/communications connections for the Defense of Guam			
Accomplishments/Planned Programs Subtotals	370.102	336.417	342.318

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: <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
• 0603890C: <i>BMD Enabling Programs</i>	589.588	597.720	609.406	-	609.406	623.893	625.985	659.983	677.858	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
• 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
• 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
• 0604181C: <i>Hypersonic Defense</i>	513.267	208.997	182.283	-	182.283	193.100	205.122	250.208	327.698	Continuing	Continuing
• 0604873C: <i>Long Range Discrimination Radar (LRDR)</i>	65.991	103.517	100.882	-	100.882	63.560	56.020	64.457	72.759	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 0603896C / Ballistic Missile Defense Command and Control, Battle Management & Communication				Project (Number/Name) MD01 / Command & Control, Battle Management, Communications (C2BMC)			
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
• 0604874C: Improved Homeland Defense Interceptors	1,795.728	2,130.838	1,697.121	-	1,697.121	1,034.859	1,406.953	625.913	404.970	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
A sole source C2BMC contract to Lockheed Martin was awarded 1st quarter FY 2012. The current ordering period is through 4th quarter FY 2026. Major team members to Lockheed are Northrop Grumman, Boeing, Raytheon, and General Dynamics. They are charged with the systems engineering, M&S, development, testing, fielding, and cybersecurity development support of the C2BMC system. The sole source C2BMC Follow-on contract is planned to be awarded in 1st quarter FY 2024 to continue support of the C2BMC system. Additionally, other government agencies provide support to include DISA for C2BMC worldwide long-haul communications and various performers for modeling & simulation and independent verification and validation. C2BMC Program Office government, Federally Funded Research and Development Center/University Affiliated Research Center, and Contract Support Services personnel are also fully integrated as part of the Prime contractor's team to function in an Integrated Product Team environment. Furthermore, a sole source Specialized Warfighter Development Contract was awarded to Northrop Grumman in March 2018 (3-year base and 2 one-year option periods) for continuation of the systems engineering, development, test and integration for BOA. The BOA Follow-on sole source contract was awarded in 3rd quarter FY 2023 with a 5-year period of performance.											

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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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>						Project (Number/Name) MD01 / <i>Command & Control, Battle Management, Communications (C2BMC)</i>			
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
C2BMC Development and Deployment - Aggregated Discrim	Various	Various : Various	72.268	1.892	Nov 2022	6.634	Nov 2023	3.517	Nov 2024	-		3.517	Continuing	Continuing	Continuing
C2BMC Development and Deployment - BMDS C2BMC Model (BCM) - Integration	SS/CPAF	LOCKHEED MARTIN CORPORATION : Various	15.565	1.033	Nov 2022	0.498	Oct 2023	0.387	Nov 2024	-		0.387	Continuing	Continuing	Continuing
C2BMC Development and Deployment - BOA OPIR Stimulation M&S - (SciTec)	C/CPAF	SCITEC INC : NJ	3.573	1.576	Nov 2022	1.562	Nov 2023	0.674	Nov 2024	-		0.674	Continuing	Continuing	Continuing
C2BMC Development and Deployment - BOA Simulation Development and Integration	SS/CPAF	NORTHROP GRUMMAN : CO	3.877	0.000		0.000		0.000		-		0.000	3.877	7.754	0.000
C2BMC Development and Deployment - C2BMC Hardware/Software Development, Integration & Test (I&T)	SS/CPAF	LOCKHEED MARTIN CORPORATION : Various	1,245.583	144.878	Dec 2022	84.012	Dec 2023	88.140	Dec 2024	-		88.140	Continuing	Continuing	Continuing
C2BMC Development and Deployment - C2BMC Integration	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	193.220	6.194	Nov 2022	8.716	Nov 2023	4.992	Nov 2024	-		4.992	Continuing	Continuing	Continuing
C2BMC Development and Deployment - C2BMC Prior Year	Various	Various : Various	105.382	0.000		0.000		0.000		-		0.000	101.381	206.763	0.000
C2BMC Development and Deployment - ESL/BOA Development	SS/CPAF	NORTHROP GRUMMAN : CO	102.721	52.448	Nov 2022	46.429	Oct 2023	23.842	Oct 2024	-		23.842	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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>						Project (Number/Name) MD01 / <i>Command & Control, Battle Management, Communications (C2BMC)</i>			
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
C2BMC Development and Deployment - ESL/BOA Development (LM)	SS/CPIF	LOCKHEED MARTIN CORPORATION : Various	0.000	0.000		0.000		4.687	Oct 2024	-		4.687	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Federally Funded Research & Development Centers / University Affiliated Research Center (Aerospace)	FFRDC	DOD - USSF - SPACE AND MISSILE SYSTEMS CENTER (SMC) : Various	16.659	0.895	Jan 2023	0.984	Oct 2023	1.004	Oct 2024	-		1.004	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Federally Funded Research & Development Centers / University Affiliated Research Center (GTRI)	FFRDC	GTRI (Georgia Tech Research Institute) : Various	0.000	3.934	Nov 2022	4.013	Oct 2023	4.093	Oct 2024	-		4.093	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Federally Funded Research & Development Centers / University Affiliated Research Center (IDA)	FFRDC	DOD - WASHINGTON HEADQUARTERS SERVICES (WHS) ACQUISITION DIRECTORATE (AD) : Various	33.903	1.142	Jan 2023	2.555	Oct 2023	2.595	Oct 2024	-		2.595	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Federally Funded Research & Development Centers / University Affiliated Research Center (JHU/APL)	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : Various	94.075	2.297	Dec 2022	3.832	Oct 2023	3.901	Oct 2024	-		3.901	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Federally Funded Research & Development Centers /	FFRDC	DOD - USAF - AIR FORCE LIFE CYCLE MANAGEMENT	13.090	2.440	Jan 2023	3.134	Oct 2023	3.254	Oct 2024	-		3.254	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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>						Project (Number/Name) MD01 / <i>Command & Control, Battle Management, Communications (C2BMC)</i>			
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
University Affiliated Research Center (MIT/LL)		CENTER (AFLCMC) : Various													
C2BMC Development and Deployment - Federally Funded Research & Development Centers / University Affiliated Research Center (NSEC)	FFRDC	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : Various	91.787	4.953	Nov 2022	3.203	Oct 2023	3.281	Oct 2024	-		3.281	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Independent Performance Assessment and Analysis (CCDC AvMC)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	13.673	6.043	Nov 2022	7.368	Nov 2023	7.092	Nov 2024	-		7.092	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Independent Performance Assessment and Analysis (NSWC)	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) DAHLGREN DIVISION (NSWCDD) : VA	0.000	2.222	Nov 2022	2.102	Oct 2023	2.460	Oct 2024	-		2.460	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Independent Performance Assessment and Analysis (SAF/FMBI)	MIPR	DOD - USAF - SECRETARY OF THE AIR FORCE, DIRECTOR FOR BUDGET INVESTMENT (SAF/FMBI) : Various	0.000	1.150	Nov 2022	1.147	Oct 2023	1.170	Oct 2024	-		1.170	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Independent Performance Assessment and Analysis -Various	Various	Various : Various	16.398	1.756	Jan 2023	1.246	Oct 2023	1.690	Oct 2024	-		1.690	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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication				Project (Number/Name) MD01 / Command & Control, Battle Management, Communications (C2BMC)					
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
C2BMC Development and Deployment - Joint Early Warning Lab (JEWL) and C2BMC Lab Build Out	C/CPAF	JACOBS TECHNOLOGY INC. : CO	10.306	10.787	Mar 2023	8.803	Nov 2023	8.202	Nov 2024	-		8.202	Continuing	Continuing	Continuing
C2BMC Development and Deployment - MDA Civilian, Travel & PCS	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	249.085	23.564	Oct 2022	24.081	Oct 2023	24.651	Oct 2024	-		24.651	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Models & Simulation	SS/CPIF	LOCKHEED MARTIN CORPORATION : Various	19.554	0.506	Nov 2022	1.462	Oct 2023	4.118	Oct 2024	-		4.118	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Spiral Development	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : VA	0.000	0.305	Oct 2022	0.000		6.986	Oct 2024	-		6.986	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Spiral Development (NG)	SS/CPAF	NORTHROP GRUMMAN : CO	0.000	1.469	Dec 2022	0.000		7.386	Oct 2024	-		7.386	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Spiral Development (SNL)	MIPR	Sandia National Laboratories, New Mexico (SNL) : Various	13.785	0.800	Nov 2022	4.342	Oct 2023	0.740	Oct 2024	-		0.740	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Spiral Development (TBD)	TBD	TBD : TBD	0.000	0.000		0.000		2.656	Oct 2024	-		2.656	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Spiral Development (Various)	Various	Various : Various	0.000	0.000		0.000		5.307	Oct 2024	-		5.307	Continuing	Continuing	Continuing
C2BMC Development and Deployment - X Lab	C/CPIF	LOCKHEED MARTIN CORPORATION : AL	17.339	5.485	Feb 2023	6.734	Oct 2023	7.273	Oct 2024	-		7.273	Continuing	Continuing	Continuing
C2BMC Communications - C2BMC Prior Year	Various	Various : Various	145.517	0.000		0.000		0.000		-		0.000	145.517	291.034	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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>						Project (Number/Name) MD01 / <i>Command & Control, Battle Management, Communications (C2BMC)</i>			
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
C2BMC Communications - Communication Equipment and Fielding (DISA)	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : VA	94.731	7.481	Jan 2023	7.339	Jan 2024	9.711	Jan 2025	-		9.711	Continuing	Continuing	Continuing
C2BMC Communications - Communication Equipment and Fielding (Harris)	MIPR	DOD - USA - PROGRAM MANAGER, DEFENSE COMMUNICATIONS AND ARMY TRANSMISSION SYSTEMS (PM DCATS) : VA	59.366	4.669	Jan 2023	4.508	Jan 2024	3.767	Jan 2025	-		3.767	Continuing	Continuing	Continuing
C2BMC Communications - Communication Equipment and Fielding (JHU-APL)	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : VA	21.771	2.085	Jan 2023	1.700	Jan 2024	1.025	Jan 2025	-		1.025	Continuing	Continuing	Continuing
C2BMC Communications - Communication Equipment and Fielding (LM)	C/CPAF	LOCKHEED MARTIN CORPORATION : Various	0.000	7.547	Jan 2023	9.333	Jan 2024	1.509	Jan 2025	-		1.509	Continuing	Continuing	Continuing
C2BMC Communications - Communication Equipment and Fielding (PAAWNS)	MIPR	DOD - USA - PROGRAM MANAGER, DEFENSE COMMUNICATIONS AND ARMY TRANSMISSION SYSTEMS (PM DCATS) : VA	51.404	1.628	Jan 2023	4.195	Jan 2024	1.500	Jan 2025	-		1.500	Continuing	Continuing	Continuing
C2BMC Communications - Communication Equipment and Fielding (PMDCATS)	MIPR	DOD - USA - PROGRAM MANAGER, DEFENSE	0.000	0.752	Jan 2023	1.500	Jan 2024	1.500	Jan 2025	-		1.500	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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>						Project (Number/Name) MD01 / <i>Command & Control, Battle Management, Communications (C2BMC)</i>			
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
		COMMUNICATIONS AND ARMY TRANSMISSION SYSTEMS (PM DCATS) : PA													
C2BMC Communications - Communication Equipment and Fielding (Tobyhanna)	MIPR	DOD - USA - TOBYHANNA ARMY DEPOT (TYAD) : VA	23.670	3.766	Jan 2023	1.505	Jan 2024	1.127	Jan 2025	-		1.127	Continuing	Continuing	Continuing
C2BMC Communications - Communication Leases	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : VA	74.003	6.134	Jan 2023	5.132	Oct 2023	5.548	Oct 2024	-		5.548	Continuing	Continuing	Continuing
Guam Defense C2BMC - C2BMC Hardware/ Software Development, Integration & Test (I&T) (User Node Phase I)	SS/CPFF	LOCKHEED MARTIN CORPORATION : Various	0.000	2.779	Nov 2022	6.733	Nov 2023	10.457	Nov 2024	-		10.457	Continuing	Continuing	Continuing
Classified - Classified Program	MIPR	Various : Various	87.865	0.000		0.000		0.000		-		0.000	87.865	175.730	0.000
Guam Defense C2BMC - Communication Equipment and Fielding	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : VA	0.000	0.400	Nov 2022	21.321	Nov 2023	26.761	Nov 2024	-		26.761	Continuing	Continuing	Continuing
Guam Defense C2BMC - ESPN/ESL/BOA Development	C/CPFF	NORTHROP GRUMMAN : CO	0.000	13.600	Nov 2022	5.962	Nov 2023	10.878	Nov 2024	-		10.878	Continuing	Continuing	Continuing
Guam Defense C2BMC - MDA Civilian, Travel & PCS	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : AL	0.000	0.450	Oct 2022	0.000		0.895	Oct 2024	-		0.895	Continuing	Continuing	Continuing
Guam Defense C2BMC - Upgrade C2BMC Battle Management Decision Aids, Planners	C/CPFF	SCITEC INC : Various	0.000	0.729	Nov 2022	0.000		0.000		-		0.000	0.861	1.590	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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>						Project (Number/Name) MD01 / <i>Command & Control, Battle Management, Communications (C2BMC)</i>			

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
and Algorithms - ESPN Development															
Cruise Missile Defense for Homeland - Cruise Missile Defense for Homeland	MIPR	DOD - USAF - SECRETARY OF THE AIR FORCE, FINANCIAL MANAGEMENT (SAF/FM) : Various	36.200	0.000		0.000		0.000		-		0.000	0.000	36.200	0.000
Subtotal			2,926.370	329.789		292.085		298.776		-		298.776	Continuing	Continuing	N/A

Remarks

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

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
C2BMC Development and Deployment - IT User Services - IRES	C/CPAF	JACOBS TECHNOLOGY INC. : Various	20.247	5.843	Mar 2023	6.341	Nov 2023	6.507	Nov 2024	-		6.507	Continuing	Continuing	Continuing
Subtotal			20.247	5.843		6.341		6.507		-		6.507	Continuing	Continuing	N/A

Remarks

N/A

Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>						Project (Number/Name) MD01 / <i>Command & Control, Battle Management, Communications (C2BMC)</i>			
Test and Evaluation (\$ 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
Remarks N/A															
Management Services (\$ 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
C2BMC Development and Deployment - Contract Support Services (BCF Solutions)	C/CPFF	BCF SOLUTIONS, INC. : AL	16.432	0.931	Nov 2022	1.384	Nov 2023	1.412	Nov 2024	-		1.412	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Contract Support Services (BlueHalo)	C/CPFF	BLUEHALO : AL	0.000	1.308	Nov 2022	1.340	Nov 2023	0.294	Nov 2024	-		0.294	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Contract Support Services (Millennium Eng)	C/CPFF	MILLENNIUM CORPORATION : AL	54.414	3.263	Nov 2022	4.260	Nov 2023	4.345	Nov 2024	-		4.345	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Contract Support Services (Parsons)	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	319.784	24.194	Nov 2022	22.341	Nov 2023	22.232	Nov 2024	-		22.232	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Contract Support Services (Veterans Technology)	C/CPFF	Veterans Technology, LLC : AL	0.000	1.261	Nov 2022	1.121	Nov 2023	1.143	Nov 2024	-		1.143	Continuing	Continuing	Continuing
C2BMC Development and Deployment - Contract Support Services (Yorktown)	C/CPFF	YORKTOWN SYSTEMS GROUP, INC. : Various	0.000	0.696	Nov 2022	0.000		1.001	Nov 2024	-		1.001	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 0603896C / Ballistic Missile Defense Command and Control, Battle Management & Communication						Project (Number/Name) MD01 / Command & Control, Battle Management, Communications (C2BMC)			
Management Services (\$ 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
C2BMC Development and Deployment - Contract Support Services - Various	C/CPFF	Various : Various	13.901	1.564	Nov 2022	3.071	Nov 2023	2.131	Nov 2024	-		2.131	Continuing	Continuing	Continuing
Guam Defense C2BMC - Contractor Support Services	C/CPFF	Various : Various	0.000	1.253	Nov 2022	4.474	Nov 2023	4.477	Nov 2024	-		4.477	Continuing	Continuing	Continuing
Subtotal			404.531	34.470		37.991		37.035		-		37.035	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			3,351.148	370.102		336.417		342.318		-		342.318	Continuing	Continuing	N/A
Remarks N/A															

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency															Date: March 2024																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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MD01 Command & Control, Battle Management, Communications (C2BMC) Planned										◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	

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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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	Project (Number/Name) MD01 / <i>Command & Control, Battle Management, Communications (C2BMC)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD01 Command & Control, Battle Management, Communications (C2BMC) Planned	1	2023	4	2028
C2BMC and BOA Incremental Engineering Technical Reviews (IETR) Planned	1	2023	4	2028
Spiral 8.2-5 Homeland Defense Capability Declaration USNORTHCOM/USINDOPACOM	3	2023	3	2023
BOA 7.1.0 OCB	3	2023	3	2023
Spiral 8.2-5 Homeland Defense Capability Declaration USEUCOM/USCENTCOM	1	2024	1	2024
BOA 7.1.1 OCB	3	2024	3	2024
Downloadable Unified Client S8.2-5.1/BOA 7.0	4	2024	4	2024
BOA 7.1.2 OCB	1	2025	1	2025
Spiral 8.2-7 Expanded Regional and Homeland Defense Capability Declaration USNORTHCOM/USINDOPACOM	1	2026	1	2026
Spiral 8.2-7 Expanded Regional and Homeland Defense Capability Declaration USEUCOM/USCENTCOM	3	2026	3	2026
Mission Node on Guam S8.2-7/BOA 8.1 w/Raid	3	2028	3	2028

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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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication				Project (Number/Name) MC01 / 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
MC01: Cyber Operations	92.055	8.194	8.261	8.189	-	8.189	8.344	8.511	8.683	8.857	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note N/A												
A. Mission Description and Budget Item Justification Command and Control, Battle Management & Communication (C2BMC) Cyber Operations sustain the Missile Defense Agency (MDA) Risk Management Framework (RMF) and Security Controls Assessments/Controls Validation Testing activities, analysis of validation results, risk assessments, and reviews of proposed Program Manager/Information System Security Manager Plan of Action and Milestones (POA&Ms) and Cybersecurity Tools for MDA C2BMC mission systems. Activities in this Project are necessary to comply with the Federal Information Systems Modernization Act.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: Network / System Certification and Accreditation (C&A) Articles: Description: This activity maintains the Assessment and Authorization and C&A data repository, capturing the RMF documentation (artifacts, validation results, Information Assurance Risk Assessment results, and Authorizing Official (AO) accreditation decisions) and POA&Ms on all MDA information systems. This activity prepares and submits C&A documentation and accreditation recommendations to the MDA Chief Information Officer/ Security Controls Assessor and the AO. Leverages Cross Domain Solution as single authority implementing standard security policies for C2BMC across the Ballistic Missile Defense System. Independent Verification and Validation team actions ensure the availability, integrity, authentication, confidentiality, and non-repudiation of the MDA mission, test, and administrative systems. - Conduct cybersecurity design, engineering, and architecture planning for C2BMC information technology systems - Plan and test the cybersecurity controls for C2BMC systems - Conduct Security Controls Assessment testing continuous monitoring of C2BMC mission systems and provide POA&Ms to mitigate cybersecurity vulnerabilities									8.194	8.261	8.189	
									-	-	-	
Specific and/or unique accomplishments for 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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	Project (Number/Name) MC01 / <i>Cyber Operations</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) - SEE ABOVE. FY 2025 Plans: - SEE ABOVE. FY 2024 to FY 2025 Increase/Decrease Statement: N/A		FY 2023	FY 2024	FY 2025
Accomplishments/Planned Programs Subtotals		8.194	8.261	8.189
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy A sole source C2BMC contract to Lockheed Martin was awarded 1st quarter FY 2012. The current ordering period is through 4th quarter FY 2026. Major team members to Lockheed are Northrop Grumman, Boeing, Raytheon, and General Dynamics. They are charged with cybersecurity operations support of the C2BMC system. The sole source C2BMC Follow-on contract is planned to be awarded in 1st quarter FY 2024 to continue support of the C2BMC system. Additionally, various MDA government personnel and Contract Support Services personnel are also fully integrated as part of the Prime contractor's team to function in an Integrated Product Team environment. Furthermore, a sole source Specialized Warfighter Development Contract was awarded to Northrop Grumman in March 2018 (3-year base and 2 one-year option periods) for continuation of cybersecurity operations support for Ballistic Missile Defense System (BMDS) Overhead Persistent Infrared (OPIR) Architecture (BOA). The BOA Follow-on sole source contract was awarded in 3rd quarter FY 2023 with a 5-year period of performance.				

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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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>						Project (Number/Name) MC01 / <i>Cyber Operations</i>			

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
Network / System Certification and Accreditation (C&A) - All Prior Years	Various	Various : Various	22.454	0.000		0.000		0.000		-		0.000	22.454	44.908	0.000
Network / System Certification and Accreditation (C&A) - C2BMC Core	SS/CPAF	LOCKHEED MARTIN CORPORATION : Various	59.743	5.828	Nov 2022	6.383	Oct 2023	6.596	Oct 2024	-		6.596	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Civilian Salaries	Allot	MDA Other : Various	3.023	0.646	Oct 2022	0.840	Oct 2023	0.537	Oct 2024	-		0.537	Continuing	Continuing	Continuing
Subtotal			85.220	6.474		7.223		7.133		-		7.133	Continuing	Continuing	N/A

Remarks

In accordance with the Financial Management Regulation cost category definitions, contract support services have transferred to appropriate cost categories.

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
Subtotal			-	-		-		-		-		-	-	-	N/A

Remarks

N/A

Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>				Project (Number/Name) MC01 / <i>Cyber Operations</i>				

Test and Evaluation (\$ 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
Remarks N/A															

Management Services (\$ 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
Network / System Certification and Accreditation (C&A) - Contract Support Services	C/CPFF	Various : Various	6.835	1.720	Nov 2022	1.038	Oct 2023	1.056	Nov 2024	-		1.056	Continuing	Continuing	Continuing
Subtotal			6.835	1.720		1.038		1.056		-		1.056	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	92.055	8.194	8.261	8.189	-	8.189	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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication	Project (Number/Name) MC01 / Cyber Operations	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MC01 Cyber Operations Planned	1	2023	4	2029
MC01 Incremental Engineering Technical Reviews (IETR) Planned	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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication				Project (Number/Name) MT01 / C2BMC 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
MT01: C2BMC Test	543.488	57.587	51.849	57.926	-	57.926	59.930	67.170	65.556	66.869	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Increase from FY 2024 to FY 2025 is in accordance with the current Integrated Master Test Plan (IMTP).

A. Mission Description and Budget Item Justification

Command and Control, Battle Management and Communications (C2BMC) Test supports system flight and ground testing, wargames, and exercises as detailed in the Missile Defense Agency (MDA) IMTP to ensure C2BMC capabilities delivered are consistent with the Prioritized Capabilities List and are interoperable with other Missile Defense System components.

MDA gains efficiencies and minimizes laboratory resource requirements (footprint, personnel, and hardware) by utilizing the C2BMC Test Facility and the Overhead Persistent Infrared Architecture (OPIR) Capabilities Lab (OCL) test infrastructure as the laboratory environment supporting System Test, Development, and Sustainment. For System Ground and Flight Test, the labs are used for pre-test analysis, test execution, and post-test analysis. For Development, the labs are utilized for software verification and validation testing and system integration testing. For Sustainment, the labs are used to assist with root cause determination for issues discovered on the fielded system and validation of any required software patches.

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

	FY 2023	FY 2024	FY 2025
Title: Integrated Master Test Plan	57.587	51.849	57.926
Articles:	-	-	-
<p>Description: This activity funds C2BMC participation in Missile Defense System flight and ground testing, wargames and exercises, and resources in accordance with the Missile Defense System IMTP. Recurring accomplishments include:</p> <ul style="list-style-type: none"> - Assess Missile Defense System interoperability, integration, and functionality in lab and distributed environments, leveraging a complex set of scenarios to test the limits of the C2BMC system. Participate in and analyze results of ground tests and flight tests in accordance with the Missile Defense System IMTP. Support all phases of the MDA Ground Test Concept of Operations (CONOPS) and the MDA Flight Test CONOPS. Provide Flight Test Predictive Analysis support. Generate, test, and distribute federated model compatible scenarios for Ground Test and Flight Test Experimentation test support. Use Missile Defense System C2BMC Model to support exercise integration testing activities including test case and scenario checkout. - Utilize the Enterprise Sensors Laboratory to plan, coordinate, and provide test operations to demonstrate prototype algorithms through flight tests and United States-launched targets of opportunity. The development plans for algorithm improvements focus on track and measurement level sensor data fusion and feature extraction to improve 3-D track formation utilizing a variety of 			

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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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	Project (Number/Name) MT01 / <i>C2BMC Test</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>space, airborne, and terrestrial-based sensors. Results from the tests and experiments are provided back to the algorithms development activity to enable algorithm refinement.</p> <ul style="list-style-type: none"> - Continue Long Range Discrimination Radar (LRDR) node integration, testing, and training with new C2BMC Spiral 8.2-5 Homeland Defense baseline changes at the Missile Defense Integration and Operation Center (MDIOC). Retain Existing Sensor Data Interfaces and provide LRDR Data for Risk Reduction for Ground-based Midcourse Defense (GMD); Initial Hypersonic Tracking and Reporting; and Cyber Security Enhancements Risk Management Functions. - Utilize the C2BMC Experimentation Laboratory (X-Lab) to plan, coordinate, and provide test operations to demonstrate maturing C2BMC technologies and software builds within an integrated C2BMC environment through flight tests, ground tests, and real-world targets of opportunity before incorporation into formal C2BMC spiral builds. Results from the tests are provided back to the C2BMC and X-Lab development activity. - Participate in wargames and exercises using current and future C2BMC architectures to support all requesting Combatant Commands, North Atlantic Treaty Organization (NATO) partners, and Host Nations allowing warfighters to validate Ballistic Missile Defense (BMD) Techniques, Tactics, and Procedures specific to all designated Areas of Operations to include current and future C2BMC architectures. - Continue development, sustainment, and upgrades in the C2BMC Testbed (CTB) to support MDA IMTP Events (flight and ground tests). Continue Cyber Testing in the CTB to support continuous C2BMC spiral development. Continue Hardware in the Loop testing, C2BMC, and NATO planning exchanges, demonstrations, and support to NATO live fire events. Maintain Situational Awareness Nodes (Turkey, Romania, and Poland) in accordance with U.S. and Host nation Bi-lateral Agreements. Continue to enhance interoperability between U.S. BMD systems and the NATO BMD systems. Provide infrastructure, network, and troubleshooting support to C2BMC Command Center, to include the BMDS Network Operations and Security Center, System Test and Operations Center, C2BMC System Support Center, BMDS Communications Network, the Distributed Training system, and Combined OCL. - Begin to assess interoperability of C2BMC S8.2-7, Ballistic Missile Defense System (BMDS) Overhead Persistent Infrared (OPIR) Architecture (BOA) 7.1, Army Navy/Transportable Radar Surveillance and Control-2 Radar (AN/TPY-2) Forward Base Mode (FBM) CX 5.0, LRDR 2.0, GS 9, X-Band Radar (XBR) 4.2, Exo-Atmospheric Kill Vehicle (EKV) 24.0/11.0, IBCS 4.6, Post Deployment Build for Patriot (PDB) 8.1, and Terminal High Altitude Area Defense (THAAD) 4.1 - In cyber events: Assess C2BMC and BOA Baseline Revision cyber security in Cooperative Vulnerability and Penetration Assessment events in the lab and operational asset environments; and Adversarial Assessment events in the operational asset environment prior to fielding - Continue upgrades and implementation of latest Department of Defense required Assured Compliance Assessment Solution, Endpoint Security Services, and Cyber Security increments within the CTB including the OCL - Maintain CTB and OCLs to ensure availability for ground and cyber test events - Prepare, configure, and execute IMTP test events, Pairwise, Continuous Developmental Integration, and special test request 			

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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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	Project (Number/Name) MT01 / <i>C2BMC Test</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>- In flight test events: Collect data in support of Hypersonic Tracking capability, to assess C2BMC incremental capability performance, to include support of Space-Based Kill Assessment Hit Assessment fielding; assess alternatives for C2BMC system track typing, correlation, and launch event association processes in the presence of advanced threats. Continue to demonstrate interoperability with Aegis and collect data to assess Aegis European Phased Adaptive Approach Phase 3/Engage-on-Remote capability</p> <p>Specific and/or unique accomplishments for each FY are as follows:</p> <p>FY 2024 Plans:</p> <p>- Participate in flight test events to support fielding of Spiral 8.2-5 and BOA 7.0 additional capabilities by testing the following capabilities: IBCS Integration into the Missile Defense System and Conditioning & debris filtering of Mobile Sensor Integration tracks</p> <p>- Participate in ground test events to support fielding of Spiral 8.2-7 and BOA 7.1 BMDS System Track (BST) with System Level Integrated Discrimination (SLD) by testing the following capabilities: Generation of BST with SLD to support GMD Engagements, BOA 7.1 Integration, SDA refinement, Reporting of Space Object Catalog (SOC) entities to AN/TPY-2 (FBM) Radars and LRDR for use in radar calibration, and Expanded Hypersonic Tracking and Link-16 Reporting</p> <p>- Continue to assess interoperability of C2BMC S8.2-5, BOA 7.0, AN/TPY-2 FBM CX 5.0, LRDR 1.0, GS 8B, XBR 4.2, Orbital Boost Vehicle (OBV) 8.0/OBV11.0, IBCS 4.6, PDB 8.1, SBR 22-1, and THAAD 4.1; assess C2BMC planning, monitoring, and tasking capabilities effect on Homeland Defense performance</p> <p>FY 2025 Plans:</p> <p>- Participate in ground test events to support fielding of Spiral 8.2-7 and BOA 8.1 BST with SLD by testing the following capabilities: Generation of BST with SLD to support GMD Engagements, BOA 8.1 Integration, SDA refinement, Reporting of SOC entities to AN/TPY-2 (FBM) Radars and LRDR for use in radar calibration, and Expanded Hypersonic Tracking and Link-16 Reporting</p> <p>- Continue to assess interoperability of C2BMC S8.2-5, BOA 7.1, AN/TPY-2 FBM CX 5.0, LRDR 1.0, GS 8B, XBR 4.2, OBV 8.0/OBV11.0, IBCS 4.6, PDB 8.1, SBR 22-1, and THAAD 4.1; assess C2BMC planning, monitoring, and tasking capabilities effect on Homeland Defense performance</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Increase from FY 2024 to FY 2025 is in accordance with the current IMTP.</p>			
Accomplishments/Planned Programs Subtotals		57.587	51.849
			57.926

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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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication					Project (Number/Name) MT01 / C2BMC Test	

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: <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
• 0603890C: <i>BMD Enabling Programs</i>	589.588	597.720	609.406	-	609.406	623.893	625.985	659.983	677.858	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
• 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
• 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
• 0604181C: <i>Hypersonic Defense</i>	513.267	208.997	182.283	-	182.283	193.100	205.122	250.208	327.698	Continuing	Continuing
• 0604873C: <i>Long Range Discrimination Radar (LRDR)</i>	65.991	103.517	100.882	-	100.882	63.560	56.020	64.457	72.759	Continuing	Continuing

Remarks

D. Acquisition Strategy

A sole source C2BMC contract to Lockheed Martin was awarded 1st quarter FY 2012. The current ordering period is through 4th quarter FY 2026. Major team members to Lockheed are Northrop Grumman, Boeing, Raytheon, and General Dynamics. They are charged with the Integration and Test support of the C2BMC system as depicted in Missile Defense System Integrated Master Test Plan. The sole source C2BMC Follow-on contract is planned to be awarded in 1st quarter FY 2024 to continue support of the C2BMC system. Federally Funded Research and Development Center/University Affiliated Research Center and Contract Support Services personnel are also fully integrated as part of the Prime contractor's team to function in an Integrated Product Team environment. Additionally, a sole source Specialized Warfighter Development Contract was awarded to Northrop Grumman in March 2018 (3-year base and 2 one-year option periods) and is utilized for the

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
0400 / 4	PE 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	MT01 / <i>C2BMC Test</i>
<p>OPIR Capabilities Lab test infrastructure as the laboratory environment supporting system tests. The BOA Follow-on sole source contract was awarded in 3rd quarter FY 2023 with a 5-year period of performance. Furthermore, the competitive Integrated Research and Development for Enterprise Solutions contract with Jacob technologies was awarded in March 2022 with the planned follow-on award in February/March 2024 through August 2025. The contract provides support for the C2BMC testbed infrastructure for Missile Defense System tests and verification & validation of C2BMC developmental capabilities. Various other government agencies provide additional lab infrastructure support.</p>		

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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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication						MT01 / C2BMC Test					
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		
Subtotal			-	-		-		-		-		-	-	-	N/A		
Remarks																	
N/A																	
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		
Subtotal			-	-		-		-		-		-	-	-	N/A		
Remarks																	
N/A																	
Test and Evaluation (\$ 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		
Integrated Master Test Plan - All Prior Years	Various	Various : Various	90.701	0.000		0.000		0.000		-		0.000	0.000	90.701	0.000		
Integrated Master Test Plan - Consolidated Contractor Support	Various	Various : Huntsville, AL; Colorado Springs, CO; NCR	0.968	0.000		0.000		0.000		-		0.000	0.000	0.968	0.000		
Integrated Master Test Plan - Enterprise Sensors Lab Infrastructure Support (NSWC)	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) DAHLGREN DIVISION (NSWCDD) : VA	0.000	1.147	Jun 2023	1.057	Oct 2023	1.078	Oct 2024	-		1.078	Continuing	Continuing	Continuing		
Integrated Master Test Plan - Enterprise Sensors	SS/CPAF	NORTHROP GRUMMAN : CO	77.793	3.125	Jul 2023	2.596	Oct 2023	2.773	Oct 2024	-		2.773	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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication				Project (Number/Name) MT01 / C2BMC Test					
Test and Evaluation (\$ 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
Lab Infrastructure Support (Various)															
Integrated Master Test Plan - FFRDC	FFRDC	Institute for Defense Analyses (IDA) : Alexandria, VA	1.085	0.000		0.000		0.000		-		0.000	0.000	1.085	0.000
Integrated Master Test Plan - Information Assurance - Test Lab Infrastructure	C/CPAF	Jacobs Technology, Inc : Colorado Springs, CO	5.182	0.000		0.000		0.000		-		0.000	0.000	5.182	0.000
Integrated Master Test Plan - MDS Level Testing (LM)	SS/IDIQ	LOCKHEED MARTIN CORPORATION : Various	198.204	17.318	Jul 2023	18.021	Jul 2024	16.401	Jul 2025	-		16.401	Continuing	Continuing	Continuing
Integrated Master Test Plan - MDS Level Testing - Element/System Test Lab Facilities	C/CPAF	NORTHROP GRUMMAN : CO	48.218	10.913	Mar 2023	12.209	Mar 2024	15.583	Mar 2025	-		15.583	Continuing	Continuing	Continuing
Integrated Master Test Plan - MDS Level Testing - Element/System Test Lab Facilities (Jacobs)	C/CPAF	JACOBS TECHNOLOGY INC. : Various	106.638	23.076	Mar 2023	15.525	Mar 2024	20.600	Mar 2025	-		20.600	Continuing	Continuing	Continuing
Integrated Master Test Plan - MDS Level Testing GOV	MIPR	Various : Various	14.699	2.008	Mar 2023	2.441	Oct 2023	1.491	Oct 2024	-		1.491	Continuing	Continuing	Continuing
Subtotal			543.488	57.587		51.849		57.926		-		57.926	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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication						Project (Number/Name) MT01 / C2BMC Test			
Management Services (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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			543.488	57.587		51.849		57.926		-		57.926	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-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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication					Project (Number/Name) MT01 / C2BMC Test									
Significant Event Complete ▲ Significant Event Planned △		Milestone Decision Complete ★ Milestone Decision Planned ☆		Element Test Complete ◆ Element Test Planned ◇		System Level Test Complete ● System Level Test Planned ○			Complete Activity ◆ Planned Activity ◇										
					FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029		
(EX) VIGILANT SHIELD 24							◇	◇	◇	◇	◇								
(EX) KEEN EDGE 24							◇	◇	◇	◇									
FTX-26 (OT) (SN, OT Target Only Flight Test)								▲											
SICO-08a-02								◆											
FTG-12 (GM, DT/OT Intercept Flight Test)									▲										
SICO 9-4										◇									
(EX) AIR AND MISSILE DEFENSE EXERCISE 24									◇	◇	◇								
GTI-08b (N/I)											◇								
FTM-32 (AEGIS SBT, DT/OT Intercept Flight Test)										△									
FTX-23 (AEGIS 5.1, DT Tracking Exercise Flight Test)										△									
GTD-08b (N/I)											◇	◇							
GTI-ISR (23) (Missile Defense System Ground Test)										◇									
Pacific Dragon-24 E2 (ARAV-T1)											△								
GTI-101 (E/C)												◇							
Pacific Dragon-24 E1 (ARAV-B)											△								
FTM-37 (AEGIS 5.1, DT/OT Intercept Flight Test)											△								
FTX-28 E1 (TH, DT/OT Tracking Exercise Flight Test)													△						
FTX-28 E3 (TH, DT/OT Tracking Exercise Flight Test)													△						
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)											◇								
FTX-40 (AEGIS 5.1, DT Tracking Exercise Flight Test)											△								
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)												◇							
FTM-30 (AEGIS 5.1, DT/OT Intercept Flight Test)												△							
FTM-43 (AEGIS 5.1, DT/OT Intercept Flight Test)														△					
GTI-12 (E/C)													◇						

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency														Date: March 2024																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication										Project (Number/Name) MT01 / C2BMC Test									
Significant Event Complete ▲		Significant Event Planned △		Milestone Decision Complete ★		Milestone Decision Planned ☆		Element Test Complete ◆		Element Test Planned ◇		System Level Test Complete ●		System Level Test Planned ○		Complete Activity ◆		Planned Activity ◇											
										FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029							
GTI-16 Sprint 2 (N/I)																						◆							
GTD-16 (N/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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	Project (Number/Name) MT01 / <i>C2BMC Test</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GTI-08a Part 2 (N/I)	1	2023	1	2023
TBG-2 (OTHER, DT Tracking Exercise Flight Test)	1	2023	1	2023
(EX) Joint Live, Virtual, and Constructive 2021/2022	1	2023	1	2023
(WG) Demonstration, Table-top Exercises & Experiments 22	1	2023	1	2023
(EX) VIGILANT SHIELD 23	1	2023	1	2023
(EX) KEEN SWORD 23	1	2023	1	2023
(EX) GLOBAL RESPONSE EXERCISE 11	1	2023	1	2023
(EX) GLOBAL THUNDER 22	1	2023	1	2023
SICO -09-1	1	2023	1	2023
GTD-08a (N/I) (Missile Defense System Ground Test)	1	2023	1	2023
JFTM-07 E1 (JAPAN, DT Tracking Exercise Flight Test)	1	2023	1	2023
GTD-07b (AA)	1	2023	1	2023
(WG) NIMBLE TITAN 24	1	2023	1	2024
(EX) Joint Project Optic Windmill 2023	1	2023	3	2023
(EX) AIR AND MISSILE DEFENSE EXERCISE 23	1	2023	3	2023
Enterprise Sensor Lab Infrastructure Support Planned	1	2023	4	2027
GTI-09 Sprint 2 (E/C) (Missile Defense System Ground Test)	2	2023	3	2023
(EX) AUSTERE CHALLENGE 23	2	2023	2	2023
(EX) RESILIENT SHIELD 23	2	2023	2	2023
(EX) GLOBAL LIGHTNING 23	2	2023	3	2023
SICO-09-2	2	2023	2	2023

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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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>		Project (Number/Name) MT01 / <i>C2BMC Test</i>	
		Start		End	
Events	Quarter	Year	Quarter	Year	
(EX) EUROPEAN TEST BED 23	2	2023	1	2024	
TBG-3 (OTHER, DT Tracking Exercise Flight Test)	3	2023	3	2023	
SICO-09-3	3	2023	3	2023	
(EX) VIGILANT SHIELD 24	3	2023	3	2024	
(EX) KEEN EDGE 24	3	2023	2	2024	
FTX-26 (OT) (SN, OT Target Only Flight Test)	4	2023	4	2023	
SICO-08a-02	4	2023	4	2023	
FTG-12 (GM, DT/OT Intercept Flight Test)	1	2024	1	2024	
SICO 9-4	2	2024	2	2024	
(EX) AIR AND MISSILE DEFENSE EXERCISE 24	1	2024	3	2024	
GTI-08b (N/I)	3	2024	3	2024	
FTM-32 (AEGIS SBT, DT/OT Intercept Flight Test)	2	2024	2	2024	
FTX-23 (AEGIS 5.1, DT Tracking Exercise Flight Test)	2	2024	2	2024	
GTD-08b (N/I)	4	2024	1	2025	
GTI-ISR (23) (Missile Defense System Ground Test)	3	2024	3	2024	
Pacific Dragon-24 E2 (ARAV-T1)	4	2024	4	2024	
GTI-101 (E/C)	2	2025	2	2025	
Pacific Dragon-24 E1 (ARAV-B)	4	2024	4	2024	
FTM-37 (AEGIS 5.1, DT/OT Intercept Flight Test)	1	2025	1	2025	
FTX-28 E1 (TH, DT/OT Tracking Exercise Flight Test)	1	2026	1	2026	
FTX-28 E3 (TH, DT/OT Tracking Exercise Flight Test)	1	2026	1	2026	
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)	2	2025	2	2025	
FTX-40 (AEGIS 5.1, DT Tracking Exercise Flight Test)	2	2025	2	2025	
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)	4	2025	4	2025	
FTM-30 (AEGIS 5.1, DT/OT Intercept Flight Test)	4	2025	4	2025	

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Missile Defense Agency			Date: March 2024	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)		Project (Number/Name)	
0400 / 4	PE 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication		MT01 / C2BMC Test	
Events	Start		End	
	Quarter	Year	Quarter	Year
FTM-43 (AEGIS 5.1, DT/OT Intercept Flight Test)	3	2026	3	2026
GTI-12 (E/C)	2	2026	2	2026
JFTX-01 E1 (JAPAN, DT Tracking Exercise Flight Test)	3	2026	3	2026
JFTX-01 E2 (JAPAN, DT Tracking Exercise Flight Test)	3	2026	3	2026
GTD-13 (N/I) (Missile Defense System Ground Test)	2	2026	2	2026
GTD-12 (E/C) (Missile Defense System Ground Test)	3	2026	3	2026
GTI-ASI (26) (Missile Defense System Ground Test)	3	2026	3	2026
FTM-40 (AEGIS 6, DT/OT Intercept Flight Test)	3	2026	3	2026
GTI-14 Sprint 1 (N/I)	4	2026	4	2026
FTM-41 (AEGIS 6, DT/OT Intercept Flight Test)	1	2027	1	2027
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)	3	2027	3	2027
FTG-17 (GM, DT/OT Intercept Flight Test)	4	2027	4	2027
FTG-16 (GM, DT Intercept Flight Test)	2	2027	2	2027
SICO-24 (N/I)	3	2027	3	2027
FTT-26 (MRBM T1)	3	2027	3	2027
FTX-28 E2 (TH, DT/OT Tracking Exercise Flight Test)	3	2027	3	2027
GTD-14 (N/I) ((Missile Defense System Ground Test)	4	2027	4	2027
GTI-ISR (27) (Missile Defense System Ground Test)	4	2027	4	2027
FTM-47 (MRBM T4 X3/BQM-177 X4)	2	2028	2	2028
FTG-18 (DT/OT)	3	2028	3	2028
GTD-15 (E/C)	3	2028	3	2028
GTI-24 (I)	3	2027	3	2027
GTI-16 Sprint 1 (N/I)	4	2028	4	2028
Pacific Dragon-28 E3 (SM-3 Blk 1A)	4	2028	4	2028
Pacific Dragon-28 E2 (ARAV-B)	4	2028	4	2028

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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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication	Project (Number/Name) MT01 / C2BMC Test	

Events	Start		End	
	Quarter	Year	Quarter	Year
GTI-ASI (28)	4	2028	4	2028
GTI-16 Sprint 2 (N/I)	3	2029	3	2029
GTD-16 (N/I)	4	2029	4	2029

Note
* FTM-37 (AEGIS 5.1, DT/OT Intercept Flight Test) under review

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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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication				Project (Number/Name) MX01 / Command & Control, Battle Management, Communications (C2BMC) Development Support			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MX01: Command & Control, Battle Management, Communications (C2BMC) Development Support	1,093.956	129.802	138.665	139.480	-	139.480	142.259	145.342	148.249	151.214	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

C2BMC Development Support provides operations engineering, integrated logistics, warfighter integration, deployment, and disposal of the current operational system and/or systems fielded in United States Strategic Command, United States Northern Command (USNORTHCOM), United States Indo-Pacific Command (USINDOPACOM), United States European Command (USEUCOM), United States Central Command (USCENTCOM), and U.S. Space Command (USSPACECOM) and the operation of the C2BMC Control Center. This activity provides continuous support of the development, deployment, sustainment of the C2BMC training systems, and updates training material to stay current with fielded capabilities.

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

		FY 2023	FY 2024	FY 2025
Title: Operations Engineering		111.321	120.326	120.857
Articles:		-	-	-
Description: This activity funds C2BMC support of current operational, test, and training systems. Recurring efforts include: <ul style="list-style-type: none"> - On-site maintenance, help-desk support, and developer reach-back support to ensure operational availability - C2BMC Command Center (CCC) provides 24 hours a day, 7 days a week, 365 days a year Ballistic Missile Defense Systems Overhead Persistent Infrared Architecture (BOA) and C2BMC operations including system and network monitoring, system administration, and network defense against cyber-attacks - Integrated Logistic Support by providing a secure supply chain; reliability, availability, and maintainability (RAM) engineering; obsolescence engineering; and sparing to ensure operational availability - Cybersecurity engineering providing C2BMC Commercial-off-the-shelf software/hardware updates and CCC upgrades that address system vulnerabilities, field quarterly updates to reduce system component vulnerability to cyber-attacks - Information System Security Officers ensuring C2BMC compliance with latest cybersecurity requirements and policies - System modifications driven by Warfighter Involvement Process, Continuous Improvement Process, RAM and obsolescence engineering, and external systems such as Space-Based Infrared Sensors, Ground-based Midcourse Defense Fire Control, 				

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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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	Project (Number/Name) MX01 / <i>Command & Control, Battle Management, Communications (C2BMC) Development Support</i>			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>Aegis, Terminal High Altitude Area Defense, Navy Link Monitoring and Management Tool, Army Navy/Transportable Radar Surveillance and Control-2, standard Army communications, Defense Information Systems Agency fiber networks, and Allied/Coalition interfaces</p> <ul style="list-style-type: none"> - Combatant Command (CCMD) integration providing C2BMC training, on-site Subject Matter Experts (SMEs), and surge SME support for real-world events, flight tests, ground tests, exercises, cyber assessments, and wargames - Facility modifications required to house current or future C2BMC equipment and transportation for moving C2BMC equipment - Integrated product support for tactical satellite communications (SATCOM) used in flight tests, hardened SATCOM, and associated shelters - Provide transportation for flight test equipment and SME support and analysis for numerous test, exercise, and real world events - Provide recurring proficiency training to CCMDs and keep training material and systems consistent with operational capabilities <p>Specific and/or unique accomplishments for each FY are as follow:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Continue sustainment of S8.2-5/BOA 7.0 capabilities - Begin initial preparation for Spiral 8.2-7 deployment <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Begin Spiral 8.2-7 deployment <p>FY 2024 to FY 2025 Increase/Decrease Statement: N/A</p>					
<p>Title: Concurrent Test, Training, and Operations (CTTO)</p> <p align="right">Articles:</p> <p>Description: This element provides the development and sustainment of the C2BMC Missions Specific Vendor Plug-in (MSVP) stand-alone operator training devices and the Distributed Training System for USINDOPACOM, USNORTHCOM, USEUCOM, USCENTCOM, and USSPACECOM. C2BMC connects all Missile Defense System Elements through virtual and physical networks to facilitate integrated test, training, operations, and certification within two coexistent realms. This enables the warfighter to become proficient on current and future software versions at the operational console, increases the developer's capacity to perform a variety of tests and upgrades on the operational Missile Defense System, and decreases recall-to-mission operations times from weeks and days to hours and minutes. The recently acquired C2BMC MSVP is a gaming-based stand-alone trainer developed from a Small Business Innovation Research project. It delivers mission training simulation using core Standard Space</p>			18.481 -	18.339 -	18.623 -

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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 0603896C / Ballistic Missile Defense Command and Control, Battle Management & Communication	Project (Number/Name) MX01 / Command & Control, Battle Management, Communications (C2BMC) Development Support	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
Trainer and provides flexibility in architecture and reduced long term cost. Recurring accomplishments include sustaining current training systems for Missile Defense System training events for the Unified Combatant Command and developing the next generation training systems, to include the integration of Red Force / Blue Force capability, to keep current with the operational system capabilities.			
Specific and/or unique accomplishments for 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			
Accomplishments/Planned Programs Subtotals	129.802	138.665	139.480

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 Defense Terminal Defense Segment	194.264	220.311	367.279	-	367.279	543.868	554.429	464.018	314.936	Continuing	Continuing
• 0603882C: Ballistic Missile Defense Midcourse Defense Segment	670.808	903.633	768.227	-	768.227	856.218	842.985	956.974	1,007.150	Continuing	Continuing
• 0603884C: Ballistic Missile Defense Sensors	228.807	239.159	209.002	-	209.002	205.087	202.555	209.816	214.110	Continuing	Continuing
• 0603890C: BMD Enabling Programs	589.588	597.720	609.406	-	609.406	623.893	625.985	659.983	677.858	Continuing	Continuing
• 0603892C: AEGIS BMD	586.329	693.727	649.255	-	649.255	602.818	539.786	649.556	714.388	Continuing	Continuing
• 0603904C: Missile Defense Integration and Operations Center (MDIOC)	47.629	50.549	54.525	-	54.525	56.851	58.115	59.600	61.362	Continuing	Continuing

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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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>				Project (Number/Name) MX01 / <i>Command & Control, Battle Management, Communications (C2BMC) Development Support</i>			

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>
• 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
• 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
• 0604181C: <i>Hypersonic Defense</i>	513.267	208.997	182.283	-	182.283	193.100	205.122	250.208	327.698	Continuing	Continuing
• 0604873C: <i>Long Range Discrimination Radar (LRDR)</i>	65.991	103.517	100.882	-	100.882	63.560	56.020	64.457	72.759	Continuing	Continuing

Remarks

D. Acquisition Strategy

A sole source C2BMC contract to Lockheed Martin was awarded 1st quarter FY 2012. The current ordering period is through 4th quarter FY 2026. Major team members to Lockheed are Northrop Grumman, Boeing, Raytheon, and General Dynamics. They are charged with the operations engineering, cybersecurity development, integrated logistics, warfighter integration, deployment, and disposal of the current fielded operational system and/or systems and the operation of the C2BMC Control Center. The sole source C2BMC Follow-on contract is planned to be awarded in 1st quarter FY 2024 to continue support of the C2BMC system. Contract Support Services personnel are also fully integrated as part of the Prime contractor's team to function in an Integrated Product Team environment. Furthermore, a competitive contract to Sonalysts was awarded in January 2020 with a five-year period of performance to provide a C2BMC stand-alone training system called MSVP.

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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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication				Project (Number/Name) MX01 / Command & Control, Battle Management, Communications (C2BMC) Development Support					
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
Operations Engineering - All Prior Years	Various	Various : Various	58.566	0.000		0.000		0.000		-		0.000	0.000	58.566	58.566
Operations Engineering - Sustaining Support (IRES)	C/CPAF	JACOBS TECHNOLOGY INC. : Various	8.897	3.017	Dec 2022	2.022	Dec 2023	1.924	Dec 2024	-		1.924	Continuing	Continuing	Continuing
Operations Engineering - Training Support (Boeing)	C/FPIF	BOEING : AL	4.396	1.600	Nov 2022	1.462	Oct 2023	0.956	Oct 2024	-		0.956	Continuing	Continuing	Continuing
Operations Engineering - Unit Personnel, Control System Improvement Sustaining Support (AVMC)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : Various	9.075	3.904	Nov 2022	3.860	Oct 2023	5.257	Oct 2024	-		5.257	Continuing	Continuing	Continuing
Operations Engineering - Unit Personnel, Control System Improvement Sustaining Support (Lockheed Martin)	C/CPFF	LOCKHEED MARTIN CORPORATION : Various	774.570	89.797	Dec 2022	97.804	Nov 2023	92.982	Nov 2024	-		92.982	Continuing	Continuing	Continuing
Operations Engineering - Unit Personnel, Control System Improvement Sustaining Support (MANTECH)	C/CPFF	MANTECH : Various	0.000	0.000		0.000		1.608	Oct 2024	-		1.608	Continuing	Continuing	Continuing
Operations Engineering - Unit Personnel, Control System Improvement Sustaining Support (Multiple)	Various	Various : Various	15.266	7.400	Nov 2022	8.275	Oct 2023	4.407	Oct 2024	-		4.407	Continuing	Continuing	Continuing
Operations Engineering - Unit Personnel, Control System Improvement	MIPR	DOD - USA - TOBYHANNA ARMY DEPOT (TYAD) : Various	0.000	0.000		0.000		1.613	Oct 2024	-		1.613	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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>						Project (Number/Name) MX01 / <i>Command & Control, Battle Management, Communications (C2BMC) Development Support</i>			
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
Sustaining Support (NAVWAR)															
Operations Engineering - Unit Personnel, Control System Improvement Sustaining Support (NG)	C/CPAF	NORTHROP GRUMMAN : CO	13.566	3.592	Nov 2022	6.264	Oct 2023	4.995	Oct 2024	-		4.995	Continuing	Continuing	Continuing
Operations Engineering - Unit Personnel, Control System Improvement Sustaining Support (PMDCATS)	MIPR	DOD - USA - PROGRAM MANAGER, DEFENSE COMMUNICATIONS AND ARMY TRANSMISSION SYSTEMS (PM DCATS) : Various	0.000	0.000		0.000		1.143	Oct 2024	-		1.143	Continuing	Continuing	Continuing
Operations Engineering - Unit Personnel, Control System Improvement Sustaining Support (USSF)	MIPR	DOD - USSF - 21ST CONTRACTING SQUADRON (21 CONS) : Various	0.000	0.000		0.000		5.321	Oct 2024	-		5.321	Continuing	Continuing	Continuing
Concurrent Test, Training, and Operations (CTTO) - All Prior Years	Various	Various : Various	8.443	0.000		0.000		0.000		-		0.000	0.000	8.443	4.610
Concurrent Test, Training, and Operations (CTTO) - Training Enhancements (Blue Halo)	C/CPFF	BLUEHALO : AL	13.771	4.457	Dec 2022	3.802	Dec 2023	2.070	Dec 2024	-		2.070	Continuing	Continuing	Continuing
Concurrent Test, Training, and Operations (CTTO) - Training Enhancements (CCDC AVMC)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	20.663	6.608	Dec 2022	5.705	Dec 2023	6.100	Dec 2024	-		6.100	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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>						Project (Number/Name) MX01 / <i>Command & Control, Battle Management, Communications (C2BMC) Development Support</i>			
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
Concurrent Test, Training, and Operations (CTTO) - Training Enhancements (CODDS)	C/TBD	TBD : Various	0.000	0.000		0.000		2.852	Dec 2024	-		2.852	Continuing	Continuing	Continuing
Concurrent Test, Training, and Operations (CTTO) - Training Enhancements (LM)	SS/CPFF	LOCKHEED MARTIN CORPORATION : Various	142.157	4.335	Dec 2022	5.747	Dec 2023	4.364	Dec 2024	-		4.364	Continuing	Continuing	Continuing
Concurrent Test, Training, and Operations (CTTO) - Training Enhancements (Sonalysts)	SS/CPFF	SONALYSTS, INC. : CT	19.039	3.081	Dec 2022	3.085	Dec 2023	3.237	Dec 2024	-		3.237	Continuing	Continuing	Continuing
Subtotal			1,088.409	127.791		138.026		138.829		-		138.829	Continuing	Continuing	N/A
Remarks In accordance with the Financial Management Regulation cost category definitions, contract support services have transferred to appropriate cost categories.															
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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				R-1 Program Element (Number/Name)				Project (Number/Name)							
0400 / 4				PE 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication				MX01 / Command & Control, Battle Management, Communications (C2BMC) Development Support							
Test and Evaluation (\$ 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
Remarks															
N/A															
Management Services (\$ 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
Operations Engineering - Contract Support Services - Parsons	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	5.547	2.011	Nov 2022	0.639	Oct 2023	0.651	Nov 2024	-		0.651	Continuing	Continuing	Continuing
Subtotal			5.547	2.011		0.639		0.651		-		0.651	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			1,093.956	129.802		138.665		139.480		-		139.480	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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication	Project (Number/Name) MX01 / Command & Control, Battle Management, Communications (C2BMC) Development Support	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MX01 Command & Control, Battle Management, Communications (C2BMC) Development Support Planned	1	2023	4	2029
MX01 Incremental Engineering Technical Reviews (IETR) Planned	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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication				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: Program-Wide Support	216.319	22.004	19.009	21.749	-	21.749	24.131	24.476	27.803	30.441	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)

Title: Program Wide Support		FY 2023	FY 2024	FY 2025
Articles:		22.004	19.009	21.749
		-	-	-
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				

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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 0603896C / <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<p>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.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> PWS is allocated on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year. Increase from FY 2024 to FY 2025 reflects additional PWS FTEs being funded in this PE.</p>			
Accomplishments/Planned Programs Subtotals	22.004	19.009	21.749

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

Remarks

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

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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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication					Project (Number/Name) MD40 / Program-Wide Support				
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations Management	Various	Various : Multi: AL, CA, CO, VA	6.813	0.000		1.158	Oct 2023	0.000		-		0.000	0.000	7.971	0.000
Program Wide Support - Agency Operations and Support Services Civilian Salaries, Travel, Training	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	106.142	17.968	Oct 2022	17.578	Oct 2023	16.643	Oct 2024	-		16.643	Continuing	Continuing	Continuing
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	52.036	0.000		0.000		0.000		-		0.000	0.000	52.036	0.000
Subtotal			164.991	17.968		18.736		16.643		-		16.643	Continuing	Continuing	N/A
Remarks In accordance with the Financial Management Regulation cost category definitions, some items have transferred to appropriate cost categories.															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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 0603896C / Ballistic Missile Defense Command and Control, Battle Management & Communication						Project (Number/Name) MD40 / Program-Wide Support			
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services (FFP)	C/CPFF	Veterans Technology, LLC : AL	51.328	4.036	Nov 2022	0.273	Nov 2023	5.106	Nov 2024	-		5.106	Continuing	Continuing	Continuing
Subtotal			51.328	4.036		0.273		5.106		-		5.106	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			216.319	22.004		19.009		21.749		-		21.749	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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication					Project (Number/Name) MD40 / Program-Wide Support										
Significant Event Complete ▲		Milestone Decision Complete ★		Element Test Complete ◆		System Level Test Complete ●		Complete Activity ◆												
Significant Event Planned △		Milestone Decision Planned ☆		Element Test Planned ◇		System Level Test Planned ○		Planned Activity ◇												
					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 0603896C / Ballistic Missile Defense Co mmand and Control, Battle Management & Communication	Project (Number/Name) MD40 / Program-Wide Support	

Schedule Details

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

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0603898C I Ballistic Missile Defense Joint Warfighter 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
Total Program Element	378.420	50.942	48.248	47.723	-	47.723	48.921	50.062	51.376	52.565	Continuing	Continuing
MD03: Joint Warfighter Support	170.930	17.393	19.606	20.861	-	20.861	21.184	21.650	22.066	22.526	Continuing	Continuing
MT03: Joint Warfighter Support Test	184.163	31.059	26.763	24.857	-	24.857	25.499	26.155	26.823	27.405	Continuing	Continuing
MC03: Cyber Operations	0.599	0.153	0.164	0.168	-	0.168	0.171	0.174	0.177	0.181	Continuing	Continuing
MD40: Program-Wide Support	22.728	2.337	1.715	1.837	-	1.837	2.067	2.083	2.310	2.453	Continuing	Continuing
Program MDAP/MAIS Code: 362												
Note												
N/A												
A. Mission Description and Budget Item Justification												
<p>The Joint Warfighter Support Program (JWSP) is the Missile Defense Agency's (MDA's) primary means for providing direct technical support to Combatant Commands (CCMDs), the Military Services, and the Joint Staff on Missile Defense System development, testing, operational support, and configuration management. It enables delivery of Missile Defense System capabilities to Warfighters and ensures their participation in the identification and development of new Missile Defense (MD) capabilities via the Warfighter Involvement Process. The JWSP allows the Warfighter and MDA to work together to identify gaps, seams, and needs in warfighting capability and enhance Missile Defense System attributes by submitting modification and fielding requests. It also provides 24 hours a day, 7 days a week, 365 days a year MD operational support to Warfighters worldwide, to include global system verification and validation over the operational Common Interactive Broadcast. The program enables rapid response to Warfighter Requests for Information and Requests for Analyses, which are especially critical to mission success in protecting U.S. Forces and other defended assets during Real World threat events. The program also supports improving products delivered to Warfighters through technical reviews and technical analyses supporting strategic and regional MD planning, development of shot doctrine and MD design. The JWSP also enables the inclusion of both CCMD and MDA MD objectives in CCMD/Joint Staff-sponsored Wargames and Exercises, which are used to sharpen and enhance joint MD warfighting skills. Finally, the JWSP administers all Navy Reserve support personnel and handles coordination for Army, Air Force and Space Force Reserve that provide technical, engineering, intelligence, integration, and operational support to the MDA.</p>												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency				Date: March 2024	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0603898C I Ballistic Missile Defense Joint Warfighter Support			
B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	50.269	48.248	49.164	-	49.164
Current President's Budget	50.942	48.248	47.723	-	47.723
Total Adjustments	0.673	0.000	-1.441	-	-1.441
• 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	-0.266	0.000			
• Other Adjustment	0.939	0.000	-1.441	-	-1.441
Change Summary Explanation					
N/A					

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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 0603898C / Ballistic Missile Defense Jo int Warfighter Support				Project (Number/Name) MD03 / Joint Warfighter 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
MD03: Joint Warfighter Support	170.930	17.393	19.606	20.861	-	20.861	21.184	21.650	22.066	22.526	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

There are seven primary functions in Joint Warfighter Support (MD03):

- (1) Missile Defense Operations Support
- (2) Combatant Command Integration
- (3) Military Service Integration
- (4) Operational Missile Defense System Verification and Validation
- (5) Warfighter Training and Education Support
- (6) Joint Staff Integration
- (7) Reserve Integration

Detailed descriptions and accomplishments are provided in section B. Accomplishments/Planned Program.

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

	FY 2023	FY 2024	FY 2025
Title: Strategic Warfighter Integration	17.393	19.606	20.861
Articles:	-	-	-
Description: (1) Missile Defense Operations Support: - Manage and operate the Missile Defense Agency (MDA) Operations Support Center 24 hours a day, 7 days a week, 365 days a year and 2 MDA Operations Centers in Virginia and Alabama for daily execution of scheduled Missile Defense System activities; and prepare and transmit Logistic Reports. - Manage and execute the Missile Defense System Asset Management process of planning, coordinating, scheduling and executing access to operational and Research, Development, Test and Evaluation (RDT&E) assets operated by MDA and Warfighters dispersed globally with differing missions and competing priorities to facilitate assets in support of Warfighter Ballistic Missile Defense (BMD); Missile Warning/Space Surveillance operations; MDA RDT&E, training and sustainment activities. - Lead the MDA Operations Support Planning Team, an MDA-wide task force supporting Warfighters, Services and the Joint Staff to address real-world contingencies and crisis events.			

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>	Project (Number/Name) MD03 / <i>Joint Warfighter Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<ul style="list-style-type: none"> - Develop Missile Defense System Annual Plan and Missile Defense System Operating Schedule facilitating key stakeholder coordination and maximizing operational availability of the Missile Defense System. - Develop and maintain the Integrated Scheduling Tool. - Facilitate major software/hardware additions to the Operational Capability Baseline for homeland/regional defenses. - Develop and maintain the Missile Defense System Operational Readiness Reporting System application to collect and report Missile Defense System operational availability and readiness data through the network-based tool to distribute data to Office of the Secretary of Defense, Combatant Commands (CCMDs), Joint Staff, Military Services, and Missile Defense System Operators. - Provide certification training to Ballistic Missile Defense Systems (BMDS) watch officers, BMDS Safety Officers, and other Operations Support Center staff. <p>(2) CCMD Integration United States Strategic Command, United States Northern Command (USNORTHCOM), United States Central Command, United States European Command, United States Indo-Pacific Command, and United States Space Command (USSPACECOM):</p> <ul style="list-style-type: none"> - Support the Warfighter Involvement Process (WIP) and other MDA Warfighter engagement efforts by assisting Warfighters in their update to the annual Missile Defense System Prioritized Capabilities List and Modification and Fielding Request List. - Aid CCMD participation in missile defense capability definition, design, development, integration, and delivery processes through the WIP to synchronize capability delivery with operational readiness and acceptance. - Support Joint Functional Component Command Integrated Missile Defense integration by participating in the Warfighter Forum a multi-lateral information and decision event to address CCMD, Service and Department of Defense Missile Defense System equities. - Assist USNORTHCOM in broadening homeland defense planning to address the full range of USNORTHCOM threats by conducting the Homeland Defense Architecture Working Group and Shot Management Analysis Cell. - Prepare MDA senior leadership for engagements with CCMDs. - Interface with CCMDs on Missile Defense (MD) operational issues by providing planning and analysis support and translating warfighter responses to MDA issues. - Manage the Warfighter Requests for Information; Requests for Analyses; and Requests for Allied Participation in Tests processes. <p>(3) Military Service Integration:</p> <ul style="list-style-type: none"> - Facilitate and coordinate Service Boards of Directors on Lead Service Missile Defense System related equities, Program Objective Memorandum development and execution, element fielding, operations and maintenance, and the Missile Defense System capability delivery process. 			

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>		Project (Number/Name) MD03 / <i>Joint Warfighter Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Maintain daily, strategic-level interfaces with Military Services and Joint Staff plan for the delivery, fielding, and operation of respective Lead Service Missile Defense System capabilities via senior-level working groups, General Officer Air and Missile Defense and Space forums. - Support transition and transfer to the Military Services through participation in senior-level working groups, Joint Staff directorates, and facilitate General Officer forums. <p>(4) Operational Missile Defense System Verification and Validation:</p> <ul style="list-style-type: none"> - Provide 24 hours a day, 7 days a week, 365 days a year, global system verification and validation over the operational Common Integrated Broadcast, and Shared Early Warning System for MD early warning data. - Support Tactical Data Processor software development, MDA flight tests and other software development efforts using live real-world broadcasts of simulated missile threats. - Support Naval Board of Inspection and Survey, Shipboard installation, Aegis On-Demand, Aegis program releases, US and Coalition operational readiness and BMD Exercise requirements to validate equipment, materiel, and tactical readiness while simultaneously providing deployment certification and crew operator qualification. - Verify operational readiness of both US and Coalition partners to detect a real-world launch of a ballistic threat. <p>(5) Warfighter Training and Education Support:</p> <ul style="list-style-type: none"> - Provide Missile Defense Space Warning Tool support to increase operator proficiency, competence, and confidence; provide initial qualification training; and ship certification for Aegis BMD crews using advanced simulations and models. - Provide technical and programmatic updates for BMD Warfighter training; participates in Missile Defense System training and Education Working Group to coordinate Missile Defense System training issues with USSPACECOM and Joint Staff. - Support Fleet Synthetic and Aegis Operator Training to ensure operational readiness of Aegis as the first step in the kill chain for MD. - Provide Early Warning missile injects for Joint Warfighter Support Test project (MT03) war games and exercises and tailored support for other Joint Warfighter Support Test events (as listed in the Integrated Master Test Plan and R-4/4A schedule). <p>(6) Joint Staff Integration:</p> <ul style="list-style-type: none"> - Facilitate and coordinate all Joint Staff interactions with the MDA. - Maintain daily, strategic-level interfaces with the Joint Staff. <p>(7) Reserve Integration</p> <ul style="list-style-type: none"> - Manage activities and lead coordination for Reserve support to MDA provided by Army, Air Force, Space Force and the Navy, including Reserve Navy Engineering Duty Officer and enlisted billets and personnel 					

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>	Project (Number/Name) MD03 / <i>Joint Warfighter Support</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Provide direct Military Reserve manpower, to include technical, engineering, intelligence and operational support, to MDA; (1) Within individual member statutory limitations (i.e. one weekend/month and two weeks/year); (2) Via Active Duty for Operational Support (ADOS) personnel orders - Process and manage ADOS requests throughout the MDA - Provide assistance for the Operational Support Officer role to support the Warfighter <p>Specific and/or unique accomplishments for each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> (7) Reserve Integration - Manage activities and lead coordination for Reserve support to MDA provided by Army, Air Force, Space Force and the Navy, including Reserve Navy Engineering Duty Officer and enlisted billets and personnel - Provide direct Military Reserve manpower, to include technical, engineering, intelligence and operational support, to MDA; (1) Within individual member statutory limitations (i.e. one weekend/month and two weeks/year); (2) Via ADOS personnel orders - Process and manage ADOS requests throughout the MDA - Provide assistance for the Operational Support Officer role to support the Warfighter <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>			
Accomplishments/Planned Programs Subtotals	17.393	19.606	20.861

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603882C: <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

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>				Project (Number/Name) MD03 / <i>Joint Warfighter Support</i>			

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
• 0603890C: <i>BMD Enabling Programs</i>	589.588	597.720	609.406	-	609.406	623.893	625.985	659.983	677.858	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
• 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

Remarks

D. Acquisition Strategy

The Integrated Research and Development for Enterprise Solutions (IRES) Contract and the Specialized Warfighter Development Contract are the major performing integrated contracts. The acquisition strategy for Strategic Warfighter Integration mission execution is to employ a contract to perform designated integration and sustainment tasks to conduct Missile Defense System RDT&E. Strategic Warfighter Integration is operated by missile defense subject matter experts composed of Government, military, civilian personnel, Contract Support Services, and major defense contractors.

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>						Project (Number/Name) MD03 / <i>Joint Warfighter Support</i>			
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
Strategic Warfighter Integration - Administrative, Travel, and PCS	Various	Various : Various	4.433	0.336	Nov 2022	0.470	Nov 2023	0.477	Nov 2024	-		0.477	Continuing	Continuing	Continuing
Strategic Warfighter Integration - Civilian Salaries/Operations Sustainment	Allot	MDA : Colorado Springs/Huntsville, NCR	53.343	5.946	Oct 2022	5.781	Oct 2023	5.548	Oct 2024	-		5.548	Continuing	Continuing	Continuing
Strategic Warfighter Integration - Current Operations	C/CPAF	Jacobs Technology/ IRES : Colorado Springs	30.211	1.833	Nov 2022	1.053	Nov 2023	1.494	Nov 2024	-		1.494	Continuing	Continuing	Continuing
Strategic Warfighter Integration - HR A&AS	C/CPFF	LSINC Corp : Colorado Springs	0.867	0.000		0.000		0.000		-		0.000	0.000	0.867	0.000
Strategic Warfighter Integration - IT / SLA / BAM	C/CPAF	Jacobs Technology/ IRES : Colorado Springs, Huntsville	5.891	0.602	Jun 2023	1.027	Jan 2024	0.487	Jun 2025	-		0.487	Continuing	Continuing	Continuing
Strategic Warfighter Integration - MDST	C/CPAF	Northrop Grumman/ SWDC : Colorado Springs	35.806	4.038	Nov 2022	4.228	Nov 2023	5.955	Nov 2024	-		5.955	Continuing	Continuing	Continuing
Strategic Warfighter Integration - Reservist Support	MIPR	DOD - USN - NAVAL INFORMATION WARFARE SYSTEMS COMMAND (NAVWAR) : Various	0.000	0.000		1.182	Oct 2023	1.182	Oct 2024	-		1.182	Continuing	Continuing	Continuing
Strategic Warfighter Integration - Warfighter Support A&AS	C/CPFF	STRATEGIC ALLIANCE SOLUTIONS LLC : Colorado Springs, Huntsville, NCR	40.379	4.638	Dec 2022	5.865	Dec 2023	5.718	Dec 2024	-		5.718	Continuing	Continuing	Continuing
Subtotal			170.930	17.393		19.606		20.861		-		20.861	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 0603898C / Ballistic Missile Defense Joint Warfighter Support					Project (Number/Name) MD03 / Joint Warfighter Support				
	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	170.930	17.393		19.606		20.861		-		20.861	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 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 0603898C / Ballistic Missile Defense Joint Warfighter Support												Project (Number/Name) MD03 / Joint Warfighter Support																	
Significant Event Complete ▲				Significant Event Planned △				Milestone Decision Complete ★				Milestone Decision Planned ☆				Element Test Complete ◆				Element Test Planned ◇				System Level Test Complete ●				System Level Test Planned ○				Complete Activity ◆				Planned Activity ◇					
												FY 2023			FY 2024			FY 2025			FY 2026			FY 2027			FY 2028			FY 2029											
Strategic Integration Wargame Events in support of MT03												◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇

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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 0603898C / Ballistic Missile Defense Jo int Warfighter Support	Project (Number/Name) MD03 / Joint Warfighter Support	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Strategic Integration Wargame Events in support of MT03	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 0603898C / Ballistic Missile Defense Jo int Warfighter Support				Project (Number/Name) MT03 / Joint Warfighter Support 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
MT03: Joint Warfighter Support Test	184.163	31.059	26.763	24.857	-	24.857	25.499	26.155	26.823	27.405	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

Joint Warfighter Support Test provides support to Missile Defense System Wargames and Exercises.

Wargames and Exercises:

- Support the Warfighter to plan and conduct worldwide Wargames and Exercises supporting Missile Defense System development and fielding.
- Enable the Warfighter to define, test, deploy, and employ new missile defense capabilities.
- Support Joint Functional Component Commander for Integrated Missile Defense (JFCC IMD) Missile Defense System Table Top Exercises (TTX) to facilitate the global missile defense capability and to refine the European capability concept of operations through low-fidelity demonstration Models & Simulation (M&S).
- Continue test planning for Wargames and Exercises.

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

	FY 2023	FY 2024	FY 2025
Title: Wargames and Exercises	27.349	23.024	21.074
Articles:	-	-	-
Description: The Missile Defense Agency (MDA) provides operational-level interfaces to the Global Combatant Commands (GCCs) and ensures Warfighter participation to develop future missile defense capabilities. <ul style="list-style-type: none"> - Work with Combatant Commands (CCMDs) on the inclusion of Allies and regional partners into MDA Ground and Flight tests and Wargames and Exercises simulations. - Support JFCC IMD and United States European Command (USEUCOM) in the European Phased Adaptive Approach (EPAA) implementation process through the planning, testing, integration and execution of Missile Defense System Wargames and Exercises. - Support Joint Staff integration of MDA models into Tier I events through the Joint, Live Virtual Constructive campaign. - Work with Program Offices and the Warfighter; publish a Concept of Operations that will support future MDA M&S support to Missile Defense System Wargames and Exercises. - Coordinate and integrate CCMD requirements into the Missile Defense System Integrated Master Test Plan and Integrated Master Schedule. 			

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>	Project (Number/Name) MT03 / <i>Joint Warfighter Support Test</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>- Provide support to the development and update of Ballistic Missile Defense portions of CCMD Operation Plans and Contingency Plans.</p> <p>- Engage in MDA/GCC interface and synchronization of information regarding capabilities and security cooperation strategies.</p> <p>- Develop and provide Wargames, Exercises and TTX in support of CCMD-specific scenarios as listed in the R4-4A schedule for the USEUCOM, United States Indo-Pacific Command (USINDOPACOM), United States Central Command (USCENTCOM), and United States Northern Command / United States Strategic Command Geographic Combatant Commands.</p> <p>USEUCOM Engagement:</p> <p>- Coordinate with USEUCOM for continued MDA support of key EPAA Approach milestones in order to provide a full range of Missile Defense System capabilities addressing ballistic missile threats to the European theater.</p> <p>- Work with USEUCOM to include North Atlantic Treaty Organization Allies and regional partners during MDA Ground tests, Flight tests, Wargames and Exercises in order to improve Allied - United States Missile Defense System interoperability.</p> <p>- Coordinate with MDA program elements to facilitate rapid agency responses to USEUCOM requests for analysis and information. Provide reach-back support for the MDA Assistant to the MDA Director and Liaison Officer in USEUCOM for activities requiring visibility by the MDA Director and Director for Test.</p> <p>USCENTCOM Engagement:</p> <p>- Promote CCMD leadership in developing a regional partner data sharing system supporting USCENTCOM regional Integrated Air and Missile Defense architecture development.</p> <p>- Coordinate with MDA program elements, assisting in planning and execution activities supporting USCENTCOM's regional partners.</p> <p>USINDOPACOM Engagement:</p> <p>- Assist USINDOPACOM leadership in broadening Phased Adaptive Approach planning to address a full range of threats and integration of allies into the Missile Defense System.</p> <p>- Support USINDOPACOM (Operations Directorate) Joint Chiefs of Staff in efforts to promote the Aegis Ashore system.</p> <p>- Share operational information and knowledge and help allies develop common operational procedures.</p> <p>FY 2024 Plans:</p> <p>- 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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>	Project (Number/Name) MT03 / <i>Joint Warfighter Support Test</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
- SEE ABOVE.			
FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Title: Program, Planning and Operations		3.710	3.739
Articles:		-	-
Description: MDA provides and ensures Warfighter participation in the development of future missile defense capabilities and requirements. The key Warfighter interface activities include: - Provide resource management and administration of personnel and funding. - Manage and provide programmatic direction and oversight of the MDA Wargames and Exercise program. - Provide MDA Wargames and Exercises support to the Office of the Secretary of Defense, Military Service Components, the Joint Chiefs of Staff, the CCMD, the JFCC IMD, and international partners/allies to assist warfighter Tactics, Techniques, and Procedures validation and identify gaps that drive warfighter requirements. - Lead MDA planning, testing, integration and execution of all MDA-supported CCMD Wargames and Exercises.			
FY 2024 Plans: - SEE ABOVE.			
FY 2025 Plans: - SEE ABOVE.			
FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals		31.059	26.763
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy In order to optimize the performance of the Missile Defense System, MDA leverages Defense Department executive agents as well as the TEAMS contract.			

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>	Project (Number/Name) MT03 / <i>Joint Warfighter Support Test</i>
<p>The executing agents utilize various contracting strategies in a flexible manner to maximize their contribution to the Missile Defense System. Products and Services are acquired by competitive means to the extent that is possible and practical.</p>		

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>						Project (Number/Name) MT03 / <i>Joint Warfighter Support Test</i>			
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
Wargames and Exercises - Advanced Architecture - Wargame	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	0.000	1.766	Nov 2022	0.000		0.000		-		0.000	0.000	1.766	0.000
Wargames and Exercises - Advanced Architecture - Wargame (Various)	Various	Various : Various	0.000	0.455	Nov 2022	0.700	Nov 2023	2.200	Nov 2024	-		2.200	Continuing	Continuing	Continuing
Wargames and Exercises - SimCenter / Wargames & Exercise (Various)	Various	Various : Various	0.000	0.758	Nov 2022	0.765	Nov 2023	0.773	Nov 2024	-		0.773	Continuing	Continuing	Continuing
Wargames and Exercises - SimCenter / Wargames & Exercises	C/CPIF	JACOBS TECHNOLOGY INC. : Various	0.000	4.519	Nov 2022	4.620	Nov 2023	4.622	Nov 2024	-		4.622	Continuing	Continuing	Continuing
Wargames and Exercises - Wargames Contractor Support - IRES	C/CPIF	JACOBS TECHNOLOGY INC. : Various	0.000	11.730	Nov 2022	0.230	Nov 2023	0.284	Nov 2024	-		0.284	Continuing	Continuing	Continuing
Wargames and Exercises - Wargames Contractor Support - Marzen	C/CPFF	Marzen : Various	0.000	1.704	Nov 2022	3.500	Nov 2023	3.500	Nov 2024	-		3.500	Continuing	Continuing	Continuing
Wargames and Exercises - Wargames Contractor Support-TEAMS	C/CPFF	MP SOLUTIONS, LLC : Various	0.000	3.645	Nov 2022	10.340	Nov 2023	6.684	Nov 2024	-		6.684	Continuing	Continuing	Continuing
Wargames and Exercises - Wargames Support - OGA	Various	Various : Various	0.000	1.059	Nov 2022	0.220	Nov 2023	0.850	Nov 2024	-		0.850	Continuing	Continuing	Continuing
Wargames and Exercises - Wargames and Exercises - TEAMS/Other	C/FFP	Various : Various	145.630	0.000		0.000		0.000		-		0.000	0.000	145.630	0.000
Program, Planning and Operations - Civilian Salaries	Allot	MDA : Various	3.048	1.623	Oct 2022	1.500	Oct 2023	1.432	Oct 2024	-		1.432	Continuing	Continuing	Continuing
Program, Planning and Operations - Program, Planning and Operations - TEAMS	C/CPFF	MP SOLUTIONS, LLC : Various	19.353	1.555	Nov 2022	1.600	Nov 2023	1.678	Nov 2024	-		1.678	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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>						Project (Number/Name) MT03 / <i>Joint Warfighter Support Test</i>			
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program, Planning and Operations - Travel/Transportation Account Code (TAC)	Allot	Various : Various	16.132	0.532	Nov 2022	0.639	Nov 2023	0.673	Nov 2024	-		0.673	Continuing	Continuing	Continuing
Subtotal			184.163	29.346		24.114		22.696		-		22.696	Continuing	Continuing	N/A
Remarks N/A															
Test and Evaluation (\$ 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
Wargames and Exercises - Wargames - I-SIM	C/Various	NORTHROP GRUMMAN : Various	0.000	1.155	Nov 2022	1.549	Nov 2023	1.549	Nov 2024	-		1.549	Continuing	Continuing	Continuing
Wargames and Exercises - Wargames Support - OGA	Various	Various : Various	0.000	0.558	Nov 2022	1.100	Nov 2023	0.612	Nov 2024	-		0.612	Continuing	Continuing	Continuing
Subtotal			0.000	1.713		2.649		2.161		-		2.161	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			184.163	31.059		26.763		24.857		-		24.857	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-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 0603898C / Ballistic Missile Defense Joint Warfighter Support					Project (Number/Name) MT03 / Joint Warfighter Support Test									
Significant Event Complete ▲ Significant Event Planned △		Milestone Decision Complete ★ Milestone Decision Planned ☆		Element Test Complete ◆ Element Test Planned ◇		System Level Test Complete ● System Level Test Planned ○				Complete Activity ◆ Planned Activity ◇									
					FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029		
(EX) Joint Live, Virtual, and Constructive 2021/2022					◆														
(WG) Demonstration, Table-top Exercises & Experiments 22					◆														
(EX) VIGILANT SHIELD 23					◆														
(EX) KEEN SWORD 23					◆														
(EX) GLOBAL RESPONSE EXERCISE 11					◆														
(EX) GLOBAL THUNDER 22					◆														
(EX) COMBINED FLYING TRAINING EVENT (CFTE) 23					▲														
(EX) Joint Project Optic Windmill 2023					◆	◆	◆												
(EX) AIR AND MISSILE DEFENSE EXERCISE 23					◆	◆	◆												
(WG) Demonstration, Table-top Exercises & Experiments 23					◆	◆	◆	◆											
(WG) NIMBLE TITAN 24					◆	◆	◆	◆	◆										
(EX) AUSTERE CHALLENGE 23						◆													
(EX) RESILIENT SHIELD 23						▲													
(EX) COMBINED COMMAND POST TRAINING 23-1						▲													
(EX) PACIFIC FURY 23						▲													
(EX) ASTRAL KNIGHT 23							▲												
(EX) PACIFIC SENTRY 23							▲												
(EX) GLOBAL LIGHTNING 23						◆	◆												
(EX) ORIENT SHIELD 23						◆	◆	◆											
(WG) Huntsville Wargame 23						◆	◆	◆											
(EX) ULCHI FREEDOM SHIELD 23								▲											
(EX) JOINT AIR AND MISSILE DEFENSE EXERCISE SERIES 23						◆	◆	◆											
(WG) Space and Missile Defense Symposium 23						◆	◆	◆											
(EX) EUROPEAN AIR & MISSILE DEFENSE EXERCISE 23							◇	◇	◇										

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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 0603898C / Ballistic Missile Defense Joint Warfighter Support					Project (Number/Name) MT03 / Joint Warfighter Support Test									
Significant Event Complete ▲ Significant Event Planned △		Milestone Decision Complete ★ Milestone Decision Planned ☆		Element Test Complete ◆ Element Test Planned ◇		System Level Test Complete ● System Level Test Planned ○				Complete Activity ◆ Planned Activity ◇									
					FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029		
(EX) EUROPEAN TEST BED 23					◇	◇	◇	◇											
(EX) Joint Live, Virtual, and Constructive 2023/2024					◇	◇	◇	◇	◇	◇	◇								
(EX) VIGILANT DEFENSE 24 (formerly COMBINED FLYING TRAINING EVENT (CFTE) 24)								◆											
(EX) GLOBAL THUNDER 24					◆	◆	◆	◆											
(EX) EUROPEAN AIR & MISSILE DEFENSE EXERCISE 24-1								◇											
(EX) KEEN EDGE 24						◇	◇	◇	◇										
(EX) PACIFIC FURY 24								△											
(EX) EAGLE RESOLVE 24								△											
(EX) AUSTERE CHALLENGE 24								◇											
(EX) FREEDOM SHIELD 24								△											
(EX) RESILIENT SHIELD 24								△											
(EX) AIR AND MISSILE DEFENSE EXERCISE 24								◇	◇	◇									
(EX) ASTRAL KNIGHT 24									△										
(EX) VIGILANT SHIELD 24						◇	◇	◇	◇	◇									
(WG) Missile Defeat Wargame 24					◇	◇	◇	◇	◇	◇									
(EX) EUROPEAN AIR & MISSILE DEFENSE EXERCISE 24-2									◇										
(EX) GLOBAL LIGHTNING 24								◇	◇										
(WG) Demonstration, Table-top Exercises & Experiments 24								◇	◇	◇	◇								
(EX) EUROPEAN TEST BED 24								◇	◇	◇									
(EX) JOINT AIR AND MISSILE DEFENSE EXERCISE SERIES 24								◇	◇	◇									
(EX) PACIFIC SENTRY 24										△									
(EX) ULCHI FREEDOM SHIELD 24										△									
(EX) KEEN SWORD 25									◇	◇									
VIGILANT DEFENSE (VD) 25										△									

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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 0603898C / Ballistic Missile Defense Joint Warfighter Support										Project (Number/Name) MT03 / Joint Warfighter Support Test									
Significant Event Complete ▲ Significant Event Planned △					Milestone Decision Complete ★ Milestone Decision Planned ☆					Element Test Complete ◆ Element Test Planned ◇					System Level Test Complete ● System Level Test Planned ○					Complete Activity ◆ Planned Activity ◇									
										FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029							
(EX) AUSTERE CHALLENGE 25														◇															
(EX) JOINT PROJECT OPTIC WINDMILL 2025														◇															
(EX) RESILIENT SHIELD 25														△															
FREEDOM SHIELD 25														△															
(EX) PACIFIC FURY 25														△															
(EX) AIR AND MISSILE DEFENSE EXERCISE 25														◇	◇	◇													
(EX) GLOBAL LIGHTNING 25														◇	◇														
(EX) EUROPEAN AIR & MISSILE DEFENSE EXERCISE 25															◇														
(EX) ASTRAL KNIGHT 25															△														
(EX) PACIFIC SENTRY 25															△														
(WG) Space and Missile Defense Symposium 25														◇	◇	◇													
(EX) JOINT AIR AND MISSILE DEFENSE EXERCISE SERIES 25														◇	◇	◇													
ULCHI FREEDOM SHIELD 25																△													
(EX) VIGILANT SHIELD 25																◇													
(WG) Huntsville Wargame 25														◇	◇	◇													
Regional Integrated Air and Missile Defense Exercise 25														◇	◇	◇	◇												
Internal Look 25														◇	◇	◇	◇												
(WG) Demonstration, Table-top Exercises & Experiments 25														◇	◇	◇	◇												
Juniper Cobra 25														◇	◇	◇	◇												
(EX) EUROPEAN TEST BED 25															◇	◇	◇												
(EX) VIGILANT SHIELD 26																◇	◇												
(EX) Regional Integrated Air & Missile Defense 26														◇	◇	◇	◇												
(EX) VIGILANT DEFENSE 26																	△												
(EX) KEEN EDGE 26																◇	◇	◇											

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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 0603898C / Ballistic Missile Defense Joint Warfighter Support								Project (Number/Name) MT03 / Joint Warfighter Support Test							
Significant Event Complete ▲ Significant Event Planned △				Milestone Decision Complete ★ Milestone Decision Planned ☆				Element Test Complete ◆ Element Test Planned ◇				System Level Test Complete ● System Level Test Planned ○				Complete Activity ◆ Planned Activity ◇							
								FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029			
(EX) JUNIPER COBRA 26														◇	◇								
(EX) FREEDOM SHIELD 26															△								
(EX) EAGLE RESOLVE 26															△								
(EX) PACIFIC FURY 26															△								
(EX) RESILIENT SHIELD 26															△								
(EX) GLOBAL THUNDER 26													◇	◇	◇	◇	◇						
(WG) NIMBLE TITAN 26													◇	◇	◇	◇	◇	◇					
(WG) MISSILE DEFEAT WARGAME 26													◇	◇	◇	◇	◇	◇					
(EX) AIR AND MISSILE DEFENSE EXERCISE 26															◇	◇	◇						
(EX) GLOBAL LIGHTNING 26																◇	◇						
(EX) ASTRAL KNIGHT 26																	△						
(WG) Demonstration, Table-top Exercises & Experiments 26															◇	◇	◇	◇					
(EX) EUROPEAN TEST BED 26																◇	◇	◇					
(EX) JOINT AIR AND MISSILE DEFENSE EXERCISE SERIES 26																◇	◇	◇					
(EX) ULCHI FREEDOM SHIELD 26																	△						
(EX) PACIFIC SENTRY 26																	△						
(EX) JOINT LIVE, VIRTUAL, AND CONSTRUCTIVE 2025/2026													◇	◇	◇	◇	◇	◇	◇				
(EX) Regional Integrated Air & Missile Defense 27																◇	◇	◇	◇				
(EX) GLOBAL RESPONSE EXERCISE 14																		◇					
(EX) VIGILANT DEFENSE 27																		△					
(EX) KEEN SWORD 27																			△				
(EX) VIGILANT SHIELD 27																			△				
(EX) PACIFIC FURY 27																			△				
(EX) AUSTERE CHALLENGE 27																			△				

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency														Date: March 2024															
Appropriation/Budget Activity										R-1 Program Element (Number/Name)										Project (Number/Name)									
0400 / 4										PE 0603898C / Ballistic Missile Defense Joint Warfighter Support										MT03 / Joint Warfighter Support Test									
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							
(EX) RESILIENT SHIELD 27																		△											
(EX) JOINT PROJECT OPTIC WINDMILL 2027																		◇											
(EX) GLOBAL LIGHTNING 27																		△											
EX) AIR AND MISSILE DEFENSE EXERCISE 27																		◇	◇	◇									
(EX) ASTRAL KNIGHT 27																			△										
(EX) GLOBAL THUNDER 27																			△										
(EX) EUROPEAN AIR & MISSILE DEFENSE EXERCISE 27																			△										
(EX) PACIFIC SENTRY 27																			◇										
(WG) Demonstration, Table-top Exercises & Experiments 27																		◇	◇	◇	◇								
(WG) Huntsville Wargame 27																			◇	◇	◇								
(WG) Space and Missile Defense Symposium 27																			◇	◇	◇								
(EX) EUROPEAN TEST BED 27																			◇	◇	◇								
(EX) FREEDOM SHIELD 27																				◇									
(EX) ULCHI FREEDOM SHIELD 27																				◇									
(WG) NIMBLE TITAN 28																		◇	◇	◇	◇	◇							
(EX) Joint Live, Virtual, and Constructive 2027/2028																			◇	◇	◇	◇							
(EX) Regional Integrated Air & Missile Defense 28																			◇	◇	◇	◇							
VIGILANT DEFENSE (VD) 28																				◇									
(EX) VIGILANT SHIELD 28																				◇									
(EX) RESILIENT SHIELD 28																					◇								
(EX) KEEN EDGE 28																					◇								
(EX) GLOBAL LIGHTNING 28																					△								
(WG) MISSILE DEFEAT WARGAME 28																			◇	◇	◇	◇	◇	◇					
(EX) AIR AND MISSILE DEFENSE EXERCISE 30-2																				◇	◇	◇							

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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 0603898C / Ballistic Missile Defense Joint Warfighter Support										Project (Number/Name) MT03 / Joint Warfighter Support Test																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Significant Event Complete ▲ Significant Event Planned △					Milestone Decision Complete ★ Milestone Decision Planned ☆					Element Test Complete ◆ Element Test Planned ◇					System Level Test Complete ● System Level Test Planned ○					Complete Activity ◆ Planned Activity ◇																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
										FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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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 0603898C / Ballistic Missile Defense Joint Warfighter Support								Project (Number/Name) MT03 / Joint Warfighter Support Test												
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		
(WG) Huntsville Wargame 29																										◇	◇	◇
(WG) Space and Missile Defense Symposium 29																										◇	◇	◇
(EX) JOINT AIR AND MISSILE DEFENSE EXERCISE SERIES 29																									◇	◇	◇	
(EX) EUROPEAN TEST BED 29																										◇	◇	◇
(EX) FREEDOM SHIELD 29																											◇	
(EX) ULCHI FREEDOM SHIELD 29																											◇	
(EX) Joint Live, Virtual, and Constructive 2029/2030																									◇	◇	◇	

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>	Project (Number/Name) MT03 / <i>Joint Warfighter Support Test</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
(EX) Joint Live, Virtual, and Constructive 2021/2022	1	2023	1	2023
(WG) Demonstration, Table-top Exercises & Experiments 22	1	2023	1	2023
(EX) VIGILANT SHIELD 23	1	2023	1	2023
(EX) KEEN SWORD 23	1	2023	1	2023
(EX) GLOBAL RESPONSE EXERCISE 11	1	2023	1	2023
(EX) GLOBAL THUNDER 22	1	2023	1	2023
(EX) COMBINED FLYING TRAINING EVENT (CFTE) 23	1	2023	1	2023
(EX) Joint Project Optic Windmill 2023	1	2023	3	2023
(EX) AIR AND MISSILE DEFENSE EXERCISE 23	1	2023	3	2023
(WG) Demonstration, Table-top Exercises & Experiments 23	1	2023	4	2023
(WG) NIMBLE TITAN 24	1	2023	1	2024
(EX) AUSTERE CHALLENGE 23	2	2023	2	2023
(EX) RESILIENT SHIELD 23	2	2023	2	2023
(EX) COMBINED COMMAND POST TRAINING 23-1	2	2023	2	2023
(EX) PACIFIC FURY 23	2	2023	2	2023
(EX) ASTRAL KNIGHT 23	3	2023	3	2023
(EX) PACIFIC SENTRY 23	3	2023	3	2023
(EX) GLOBAL LIGHTNING 23	2	2023	3	2023
(EX) ORIENT SHIELD 23	2	2023	4	2023
(WG) Huntsville Wargame 23	2	2023	4	2023
(EX) ULCHI FREEDOM SHIELD 23	4	2023	4	2023
(EX) JOINT AIR AND MISSILE DEFENSE EXERCISE SERIES 23	2	2023	4	2023

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>		Project (Number/Name) MT03 / <i>Joint Warfighter Support Test</i>	
		Start		End	
Events	Quarter	Year	Quarter	Year	
(WG) Space and Missile Defense Symposium 23	2	2023	4	2023	
(EX) EUROPEAN AIR & MISSILE DEFENSE EXERCISE 23	3	2023	1	2024	
(EX) EUROPEAN TEST BED 23	2	2023	1	2024	
(EX) Joint Live, Virtual, and Constructive 2023/2024	2	2023	1	2025	
(EX) VIGILANT DEFENSE 24 (formerly COMBINED FLYING TRAINING EVENT (CFTE) 24)	1	2024	1	2024	
(EX) GLOBAL THUNDER 24	2	2023	1	2024	
(EX) EUROPEAN AIR & MISSILE DEFENSE EXERCISE 24-1	1	2024	1	2024	
(EX) KEEN EDGE 24	3	2023	2	2024	
(EX) PACIFIC FURY 24	2	2024	2	2024	
(EX) EAGLE RESOLVE 24	2	2024	2	2024	
(EX) AUSTERE CHALLENGE 24	2	2024	2	2024	
(EX) FREEDOM SHIELD 24	2	2024	2	2024	
(EX) RESILIENT SHIELD 24	2	2024	2	2024	
(EX) AIR AND MISSILE DEFENSE EXERCISE 24	1	2024	3	2024	
(EX) ASTRAL KNIGHT 24	3	2024	3	2024	
(EX) VIGILANT SHIELD 24	3	2023	3	2024	
(WG) Missile Defeat Wargame 24	2	2023	3	2024	
(EX) EUROPEAN AIR & MISSILE DEFENSE EXERCISE 24-2	3	2024	3	2024	
(EX) GLOBAL LIGHTNING 24	2	2024	3	2024	
(WG) Demonstration, Table-top Exercises & Experiments 24	1	2024	4	2024	
(EX) EUROPEAN TEST BED 24	2	2024	4	2024	
(EX) JOINT AIR AND MISSILE DEFENSE EXERCISE SERIES 24	2	2024	4	2024	
(EX) PACIFIC SENTRY 24	4	2024	4	2024	
(EX) ULCHI FREEDOM SHIELD 24	4	2024	4	2024	
(EX) KEEN SWORD 25	4	2024	1	2025	

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>		Project (Number/Name) MT03 / <i>Joint Warfighter Support Test</i>	
		Start		End	
Events	Quarter	Year	Quarter	Year	
VIGILANT DEFENSE (VD) 25	1	2025	1	2025	
(EX) AUSTERE CHALLENGE 25	2	2025	2	2025	
(EX) JOINT PROJECT OPTIC WINDMILL 2025	2	2025	2	2025	
(EX) RESILIENT SHIELD 25	2	2025	2	2025	
FREEDOM SHIELD 25	2	2025	2	2025	
(EX) PACIFIC FURY 25	2	2025	2	2025	
(EX) AIR AND MISSILE DEFENSE EXERCISE 25	1	2025	3	2025	
(EX) GLOBAL LIGHTNING 25	2	2025	3	2025	
(EX) EUROPEAN AIR & MISSILE DEFENSE EXERCISE 25	3	2025	3	2025	
(EX) ASTRAL KNIGHT 25	3	2025	3	2025	
(EX) PACIFIC SENTRY 25	3	2025	3	2025	
(WG) Space and Missile Defense Symposium 25	2	2025	4	2025	
(EX) JOINT AIR AND MISSILE DEFENSE EXERCISE SERIES 25	2	2025	4	2025	
ULCHI FREEDOM SHIELD 25	4	2025	4	2025	
(EX) VIGILANT SHIELD 25	4	2025	4	2025	
(WG) Huntsville Wargame 25	2	2025	4	2025	
Regional Integrated Air and Missile Defense Exercise 25	1	2025	4	2025	
Internal Look 25	1	2025	4	2025	
(WG) Demonstration, Table-top Exercises & Experiments 25	1	2025	4	2025	
Juniper Cobra 25	1	2025	4	2025	
(EX) EUROPEAN TEST BED 25	2	2025	4	2025	
(EX) VIGILANT SHIELD 26	4	2025	1	2026	
(EX) Regional Integrated Air & Missile Defense 26	2	2025	1	2026	
(EX) VIGILANT DEFENSE 26	1	2026	1	2026	
(EX) KEEN EDGE 26	4	2025	2	2026	

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>		Project (Number/Name) MT03 / <i>Joint Warfighter Support Test</i>	
		Start		End	
Events	Quarter	Year	Quarter	Year	
(EX) JUNIPER COBRA 26	1	2026	2	2026	
(EX) FREEDOM SHIELD 26	2	2026	2	2026	
(EX) EAGLE RESOLVE 26	2	2026	2	2026	
(EX) PACIFIC FURY 26	2	2026	2	2026	
(EX) RESILIENT SHIELD 26	2	2026	2	2026	
(EX) GLOBAL THUNDER 26	3	2025	3	2026	
(WG) NIMBLE TITAN 26	1	2025	3	2026	
(WG) MISSILE DEFEAT WARGAME 26	2	2025	3	2026	
(EX) AIR AND MISSILE DEFENSE EXERCISE 26	1	2026	3	2026	
(EX) GLOBAL LIGHTNING 26	2	2026	3	2026	
(EX) ASTRAL KNIGHT 26	3	2026	3	2026	
(WG) Demonstration, Table-top Exercises & Experiments 26	1	2026	4	2026	
(EX) EUROPEAN TEST BED 26	2	2026	4	2026	
(EX) JOINT AIR AND MISSILE DEFENSE EXERCISE SERIES 26	2	2026	4	2026	
(EX) ULCHI FREEDOM SHIELD 26	4	2026	4	2026	
(EX) PACIFIC SENTRY 26	4	2026	4	2026	
(EX) JOINT LIVE, VIRTUAL, AND CONSTRUCTIVE 2025/2026	2	2025	1	2027	
(EX) Regional Integrated Air & Missile Defense 27	2	2026	1	2027	
(EX) GLOBAL RESPONSE EXERCISE 14	1	2027	1	2027	
(EX) VIGILANT DEFENSE 27	1	2027	1	2027	
(EX) KEEN SWORD 27	1	2027	1	2027	
(EX) VIGILANT SHIELD 27	1	2027	1	2027	
(EX) PACIFIC FURY 27	2	2027	2	2027	
(EX) AUSTERE CHALLENGE 27	2	2027	2	2027	
(EX) RESILIENT SHIELD 27	2	2027	2	2027	

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>		Project (Number/Name) MT03 / <i>Joint Warfighter Support Test</i>	
		Start		End	
Events	Quarter	Year	Quarter	Year	
(EX) JOINT PROJECT OPTIC WINDMILL 2027	2	2027	2	2027	
(EX) GLOBAL LIGHTNING 27	2	2027	2	2027	
(EX) AIR AND MISSILE DEFENSE EXERCISE 27	1	2027	3	2027	
(EX) ASTRAL KNIGHT 27	3	2027	3	2027	
(EX) GLOBAL THUNDER 27	3	2027	3	2027	
(EX) EUROPEAN AIR & MISSILE DEFENSE EXERCISE 27	3	2027	3	2027	
(EX) PACIFIC SENTRY 27	3	2027	3	2027	
(WG) Demonstration, Table-top Exercises & Experiments 27	1	2027	4	2027	
(WG) Huntsville Wargame 27	2	2027	4	2027	
(WG) Space and Missile Defense Symposium 27	2	2027	4	2027	
(EX) EUROPEAN TEST BED 27	2	2027	4	2027	
(EX) FREEDOM SHIELD 27	4	2027	4	2027	
(EX) ULCHI FREEDOM SHIELD 27	4	2027	4	2027	
(WG) NIMBLE TITAN 28	1	2027	1	2028	
(EX) Joint Live, Virtual, and Constructive 2027/2028	2	2027	1	2028	
(EX) Regional Integrated Air & Missile Defense 28	2	2027	1	2028	
VIGILANT DEFENSE (VD) 28	1	2028	1	2028	
(EX) VIGILANT SHIELD 28	1	2028	1	2028	
(EX) RESILIENT SHIELD 28	2	2028	2	2028	
(EX) KEEN EDGE 28	2	2028	2	2028	
(EX) GLOBAL LIGHTNING 28	2	2028	2	2028	
(WG) MISSILE DEFEAT WARGAME 28	2	2027	3	2028	
(EX) AIR AND MISSILE DEFENSE EXERCISE 30-2	1	2028	3	2028	
(EX) EAGLE RESOLVE 28	3	2028	3	2028	
(EX) JUNIPER COBRA 28	3	2028	3	2028	

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>		Project (Number/Name) MT03 / <i>Joint Warfighter Support Test</i>	
		Start		End	
Events	Quarter	Year	Quarter	Year	
(EX) ASTRAL KNIGHT 28	3	2028	3	2028	
(EX) GLOBAL THUNDER 28	3	2028	3	2028	
(EX) EUROPEAN AIR & MISSILE DEFENSE EXERCISE 28	3	2028	3	2028	
(EX) JOINT AIR AND MISSILE DEFENSE EXERCISE SERIES 27	2	2027	4	2028	
(WG) Demonstration, Table-top Exercises & Experiments 28	1	2028	4	2028	
(EX) EUROPEAN TEST BED 28	2	2028	4	2028	
(EX) FREEDOM SHIELD 28	4	2028	4	2028	
(EX) Regional Integrated Air & Missile Defense 29	2	2028	1	2029	
(EX) VIGILANT DEFENSE 29	1	2029	1	2029	
(EX) KEEN SWORD 29	1	2029	1	2029	
(EX) VIGILANT SHIELD 29	1	2029	1	2029	
(EX) PACIFIC FURY 29	2	2029	2	2029	
(EX) AUSTERE CHALLENGE 29	2	2029	2	2029	
(EX) RESILIENT SHIELD 29	2	2029	2	2029	
(EX) JOINT PROJECT OPTIC WINDMILL 2029	2	2029	2	2029	
(EX) GLOBAL LIGHTNING 29	2	2029	2	2029	
(EX) AIR AND MISSILE DEFENSE EXERCISE 29	1	2029	3	2029	
(EX) ASTRAL KNIGHT 29	3	2029	3	2029	
(EX) GLOBAL THUNDER 29	3	2029	3	2029	
(EX) EUROPEAN AIR & MISSILE DEFENSE EXERCISE 29	3	2029	3	2029	
(EX) PACIFIC SENTRY 29	3	2029	3	2029	
(WG) Demonstration, Table-top Exercises & Experiments 29	1	2029	4	2029	
(WG) Huntsville Wargame 29	2	2029	4	2029	
(WG) Space and Missile Defense Symposium 29	2	2029	4	2029	
(EX) JOINT AIR AND MISSILE DEFENSE EXERCISE SERIES 29	2	2029	4	2029	

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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 0603898C / Ballistic Missile Defense Joint Warfighter Support		Project (Number/Name) MT03 / Joint Warfighter Support Test
		Start		End
Events		Quarter	Year	Quarter Year
(EX) EUROPEAN TEST BED 29		2	2029	4 2029
(EX) FREEDOM SHIELD 29		4	2029	4 2029
(EX) ULCHI FREEDOM SHIELD 29		4	2029	4 2029
(EX) Joint Live, Virtual, and Constructive 2029/2030		2	2029	1 2030

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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 0603898C / Ballistic Missile Defense Joint Warfighter Support				Project (Number/Name) MC03 / 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
MC03: Cyber Operations	0.599	0.153	0.164	0.168	-	0.168	0.171	0.174	0.177	0.181	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note N/A												
A. Mission Description and Budget Item Justification This program verifies and validates that cybersecurity and/or cybersecurity-enabled products (firewalls, data/network encryption devices, routers, Intrusion Detection Systems, etc.) used within the Missile Defense Agency (MDA) infrastructure have a current and Evaluated Assurance Level (EAL) certification and rating. They assure that validated information technology (IT) products are listed on the Department of Defense (DoD) Approved Products List Integrated Tracking System (APLITS). There is an additional requirement to routinely identify findings and prepare a report with recommendations. This support is required in the IT product evaluation. Activities in the Project are necessary to comply with the Federal Information Systems Modernization Act of 2014.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: Strategic Warfighter Integration Software Assurance Support Articles: Description: Perform manual and automated software code analysis, using government furnished equipment tools (e.g. Fortify 360), to detect false positives, weaknesses, and vulnerabilities. - Verify and validate cybersecurity and/or cybersecurity-enabled products (firewalls, data/network encryptors, routers, Intrusion Detection Systems, etc.) used within the MDA infrastructure have a current and EAL certification and rating. Validate IT products are listed on the DoD APLITS. - Participate in meetings with customers to review software analysis findings and proposed courses of action for remediation. - Prepare a comprehensive report detailing the weaknesses and vulnerabilities found. Document the references to files and line numbers. - Maintain a record of all software code analysis documentation and organized in accordance with Government policy. Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: - SEE ABOVE FY 2025 Plans:									0.153	0.164	0.168	
									-	-	-	

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>	Project (Number/Name) MC03 / <i>Cyber Operations</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
- SEE ABOVE			
FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals		0.153	0.164
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy This project leverages the MDA Integrated Research and Development for Enterprise Solutions contract which provides enterprise and baseline IT 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 0603898C / Ballistic Missile Defense Joint Warfighter Support						Project (Number/Name) MC03 / Cyber Operations			
Test and Evaluation (\$ 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
Strategic Warfighter Integration Software Assurance Support - DW Cyber Support (ICVA)	C/CPFF	Decisive Analytics Corp. : CO	0.599	0.153	Jan 2023	0.164	Jan 2024	0.168	Jan 2025	-		0.168	Continuing	Continuing	Continuing
Subtotal			0.599	0.153		0.164		0.168		-		0.168	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			0.599	0.153		0.164		0.168		-		0.168	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-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 0603898C / Ballistic Missile Defense Joint Warfighter Support										Project (Number/Name) MC03 / Cyber Operations									
Significant Event Complete ▲					Milestone Decision Complete ★					Element Test Complete ◆					System Level Test Complete ●					Complete Activity ◆									
Significant Event Planned △					Milestone Decision Planned ☆					Element Test Planned ◇					System Level Test Planned ○					Planned Activity ◇									
										FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029							
MC03 Cyber Operations										◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇					

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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 0603898C / Ballistic Missile Defense Jo int Warfighter Support	Project (Number/Name) MC03 / Cyber Operations

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MC03 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 0603898C / Ballistic Missile Defense Jo int Warfighter Support				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: Program-Wide Support	22.728	2.337	1.715	1.837	-	1.837	2.067	2.083	2.310	2.453	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)

Title: Program Wide Support		FY 2023	FY 2024	FY 2025
Articles:		2.337	1.715	1.837
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		-	-	-

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> N/A</p>			
Accomplishments/Planned Programs Subtotals		2.337	1.715
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0603898C / <i>Ballistic Missile Defense Joint Warfighter Support</i>						Project (Number/Name) MD40 / <i>Program-Wide Support</i>			
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Allot	MDA : Multi: AK,AL, CA, CO, VA	9.021	1.280	Oct 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	TBD : AL	0.000	0.000		0.000		1.769	Nov 2024	-		1.769	0.000	1.769	0.000
Program Wide Support - Agency Operations and Support Services (Reqn)	Reqn	Various : Multi: AK, AL, CA, CO, VA	1.496	0.000		0.000		0.000		-		0.000	0.000	1.496	0.000
Program Wide Support - Agency Operations and Support Services - DAU	MIPR	DOD - DEFENSE ACQUISITION UNIVERSITY (DAU) : AL, CO, VA	10.681	0.149	Jan 2023	1.587	Jan 2024	0.000		-		0.000	0.000	12.417	0.000
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various: : Various	1.457	0.000		0.000		0.000		-		0.000	0.000	1.457	0.000
Subtotal			22.655	1.429		1.587		1.769		-		1.769	Continuing	Continuing	N/A
Remarks N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations Management	C/CPFF	L.C. Wright, Inc. : AL	0.073	0.908	Jun 2023	0.128	Dec 2023	0.068	Dec 2024	-		0.068	Continuing	Continuing	Continuing
Subtotal			0.073	0.908		0.128		0.068		-		0.068	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 0603898C / Ballistic Missile Defense Jo int Warfighter Support					Project (Number/Name) MD40 / Program-Wide Support			
	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	22.728	2.337		1.715		1.837		-		1.837	Continuing	Continuing	N/A

Remarks

Award Dates 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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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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 0603898C / Ballistic Missile Defense Jo int Warfighter Support	Project (Number/Name) MD40 / Program-Wide Support	

Schedule Details

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

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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: Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 0603904C / Missile Defense Integration and Operations Center (MDIOC)
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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	511.511	47.629	50.549	54.525	-	54.525	56.851	58.115	59.600	61.362	Continuing	Continuing
MD22: Missile Defense Integration and Operations Center (MDIOC)	474.765	45.214	48.081	51.737	-	51.737	53.746	54.980	56.190	57.752	Continuing	Continuing
MC22: Cyber Operations	5.058	0.622	0.671	0.689	-	0.689	0.703	0.717	0.731	0.746	Continuing	Continuing
MD40: Program-Wide Support	31.688	1.793	1.797	2.099	-	2.099	2.402	2.418	2.679	2.864	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

N/A

A. Mission Description and Budget Item Justification

The MDIOC is the Missile Defense Agency's (MDA) field operating activity in Colorado Springs, Colorado. The MDIOC provides necessary infrastructure and support services through a mission execution platform for MDA elements/components and designated Combatant Commanders' Missile Defense System operations executing missions at the MDIOC. The Integration and Operations Center is responsible for providing a single, integrated set of skilled personnel matrixed from across MDA to manage this mission. The MDIOC mission facilities consist of a highly secure research and development complex and a consolidated support facility located at Schriever Space Force Base, just east of North American Aerospace Defense Command, United States Northern Command and United States Space Command. The MDIOC provides mission essential system technical capabilities and subject matter expertise in a dedicated and adaptable environment that enables developers, testers, and operators to evolve, assess and deliver the capabilities for layered missile defense execution for homeland defense and theater/regional support. The MDIOC interfaces with the Information Technology and Cybersecurity Enterprise to provide high availability access to worldwide secure communications, network health and status monitoring, mission critical restoral capability, and technical expertise for all MDA directed activities and events. The MDIOC functions as the mission control for Missile Defense System distributed ground tests and system wide flight tests enabling the mission and test directors to control both main and associated test operations using secure voice, test, and mission network hubs from the MDIOC. The MDIOC also functions as the only system-level integration and interoperability mission execution platform for Missile Defense System fire control; and it provides the physical interface between the developers and the Combatant Command (CCMD) warfighters.

MDIOC mission facilities contribute to the Missile Defense System by directly supporting the concept of Concurrent Test, Training, and Operations by providing mission assurance, engineering integration, resource scheduling, and configuration management for MDA and Missile Defense System-level test, training, and operational mission execution.

MDIOC Major Program Goals:

- Provide the capabilities and services necessary to support mission assurance, engineering integration, resource scheduling for ground and flight tests, and configuration

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency				Date: March 2024		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0603904C I Missile Defense Integration and Operations Center (MDIOC)				
management of on-site systems and services						
- Ensure around the clock support and restoral of designated Missile Defense System operational systems and services						
- Maintain interface with designated CCMD missile defense activities; host/support the headquarters and operations center for the United States Space Command's Joint Functional Component Command for Integrated Missile Defense						
- Maintain and improve the reliability, availability, and maintainability of MDIOC mission critical systems						
B. Program Change Summary (\$ in Millions)		FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget		49.367	50.549	56.624	-	56.624
Current President's Budget		47.629	50.549	54.525	-	54.525
Total Adjustments		-1.738	0.000	-2.099	-	-2.099
• 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		-0.997	0.000			
• Other Adjustment		-0.741	0.000	-2.099	-	-2.099
Change Summary Explanation						
N/A						

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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 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>				Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	474.765	45.214	48.081	51.737	-	51.737	53.746	54.980	56.190	57.752	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

The MDIOC sustains and operates a 24 hours a day, 7 days a week, 365 days a year mission complex for research, development, testing, training, and operations for Missile Defense System activities. The MDIOC supports the Ground-based Midcourse Defense Mission Control Center Facility, as well as the Command, Control, Battle Management, and Communications (C2BMC) Integration and Test Centers and the C2BMC Experimentation Laboratories. It provides infrastructure support for the Space Sensors Missile Defense Space Center; and the Targets and Countermeasures Mission Control Center - Targets. The MDIOC also provides developmental support to the Enterprise Sensors Laboratory composed of a common satellite ground station and sensor netting test bed for designated Missile Defense System elements. The MDIOC supports Missile Defense System test events based on the Integrated Master Test Plan. It supports Missile Defense System Critical Engagement Conditions testing and analysis through the operation of the Test Execution Control node for distributed Missile Defense System ground tests. During system flight tests, the MDIOC provides infrastructure (power; Heating, Ventilation and Air Conditioning; and communications) support to the Flight Test Director and crew, and ensures the protection of facility and test assets throughout the test window. Further, the MDIOC provides the facilities that support operations of the Missile Defense Element, manned by the U.S. Army 100th Missile Defense Brigade, the United States Northern Command, C2BMC Command and Control Center, and the United States Space Command's (USSPACECOM's) Joint Functional Component Command for Integrated Missile Defense. In addition, the MDIOC supports the Missile Defense Agency (MDA) Operations Support Center, which provides situational awareness on the health and status of the end-to-end Missile Defense System. The MDIOC hosts Missile Defense System wargames and exercises in support of the warfighter, and delivers the requisite infrastructure to integrate the modeling and simulation assets that form system-level constructive simulations for full-envelope Missile Defense System performance assessments, with surrogate capability for Missile Defense System ground tests. The MDIOC maintains a technical repository of Missile Defense System Implementation Architectures for real-time operations and configuration control; provides state change management and asset management technical support for the Missile Defense System; and provides the technical environment for Missile Defense System Watch Officers, Safety Officers, and Information Assurance Officers to perform their assigned duties. The MDIOC also supports the operations of the Joint Early Warning Laboratory, which provides USSPACECOM with quick response analyses of real-world launches, and rapid anomaly identification and resolution.

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

	FY 2023	FY 2024	FY 2025
Title: Infrastructure Systems and Support	17.140	18.244	18.738
Articles:	-	-	-
Description: RECURRING:			

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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 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>		Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>MDIOC Communications and Special Purpose Processing Node (SPPN):</p> <ul style="list-style-type: none"> - Maintain a Department of Defense (DoD) compliant SPPN capable of meeting the unique network and data center services required to develop and deploy a layered Missile Defense System to defend the United States - Provide distinctive specifications and provisioning requirements associated with the MDA Research, Development, Test and Evaluation (RDT&E) Mission - Provide capabilities that dynamically interconnect and integrate multiple RDT&E systems to large data sets, and enable collaboration in near real-time with National Research Laboratories and Test Ranges; and Defense Industrial Base industry partners throughout the Missile Defense System acquisition lifecycle - Sustain the SPPN infrastructure with routers, switches, firewalls, and intrusion detection systems that provide information technology (IT) support to over 10,500 MDA classified/unclassified users worldwide - Provide network operations and network monitoring; development of detailed solutions, designs, and plans; Disaster Recovery and Continuity of Operations rehearsals; internet access management; and web filtering - Sustain core communications distribution services across the MDA Enterprise - Plan, engineer, and implement sustainment projects for general IT services and business systems consistent with the IT architecture roadmap - Acquire and distribute mission critical unclassified and secure communication capability to resident MDA elements/components and Missile Defense System and Warfighter operational elements - Provide computer hosting of specified threat models and support the integration of other threat tools as required <p>End User Support:</p> <ul style="list-style-type: none"> - Sustain End User core service support via an Integrated Service Desk 24 hours a day, 7 days a week, 365 days a year for mission event/test and core information systems for unclassified and classified users - Monitor networks for user compliance with DoD policies and report incidents - Maintain Printing and Copy Services - Sustain email services (Exchange servers, BlackBerry Enterprise Services servers and archiving storage area networks) - Sustain file services (file servers and storage area networks) - Maintain Directory Services (Active Directory and domain controller servers) - Maintain Authentication services (Public Key Infrastructure/Common Access Card) - Maintain current hardware and software licenses for IT operational systems - Maintain IT lifecycle asset management of end user devices (desktops, laptops, monitors, printers, thin clients, and mobile devices) <p>Hardware and Software Asset Management:</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 0603904C / Missile Defense Integration and Operations Center (MDIOC)	Project (Number/Name) MD22 / Missile Defense Integration and Operations Center (MDIOC)		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<div>- Manage government property and IT hardware and software in accordance with the Federal Acquisition Regulations (FAR)/ DoD FAR Supplements to include accountability, reporting, warehouse management, asset transportation and excess asset management</div> <div>- Maintain an inventory of IT hardware and software assets connected or used in the Unclassified Local Area Network, Classified Local Area Network, Secret Internet Protocol Router Network, and Top Secret/Special Compartmented Information networks</div> <div>- Specific and/or unique accomplishments to each FY are as follows:</div> <div>FY 2024 Plans: - SEE ABOVE</div> <div>FY 2025 Plans: - SEE ABOVE</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement: N/A</div>					
<div>Title: Facilities and Maintenance</div> <div>Articles:</div> <div>Description: RECURRING: Host Tenant Support (Electrical, Gas, Sewer, Water, Steam, Chilled Water, Waste Water, Landscaping, Refuse Removal, and Communications Support): - Procure utility services through Space Base Delta 1 (Host Base) - Sustain utility infrastructure and delivery systems</div> <div>Environmental, Safety and Occupational Health: - Maintain and update the program accident prevention plan - Provide required industrial safety training to facility services personnel - Procure and distribute personal protection equipment for contracted activities - Ensure compliance with Hazardous Waste, Hazardous Material Recycling, and National Environmental Policy Act programs - Conduct recurring safety and environmental audits</div> <div>Facilities Operations and Sustainment: - Provide 24 hours a day, 7 days a week, 365 days a year, facility maintenance break/fix response for all facility systems (electrical;</div>			13.363 -	13.620 -	14.739 -

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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 0603904C / Missile Defense Integration and Operations Center (MDIOC)		Project (Number/Name) MD22 / Missile Defense Integration and Operations Center (MDIOC)		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2023	FY 2024	FY 2025
<p>Heating, Ventilation, and Air Conditioning; plumbing; locksmith) with a response time of 15 minutes after normal duty hours</p> <p>- Conduct preventative maintenance inspections for all building systems</p> <p>Facilities Engineering:</p> <p>- Conduct Management Process Facility Installation Standard Audits</p> <p>- Provide risk management analysis and mitigation plans</p> <p>- Maintain infrastructure drawings and configuration management databases</p> <p>- Develop and document facility long range planning programming</p> <p>- Provide consulting services, preliminary designs and engineering rough order of magnitude estimates for required infrastructure buildout changes</p> <p>MDIOC Operating Expenses:</p> <p>- Lease General Services Administration vehicles and a commercial warehouse</p> <p>Facility Services:</p> <p>- Provide custodial services for over 675,000 square feet of floor space in Buildings 720 and 730</p> <p>- Provide Copy Center and Shuttle Services for over 2,000 personnel</p> <p>- Provide in and out processing of civilian and contractor support services personnel</p> <p>- Conduct personnel moves to include cubicle and workstation setup, teardown, and reconfiguration</p> <p>- Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <p>- SEE ABOVE</p> <p>FY 2025 Plans:</p> <p>- SEE ABOVE</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>N/A</p>						
Title: Operations and Sustainment				3.138	3.030	3.242
Articles:				-	-	-
Description: RECURRING:						

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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 0603904C / Missile Defense Integration and Operations Center (MDIOC)	Project (Number/Name) MD22 / Missile Defense Integration and Operations Center (MDIOC)		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<div>- Includes Civilian and Contract Service Support for operations and sustainment of all MDIOC activities contributing to the mission execution platform</div> <div>- Provide quality event planning, coordination, logistics, security access and host support for all MDIOC events and visitors</div> <div>- Deliver integrated service coordination for all MDIOC event and protocol support</div> <div>- Training and Travel</div> <div>- Specific and/or unique accomplishments to each FY are as follows:</div> <div>FY 2024 Plans:</div> <div>- SEE ABOVE</div> <div>FY 2025 Plans:</div> <div>- SEE ABOVE</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement:</div> <div>N/A</div>					
<div>Title: Infrastructure Systems Repair, Sustainment, and Critical Upgrades</div> <div>Articles:</div> <div>Description: RECURRING:</div> <div>- Heating, Ventilation, and Air Conditioning Air Handlers (AHU's) end-of-life, end-of-service component replacement and capacity upgrade to improve mission assurance for critical mission areas within the MDIOC facility</div> <div>- Annual Fire Suppression System Reviews</div> <div>- Specific and/or unique accomplishments to each FY are as follows:</div> <div>FY 2024 Plans:</div> <div>- Decrease from FY 2023 to FY 2024 reflects a reduction in funding and the requirement to replace of one Heating, Ventilation, and Air Conditioning (Air Handlers).</div> <div>FY 2025 Plans:</div> <div>- Increase in planned replacements of end-of-life, end-of-service AHU's that deliver cooling to critical components within the MDIOC. Increases the annual replacement of units from two AHU's to four mitigating the risk to MDIOC operations in the event of an air quality and air flow failure.</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement:</div>			4.684 -	4.109 -	4.777 -

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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 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>		Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
Increase from FY 2024 to FY 2025 provides for the replacement of two AHUs that are beyond end of life along with other mission essential infrastructure components that are also at end of life. AHU and other mission essential replacement activities lessen the risk to MDIOC operations, which support Missile Defense System operations and test.					
Title: Facilities Mission Engineering and Program Integration			6.889	9.078	10.241
Articles:			-	-	-
Description: RECURRING: - Provide Mission Assurance by ensuring the successful execution of Concurrent Test, Training, and Operations (CTTO) activities at the MDIOC facility - Ensure independent verification, and coordinate customer validation of all activities, work products and requirements fulfilled by MDIOC Engineering - Provide Risk Management by identifying, assessing, and prioritizing risks. Coordinate resources to minimize, monitor and control the probability and impact of events. Develop strategies to manage threats, including avoidance, reduction, transfer and retention - Ensure Coordination and Integration through a proactive approach of sharing critical information necessary for the successful conduct of CTTO activities in a dynamic environment - Provide Systems Engineering through the management and execution of the MDIOC Engineering Review Board (ERB) - Provide governance and training to stakeholders, enforce policy, establish and maintain the ERB for the vetting and implementation of requirements - Ensure Configuration Management so that CTTO events are not disrupted by multiple competing activities - Maintain the Technical Baseline to establish a common reference, and implement a formalized process that provides stability across the MDIOC - Provide Change Management to the MDIOC Technical Baseline and MDIOC physical infrastructure. Research how any changes may affect CTTO activities and determine when change is least likely to impact key functionality. Ensure all changes, across the technical baseline, are clearly recorded and identified on a near-real-time basis - Provide effective requirements management by documenting decisions and information generated during requirements development in conjunction with the design solution processes - Ensure Organizational Integration by establishing and enforcing seamless integration across the MDIOC. Provide a repeatable process for information sharing and coordination - Provide Contract Program Management including business, finance, contract administration and management. Identify and manage cross-project dependencies. Conduct activities within established cost, schedule, and performance parameters - Provide oversight, configuration management and risk assessment for the infrastructure drawings, long range planning and installation standard audits					

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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 0603904C / Missile Defense Integration and Operations Center (MDIOC)					Project (Number/Name) MD22 / Missile Defense Integration and Operations Center (MDIOC)			
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:												
FY 2024 Plans: - Provide oversight, configuration management and risk assessment for the infrastructure drawings, long range planning and installation standard audits.												
FY 2025 Plans: - Integration of MDIOC engineering, mission assurance, and configuration management activities to provide facility level insight into maturity and effectiveness of board-level management processes - Leveraging Failure Mode, Effects, and Criticality Analysis and Reliability, Availability, and Maintainability assessment data, establish and monitor facility infrastructure that may impact the MDIOC's ability to support the Missile Defense System by developing a plan to systematically replace aging infrastructure to ensure facility performance												
FY 2024 to FY 2025 Increase/Decrease Statement: Increase from FY 2024 to FY 2025 provides for additional requirements related to enhanced levels of engineering analysis, auditing and corrective action management supporting comprehensive mission assurance and sound systems engineering processes as MDIOC Technical Baseline and Configuration Management activities fully mature.												
Accomplishments/Planned Programs Subtotals									45.214	48.081	51.737	
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 Defense Terminal Defense Segment	194.264	220.311	367.279	-	367.279	543.868	554.429	464.018	314.936	Continuing	Continuing	
• 0603882C: Ballistic Missile Defense Midcourse Defense Segment	670.808	903.633	768.227	-	768.227	856.218	842.985	956.974	1,007.150	Continuing	Continuing	
• 0603890C: BMD Enabling Programs	589.588	597.720	609.406	-	609.406	623.893	625.985	659.983	677.858	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 Defense Command and Control, Battle Management & Communication	587.689	554.201	569.662	-	569.662	570.632	587.929	618.050	651.885	Continuing	Continuing	

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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 0603904C / Missile Defense Integration and Operations Center (MDIOC)				Project (Number/Name) MD22 / Missile Defense Integration and Operations Center (MDIOC)			
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
• 0603898C: Ballistic Missile Defense Joint Warfighter Support	50.942	48.248	47.723	-	47.723	48.921	50.062	51.376	52.565	Continuing	Continuing
• 0603914C: Ballistic Missile Defense Test	376.650	360.455	367.491	-	367.491	418.514	383.362	435.626	438.825	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
The Integrated Research and Development for Enterprise Solutions contract is the major contract providing integrated services within the MDIOC. The acquisition strategy for MDIOC mission execution is to employ a contract to perform designated integration and sustainment tasks to conduct Missile Defense System RDT&E. The MDIOC is operated by missile defense subject matter experts composed of government, military, civilian personnel, MDIOC contract support services, and major defense contractors.											

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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 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>						Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>			
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
Infrastructure Systems and Support - Contractor Support Labor	C/CPAF	NETWORK MANAGEMENT RESOURCES, INC. : Various	0.000	1.600	Dec 2022	1.734	Dec 2023	1.769	Dec 2024	-		1.769	Continuing	Continuing	Continuing
Infrastructure Systems and Support - Contractor Support Labor - IRES	C/CPAF	JACOBS TECHNOLOGY INC. : Various	190.805	15.084	Nov 2022	16.056	Dec 2023	16.510	Nov 2024	-		16.510	Continuing	Continuing	Continuing
Infrastructure Systems and Support - Defense Red Switch Network	MIPR	DOD - USAF - AIR FORCE LIFE CYCLE MANAGEMENT CENTER (AFLCMC) : CO	0.000	0.456	Nov 2022	0.454	Nov 2023	0.459	Nov 2024	-		0.459	Continuing	Continuing	Continuing
Facilities and Maintenance - Drivers, Mailroom, GSA Lease	Various	Various : CO	1.986	0.892	Nov 2022	0.722	Nov 2023	0.773	Nov 2024	-		0.773	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC Custodial	C/FFP	HUNTSVILLE REHABILITATION FOUNDATION : CO	12.878	1.944	Dec 2022	1.984	Dec 2023	2.024	Dec 2024	-		2.024	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC Facilities, Engineering and Maintenance	C/FFP	JACOBS TECHNOLOGY INC. : CO	32.039	7.291	Nov 2022	7.752	Nov 2023	8.717	Nov 2024	-		8.717	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC Host Tenant Support Utilities	MIPR	DOD - USSF - 50TH CIVIL ENGINEER SQUADRON (50 CES) : CO	36.384	3.236	Nov 2022	3.162	Oct 2023	3.225	Oct 2024	-		3.225	Continuing	Continuing	Continuing
Operations and Sustainment - TEAMS Support	C/CPFF	Various : CO	27.622	1.552	Nov 2022	1.473	Oct 2023	1.613	Oct 2024	-		1.613	Continuing	Continuing	Continuing
Operations and Sustainment - Civilian Salaries	Allot	MDIOC : Colorado Springs, CO	34.140	1.582	Oct 2022	1.539	Oct 2023	1.611	Oct 2024	-		1.611	Continuing	Continuing	Continuing
Engineering and Event Services - Engineering and Event Services	C/CPAF	MDIOC /Jacobs Technology Inc. :	116.605	0.000		0.000		0.000		-		0.000	0.000	116.605	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 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>						Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>			
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
		Colorado Springs, CO													
Operations and Sustainment - Travel and Training	Allot	MDIOC : Colorado Springs, CO	0.921	0.004	Nov 2022	0.018	Nov 2023	0.018	Nov 2024	-		0.018	Continuing	Continuing	Continuing
Infrastructure Systems Repair, Sustainment, and Critical Upgrades - FSRM MDIOC SRM	MIPR	DOD - USA - US ARMY CORPS OF ENGINEERS (USACE) : Various	1.903	0.000		1.903	Dec 2023	1.953	Dec 2024	-		1.953	Continuing	Continuing	Continuing
Infrastructure Systems Repair, Sustainment, and Critical Upgrades - MDIOC FSRM	C/CPIF	JACOBS TECHNOLOGY INC. : CO	3.261	4.684	Jan 2023	2.206	Dec 2023	2.824	Dec 2024	-		2.824	Continuing	Continuing	Continuing
Facilities Mission Engineering and Program Integration - Mission Engineering and Program Integration	C/CPIF	JACOBS TECHNOLOGY INC. : CO	16.221	6.889	Nov 2022	9.078	Nov 2023	10.241	Nov 2024	-		10.241	Continuing	Continuing	Continuing
Subtotal			474.765	45.214		48.081		51.737		-		51.737	Continuing	Continuing	N/A
Remarks Funds for utilities and base communications are specified in the Inter-service Support Agreement with the 50th Space Wing. In addition, the Missile Defense Integration and Operations Center (MDIOC) provides Technical Contract Support Services employees, for MDIOC operations and oversight of the Integrated Research and Development for Enterprise Solutions (IRES) contract, as well as funding for IRES work as required by the government.															
			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			474.765	45.214		48.081		51.737		-		51.737	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 0603904C / Missile Defense Integration and Operations Center (MDIOC)										Project (Number/Name) MD22 / Missile Defense Integration and Operations Center (MDIOC)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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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 0603904C / Missile Defense Integration and Operations Center (MDIOC)										Project (Number/Name) MD22 / Missile Defense Integration and Operations Center (MDIOC)									
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							
Replace facility hot water heaters (FY 2028)																				◇	◇	◇	◇						
Heating, Ventilation, and Air Conditioning end-of-life component replacement for building 720 (three quadrants) (FY 2029)																						◇	◇	◇	◇				
Designs for 4 Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity for Building 720																							◇	◇	◇	◇			
CRAC Unit Replacement Building 720(4 CRACS)																							◇	◇	◇	◇			
Basement Restroom Refresh (B74/B75) Building 720																							◇	◇	◇	◇			

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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 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity for Building 720 (one quadrant) (FY 2023)	1	2023	4	2023
Heating, Ventilation, and Air Conditioning Design (two quadrants) (FY 2023)	1	2023	4	2023
Heating, Ventilation, and Air Conditioning Design (two quadrants) (FY 2024)	1	2024	4	2024
Fire Suppression System Compliance Project (two quadrants) (FY 2024)	1	2024	4	2024
Exterior Seals Refresh (FY 2025)	1	2025	4	2025
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity for Building 720 (two quadrant) (FY 2025)	1	2025	4	2025
CRAC Unit Replacement (FY 2025)	1	2025	4	2025
Cafeteria Seating Refresh (FY 2025)	1	2025	4	2025
Fire Suppression System Compliance Project (two quadrants) (FY 2025)	1	2025	4	2025
TUS-1 Switchgear ReplacementTUS-3 Switchgear Replacement (FY 2025)	1	2025	4	2025
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity for Building 720 (one quadrant) (FY 2026)	1	2026	4	2026
Fire Suppression System Compliance Project (two quadrants) (FY 2026)	1	2026	4	2026
TUS-4 Switchgear Replacement (FY 2026)	1	2026	4	2026
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity for Building 730 (three quadrant) (FY 2026)	1	2026	4	2026
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity for Building 720 (three quadrants) (FY 2027)	1	2027	4	2027
Fire Suppression System Compliance Project (two quadrants) (FY 2027)	1	2027	4	2027
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity for Building 720 (three quadrant) (FY 2028)	1	2028	4	2028
CRAC Unit Replacement (FY 2028)	1	2028	4	2028

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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 0603904C / Missile Defense Integration and Operations Center (MDIOC)	Project (Number/Name) MD22 / Missile Defense Integration and Operations Center (MDIOC)		
	Start		End	
Events	Quarter	Year	Quarter	Year
Replace facility hot water heaters (FY 2028)	1	2028	4	2028
Heating, Ventilation, and Air Conditioning end-of-life component replacement for building 720 (three quadrants) (FY 2029)	1	2029	4	2029
Designs for 4 Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity for Building 720	1	2029	4	2029
CRAC Unit Replacement Building 720(4 CRACS)	1	2029	4	2029
Basement Restroom Refresh (B74/B75) Building 720	1	2029	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 0603904C / Missile Defense Integration and Operations Center (MDIOC)				Project (Number/Name) MC22 / 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
MC22: Cyber Operations	5.058	0.622	0.671	0.689	-	0.689	0.703	0.717	0.731	0.746	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note N/A												
A. Mission Description and Budget Item Justification The MDIOC conducts Cyber Defensive Operations through Key Management Infrastructure and Information Assurance Training which interfaces with the Information Technology/Information Assurance Enterprise to provide secure communications, network health and status monitoring, mission critical restoral capability, and technical expertise.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: Cyber Defensive Operations Articles: Description: RECURRING: The MDIOC conducts Defensive Cyber Operations in the following categories: Key Management Infrastructure - Interface with the Information Technology/Information Assurance Enterprise to provide for the generation, production, control and distribution, and training for utilizing the keying material used with the Agency's cryptographic devices Information Assurance Training - Maintain an Information Assurance (IA) certified workforce through continuous IA training as required by the DoD Directive 8570 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:									0.622	0.671	0.689	
									-	-	-	

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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 0603904C / Missile Defense Integration and Operations Center (MDIOC)	Project (Number/Name) MC22 / Cyber Operations		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
N/A				
Accomplishments/Planned Programs Subtotals		0.622	0.671	0.689
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
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 0603904C / Missile Defense Integration and Operations Center (MDIOC)				Project (Number/Name) MC22 / 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
Cyber Defensive Operations - Contractor Support	C/CPIF	JACOBS TECHNOLOGY INC. : Various	5.058	0.622	Nov 2022	0.671	Jan 2024	0.689	Nov 2024	-		0.689	Continuing	Continuing	Continuing
Subtotal			5.058	0.622		0.671		0.689		-		0.689	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			5.058	0.622		0.671		0.689		-		0.689	Continuing	Continuing	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 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>								Project (Number/Name) MC22 / <i>Cyber Operations</i>						
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		
MC22 Cyber Operations										◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇

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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 0603904C / Missile Defense Integration and Operations Center (MDIOC)	Project (Number/Name) MC22 / Cyber Operations

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MC22 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 0603904C / Missile Defense Integration and Operations Center (MDIOC)				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: Program-Wide Support	31.688	1.793	1.797	2.099	-	2.099	2.402	2.418	2.679	2.864	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)

Title: Program Wide Support		FY 2023	FY 2024	FY 2025
Articles:		1.793	1.797	2.099
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		-	-	-

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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 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Increase from FY 2024 to FY 2025 provides the PWS allocation 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.</p>			
Accomplishments/Planned Programs Subtotals		1.793	1.797
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>						Project (Number/Name) MD40 / <i>Program-Wide Support</i>			
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations Management	Various	Various : Multi: AL, CA, CO, VA	0.903	0.000		0.000		0.000		-		0.000	0.241	1.144	0.000
Program Wide Support - Agency Operations and Support Services	MIPR	Various : Multi: AK, AL, CA, CO, VA	17.964	0.000		0.000		0.000		-		0.000	0.000	17.964	0.000
Program Wide Support - Facilities and Maintenance SRM	MIPR	Various : Multi: CO	3.200	0.000		0.000		0.000		-		0.000	0.000	3.200	0.000
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	5.311	0.000		0.000		0.000		-		0.000	0.000	5.311	0.000
Subtotal			27.378	0.000		0.000		0.000		-		0.000	0.241	27.619	N/A
Remarks N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services.	C/CPFF	LSINC : AL	4.310	1.793	Dec 2022	1.797	Nov 2023	2.099	Nov 2024	-		2.099	Continuing	Continuing	Continuing
Subtotal			4.310	1.793		1.797		2.099		-		2.099	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			31.688	1.793		1.797		2.099		-		2.099	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 0603904C / Missile Defense Integration and Operations Center (MDIOC)		Project (Number/Name) MD40 / Program-Wide Support				
	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract	
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 0603904C / Missile Defense Integration and Operations Center (MDIOC)										Project (Number/Name) MD40 / Program-Wide Support									
Significant Event Complete ▲				Milestone Decision Complete ★				Element Test Complete ◆				System Level Test Complete ●				Complete Activity ◆													
Significant Event Planned △				Milestone Decision Planned ☆				Element Test Planned ◇				System Level Test Planned ○				Planned Activity ◇													
										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 0603904C / Missile Defense Integration and Operations Center (MDIOC)	Project (Number/Name) MD40 / Program-Wide Support	

Schedule Details

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

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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 0603906C / <i>Regarding Trench</i>
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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	140.188	12.146	12.564	27.900	-	27.900	29.700	29.900	31.200	31.500	Continuing	Continuing
MD35: <i>Regarding Trench</i>	140.188	12.146	12.564	27.900	-	27.900	29.700	29.900	31.200	31.500	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

This program is reported in accordance with Title 10, United States Code, Section 119 in the annual Special Access Program Budget Justification submission to Congress.

A. Mission Description and Budget Item Justification

This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>
Previous President's Budget	12.146	12.564	12.902	-	12.902
Current President's Budget	12.146	12.564	27.900	-	27.900
Total Adjustments	0.000	0.000	14.998	-	14.998
• 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	0.000	0.000			
• Other Adjustment	0.000	0.000	14.998	-	14.998

Change Summary Explanation

Further program details are reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

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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 I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603907C I <i>Sea Based X-Band Radar (SBX)</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	1,219.699	163.297	177.868	197.339	-	197.339	176.888	162.741	177.598	188.253	Continuing	Continuing
MX46: <i>Sea Based X-Band Radar Development Support</i>	1,174.184	157.318	171.486	189.742	-	189.742	169.413	155.971	169.614	179.468	Continuing	Continuing
MD40: <i>Program-Wide Support</i>	45.515	5.979	6.382	7.597	-	7.597	7.475	6.770	7.984	8.785	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Increase from Fiscal Year (FY) 2024 to FY 2025 provides for five (5) year major in-port period maintenance activities and required vessel American Bureau of Shipping certification.

A. Mission Description and Budget Item Justification

The Sea Based X-Band Radar (SBX) is an advanced X-Band Radar capable of mid-course acquisition, tracking, discrimination, and hit-assessment of missile threats. The SBX radar is mounted on a mobile, ocean-going, semi-submersible platform, enabling it to cover any region of the globe. The SBX supports the Missile Defense System Homeland Defense mission by tracking and discriminating sophisticated intercontinental ballistic missile threats.

The SBX operates at sea for Missile Defense System flight and ground test participation or in an active, operational status when indications and warnings signal the need for enhanced discrimination. The SBX is located in a Pacific port when not required at sea. The SBX maintains vessel certifications for operations at sea and software compatibility with the Missile Defense System.

B. Program Change Summary (\$ in Millions)	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>
Previous President's Budget	164.668	177.868	196.952	-	196.952
Current President's Budget	163.297	177.868	197.339	-	197.339
Total Adjustments	-1.371	0.000	0.387	-	0.387
• 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	0.000	0.000			
• Other Adjustment	-1.371	0.000	0.387	-	0.387

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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 / BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)
<div>Change Summary Explanation</div> <div>N/A</div>		

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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 0603907C / Sea Based X-Band Radar (SBX)				Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MX46: Sea Based X-Band Radar Development Support	1,174.184	157.318	171.486	189.742	-	189.742	169.413	155.971	169.614	179.468	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Increase from Fiscal Year (FY) 2024 to FY 2025 provides for five (5) year major in-port period maintenance activities and required vessel American Bureau of Shipping (ABS) certification.

A. Mission Description and Budget Item Justification

This project provides developmental operations and support for the Sea Based X-Band Radar (SBX) and its three major sub-systems: the self-propelled vessel, the X-Band Radar (XBR), and the communications network. Developmental operations and support activities include operation and sustainment of the vessel, developmental operation and sustainment of the XBR, limited XBR software support, and vessel and shoreside security. The FY 2025 budget reflects the continued development required to deliver Missile Defense System enhanced discrimination capability.

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

	FY 2023	FY 2024	FY 2025
Title: Vessel Operations and Support	62.033	68.237	68.519
Articles:	-	-	-
<p>Description: Vessel Operations and Support sustains the SBX vessel for full operations, ensures readiness for operational contingencies, and provides for resupply of SBX, underway maintenance and annual surveys at sea. The SBX participates in Missile Defense System ground and flight tests per the Integrated Master Test Plan (IMTP). This effort also provides force protection for SBX, maintenance repair, air charter transportation, and supply vessel charters.</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>			
Title: XBR Operations and Support	61.439	66.518	67.215

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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 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<div>Articles:</div> <p>Description: XBR Operations and Support sustains the XBR at full operations at sea for Homeland Defense, maintaining limited software sustainment for system capability with the Missile Defense System, performing routine maintenance and testing, and fielding additional XBR capability incrementally. This effort also provides precision tracking, discrimination, and hit assessment for engagement support in Missile Defense System ground and flight tests per the approved IMTP.</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>			-	-	
<div>Title: XBR Radome Replacement</div> <div>Articles:</div> <p>Description: This effort funds the XBR radome replacement to remedy identified adhesion failures of the external layers and localized seam adhesion failure, including evidence of water and mold intrusion. The radome production effort is expected to complete in FY 2025, making it possible to continue SBX Homeland Defensive Operations through 2035 or longer. Installation of the radome will begin in FY 2025 and complete in early FY 2026.</p> <p>FY 2024 Plans: - Complete fabrication of the multi-layer material, cutting into pieces and continue building up the radome envelope.</p> <p>FY 2025 Plans: - Complete radome production and prepare for installation activities.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects the completion of the radome development and production phase, and transitioning to the installation phase.</p>			27.721 -	26.288 -	13.182 -
<div>Title: Vessel in-Port Maintenance/Upgrades</div> <div>Articles:</div>			6.125 -	10.443 -	39.291 -

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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 0603907C / Sea Based X-Band Radar (SBX)		Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>Description: Perform required maintenance to achieve annual surveys of vessel power, propulsion, communications and safety equipment and U.S. Coast Guard certifications of vessel safety procedures, process controls, records and crew training/proficiency. The in-port period will conduct maintenance on major vessel components that require industrial assistance for rigging, specialized tools and skills, cleaning and repairing ballast and fuel tanks, and scaffolding for access to parts of the vessel that are hard to reach at sea and large area preservation. The work will include non-destructive testing of critical hull structure for special surveys of high-stress areas for the vessel's safe operation and to ensure SBX readiness for operational missions.</p> <p>FY 2024 Plans: - See above.</p> <p>FY 2025 Plans: - Complete five-year major in-port period maintenance and overhaul of critical components to meet readiness requirements and operational needs of combatant command - Complete mandatory ABS certification of the vessel to continue at-sea operations - Complete removal and replacement of thrusters and thruster variable speed drives - Complete vessel deck and column resurfacing - Complete sewage system overhaul</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increase from FY 2024 to FY 2025 provides for major in-port maintenance preparation (e.g., purchase of repair materials, mobilization of scaffolding, office trailers for shipyard administration, purchase of consumable supplies to support industrial work), required ABS certification, and shipyard execution (e.g., labor, trucks, forklifts, cranes, workboats, air compressors, generators and ABS surveyors).</p>					
<p>Title: XBR in-Port Maintenance/Upgrades</p> <p align="right">Articles:</p> <p>Description: Perform in-depth XBR maintenance while in-port to keep radar in optimal condition, enhancing its operational effectiveness, data accuracy, longevity, compliance, readiness, and mission success. Perform technical refresh of XBR equipment, including digital network switches, control equipment, network appliances, global positioning system, and critical cybersecurity testing and upgrades.</p> <p>FY 2024 Plans: N/A</p> <p>FY 2025 Plans:</p>			0.000 -	0.000 -	1.535 -

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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 0603907C / Sea Based X-Band Radar (SBX)				Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2023	FY 2024	FY 2025
- See above.												
FY 2024 to FY 2025 Increase/Decrease Statement: Increase from FY 2024 to FY 2025 provides for comprehensive XBR obsolescence risk mitigation activities scheduled during significant 5-year in-port maintenance periods.												
Accomplishments/Planned Programs Subtotals										157.318	171.486	189.742
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: Ballistic Missile Defense Midcourse Defense Segment	670.808	903.633	768.227	-	768.227	856.218	842.985	956.974	1,007.150	Continuing	Continuing	
• 0603884C: Ballistic Missile Defense Sensors	228.807	239.159	209.002	-	209.002	205.087	202.555	209.816	214.110	Continuing	Continuing	
• 0603891C: Special Programs - MDA	317.568	552.888	495.570	-	495.570	555.344	572.888	485.975	415.899	Continuing	Continuing	
• 0603896C: Ballistic Missile Defense Command and Control, Battle Management & Communication	587.689	554.201	569.662	-	569.662	570.632	587.929	618.050	651.885	Continuing	Continuing	
• 0603898C: Ballistic Missile Defense Joint Warfighter Support	50.942	48.248	47.723	-	47.723	48.921	50.062	51.376	52.565	Continuing	Continuing	
• 0603904C: Missile Defense Integration and Operations Center (MDIOC)	47.629	50.549	54.525	-	54.525	56.851	58.115	59.600	61.362	Continuing	Continuing	
• 0604879C: Ballistic Missile Defense Sensor Test	88.326	111.049	96.864	-	96.864	104.578	160.011	172.749	183.147	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
The SBX is contractor-operated and maintained through various contracts between the Navy and Missile Defense Agency (MDA). SBX-1 Vessel Management, Offshore Supply Vessel, and Security contracts are managed by Military Sealift Command. The SBX radar is operated and maintained on contracts managed by MDA.												

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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 0603907C / Sea Based X-Band Radar (SBX)				Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support					
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
XBR Radome Replacement - Radome Replacement	SS/CPFF	RAYTHEON : Various	28.743	27.721	May 2023	26.288	Nov 2023	13.182	May 2025	-		13.182	0.000	95.934	0.000
Subtotal			28.743	27.721		26.288		13.182		-		13.182	0.000	95.934	N/A
Remarks In accordance with the Financial Management Regulation cost category definitions, some items have transferred to appropriate cost categories.															
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
Vessel Operations and Support - Air Charter	MIPR	DOD - USN - MILITARY SEALIFT COMMAND (MSC) : VA	1.050	1.079	Nov 2022	1.324	Oct 2023	1.391	Oct 2024	-		1.391	Continuing	Continuing	Continuing
Vessel Operations and Support - Force Protection	MIPR	DOD - USN - MILITARY SEALIFT COMMAND (MSC) : VA	24.413	6.011	Nov 2022	6.222	Oct 2023	6.704	Oct 2024	-		6.704	Continuing	Continuing	Continuing
Vessel Operations and Support - Fuel	MIPR	DOD - USN - MILITARY SEALIFT COMMAND (MSC) : VA	94.646	12.342	Nov 2022	13.602	Oct 2023	8.202	Oct 2024	-		8.202	Continuing	Continuing	Continuing
Vessel Operations and Support - Navy Program Management Office	MIPR	DOD - USN - MILITARY SEALIFT COMMAND (MSC) : VA	17.040	4.930	Nov 2022	6.539	Oct 2023	7.065	Oct 2024	-		7.065	Continuing	Continuing	Continuing
Vessel Operations and Support - Navy Transition Office	MIPR	U.S. Navy : AL	5.732	0.000		0.000		0.000		-		0.000	0.000	5.732	0.000
Vessel Operations and Support - Operational	MIPR	DOD - USN - MILITARY SEALIFT	96.588	17.810	Nov 2022	18.457	Oct 2023	21.738	Oct 2024	-		21.738	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 0603907C / Sea Based X-Band Radar (SBX)						Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support			
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Vessel (OSV Resupply)		COMMAND (MSC) : VA													
Vessel Operations and Support - SBX Operations & Support (Vessel)	MIPR	DOD - USN - MILITARY SEALIFT COMMAND (MSC) : VA	268.491	19.861	Nov 2022	22.093	Oct 2023	23.419	Oct 2024	-		23.419	Continuing	Continuing	Continuing
Vessel Operations and Support - SBX Vessel Maintenance	MIPR	Tote : HI/NJ	36.963	0.000		0.000		0.000		-		0.000	0.000	36.963	0.000
Vessel Operations and Support - Vessel Mission Integration	C/CPIF	Gryphon Tech. : AL/ HI	77.234	0.000		0.000		0.000		-		0.000	0.000	77.234	0.000
XBR Operations and Support - Civilian Salaries/ Travel	Allot	MDA : Various	4.705	2.023	Oct 2022	1.564	Oct 2023	2.014	Oct 2024	-		2.014	Continuing	Continuing	Continuing
XBR Operations and Support - Contract Support Services	C/CPFF	Various : Various	3.178	1.873	Nov 2022	0.602	Oct 2023	0.469	Oct 2024	-		0.469	Continuing	Continuing	Continuing
XBR Operations and Support - Contract Support Services - Engineering	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : CA	1.444	0.732	Nov 2022	0.771	Oct 2023	0.600	Oct 2024	-		0.600	Continuing	Continuing	Continuing
XBR Operations and Support - Core Standards Implementation	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : Various	0.000	1.537	Nov 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
XBR Operations and Support - FFRDC - MIT	MIPR	MASSACHUSETTS INSTITUTE OF TECHNOLOGY : Various	0.250	0.425	May 2023	0.000		0.000		-		0.000	0.000	0.675	0.000
XBR Operations and Support - Mission Integration	C/CPIF	MANTECH : Various	18.165	7.528	Nov 2022	10.404	Nov 2023	12.412	Oct 2024	-		12.412	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 0603907C / Sea Based X-Band Radar (SBX)				Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
XBR Operations and Support - Network And Infrastructure Services	C/CPAF	JACOBS TECHNOLOGY INC. : Various	2.028	0.573	Nov 2022	0.460	Jan 2024	0.474	Jan 2025	-		0.474	Continuing	Continuing	Continuing
XBR Operations and Support - SBX Communications Support	SS/CPIF	Boeing : AL/HI	23.405	0.399	Sep 2023	0.000		0.000		-		0.000	0.000	23.804	0.000
XBR Operations and Support - SBX Satellite Communications Terminal Install	MIPR	DOD - USN - NAVAL INFORMATION WARFARE CENTER (NIWC) PACIFIC : Various	3.237	0.000		0.000		0.000		-		0.000	0.000	3.237	0.000
XBR Operations and Support - X-Band Radar O&S (CLS) - DREX Switch	SS/CPFF	RAYTHEON : Various	0.000	0.000		3.000	Oct 2023	0.000		-		0.000	0.000	3.000	0.000
XBR Operations and Support - XBR Operations & Support	SS/CPFF	RAYTHEON : Various	447.281	46.349	Nov 2022	49.717	Dec 2023	51.246	Dec 2024	-		51.246	Continuing	Continuing	Continuing
Vessel in-Port Maintenance/Upgrades - Sea Based X-Band Radar Vessel Management-In-port Maintenance	MIPR	DOD - USN - MILITARY SEALIFT COMMAND (MSC) : VA	14.591	6.125	Oct 2022	10.443	Oct 2023	39.291	Oct 2024	-		39.291	Continuing	Continuing	Continuing
XBR in-Port Maintenance/Upgrades - Communication Switch Refresh	SS/CPFF	RAYTHEON : Various	5.000	0.000		0.000		1.535	Nov 2024	-		1.535	0.000	6.535	0.000
Subtotal			1,145.441	129.597		145.198		176.560		-		176.560	Continuing	Continuing	N/A
Remarks Decrease from FY 2024 to FY 2025 in Vessel Operations and Support - Fuel reflects reduced fuel requirements during in-port fuel tank maintenance period. Increase from FY 2024 to FY 2025 in Vessel Operations and Support Operational Support Vessel (OSV Resupply) provides for increased costs associated with support vessel for SBX resupply.															

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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 0603907C / Sea Based X-Band Radar (SBX)				Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support				
	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	1,174.184	157.318		171.486		189.742		-		189.742	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-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 0603907C / Sea Based X-Band Radar (SBX)										Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support													
Significant Event Complete ▲ Significant Event Planned △				Milestone Decision Complete ★ Milestone Decision Planned ☆				Element Test Complete ◆ Element Test Planned ◇				System Level Test Complete ● System Level Test Planned ○				Complete Activity ◆ Planned Activity ◇																					
														FY 2023			FY 2024			FY 2025			FY 2026			FY 2027			FY 2028			FY 2029					
GTD-08a (N/I) (Missile Defense System Ground Test)														◆																							
FTX-26 (OT) (SN, OT Target Only Flight Test)																	▲																				
FTX-49																	▲																				
FTG-12 (GM, DT/OT Intercept Flight Test)																	▲																				
GTI-08b (N/I)																		◇																			
GTI-08b Part 2																		△																			
In-port Maintenance																			◇	◇																	
GTD-08b (N/I)																			◇	◇																	
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)																					◇																
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)																						◇															
In Port Maintenance																						◇	◇	◇													
GTD-13 (N/I) (Missile Defense System Ground Test)																							◇														
GTI-14 Sprint 1 (N/I)																								◇													
FTG-16 (GM, DT Intercept Flight Test)																									△												
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)																										◇											
FTG-17 (GM, DT/OT Intercept Flight Test)																												△									
GTD-14 (N/I) ((Missile Defense System Ground Test)																												◇									
In port Maintenance																												◇	◇								
FTG-18 (DT/OT)																															△						
GTI-16 Sprint 1 (N/I)																																◇					
GTI-16 Sprint 2 (N/I)																																		◇			
FTO-04																																		△			
GTD-16 (N/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 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GTD-08a (N/I) (Missile Defense System Ground Test)	1	2023	1	2023
FTX-26 (OT) (SN, OT Target Only Flight Test)	4	2023	4	2023
FTX-49	4	2023	4	2023
FTG-12 (GM, DT/OT Intercept Flight Test)	1	2024	1	2024
GTI-08b (N/I)	3	2024	3	2024
GTI-08b Part 2	3	2024	3	2024
In-port Maintenance	4	2024	1	2025
GTD-08b (N/I)	4	2024	1	2025
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)	2	2025	2	2025
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)	4	2025	4	2025
In Port Maintenance	4	2025	2	2026
GTD-13 (N/I) (Missile Defense System Ground Test)	2	2026	2	2026
GTI-14 Sprint 1 (N/I)	4	2026	4	2026
FTG-16 (GM, DT Intercept Flight Test)	2	2027	2	2027
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)	3	2027	3	2027
FTG-17 (GM, DT/OT Intercept Flight Test)	4	2027	4	2027
GTD-14 (N/I) ((Missile Defense System Ground Test)	4	2027	4	2027
In port Maintenance	4	2027	1	2028
FTG-18 (DT/OT)	3	2028	3	2028
GTI-16 Sprint 1 (N/I)	4	2028	4	2028
GTI-16 Sprint 2 (N/I)	3	2029	3	2029
FTO-04	3	2029	3	2029

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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 0603907C / Sea Based X-Band Radar (SBX)		Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support	
			Start		End	
Events			Quarter	Year	Quarter	Year
GTD-16 (N/I)			4	2029	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 0603907C / Sea Based X-Band Radar (SBX)				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: Program-Wide Support	45.515	5.979	6.382	7.597	-	7.597	7.475	6.770	7.984	8.785	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency program elements (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	5.979	6.382	7.597
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			

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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 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MD40 / Program-Wide Support	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</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 the PWS allocation 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.</p>			
Accomplishments/Planned Programs Subtotals		5.979	6.382
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0603907C / Sea Based X-Band Radar (SBX)				Project (Number/Name) MD40 / Program-Wide Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services #2	C/FFP	HUNTSVILLE REHABILITATION FOUNDATION : Various	0.000	0.000		0.000		2.291	Nov 2024	-		2.291	Continuing	Continuing	Continuing
Program Wide Support - Agency Facilities and Maintenance SRM	MIPR	Army Corps of Engineers : Various	0.000	1.668	Nov 2022	2.265	Nov 2023	2.933	Nov 2024	-		2.933	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	VENTURI, INC. : Various	0.000	4.236	Nov 2022	4.117	Nov 2023	0.000		-		0.000	0.000	8.353	0.000
Program Wide Support - Agency Operations, Sustainment and GPC	Various	Facilities Resource Group : Various	0.000	0.000		0.000		2.373	Nov 2024	-		2.373	Continuing	Continuing	Continuing
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	9.154	0.000		0.000		0.000		-		0.000	0.000	9.154	0.000
Program Wide Support - Program Wide Support - Agency Operations Management	Various	Various Multi: : AK, AL, CA, CO, VA	2.357	0.000		0.000		0.000		-		0.000	0.000	2.357	0.000
Program Wide Support - Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Allot	MDA Multi : AK, AL, CA, CO, VA	1.606	0.075	Oct 2022	0.000		0.000		-		0.000	0.000	1.681	0.000
Program Wide Support - Program Wide Support - Agency Operations and Support Other Agency Services (MIPRs)	MIPR	Various Multi: : AK, AL, CA, CO, VA	31.893	0.000		0.000		0.000		-		0.000	0.000	31.893	0.000
Program Wide Support - Program Wide Support - Agency Operations and Support Services (FFP)	C/FFP	Various Multi: : VA, WA	0.505	0.000		0.000		0.000		-		0.000	0.000	0.505	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 0603907C / Sea Based X-Band Radar (SBX)						Project (Number/Name) MD40 / Program-Wide Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract		
Subtotal			45.515	5.979		6.382		7.597		-		7.597	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			45.515	5.979		6.382		7.597		-		7.597	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 0603907C / Sea Based X-Band Radar (SBX)										Project (Number/Name) MD40 / Program-Wide Support									
Significant Event Complete ▲		Significant Event Planned △		Milestone Decision Complete ★		Milestone Decision Planned ☆		Element Test Complete ◆		Element Test Planned ◇		System Level Test Complete ●				System Level Test Planned ○				Complete Activity ◆				Planned Activity ◇					
										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 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MD40 / Program-Wide Support	

Schedule Details

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

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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 0603913C / <i>Israeli Cooperative Programs</i>
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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	2,758.391	300.000	300.000	300.000	-	300.000	300.000	300.000	300.000	300.000	Continuing	Continuing
MD26: <i>Arrow Weapon System</i>	1,179.645	173.000	173.000	173.000	-	173.000	173.000	173.000	173.000	173.000	Continuing	Continuing
MD34: <i>Short Range Ballistic Missile Defense (SRBMD) (David's Sling Weapon System (DSWS))</i>	1,578.746	127.000	127.000	127.000	-	127.000	127.000	127.000	127.000	127.000	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Content supports expected contributions from Israel per international agreements.

A. Mission Description and Budget Item Justification

Since 1986, the United States (U.S.) and the State of Israel have cooperated on missile defense. Currently, the Missile Defense Agency (MDA) has two major projects with Israel to develop and improve their indigenous capability to defend against short range rockets, cruise missiles, and short and medium range ballistic missiles. These include the Arrow Weapon System (MD26) and the Short Range Ballistic Missile Defense David's Sling Weapon System (MD34). Within these projects MDA along with Israeli Missile Defense Organization develops and produces weapon systems, conducts tests, and exercises interoperability between the U.S. Missile Defense System and the Israeli Missile Defense Architecture.

The U.S. and State of Israel entered into a Memorandum of Understanding on September 2016, in which "Such funding, should over a ten year period beginning in FY 2019 and ending in FY 2028, be provided at a level of \$500 million per year." (U.S. contributions only). These funds will be distributed between the Israeli Programs in Research Development Test & Evaluation and Procurement Funds.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency				Date: March 2024	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0603913C I Israeli Cooperative Programs			
B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	300.000	300.000	300.000	-	300.000
Current President's Budget	300.000	300.000	300.000	-	300.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• 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	0.000	0.000			
• Other Adjustment	0.000	0.000	0.000	-	0.000
Change Summary Explanation					
N/A					

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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 0603913C / Israeli Cooperative Programs				Project (Number/Name) MD26 / Arrow Weapon System			
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
MD26: Arrow Weapon System	1,179.645	173.000	173.000	173.000	-	173.000	173.000	173.000	173.000	173.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This project encompasses the MDA U.S.-Israeli cooperative program for the Israeli Arrow Weapon System (AWS) Program.

A. Mission Description and Budget Item Justification

Israeli AWS: This system includes block upgrades to the AWS components which enhances capabilities against evolving medium range threats by increasing the total defended area. AWS elements include the Arrow-2 and Arrow-3 missiles and launchers, Citron Tree Battle Management Center (BMC), Green Pine (GP) and Super Green Pine (SGP) Radars, Lego Shield data interfaces, and Hazelnut Tree Launcher Control Centers (LCC).

AWS Block 5 development incorporates a Long Range Detection Suite that consists of an Airborne Early Warning System (ABEWS) for enhanced sensor tracking, discrimination, and raid size capacity. In addition, the Sharp Eye ground-based sensor suite, the Arrow-4 interceptor and the Pine Woods Radar are being developed for integration into future AWS Blocks. The program also includes the continued development of Arrow's interoperability with U.S. Missile Defense System.

The U.S. and State of Israel entered into a Memorandum of Understanding on September 2016, in which "Such funding, should over a ten year period beginning in FY 2019 and ending in FY 2028, be provided at a level of \$500 million per year." (U.S. contributions only). These funds will be distributed between the Israeli Programs in Research Development Test & Evaluation and Procurement Funds.

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

	FY 2023	FY 2024	FY 2025
Title: Arrow Weapon System	167.940	167.940	167.940
Articles:	-	-	-
<p>Description: The AWS continues Block 5 spiral development and target development. Included is the integration of Block 5 assets, which consist of Arrow-2 and Arrow-3 missiles, launchers, GPs and SGP, Citron Tree BMC, Hazelnut Tree LCCs, ABEWS, and Lego Shield. Develop continues for the Sharp Eye sensor suite, Arrow-4 interceptor and Pine Woods Radar for future AWS Blocks. Continue proven Interoperability with U.S. Assets and enhancements to existing AWS System Components.</p> <p>Specific and/or unique planned accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> -Continue Arrow-4 Interceptor and Launcher Development -Conduct Block 5.0 Flight Test proving improved system performance -Continue Block 5.1 Development 			

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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 0603913C / Israeli Cooperative Programs	Project (Number/Name) MD26 / Arrow Weapon System		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<div>-Initiate Future Block 6.0 Development (Conduct System Readiness Review)</div> <div>-Continue AWS radar/optical sensor development and integration into the AWS</div> <div>-Procure targets for future AWS system tests</div> <div>FY 2025 Plans:</div> <div>-Complete Arrow-4 Interceptor and Launcher Development</div> <div>-Complete Block 5.1 Development</div> <div>-Continue Block 6.0 Development (Preliminary Design Review)</div> <div>-Conduct Arrow-4 Interceptor Fly-out</div> <div>-Procure Long Lead Items for Arrow-4 Interceptor Initial Lot Production</div> <div>-Initiate Arrow-4 Launcher Production</div> <div>-Continue AWS radar/optical sensor development and integration into the AWS</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement:</div> <div>N/A</div>				
<div>Title: Israeli Test Bed (ITB)</div> <div>Articles:</div> <div>Description: The ITB provides experiments to evaluate Human Machine Interface battle management and integration of Israeli Missile Defense Weapon Systems Techniques, Tactics, Procedures, and Concept of Operations.</div> <div>Specific and/or unique accomplishments to each FY are as follows:</div> <div>FY 2024 Plans:</div> <div>-SEE ABOVE.</div> <div>FY 2025 Plans:</div> <div>-SEE ABOVE.</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement:</div> <div>N/A</div>		3.535 -	3.535 -	3.535 -
<div>Title: Israeli Systems Architecture and Integration (ISA&I)</div> <div>Articles:</div> <div>Description: The ISA&I conducts studies to assess Israel's future 2038 Missile Defense Architecture. This identifies the preferred missile defense architecture and reference threat for 10-15 year future epoch and interoperability special studies on regional threats and growth path options.</div>		1.525 -	1.525 -	1.525 -

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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 0603913C / <i>Israeli Cooperative Programs</i>	Project (Number/Name) MD26 / <i>Arrow Weapon System</i>	

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: FY 2024 Plans: -SEE ABOVE. FY 2025 Plans: -SEE ABOVE. FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals	173.000	173.000	173.000

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0208866C: MD26: Arrow 3 Upper Tier System Procurement	80.000	80.000	50.000	-	50.000	50.000	50.000	50.000	50.000	Continuing	Continuing

Remarks

D. Acquisition Strategy

The MDA - U.S. Israeli Cooperative Program Office jointly manages the Arrow Program with Israeli Missile Defense Organization (IMDO) to ensure that all systems are delivered with quality, on time, on budget, and meet the needs of the warfighter. The program funding is equitably funded between the U.S. and Israel with Israel providing matching contributions. However, a portion of the Israeli cost share comes from non-financial contributions such as previously completed work prior to joint program initiation. Contracts are awarded by IMDO or MDA, dependent on what is most advantageous to the Joint Governments. In regard to AWS, IMDO contracts on behalf of U.S. government with Israel Aerospace Industries (IAI). IAI subcontracts with Israeli and U.S. companies. For the ITB, the MDA contracts directly with Elbit Systems, Ltd. while IMDO provides an equitable share of the funding to the U.S. Finally, MDA provides funding and contracts directly with WALES, Ltd. for the ISA&I program.

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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 0603913C / Israeli Cooperative Programs				Project (Number/Name) MD26 / Arrow Weapon System					
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
Arrow Weapon System - AWS	C/CPFF	Israel Aerospace Industries (IAI) : Israel	1,097.213	167.940	Dec 2022	167.940	Dec 2023	167.940	Dec 2024	-		167.940	Continuing	Continuing	Continuing
Israeli Test Bed (ITB) - ITB	C/FFP	Elbit Systems : Israel	49.490	3.535	Nov 2022	3.535	Nov 2023	3.535	Nov 2024	-		3.535	Continuing	Continuing	Continuing
Israeli Systems Architecture and Integration (ISA&I) - ISA&I	C/FFP	Wales LTD : Israel	32.942	1.525	Dec 2022	1.525	Dec 2023	1.525	Dec 2024	-		1.525	Continuing	Continuing	Continuing
Subtotal			1,179.645	173.000		173.000		173.000		-		173.000	Continuing	Continuing	N/A
Remarks															
ISA&I and ITB Follow On Contracts were awarded.															
			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			1,179.645	173.000		173.000		173.000		-		173.000	Continuing	Continuing	N/A
Remarks															
Contract cost reflect U.S. contribution only. 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 0603913C / Israeli Cooperative Progra ms										Project (Number/Name) MD26 / Arrow Weapon System																		
Significant Event Complete ▲ Significant Event Planned △					Milestone Decision Complete ★ Milestone Decision Planned ☆					Element Test Complete ◆ Element Test Planned ◇					System Level Test Complete ● System Level Test Planned ○					Complete Activity ◆ Planned Activity ◇																		
										FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				
Israeli Test Bed Experiments FY 2023										◆	◆	◆	◆																									
Israeli Test Bed Exercise to include Ground Test (GT) Support FY 2023										◆	◆	◆	◆																									
Israeli Test Bed Experiments FY 2024														◇	◇	◇	◇																					
Arrow Weapon System Flight Test FY 2024														◇	◇	◇	◇																					
Israeli Test Bed Exercise to include Ground Test (GT) Support FY 2025																		◇	◇	◇	◇																	
Israeli Test Bed Experiments FY 2025																		◇	◇	◇	◇																	
Israeli Test Bed Experiments FY 2026																						◇	◇	◇	◇													
Arrow Weapon System Flight Test FY 2026																						◇	◇	◇	◇													
Israeli Test Bed Exercise to include Ground Test (GT) Support FY 2027																									◇	◇	◇	◇										
Israeli Test Bed Experiments FY 2027																									◇	◇	◇	◇										
Arrow Weapon System Flight Test FY 2027																									◇	◇	◇	◇										
Israeli Test Bed Experiments FY 2028																														◇	◇	◇	◇					
Arrow Weapon System Flight Test FY 2028																														◇	◇	◇	◇					
Israeli Test Bed Exercise to include Ground Test (GT) Support FY 2029																																		◇	◇	◇	◇	
Israeli Test Bed Experiments FY 2029																																		◇	◇	◇	◇	
Arrow Weapon System Flight Test FY 2029																																	◇	◇	◇	◇		

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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 0603913C / <i>Israeli Cooperative Programs</i>	Project (Number/Name) MD26 / <i>Arrow Weapon System</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Israeli Test Bed Experiments FY 2023	1	2023	4	2023
Israeli Test Bed Exercise to include Ground Test (GT) Support FY 2023	1	2023	4	2023
Israeli Test Bed Experiments FY 2024	1	2024	4	2024
Arrow Weapon System Flight Test FY 2024	1	2024	4	2024
Israeli Test Bed Exercise to include Ground Test (GT) Support FY 2025	1	2025	4	2025
Israeli Test Bed Experiments FY 2025	1	2025	4	2025
Israeli Test Bed Experiments FY 2026	1	2026	4	2026
Arrow Weapon System Flight Test FY 2026	1	2026	4	2026
Israeli Test Bed Exercise to include Ground Test (GT) Support FY 2027	1	2027	4	2027
Israeli Test Bed Experiments FY 2027	1	2027	4	2027
Arrow Weapon System Flight Test FY 2027	1	2027	4	2027
Israeli Test Bed Experiments FY 2028	1	2028	4	2028
Arrow Weapon System Flight Test FY 2028	1	2028	4	2028
Israeli Test Bed Exercise to include Ground Test (GT) Support FY 2029	1	2029	4	2029
Israeli Test Bed Experiments FY 2029	1	2029	4	2029
Arrow Weapon System Flight Test FY 2029	1	2029	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 0603913C / Israeli Cooperative Programs				Project (Number/Name) MD34 / Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon System (DSWS))			
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
MD34: Short Range Ballistic Missile Defense (SRBMD) (David's Sling Weapon System (DSWS))	1,578.746	127.000	127.000	127.000	-	127.000	127.000	127.000	127.000	127.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This project encompasses the MDA U.S.-Israeli cooperative program for the Israeli DSWS Program.

A. Mission Description and Budget Item Justification

Israeli SRBMD, also known as the DSWS, is designed to counter short range rockets, air breathing threats, medium caliber rockets, and theater ballistic missiles, and is integrated into the Israeli Missile Defense Architecture. The DSWS includes the Stunner Interceptor (Electro-Optical and All Weather variants), a Missile Firing Unit (MFU), a Multi-Mission Radar - Next Generation (MMR-NG), a Launch Site Controller, a Ground Data Link (GDL), the Elevated Sensor, and the Golden Almond Battle Management Center (GA BMC). The DSWS can be deployed in a variety of configurations to support the intended mission.

The DSWS Block 3 capability expands the range and threat versatility of the system by adding the All Weather Stunner Interceptor, improving the MMR-NG, upgrades to GDL and increasing the capacity of the GA BMC.

The U.S. and State of Israel entered into a Memorandum of Understanding on September 2016, in which "Such funding, should over a ten year period beginning in FY 2019 and ending in FY 2028, be provided at a level of \$500 million per year." (U.S. contributions only). These funds will be distributed between the Israeli Programs in Research Development Test & Evaluation and Procurement Funds.

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

	FY 2023	FY 2024	FY 2025
Title: SRBMD Program	127.000	127.000	127.000
Articles:	-	-	-
Description: The DSWS continues system development, testing, and integration of spiral software development for Block 3. Block 3 will provide robust defense capability and add significant detection capability to the Israeli Air Defense Architecture. To ensure earliest delivery of capability to the Israeli Warfighter, Block 3 is split into 3 spirals: -Block 3.0- delivers improved GABMC capability and technology refresh -Block 3.15 delivers the new all-weather stunner, improved MMR-NG, improved GDL, and expanded threat capability -Block 3.2 delivers refined algorithms for additional threat capability and mission flexibility			

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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 0603913C / <i>Israeli Cooperative Programs</i>	Project (Number/Name) MD34 / <i>Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon System (DSWS))</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<i>FY 2024 Plans:</i> -Conduct Block 3 Interceptor Flight Test in continued support of Initial Lot Production (ILP) Production Readiness Review -Procure Block 3.0 and 3.15 Hardware for ILP -Continue Block 3.15 Spiral development -Conduct Block 3.2 System Requirements Review and Preliminary Design Review <i>FY 2025 Plans:</i> -Continue Block 3.0 and 3.15 spiral development and fielding (BMC, MFU, GDL) -Conduct System Flight Test -Continue All-weather Stunner development -MMR-NG development and integration -Conduct Block 3.2 Preliminary Design Review <i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> N/A			
Accomplishments/Planned Programs Subtotals	127.000	127.000	127.000

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>
• 06028866C: MD34: <i>Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon System (DSWS)) Procurement</i>	40.000	40.000	40.000	-	40.000	40.000	40.000	40.000	40.000	Continuing	Continuing

Remarks

D. Acquisition Strategy

The MDA- U.S. Israeli Cooperative Program Office jointly manages the DSWS Program with IMDO to ensure that all systems are delivered with quality, on time, on budget, and meet the needs of the warfighter. The program funding is equitably funded between the U.S. and Israel with Israel providing matching contributions. However, a portion of the Israeli cost share comes from non-financial contributions such as previously completed work prior to joint program initiation. Contracts are awarded by IMDO or MDA, dependent on what is most advantageous to the Joint Governments. In regard to DSWS, IMDO contracts on behalf of U.S. government with Rafael. Rafael subcontracts with Israeli and U.S. companies.

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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 0603913C / Israeli Cooperative Programs				Project (Number/Name) MD34 / Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon System (DSWS))					
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
SRBMD Program - SRBMD Program	C/CPFF	Rafael : Israel	1,578.746	127.000	Dec 2022	127.000	Dec 2023	127.000	Dec 2024	-		127.000	Continuing	Continuing	Continuing
Subtotal			1,578.746	127.000		127.000		127.000		-		127.000	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			1,578.746	127.000		127.000		127.000		-		127.000	Continuing	Continuing	N/A
Remarks Contract cost reflect U.S. contribution only. 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 0603913C / Israeli Cooperative Programs								Project (Number/Name) MD34 / Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon System (DSWS))																							
Significant Event Complete ▲				Significant Event Planned △				Milestone Decision Complete ★				Milestone Decision Planned ☆				Element Test Complete ◆				Element Test Planned ◇				System Level Test Complete ●				System Level Test Planned ○				Complete Activity ◆				Planned Activity ◇			
								FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029							
System Flight Test FY 2024												◇	◇	◇	◇																								
System Flight Test FY 2025																◇	◇	◇	◇																				
System Flight Test FY 2026																			◇	◇	◇	◇																	
System Flight Test FY 2027																						◇	◇	◇	◇														
System Flight Test FY 2028																												◇	◇	◇	◇								
System Flight Test FY 2029																																◇	◇	◇	◇				

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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 0603913C / Israeli Cooperative Programs	Project (Number/Name) MD34 / Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon System (DSWS))	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
System Flight Test FY 2024	1	2024	4	2024
System Flight Test FY 2025	1	2025	4	2025
System Flight Test FY 2026	1	2026	4	2026
System Flight Test FY 2027	1	2027	4	2027
System Flight Test FY 2028	1	2028	4	2028
System Flight Test FY 2029	1	2029	4	2029

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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	R-1 Program Element (Number/Name)											
0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	PE 0603914C / <i>Ballistic Missile Defense Test</i>											
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	3,475.976	376.650	360.455	367.491	-	367.491	418.514	383.362	435.626	438.825	Continuing	Continuing
MT04: <i>BMDs Test Program</i>	3,228.547	355.559	339.182	344.791	-	344.791	392.108	358.520	406.974	409.094	Continuing	Continuing
MC04: <i>Cyber Operations</i>	81.941	7.735	8.333	8.552	-	8.552	8.719	8.893	9.071	9.252	Continuing	Continuing
MD40: <i>Program Wide Support</i>	165.488	13.356	12.940	14.148	-	14.148	17.687	15.949	19.581	20.479	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Increase from FY 2024 to FY 2025 is in accordance with Integrated Master Test Plan (IMTP) requirements.

A. Mission Description and Budget Item Justification

Missile Defense Agency (MDA) utilizes a disciplined system engineering process to develop and integrate the Missile Defense System into an effective, layered defense against ballistic missiles of all ranges during all phases of flight. This process consists of the following steps: Plan, Define, Design, Build, Test and Verify, Assess, and Deliver Missile Defense System Capability, followed by transfer of selected capabilities. The Missile Defense System Test Program Element is responsible for testing that provides critical data to: determine validity of models and simulations used to verify and assess Missile Defense System capabilities; validate that Elements and Components are properly designed, built, and integrated; and provide confidence that the Missile Defense System will perform as designed. Results from the Test and Verify step provide feedback into the Plan, Define, and Design steps to identify areas for system improvements. Key to the systems engineering process is Modeling and Simulation (M&S), which reflects the integrated operational system's performance. Confidence in M&S is based on a comprehensive Verification, Validation, and Accreditation process. The Missile Defense System Test Program, as documented in the IMTP, has a primary emphasis to provide the data necessary to verify and assess Missile Defense System capabilities in support of Technical Capability Declarations, and to anchor Missile Defense System M&S. As models are validated and accredited, MDA and the Missile Defense System Operational Test Agency Team will utilize these models to assess Missile Defense System capabilities through a campaign of ground testing.

Missile Defense System Test Program Functions include:

- Represent MDA as the single test authority to the test and evaluation community, international cooperative program representatives, and other organization representatives.
- Develop and implement MDA test policy, standards, tools, products, and processes to enable effective tests while balancing MDA and element programmatic needs.
- Develop an IMTP that compiles all MDA test objectives, test schedules, and funding requirements from the year of execution through the Future Years Defense Program time period and beyond.
- Act as the single point of contact in MDA for all external ranges and common test resources.
- Provide, maintain, and develop common test resources and infrastructure required to execute tests in the MDA Test Program by leveraging element laboratories, ranges, executing agents, and functional expertise, as applicable.
- Certify that test personnel are trained and equipped to conduct safe and effective tests.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency				Date: March 2024	
Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 0603914C I <i>Ballistic Missile Defense Test</i>			
<div>- Provide test personnel and support services to plan and execute tests.</div> <div>- Collect, archive, and distribute all MDA test data/information.</div>					
B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	366.824	360.455	430.281	-	430.281
Current President's Budget	376.650	360.455	367.491	-	367.491
Total Adjustments	9.826	0.000	-62.790	-	-62.790
• 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	-0.174	0.000			
• Other Adjustment	10.000	0.000	-62.790	-	-62.790
<u>Change Summary Explanation</u> Decrease from FY 2024 to FY 2025 is in accordance with Integrated Master Test Plan (IMTP) requirements.					

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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 0603914C / Ballistic Missile Defense Test				Project (Number/Name) MT04 / BMDS Test Program			
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
MT04: BMDS Test Program	3,228.547	355.559	339.182	344.791	-	344.791	392.108	358.520	406.974	409.094	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

- Increase from FY 2024 to FY 2025 is in accordance with IMTP requirements.

A. Mission Description and Budget Item Justification

The Test Program provides consolidated Missile Defense Agency (MDA) capabilities and resources to support the management and execution of Missile Defense System and Element-level testing.

The MDA Test Program is responsible for all Missile Defense System testing and relies on Missile Defense System Engineering to provide the system test objectives that define the test architecture by developing, updating, coordinating, and assessing the IMTP. The MDA Test Program plans and executes Missile Defense System test events and develops the necessary test policy, test plans, and test infrastructure to conduct an effective test program. The goals of this budget project are to sustain and improve a robust testing program and to enhance Modeling and Simulation (M&S) efforts to provide, in conjunction with flight and ground testing, confidence to the Combatant Commanders that the Missile Defense system works.

Activities are grouped into six major areas: 1) Program Planning and Operations; 2) Flight Test; 3) Ground Test; 4) Test Infrastructure; 5) Engineering Test Analysis; and 6) Joint Emerging Operational Needs.

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

	FY 2023	FY 2024	FY 2025
Title: Program Planning and Operations	112.209	107.819	102.613
Articles:	-	-	-
Description: The Missile Defense System Test Program is responsible for the following Program, Planning, and Operational activities: - Maintain a professional and diverse civilian workforce to plan and execute flight, ground, and cyber test events. - Serve as the MDA Test Interface/Liaison to the Director, Operational Test and Evaluation (DOT&E), Under Secretary of Defense for Research and Engineering for Development Test, Evaluation, and Assessments (DTE&A), Joint Functional Component Command for Integrated Missile Defense (JFCC IMD), Joint Interoperability Test Command (JITC) and the Service Operational Test Agencies (OTA). - Provide Missile defense System OTA Team resources and funding for civilian salaries and personnel support to conduct system-level test and evaluation activities of the entire Missile Defense System portfolio. The Missile Defense System OTA Team actively			

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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 0603914C / <i>Ballistic Missile Defense Test</i>	Project (Number/Name) MT04 / <i>BMDs Test Program</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>participates in test planning, conducts and reports of flight and ground test evaluation activities, and conducts cyber assessments of the Missile Defense System.</p> <ul style="list-style-type: none"> - Implement cyber test requirements as directed by DOT&E and Department of Defense (DoD) regulations and guidelines to include planning, coordination, and execution of Cooperative Vulnerability and Penetration Assessments and Adversarial Assessments. - Establish, maintain, and execute the Missile Defense System Test program budget. - Provide IMTP cost modeling. - Provide day-to-day Test Functional Area management. - Provide Test organizational property accountability. - Establish and standardize Test issuance documents. - Manage test contracting and acquisition activities as well as manpower activities ensuring proper integration of contracts, support agreements; oversight and maintenance of the Test Directorate Inter/Intra-agency Acquisition Review database. - Provide oversight and coordination of test policy guidance to ensure compliance and strategic synchronization across the Test Directorate and MDA. - Manage travel, including travel to support IMTP flight and ground test events. <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - SEE ABOVE <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - SEE ABOVE. <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Decrease from FY 2024 to FY 2025 reflects efficiencies realized in MDA Advisory and Assistance Services.</p>			
<p>Title: Flight Test</p> <p align="right">Articles:</p> <p>Description: The Flight Test Execution Program solely reflects the IMTP cost model. The program integrates, manages, and executes flight tests using certified personnel and standardized processes and products to support Missile Defense System fielding to the warfighter.</p> <ul style="list-style-type: none"> - Develop flight test training requirements for Test Directors and other console operators. - Implement cyber test requirements as directed by DOT&E to include planning, coordination, and DoD regulations and guidelines for execution of Cooperative Vulnerability and Penetration Assessments and Adversarial Assessments. 		25.215 -	11.481 -
		43.817 -	

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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 0603914C / <i>Ballistic Missile Defense Test</i>		Project (Number/Name) MT04 / <i>BMDs Test Program</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Develop and manage the cyber test organization including plans, policy and strategy, resources, and tracking of information and coordinating cyber test schedules in support of Flight Tests. - Identify mission risks and implement mitigation practices as required ensuring safe and successful test outcomes. - Provide a Failure Response Team to ensure implementation of the response plan and capture lessons learned for process improvement. - Train test personnel for each flight test and maintain training records for all test personnel. - Train and resource System Mission Managers to lead Integrated Event Test Team mission management and readiness activities across all four test event phases for System and Element flight test and contingency operations. - Complete test planning for missile defense Flight Test events. - Conduct mission planning and range coordination activities; provide communications security equipment and management for missile defense Flight Test events. - Design and develop the Lessons Learned database. - Execute Flight Test events in accordance with the IMTP schedule. <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> <ul style="list-style-type: none"> - SEE ABOVE <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Increase from FY 2024 to FY 2025 has increased by \$5.584 million for the Guam/FEM-02 IMTP requirements.</p>					
<p>Title: Ground Test</p> <p align="right">Articles:</p> <p>Description: The Ground Test Execution Program plans, designs, manages, integrates, and executes Missile Defense System ground and cyber tests to support assessment and fielding of Missile Defense System capabilities to the Warfighter. It also delivers and sustains critical ground test infrastructure.</p> <ul style="list-style-type: none"> - Conduct System Pre-Mission Tests as required to support Missile defense System Flight Test Risk Reduction Analysis. - Refine and continue development of the Ground Test Mission Directors, System Mission Manager and Mission Director Training Plan. - Implement cyber test requirements as directed by DOT&E and DoD regulations and guidelines to include planning, coordination, and execution of Cooperative Vulnerability and Penetration Assessments and Adversarial Assessments. 			50.109 -	45.928 -	46.903 -

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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 0603914C / Ballistic Missile Defense Test	Project (Number/Name) MT04 / BMDS Test Program		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<div>- Develop and manage the cyber test organization including plans, policy and strategy, resources, and tracking of information and coordinating cyber test schedules in support of the IMTP.</div> <div>- Execute baseline Ground Tests in accordance with IMTP requirements.</div> <div>- Execute baseline Cyber Tests in accordance with IMTP requirements.</div> <div>Maintain Ground Test Infrastructure:</div> <div>- Execute ground test planning activities supporting MDA test requirements and priorities to include test design, test integration, and international testing.</div> <div>- Verify all test assets and resources are reserved and operationally available to support each test event.</div> <div>- Coordinate requirements for laboratory facilities.</div> <div>- Coordinate and identify communication requirements (e.g., tactical data, truth data, test data, tactical voice and test voice).</div> <div>- Maintain the hardware-in-the-loop (HWIL) Labs and communication test assets.</div> <div>Specific and/or unique accomplishments to each FY are as follows:</div> <div>FY 2024 Plans:</div> <div>- Execute the following Ground Tests in FY 2024: GTD-08b (N/I) (Missile Defense System Ground Test), GTI-ASI (24) (Missile Defense System International Ground Test), GTI-ISR (23) (Missile Defense System International Ground Test).</div> <div>FY 2025 Plans:</div> <div>- SEE ABOVE</div> <div>FY 2024 to FY 2025 Increase/Decrease Statement:</div> <div>N/A</div>				
Title: Test InfrastructureArticles:Description: The Missile Defense System Test Program procures, maintains, and manages test resource infrastructure and provides all resources and requirements in support of a robust IMTP schedule in five primary functions: <div>1) Flight Test Ranges and Infrastructure Upgrades</div> <div>2) Mobile Instrumentation Systems</div> <div>3) Airborne Sensors</div> <div>4) Test Communications</div> <div>5) Data Management and Labs</div>		147.296 -	149.273 -	126.264 -

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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 0603914C / <i>Ballistic Missile Defense Test</i>	Project (Number/Name) MT04 / <i>BMDs Test Program</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>The primary function responsibilities are as follows:</p> <p>Flight Test Ranges and Infrastructure Upgrades:</p> <ul style="list-style-type: none"> - Manage, develop, sustain, and modernize MDA test facilities and infrastructure used to support Missile Defense System element and system-level flight tests, including range facilities, support vehicles and equipment, fixed and mobile sensors and instrumentation, test communications networks, and test situational awareness tools. - Develop and maintain test execution products that include flight vehicle and ground systems telemetry verification capabilities, good target call data and displays, flight safety data processing, sensor pointing, and data driven Subject Matter Expert displays. - Facilities Sustainment Restoration/Modernization (FSRM) Funds are required to repair, upgrade, and sustain numerous facilities, test infrastructure, and equipment maintained by MDA world-wide. - Continue FSRM efforts to meet mission facility condition requirements; to include Meck Island Pipe Pier Replacement Phase 3, Bldg 5050 & Missile Assembly Building replacements. <p>Mobile Instrumentation Upgrades:</p> <ul style="list-style-type: none"> - Provide Sea Based Systems continued sustainment, and planned overhauls of test instrumentation ships, Pacific Collector and Pacific Tracker, and associated telemetry and radar systems. - Continue the phased modernization of the X-band Transportable Radar in FY 2024 and FY 2025. <p>Airborne Sensors:</p> <ul style="list-style-type: none"> - Maintain existing High Altitude Observatory's (HALOs) that collect radiometric and photo-documentary performance data for strategic and tactical defense systems flight and ground tests. - Three replacements are HALO Fleet Renewal Program procured in FY 2019; HALO-IR completed FY 2022 and Modification work ongoing with HALO-IIR and HALO-IIIR to be completed by 2QFY 2024. <p>Test Communications:</p> <ul style="list-style-type: none"> - Provide operations and maintenance support for the Mission Voice Communications (MVC). - Maintain accreditation for the Transportable Telemetry Systems, Pacific Collector Range Safety System, and the MVC. - Manage, develop, maintain, and modernize the GT communications network to support Missile Defense System ground testing. <p>Data Management and Labs:</p> <ul style="list-style-type: none"> - Establish authority and maintain configuration control of the test baseline. - Develop, update, coordinate and deliver the IMTP, coordinated within MDA and External stakeholders DOT&E; Director, D,DTE&A; the JFCC IMD; the Service OTAs; and the JITC; and provide an affordable and executable test plan to meet Warfighter needs and National Security commitments. 			

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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 0603914C / <i>Ballistic Missile Defense Test</i>		Project (Number/Name) MT04 / <i>BMDs Test Program</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Coordinate the IMTP Special Access Programs (SAP) Annex with respect to changes to SAP Program Test Baseline and synchronize with the collateral IMTP. - Manage the approved test baseline by assessing all proposed changes to the Missile Defense System Test Schedule and Test Configurations for each Missile Defense System test event identified in the IMTP. - Support the Developmental Baseline Reviews and the annual Missile Defense System Accountability Reviews to assess baseline execution risk and verify Missile Defense System components are consistent with the approved test baseline. - Update and maintain the classified Test Resource Mission Planning-Tool (C) database. - Execute Flight Test Design Analysis ensuring test designs are safe and sufficient to meet test objectives. - Develop and maintain integrated test tools to support Truth Data Requirements Documents, Truth Data Packages, on-site Truth Quick-Look product development, pre- and post-test analysis test planning, and resource de-confliction; Integrated Data Management Plans, Data Handling Plans, Cyber documentation, data planning and management, library operations, deployment process; infrastructure requirements process; and test operations support. - Provide analytical capability for Flight and Ground test planning to include: test design feasibility assessments, truth data and sensor analysis, truth data requirements documentation and data packages; flight safety analysis and flight safety data packages; and telemetry link margin, collision avoidance, and pre- and post-test trajectory analyses. - Review Missile Defense System component programs' content on a quarterly basis to ensure consistency with the approved IMTP. - Maintain accreditation of the Orion Voice Switch Conferencing System. - Co-chair the Signature Working Group to review all signature models and identify technical limitations associated with radar and optical signatures used to support Missile Defense System ground and flight testing. - Manage the Missile Defense Data Center (MDDC) Program and its library, operations, and infrastructure providing centralized data management, archival, and distribution services. - Provide Range safety risk analysis through model development of target and interceptor debris assessments to determine mission risk assessment for mission risk decisions. - Operations and Maintenance for test communications networks and data acquisition, display, and distribution systems in support of flight and ground test events <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Complete development of HALO-IIR and HALO-IIIR; Retire HALO-II and HALO-IV once HALO-IIR and HALO-IIIR reach IOC. - Continue FSRM efforts to meet mission facility condition requirements; to include, Meck Island Pipe Pier Replacement Phase 3, Bldg 5050 & Missile Assembly Building (HVAC) replacements. 					

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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 0603914C / <i>Ballistic Missile Defense Test</i>	Project (Number/Name) MT04 / <i>BMDs Test Program</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>- Enclosure and repair of a warehouse for remote site equipment at White Sands Missile Range (WSMR).</p> <p>FY 2025 Plans:</p> <p>- SEE ABOVE</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>- Decrease from FY 2024 to FY 2025 reflects reduction in resources required to support the Defense of Guam solution, which is part of the Pacific Deterrence Initiative.</p>			
<p>Title: Engineering and Test Analysis</p> <p align="right">Articles:</p> <p>Description: The Engineering and Test Analysis effort provides essential Missile Defense System ground and flight test event planning, execution, and evaluation activities for each test event:</p> <ul style="list-style-type: none"> - Design test architecture, define test objectives and evaluation criteria, and define target requirements appropriate to the data collection requirements to assess Missile Defense System performance and anchor Models and Simulations. - Produce threat data for Missile Defense System ground and flight tests. - Coordinate with Missile Defense System OTA to address test issues, disposition them, coordinate them, and recommend action plans to achieve closure. - Deliver HWIL M&S integration test cases. - Integrate, test, and deliver end-to-end Missile Defense System simulations supporting ground test missions. - Analyze system-level interoperability. - Conduct modeling and technical analysis for Combatant Command Wargames and Exercises. - Utilize M&S for pre-test assessment and post-test review and M&S updates. - Provide test configuration management risk assessments and anomaly/deficiency review, assessment and closure. - Analyze test results to identify verification and validation data collection shortfalls and reassign objectives to future test events as required. - Document Missile Defense System test observations for system-level test anomalies and coordinate the resulting Discrepancy Reports within the Failure Reporting, Analysis, and Corrective Action System. - Upgrade test analysis tools (e.g., Modular Analysis and Reporting Suite to enhance analysis capability and efficiency. <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <p>- SEE ABOVE</p> <p>FY 2025 Plans:</p>		20.730	24.681
		-	-
		25.194	-

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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 0603914C / <i>Ballistic Missile Defense Test</i>				Project (Number/Name) MT04 / <i>BMDs Test Program</i>				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)												
- SEE ABOVE. FY 2024 to FY 2025 Increase/Decrease Statement: N/A										FY 2023	FY 2024	FY 2025
Accomplishments/Planned Programs Subtotals										355.559	339.182	344.791
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	
• 0603890C: <i>BMD Enabling Programs</i>	589.588	597.720	609.406	-	609.406	623.893	625.985	659.983	677.858	Continuing	Continuing	
Remarks												
D. Acquisition Strategy <p>The Missile Defense System Test Program acquisition strategy is consistent with the MDA capabilities-based acquisition strategy that emphasizes testing, evolutionary acquisition, and knowledge-based funding. Test directs a team of various internal staff (government and scientific, engineering and technical assistance support), executing agents including the DoD agencies, Service Organizations, Laboratories and Program Offices, Federally Funded Research and Development Center and other MDA programs to execute the various diverse efforts within the Missile Defense System test program through competition. When a specific effort/activity being conducted, acquired, or maintained requires the use of an executing agent, respective headquarter regulations are used to conform the acquisition strategy.</p> <p>The MDA IMTP establishes and documents the test requirements for the Missile Defense System with the specific focus on collecting the data needed for the Verification, Validation, and Accreditation of the Missile Defense System M&S. This paradigm uses critical factor analysis to drive test design, planning, and execution for accrediting M&S, which is used to validate and assess system performance. With this test approach, MDA will establish confidence that the M&S used to evaluate the Missile Defense System represent real world behavior, thereby enabling simulation-based performance assessment to verify system functionality.</p>												

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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 0603914C / Ballistic Missile Defense Test						Project (Number/Name) MT04 / BMDS Test Program			
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Planning and Operations - TEAMS - AI Solutions	C/CPFF	AI SOLUTIONS, INC. : Various	0.000	1.587	Nov 2022	1.356	Nov 2023	1.385	Nov 2024	-		1.385	Continuing	Continuing	Continuing
Program Planning and Operations - TEAMS - MP Solutions	C/CPFF	MP SOLUTIONS, LLC : Various	0.000	37.302	Nov 2022	32.426	Nov 2023	30.086	Nov 2024	-		30.086	Continuing	Continuing	Continuing
Program Planning and Operations - TEAMS - Various	C/CPFF	Various : Various	0.000	1.734	Nov 2022	1.215	Nov 2023	1.239	Nov 2024	-		1.239	Continuing	Continuing	Continuing
Program Planning and Operations - Travel/ Transportation Account Code (TAC)	Allot	Various : Various	0.000	3.066	Nov 2022	1.000	Nov 2023	1.000	Nov 2024	-		1.000	Continuing	Continuing	Continuing
Subtotal			0.000	43.689		35.997		33.710		-		33.710	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 0603914C / Ballistic Missile Defense Test				Project (Number/Name) MT04 / BMDS Test Program					
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Planning and Operations - CSS - Test Support	C/CPFF	Various : Various	1.180	0.000		0.000		0.000		-		0.000	0.000	1.180	0.000
Program Planning and Operations - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	67.470	36.777	Oct 2022	34.359	Oct 2023	37.759	Oct 2024	-		37.759	Continuing	Continuing	Continuing
Program Planning and Operations - IMTP Planning and Data Management Tools	C/FP	Various : AL	140.088	0.000		0.000		0.000		-		0.000	0.000	140.088	0.000
Program Planning and Operations - Lab Analysis Infrastructure	MIPR	MIT-LL/Aerospace : AL/CA/MA	73.204	0.000		0.000		0.000		-		0.000	0.000	73.204	0.000
Program Planning and Operations - MT Contractor Support	C/CPFF	Various : AL/VA/CO/MA	40.768	0.000		0.000		0.000		-		0.000	0.000	40.768	0.000
Program Planning and Operations - OGA/UARC	FFRDC	GEORGIA TECH APPLIED RESEARCH CORPORATION : AL	0.000	0.452	Nov 2022	0.431	Nov 2023	0.439	Nov 2024	-		0.439	Continuing	Continuing	Continuing
Program Planning and Operations - Operational Test Agency - ATEC	MIPR	DOD - USA - ARMY TEST AND EVALUATION COMMAND (ATEC) : MD	0.000	19.601	Nov 2022	21.205	Nov 2023	14.858	Nov 2024	-		14.858	Continuing	Continuing	Continuing
Program Planning and Operations - Operational Test Agency - CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : Various	0.000	1.388	Nov 2022	2.157	Nov 2023	2.200	Nov 2024	-		2.200	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 0603914C / Ballistic Missile Defense Test				Project (Number/Name) MT04 / BMDS Test Program					
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Planning and Operations - Operational Test Agency - OPTEVFOR/ AERMOR	MIPR	DOD - USN - COMMANDER, OPERATIONAL TEST AND EVALUATION FORCE (COTF) : VA	0.000	1.927	Nov 2022	1.974	Nov 2023	2.016	Nov 2024	-		2.016	Continuing	Continuing	Continuing
Program Planning and Operations - Operational Test Agency - RTC	MIPR	DOD - USA - REDSTONE TEST CENTER (RTC) : AL	0.000	0.600	Nov 2022	1.056	Nov 2023	1.077	Nov 2024	-		1.077	Continuing	Continuing	Continuing
Program Planning and Operations - Operational Test Agency - STARCOM	MIPR	DOD - USSF - SPACE TRAINING AND READINESS COMMAND (STARCOM) : CO	0.000	1.199	Nov 2022	2.218	Nov 2023	2.241	Nov 2024	-		2.241	Continuing	Continuing	Continuing
Program Planning and Operations - Operational Test Agency - Various	MIPR	Various : Various	193.617	1.183	Nov 2022	1.433	Nov 2023	1.458	Nov 2024	-		1.458	Continuing	Continuing	Continuing
Program Planning and Operations - Service Level Agreement	Various	JACOBS TECHNOLOGY INC. : Various	1.411	0.035	Nov 2022	0.000		0.000		-		0.000	0.000	1.446	0.000
Program Planning and Operations - Support to Flight Testing	C/CPAF	Northrop Grumman/ Lockheed Martin : AL/CO	72.822	0.000		0.000		0.000		-		0.000	0.000	72.822	0.000
Program Planning and Operations - Support to Ground Testing	C/CPAF	MDIOC/JRDC/IRES/ Northrop Grumman : AL/CO/VA/DC	28.675	0.000		0.000		0.000		-		0.000	0.000	28.675	0.000
Program Planning and Operations - Support to Test Resources	C/CPAF	Various : AL	30.969	0.000		0.000		0.000		-		0.000	0.000	30.969	0.000
Program Planning and Operations - Test Support Operations	C/CPFF	Various : Various	0.000	0.118	Nov 2022	0.250	Nov 2023	0.000		-		0.000	0.000	0.368	0.000
Flight Test - Guam Defense Test	Various	Various : Various	0.000	0.000		5.584	Nov 2023	0.000		-		0.000	0.000	5.584	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 0603914C / Ballistic Missile Defense Test				Project (Number/Name) MT04 / BMDS Test Program					
Test and Evaluation (\$ 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
Flight Test - IMTP Flight Test	Various	Various : Various	352.044	25.215	Nov 2022	5.897	Nov 2023	4.254	Nov 2024	-		4.254	Continuing	Continuing	Continuing
Flight Test - IMTP Flight Test - L3	C/CPIF	L-3 COMMUNICATIONS CORPORATION : Various	0.000	0.000		0.000		1.143	Nov 2024	-		1.143	Continuing	Continuing	Continuing
Flight Test - IMTP Flight Test - Lockheed Martin	C/CPFF	LOCKHEED MARTIN CORPORATION : AL	0.000	0.000		0.000		9.875	Nov 2024	-		9.875	Continuing	Continuing	Continuing
Flight Test - IMTP Flight Test - MARAD	MIPR	DOT - MARITIME ADMINISTRATION (MARAD) NATIONAL DEFENSE RESERVE FLEET (NDRF) : Various	0.000	0.000		0.000		3.563	Nov 2024	-		3.563	Continuing	Continuing	Continuing
Flight Test - IMTP Flight Test - RTS	MIPR	DOD - USA - REAGAN BALLISTIC MISSILE DEFENSE TEST SITE (RTS) : Various	0.000	0.000		0.000		1.920	Nov 2024	-		1.920	Continuing	Continuing	Continuing
Flight Test - IMTP Flight Test - Raytheon	C/CPAF	RAYTHEON : Various	0.000	0.000		0.000		5.671	Nov 2024	-		5.671	Continuing	Continuing	Continuing
Flight Test - IMTP Flight Test - Various	Various	Various : Various	0.000	0.000		0.000		17.391	Nov 2024	-		17.391	Continuing	Continuing	Continuing
Ground Test - Advanced Research Center (ARC)	C/CPAF	DTECHLOGIC : Various	26.070	19.909	Oct 2022	21.439	Oct 2023	22.813	Oct 2024	-		22.813	Continuing	Continuing	Continuing
Ground Test - Cross Org/ Event Travel	MIPR	Various : Various	0.000	0.024	Nov 2022	0.070	Nov 2023	0.058	Nov 2024	-		0.058	Continuing	Continuing	Continuing
Ground Test - Cyber Testing - Futures and Concepts Center	MIPR	DOD - USA - FUTURES AND CONCEPTS CENTER (FCC) : AL	3.480	3.355	Nov 2022	2.874	Nov 2023	2.802	Nov 2024	-		2.802	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 0603914C / Ballistic Missile Defense Test				Project (Number/Name) MT04 / BMDs Test Program					
Test and Evaluation (\$ 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
Ground Test - Cyber Testing - TSMO	MIPR	DOD - USA - PROGRAM EXECUTIVE OFFICE SIMULATIONS, TRAINING & INSTRUMENTATION (PEO STRI) THREAT SYSTE : AL	0.000	0.000		1.416	Nov 2023	1.380	Nov 2024	-		1.380	Continuing	Continuing	Continuing
Ground Test - GT Assets - CDS/SEWS	MIPR	Various : Various	0.000	0.111	Nov 2022	0.122	Nov 2023	0.125	Nov 2024	-		0.125	Continuing	Continuing	Continuing
Ground Test - GT Assets - RMST Tool	C/CPFF	ANALYTICAL SERVICES, INC. : Various	0.000	1.540	Oct 2022	2.263	Nov 2023	2.300	Nov 2024	-		2.300	Continuing	Continuing	Continuing
Ground Test - GT Assets - TCS/TCES	MIPR	DOD - USN - NAVAL INFORMATION WARFARE CENTER (NIWC) PACIFIC : CA	3.844	5.082	Nov 2022	4.000	Nov 2023	4.383	Nov 2024	-		4.383	Continuing	Continuing	Continuing
Ground Test - Ground Test Infrastructure	Various	Various : Various	122.740	0.300	Oct 2022	0.000		0.000		-		0.000	0.000	123.040	0.000
Ground Test - Ground Test Non-IMTP	C/CPAF	COLSA CORPORATION : AL	4.058	0.000		0.000		0.000		-		0.000	0.000	4.058	0.000
Ground Test - IMTP Ground Testing	MIPR	AvMC, COLSA : AL/ CA	75.466	0.200	Oct 2022	0.000		0.000		-		0.000	0.000	75.666	0.000
Ground Test - MDIOC GT Support	C/CPFF	JACOBS TECHNOLOGY INC. : Various	0.000	2.254	Oct 2022	2.744	Nov 2023	2.765	Nov 2024	-		2.765	Continuing	Continuing	Continuing
Ground Test - MDIOC GT Support - GSA	MIPR	GSA - GENERAL SERVICES ADMINISTRATION (GSA) : AL	0.000	0.670	Oct 2022	0.500	Nov 2023	0.510	Nov 2024	-		0.510	Continuing	Continuing	Continuing
Ground Test - NSITE / GT Comms	MIPR	DOD - USA - COMBAT	0.000	4.708	Nov 2022	0.000		0.000		-		0.000	0.000	4.708	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 0603914C / Ballistic Missile Defense Test				Project (Number/Name) MT04 / BMDS Test Program					
Test and Evaluation (\$ 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
		CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : Various													
Ground Test - PEO M&S Support	Various	Various : Various	5.183	7.193	Nov 2022	4.923	Nov 2023	5.571	Nov 2024	-		5.571	Continuing	Continuing	Continuing
Ground Test - RASP Lab / Test Case Production	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	2.583	4.763	Nov 2022	5.577	Nov 2023	4.196	Nov 2024	-		4.196	Continuing	Continuing	Continuing
Test Infrastructure - Ground Test Infrastructure	MIPR	Naval Information Warfare Systems Command : AL/CA	27.501	0.000		0.000		0.000		-		0.000	0.000	27.501	0.000
Test Infrastructure - ARC Facilities	MIPR	Various : AL	0.000	4.028	Nov 2022	4.404	Nov 2023	4.479	Nov 2024	-		4.479	Continuing	Continuing	Continuing
Test Infrastructure - Airborne Sensors	C/CPIF	L-3 COMMUNICATIONS INTEGRATED SYSTEMS L.P. : OK	353.133	26.011	Nov 2022	23.000	Nov 2023	17.303	Nov 2024	-		17.303	Continuing	Continuing	Continuing
Test Infrastructure - Communication Instrumentation - CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : Various	1.821	0.469	Nov 2022	0.000		3.150	Nov 2024	-		3.150	Continuing	Continuing	Continuing
Test Infrastructure - Communication Instrumentation - WSMR	MIPR	DOD - USA - WHITE SANDS MISSILE RANGE (WSMR) : NM	2.500	2.100	Nov 2022	2.300	Nov 2023	2.825	Nov 2024	-		2.825	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 0603914C / Ballistic Missile Defense Test				Project (Number/Name) MT04 / BMDs Test Program					
Test and Evaluation (\$ 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
Test Infrastructure - Core Ground Test Labs and HWILS	C/IDIQ	Colsa/CCDC Aviation & Missile Center : AL/MD/FL/CA/OH/CO	217.990	0.000		0.000		0.000		-		0.000	0.000	217.990	0.000
Test Infrastructure - Cybersecurity	Various	Various : Various	2.615	0.500	Nov 2022	0.900	Nov 2023	1.300	Nov 2024	-		1.300	Continuing	Continuing	Continuing
Test Infrastructure - Data Management MDDC	C/CPFF	ANALYTICAL SERVICES, INC. : AL	26.589	24.636	Dec 2022	28.809	Dec 2023	29.954	Nov 2024	-		29.954	Continuing	Continuing	Continuing
Test Infrastructure - Defense of Guam - Aerojet Rocketdyne Coleman Aerospace	C/FPIF	L-3 Coleman Aerospace : FL	0.000	6.730	Nov 2022	0.000		0.000		-		0.000	0.000	6.730	0.000
Test Infrastructure - Defense of Guam / FEM-02	Various	Various : Various	0.000	1.460	Nov 2022	9.460	Nov 2023	0.000		-		0.000	0.000	10.920	0.000
Test Infrastructure - Enhanced GT Capability Assets	C/IDIQ	Colsa/Northrop Gurmman : AL/CO/FL/MD/HI	41.604	0.000		0.000		0.000		-		0.000	0.000	41.604	0.000
Test Infrastructure - Facilities Sustainment, Restoration & Modernization (FSRM)	MIPR	Army Corps of Engineers/ Huntsville : AL	52.487	0.574	Nov 2022	0.626	Dec 2023	0.674	Nov 2024	-		0.674	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Communications	Various	Various : Various	45.561	2.009	Nov 2022	3.875	Nov 2023	1.700	Nov 2024	-		1.700	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Communications - ASI	C/CPFF	ANALYTICAL SERVICES, INC. : Various	0.998	0.000		1.350	Nov 2023	1.100	Nov 2024	-		1.100	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Communications - CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND	0.000	11.483	Nov 2022	17.009	Nov 2023	0.785	Nov 2024	-		0.785	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 0603914C / Ballistic Missile Defense Test				Project (Number/Name) MT04 / BMDS Test Program					
Test and Evaluation (\$ 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
		MISSILE CENTER (AVMC) : Various													
Test Infrastructure - Flight Test Communications - Corvid	C/CPFF	Corvid Technologies Inc : Various	0.000	7.685	Nov 2022	9.774	Nov 2023	11.638	Nov 2024	-		11.638	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Non-IMTP	Various	Various : Various	0.000	1.129	Nov 2022	0.000		0.586	Nov 2024	-		0.586	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Planning, FT Comms	MIPR	DOD - USN - NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION (NAWCAD), PAX RIVER : Various	0.000	1.296	Nov 2022	1.248	Nov 2023	1.013	Nov 2024	-		1.013	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Planning, FT Comms - various	MIPR	Various : Various	0.000	0.000		0.000		0.638	Nov 2024	-		0.638	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Planning, FT Comms DISA/NAWC/NSWC	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : Various	0.000	1.775	Nov 2022	1.792	Nov 2023	1.435	Nov 2024	-		1.435	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Ranges	MIPR	Various : Various	173.356	2.038	Nov 2022	1.915	Nov 2023	1.524	Nov 2024	-		1.524	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Ranges - Dept of Energy	MIPR	DOE - DEPARTMENT OF ENERGY (DOE) : NM	3.000	3.000	Nov 2022	3.200	Nov 2023	4.000	Nov 2024	-		4.000	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Ranges - PMRF	MIPR	DOD - USN - PACIFIC MISSILE RANGE FACILITY BARKING SANDS (PMRF) : HI	1.850	1.905	Nov 2022	1.500	Nov 2023	2.300	Nov 2024	-		2.300	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Ranges - USAF 611 ASG	MIPR	DOD - USAF - 611TH AIR SUPPORT GROUP (611 ASG) : AK	4.845	5.645	Nov 2022	5.000	Nov 2023	4.596	Nov 2024	-		4.596	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 0603914C / Ballistic Missile Defense Test						MT04 / BMDS Test Program			
Test and Evaluation (\$ 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
Test Infrastructure - Flight Test Ranges - USAG KWAJ	MIPR	DOD - USA - ARMY GARRISON KWAJALEIN-ATOLL (USAG KWAJ) : HI	2.970	6.070	Nov 2022	4.500	Nov 2023	5.000	Nov 2024	-		5.000	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Ranges - WSMR	MIPR	DOD - USA - WHITE SANDS MISSILE RANGE (WSMR) : NM	0.120	0.723	Nov 2022	0.696	Nov 2023	1.796	Nov 2024	-		1.796	Continuing	Continuing	Continuing
Test Infrastructure - Ground Test Communications	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : Various	27.300	8.075	Nov 2022	8.701	Nov 2023	0.369	Nov 2024	-		0.369	Continuing	Continuing	Continuing
Test Infrastructure - IMTP Planning & Data Management Tools	MIPR	Various : Various	90.116	0.839	Nov 2022	0.858	Nov 2023	0.873	Nov 2024	-		0.873	Continuing	Continuing	Continuing
Test Infrastructure - Range Safety Analysis	Various	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : Various	0.000	3.976	Nov 2022	2.740	Nov 2023	2.599	Nov 2024	-		2.599	Continuing	Continuing	Continuing
Test Infrastructure - Sea Based Instrumentation Systems	MIPR	Various : Various	141.740	0.000		1.500	Nov 2023	2.000	Nov 2024	-		2.000	Continuing	Continuing	Continuing
Test Infrastructure - Sea Based Instrumentation Systems - Corvid	C/CPFF	Corvid Technologies Inc : Various	0.000	5.207	Nov 2022	5.000	Nov 2023	4.300	Nov 2024	-		4.300	Continuing	Continuing	Continuing
Test Infrastructure - Sea Based Instrumentation Systems - DOT	MIPR	DOT - DEPARTMENT OF TRANSPORTATION (DOT) : Various	5.027	5.915	Nov 2022	6.500	Nov 2023	15.670	Nov 2024	-		15.670	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 0603914C / Ballistic Missile Defense Test				Project (Number/Name) MT04 / BMDS Test Program					
Test and Evaluation (\$ 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
Test Infrastructure - Service Level Agreement	C/Various	JACOBS TECHNOLOGY INC. : Various	0.000	2.282	Nov 2022	1.400	Nov 2023	1.275	Nov 2024	-		1.275	Continuing	Continuing	Continuing
Test Infrastructure - Support to Test Resources	MIPR	Various : AL	153.748	0.000		0.000		0.000		-		0.000	0.000	153.748	0.000
Test Infrastructure - Tech Refresh	MIPR	Various : AL / VA / CO / MA	20.144	1.928	Nov 2022	0.000		0.000		-		0.000	0.000	22.072	0.000
Test Infrastructure - Test Communications	C/IDIQ	ASI/WSMR : Gray Research/NRL/NAWC/CA/MD/DC/NM/AL/MA	181.573	0.000		0.000		0.000		-		0.000	0.000	181.573	0.000
Test Infrastructure - Test Functional Office, IMTP Planning, and Data Management Tool (Various)	Various	Various : Various	1.665	0.141	Nov 2022	0.000		0.125	Nov 2024	-		0.125	Continuing	Continuing	Continuing
Test Infrastructure - Test Infrastructure Improvements	Various	Various : Various	26.250	0.000		0.000		0.000		-		0.000	0.000	26.250	0.000
Test Infrastructure - WPN - Test	C/CPFF	Various : Various	0.000	7.667	Nov 2022	0.000		0.000		-		0.000	0.000	7.667	0.000
Test Infrastructure - WPN O & S Services	C/CPFF	STRATEGIC ALLIANCE BUSINESS GROUP LLC : AL	0.000	0.000		1.216	Nov 2023	1.257	Nov 2024	-		1.257	Continuing	Continuing	Continuing
Engineering and Test Analysis - CSS - TEAMS Support	C/CPFF	NTSI LLC : Various	51.315	2.884	Nov 2022	4.988	Nov 2023	5.109	Nov 2024	-		5.109	Continuing	Continuing	Continuing
Engineering and Test Analysis - CSS - Teams Predictive Engineering	C/CPFF	TORCH TECHNOLOGIES INC : AL	0.000	1.928	Nov 2022	0.000		0.000		-		0.000	0.000	1.928	0.000
Engineering and Test Analysis - CSS Various	C/Various	Various : Various	2.321	0.000		0.000		0.000		-		0.000	0.000	2.321	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 0603914C / Ballistic Missile Defense Test				Project (Number/Name) MT04 / BMDs Test Program					
Test and Evaluation (\$ 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
Engineering and Test Analysis - Engineering and Test Analysis - Various	Various	Various : Various	0.000	2.448	Nov 2022	0.000		0.000		-		0.000	0.000	2.448	0.000
Engineering and Test Analysis - FFRDC/UARC	FFRDC	MITRE : VA	3.187	0.000		0.000		0.000		-		0.000	0.000	3.187	0.000
Engineering and Test Analysis - FFRDC/UARC 2	FFRDC	Aerospace : CA	0.840	0.000		0.000		0.000		-		0.000	0.000	0.840	0.000
Engineering and Test Analysis - Industry Support	C/CPAF	Boeing : AL	26.695	0.000		0.000		0.000		-		0.000	0.000	26.695	0.000
Engineering and Test Analysis - Industry Support - NME	C/CPAF	Northrop Grumman-JRDC : CO, AL	2.048	0.000		0.000		0.000		-		0.000	0.000	2.048	0.000
Engineering and Test Analysis - Industry Support 2	C/CPAF	COLSA : AL, CO	5.177	0.000		0.000		0.000		-		0.000	0.000	5.177	0.000
Engineering and Test Analysis - OGA Support	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	151.704	12.436	Nov 2022	19.431	Nov 2023	19.651	Nov 2024	-		19.651	Continuing	Continuing	Continuing
Engineering and Test Analysis - OGA Support - NME	MIPR	LTPO : AL	5.114	0.000		0.000		0.000		-		0.000	0.000	5.114	0.000
Engineering and Test Analysis - Test Case Production	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	1.953	1.034	Nov 2022	0.262	Nov 2023	0.434	Nov 2024	-		0.434	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 0603914C / Ballistic Missile Defense Test				MT04 / BMDs Test Program					
Test and Evaluation (\$ 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
Joint Emerging Operational Need (JEON) - JEON	SS/IDIQ	Lockheed Martin : Sunnyvale CA/ Huntsville, AL	126.018	0.000		0.000		0.000		-		0.000	0.000	126.018	0.000
Subtotal			3,228.547	306.630		296.446		304.226		-		304.226	Continuing	Continuing	N/A
Remarks															
N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Planning and Operations - TEAMS	C/CPFF	Various : Various	0.000	1.130	Nov 2022	1.175	Nov 2023	1.182	Nov 2024	-		1.182	Continuing	Continuing	Continuing
Program Planning and Operations - TEAMS - Huntington Ingalls Industries	C/CPFF	Huntington Ingalls Industries (HII) : VA	0.000	1.150	Nov 2022	1.040	Nov 2023	1.060	Nov 2024	-		1.060	Continuing	Continuing	Continuing
Program Planning and Operations - TEAMS - Strategic Alliance	C/CPFF	STRATEGIC ALLIANCE BUSINESS GROUP LLC : Various	0.000	1.945	Nov 2022	2.264	Nov 2023	2.309	Nov 2024	-		2.309	Continuing	Continuing	Continuing
Program Planning and Operations - TEAMS - Various	C/CPFF	Various : Various	0.000	0.000		0.960	Nov 2023	0.978	Nov 2024	-		0.978	Continuing	Continuing	Continuing
Program Planning and Operations - TEAMS - Veterans Technology	C/CPFF	Veterans Technology, LLC : Various	0.000	1.015	Nov 2022	1.300	Nov 2023	1.326	Nov 2024	-		1.326	Continuing	Continuing	Continuing
Subtotal			0.000	5.240		6.739		6.855		-		6.855	Continuing	Continuing	N/A
Remarks															
- FY 2024 was restructured to reflect accurate R3 reporting for the Program Planning and Operations - CSS - Strategic Planning Accomplishment.															

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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 0603914C / Ballistic Missile Defense Test					Project (Number/Name) MT04 / BMDS Test Program				
	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	3,228.547	355.559		339.182		344.791		-		344.791	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 0603914C / Ballistic Missile Defense Test										Project (Number/Name) MT04 / BMDS Test Program										
Significant Event Complete ▲ Significant Event Planned △					Milestone Decision Complete ★ Milestone Decision Planned ☆					Element Test Complete ◆ Element Test Planned ◇					System Level Test Complete ● System Level Test Planned ○					Complete Activity ◆ Planned Activity ◇										
										FY 2023		FY 2024			FY 2025			FY 2026			FY 2027			FY 2028			FY 2029			
SICO-09-3												◆																		
FTX-26 (OT) (SN, OT Target Only Flight Test)												▲																		
FTX-49												▲																		
SICO-08a-02												◆																		
FTP-24 E3 (LTPO, P8.1 OT-2c)												▲																		
FTP-24 E2 (LTPO, P8.1 OT-2b)												▲																		
FTP-24 E1 (LTPO, DT Intercept Flight Test)												▲																		
FTM-48													▲																	
FTG-12 (GM, DT/OT Intercept Flight Test)													▲																	
Israeli Cooperative Intercept Flight Test 1 - FY 2024													◇	◇	◇	◇														
SICO 9-4														◇																
FTX-23 (AEGIS 5.1, DT Tracking Exercise Flight Test)														△																
CVPA-09 (E/C)														△																
AA-09 (E/C)														△																
FTM-32 (AEGIS SBT, DT/OT Intercept Flight Test)														△																
GTI-08b (N/I)															◇															
GTI-08b Part 2															△															
GTI-ISR (23) (Missile Defense System Ground Test)															◇															
Pacific Dragon-24 E1 (ARAV-B)																△														
CVPA-08b Part 1(N/I)																◇														
LR-08b (N/I)																△														
GTI-100(I)																△														
Pacific Dragon-24 E2 (ARAV-T1)																△														
FTM-37 (AEGIS 5.1, DT/OT Intercept Flight Test)																	△													

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency										Date: March 2024									
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)									
0400 / 4					PE 0603914C / Ballistic Missile Defense Test					MT04 / BMDS Test Program									
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		
GTD-08b (N/I)									◇	◇									
CVPA-08b Part 2									◇	◇	◇	◇							
FEM-02									◇										
CVPA/AA-08b (N/I)									△										
Israeli Cooperative Intercept Flight Test - FY 2025									◇	◇	◇	◇							
FTX-40 (AEGIS 5.1, DT Tracking Exercise Flight Test)										△									
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)									◇										
GTI-101 (E/C)									◇										
FTX-26a (OT) (SN, OT Target Only Flight Test)										△									
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)											◇								
FTM-30 (AEGIS 5.1, DT/OT Intercept Flight Test)										△									
CVPA-13 (N/I) Part 1										△									
FTX-44 (OTHER, DT Target Only Flight Test)										△									
FTX-28 E1 (TH, DT/OT Tracking Exercise Flight Test)											△								
FTX-28 E3 (TH, DT/OT Tracking Exercise Flight Test)											△								
GTI-12 (E/C)												◇							
GTD-13 (N/I) (Missile Defense System Ground Test)												◇							
GTI-ASI (26) (Missile Defense System Ground Test)													◇						
JFTX-01 E1 (JAPAN, DT Tracking Exercise Flight Test)													△						
FTM-43 (AEGIS 5.1, DT/OT Intercept Flight Test)													△						
CVPA-12 (E/C)													△						
GTD-12 (E/C) (Missile Defense System Ground Test)													◇						
AA-13 (N/I)													△						
FTM-40 (AEGIS 6, DT/OT Intercept Flight Test)													△						

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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 0603914C / Ballistic Missile Defense Test										Project (Number/Name) MT04 / BMDS Test Program									
Significant Event Complete ▲ Significant Event Planned △					Milestone Decision Complete ★ Milestone Decision Planned ☆					Element Test Complete ◆ Element Test Planned ◇					System Level Test Complete ● System Level Test Planned ○					Complete Activity ◆ Planned Activity ◇									
										FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029							
LR-13																													
CVPA-13 (N/I) Part 2																													
JFTX-01 E2 (JAPAN, DT Tracking Exercise Flight Test)																													
GTI-14 Sprint 1 (N/I)																													
AA-12 (E/C)																													
FTM-41 (AEGIS 6, DT/OT Intercept Flight Test)																													
Israeli Cooperative Intercept Flight Test - FY 2027																													
FTG-16 (GM, DT Intercept Flight Test)																													
CVPA-14 (N/I) Part 1																													
TH CTV-04																													
FTT-26 (MRBM T1)																													
CVPA-24 (I) Part 1																													
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)																													
FTX-28 E2 (TH, DT/OT Tracking Exercise Flight Test)																													
GTI-24 (I)																													
SICO-24 (N/I)																													
GTD-14 (N/I) ((Missile Defense System Ground Test)																													
FTG-17 (GM, DT/OT Intercept Flight Test)																													
FTM-42 (MRBM T-4x3, BQM-177A X4)																													
GTI-ISR (27) (Missile Defense System Ground Test)																													
CVPA-14 (N/I) Part 2																													
AA-14 (N/I)																													
FTX-50 (ICBM)																													
GTI-15 (E/C)																													

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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 0603914C / Ballistic Missile Defense Test										Project (Number/Name) MT04 / BMDS Test Program									
Significant Event Complete ▲ Significant Event Planned △					Milestone Decision Complete ★ Milestone Decision Planned ☆					Element Test Complete ◆ Element Test Planned ◇					System Level Test Complete ● System Level Test Planned ○					Complete Activity ◆ Planned Activity ◇									
										FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029							
FTM-47 (MRBM T4 X3/BQM-177 X4)																				△									
FTT-24 (Black Dagger)																				△									
CVPA-15 (E/C)																				△									
AA-15 (E/C)																				△									
FTG-18 (DT/OT)																					△								
AA-24 (I)																				△									
GTD-15 (E/C)																					◇								
CVPA-24 (I) Part 2																					◇								
GTD-24 (I)																					◇								
CVPA-25 (I)																					△								
Pacific Dragon-28 E1 (ARAV-B)																						◇							
Pacific Dragon-28 E2 (ARAV-B)																						◇							
GTI-16 Sprint 1 (N/I)																						◇							
Pacific Dragon-28 E3 (SM-3 Blk 1A)																						△							
GTI-ASI (28)																						◇							
JFTM-08 E1(MRBM T-4)																							△						
JFTM-08 E2 (MRBM T-4)																							△						
TH CTV-03 (TH Flight Test)																								△					
GTI-16 Sprint 2 (N/I)																									◇				
FTO-04																										△			
GTD-16 (N/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 0603914C / <i>Ballistic Missile Defense Test</i>	Project (Number/Name) MT04 / <i>BMDS Test Program</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GTI-08a Part 2 (N/I)	1	2023	1	2023
LR-08a-1 (N/I)	1	2023	1	2023
TBG-2 (OTHER, DT Tracking Exercise Flight Test)	1	2023	1	2023
GTD-08a (N/I) (Missile Defense System Ground Test)	1	2023	1	2023
JFTM-07 E1 (JAPAN, DT Tracking Exercise Flight Test)	1	2023	1	2023
JFTM-07 E2 (JAPAN, DT Intercept Flight Test)	1	2023	1	2023
JFTM-07 E3 (JAPAN, DT Tracking Exercise Flight Test)	1	2023	1	2023
JFTM-07 E4 (JAPAN, DT Intercept Flight Test)	1	2023	1	2023
SICO -09-1	1	2023	1	2023
GTD-07b (AA)	1	2023	1	2023
FTP-23 (LTPO, DT/OT Intercept Flight Test)	1	2023	1	2023
AA-08a (N/I)	2	2023	2	2023
CVPA-08a Part 2	2	2023	2	2023
FTP-21 E4 (P8.1.1)(LTPO, DT Intercept Flight Test)	2	2023	2	2023
AA-08b (N/I)-XBR	2	2023	2	2023
SICO-23 (N/I)	2	2023	2	2023
GTI-23 Sprint 1 (N/I)	2	2023	2	2023
FTP-25 (P8.1.5) (OTHER, OT Intercept Flight Test)	2	2023	2	2023
FTM-31 E1a (AEGIS SBT, DT/OT Intercept Flight Test)	2	2023	2	2023
SICO-09-2	2	2023	2	2023
CVPA-08b (N/I)-XBR	2	2023	2	2023
GTI-09 Sprint 2 (E/C) (Missile Defense System Ground Test)	2	2023	3	2023

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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 0603914C / <i>Ballistic Missile Defense Test</i>		Project (Number/Name) MT04 / <i>BMDs Test Program</i>	
		Start		End	
Events	Quarter	Year	Quarter	Year	
LR-08a-2 (N/I)	3	2023	3	2023	
TBG-3 (OTHER, DT Tracking Exercise Flight Test)	3	2023	3	2023	
SICO-09-3	3	2023	3	2023	
FTX-26 (OT) (SN, OT Target Only Flight Test)	4	2023	4	2023	
FTX-49	4	2023	4	2023	
SICO-08a-02	4	2023	4	2023	
FTP-24 E3 (LTPO, P8.1 OT-2c)	4	2023	4	2023	
FTP-24 E2 (LTPO, P8.1 OT-2b)	4	2023	4	2023	
FTP-24 E1 (LTPO, DT Intercept Flight Test)	4	2023	4	2023	
FTM-48	1	2024	1	2024	
FTG-12 (GM, DT/OT Intercept Flight Test)	1	2024	1	2024	
Israeli Cooperative Intercept Flight Test 1 - FY 2024	1	2024	4	2024	
SICO 9-4	2	2024	2	2024	
FTX-23 (AEGIS 5.1, DT Tracking Exercise Flight Test)	2	2024	2	2024	
CVPA-09 (E/C)	2	2024	2	2024	
AA-09 (E/C)	2	2024	2	2024	
FTM-32 (AEGIS SBT, DT/OT Intercept Flight Test)	2	2024	2	2024	
GTI-08b (N/I)	3	2024	3	2024	
GTI-08b Part 2	3	2024	3	2024	
GTI-ISR (23) (Missile Defense System Ground Test)	3	2024	3	2024	
Pacific Dragon-24 E1 (ARAV-B)	4	2024	4	2024	
CVPA-08b Part 1(N/I)	4	2024	4	2024	
LR-08b (N/I)	4	2024	4	2024	
GTI-100(I)	4	2024	4	2024	
Pacific Dragon-24 E2 (ARAV-T1)	4	2024	4	2024	

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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 0603914C / <i>Ballistic Missile Defense Test</i>		Project (Number/Name) MT04 / <i>BMDs Test Program</i>	
		Start		End	
Events	Quarter	Year	Quarter	Year	
FTM-37 (AEGIS 5.1, DT/OT Intercept Flight Test)	1	2025	1	2025	
GTD-08b (N/I)	4	2024	1	2025	
CVPA-08b Part 2	1	2025	4	2025	
FEM-02	1	2025	1	2025	
CVPA/AA-08b (N/I)	1	2025	1	2025	
Israeli Cooperative Intercept Flight Test - FY 2025	1	2025	4	2025	
FTX-40 (AEGIS 5.1, DT Tracking Exercise Flight Test)	2	2025	2	2025	
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)	2	2025	2	2025	
GTI-101 (E/C)	2	2025	2	2025	
FTX-26a (OT) (SN, OT Target Only Flight Test)	3	2025	3	2025	
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)	4	2025	4	2025	
FTM-30 (AEGIS 5.1, DT/OT Intercept Flight Test)	4	2025	4	2025	
CVPA-13 (N/I) Part 1	4	2025	4	2025	
FTX-44 (OTHER, DT Target Only Flight Test)	4	2025	4	2025	
FTX-28 E1 (TH, DT/OT Tracking Exercise Flight Test)	1	2026	1	2026	
FTX-28 E3 (TH, DT/OT Tracking Exercise Flight Test)	1	2026	1	2026	
GTI-12 (E/C)	2	2026	2	2026	
GTD-13 (N/I) (Missile Defense System Ground Test)	2	2026	2	2026	
GTI-ASI (26) (Missile Defense System Ground Test)	3	2026	3	2026	
JFTX-01 E1 (JAPAN, DT Tracking Exercise Flight Test)	3	2026	3	2026	
FTM-43 (AEGIS 5.1, DT/OT Intercept Flight Test)	3	2026	3	2026	
CVPA-12 (E/C)	3	2026	3	2026	
GTD-12 (E/C) (Missile Defense System Ground Test)	3	2026	3	2026	
AA-13 (N/I)	3	2026	3	2026	
FTM-40 (AEGIS 6, DT/OT Intercept Flight Test)	3	2026	3	2026	

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Missile Defense Agency			Date: March 2024	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)		
0400 / 4	PE 0603914C / Ballistic Missile Defense Test	MT04 / BMDS Test Program		
Events	Start		End	
	Quarter	Year	Quarter	Year
LR-13	3	2026	3	2026
CVPA-13 (N/I) Part 2	3	2026	3	2026
JFTX-01 E2 (JAPAN, DT Tracking Exercise Flight Test)	3	2026	3	2026
GTI-14 Sprint 1 (N/I)	4	2026	4	2026
AA-12 (E/C)	4	2026	4	2026
FTM-41 (AEGIS 6, DT/OT Intercept Flight Test)	1	2027	1	2027
Israeli Cooperative Intercept Flight Test - FY 2027	1	2027	4	2027
FTG-16 (GM, DT Intercept Flight Test)	2	2027	2	2027
CVPA-14 (N/I) Part 1	2	2027	2	2027
TH CTV-04	3	2027	3	2027
FTT-26 (MRBM T1)	3	2027	3	2027
CVPA-24 (I) Part 1	3	2027	3	2027
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)	3	2027	3	2027
FTX-28 E2 (TH, DT/OT Tracking Exercise Flight Test)	3	2027	3	2027
GTI-24 (I)	3	2027	3	2027
SICO-24 (N/I)	3	2027	3	2027
GTD-14 (N/I) ((Missile Defense System Ground Test)	4	2027	4	2027
FTG-17 (GM, DT/OT Intercept Flight Test)	4	2027	4	2027
FTM-42 (MRBM T-4x3, BQM-177A X4)	4	2027	4	2027
GTI-ISR (27) (Missile Defense System Ground Test)	4	2027	4	2027
CVPA-14 (N/I) Part 2	4	2027	4	2027
AA-14 (N/I)	4	2027	4	2027
FTX-50 (ICBM)	4	2027	4	2027
GTI-15 (E/C)	1	2028	1	2028
FTM-47 (MRBM T4 X3/BQM-177 X4)	2	2028	2	2028

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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 0603914C / <i>Ballistic Missile Defense Test</i>		Project (Number/Name) MT04 / <i>BMDs Test Program</i>	
		Start		End	
Events		Quarter	Year	Quarter	Year
FTT-24 (Black Dagger)		2	2028	2	2028
CVPA-15 (E/C)		2	2028	2	2028
AA-15 (E/C)		2	2028	2	2028
FTG-18 (DT/OT)		3	2028	3	2028
AA-24 (I)		3	2028	3	2028
GTD-15 (E/C)		3	2028	3	2028
CVPA-24 (I) Part 2		3	2028	3	2028
GTD-24 (I)		3	2028	3	2028
CVPA-25 (I)		3	2028	3	2028
Pacific Dragon-28 E1 (ARAV-B)		4	2028	4	2028
Pacific Dragon-28 E2 (ARAV-B)		4	2028	4	2028
GTI-16 Sprint 1 (N/I)		4	2028	4	2028
Pacific Dragon-28 E3 (SM-3 Blk 1A)		4	2028	4	2028
GTI-ASI (28)		4	2028	4	2028
JFTM-08 E1(MRBM T-4)		1	2029	1	2029
JFTM-08 E2 (MRBM T-4)		1	2029	1	2029
TH CTV-03 (TH Flight Test)		2	2029	2	2029
GTI-16 Sprint 2 (N/I)		3	2029	3	2029
FTO-04		3	2029	3	2029
GTD-16 (N/I)		4	2029	4	2029
Note					
* FTM-37 (AEGIS 5.1, DT/OT Intercept Flight Test) under review					

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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 0603914C / Ballistic Missile Defense Test				Project (Number/Name) MC04 / 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
MC04: Cyber Operations	81.941	7.735	8.333	8.552	-	8.552	8.719	8.893	9.071	9.252	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

Missile Defense Agency (MDA) Risk Management Framework (RMF) Standards, Computer Network Defense Service Provider and Controls Validation Testing activities: validation results; risk assessments; and reviews of proposed Program Manager/Information Systems Security Manager Plans of Action and Milestones (POA&Ms) for MDA Missile Defense Test Program. It maintains the Certification and Accreditation (C&A) data repository, capturing the RMF documentation (artifacts, validation results, and Cyber Risk Assessment results, and Authorizing Official (AO) accreditation decisions) and POA&Ms on all MDA information systems. This project supports the monitoring and tracking of cyber mitigations detailed in Information Technology security POA&Ms. Activities include preparation of C&A documentation and accreditation recommendations to the MDA Senior Information Systems Security Officer/Security Controls Assessor and AO. Independent Verification and Validation team actions ensure the availability, integrity, authentication, confidentiality and non-repudiation of the MDA mission, test and administrative systems. Activities in the Project are necessary to comply with the Federal Information Systems Modernization Act of 2014. The MDA Information Technology Networks and Systems and Cross Domain Solution (CDS) provide oversight and guidance for implementing standard CDS security policies across the Missile Defense System.

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

	FY 2023	FY 2024	FY 2025
Title: Network / System Certification and Accreditation (C&A)	7.735	8.333	8.552
Articles:	-	-	-
Description: The Missile Defense System Test Network/System C&A program will: <ul style="list-style-type: none"> - Provide cyber program oversight of all MDA Test Directorate (DT) information systems, networks, sponsored remote sites, ground and flight test infrastructure, and exercise/war game infrastructures. This includes management of: cyber compliance and authorization; cyber training and awareness; information system secure configuration; assessment and incident management; and computer network defense. - Fund Missile Defense System Test Program Information Systems Security Manager civilian salaries. - Conduct cyber/information assurance engineering and architecture planning for the Missile Defense System Test Program information technology systems. - Plan and test the Cyber controls for Missile Defense System. - Develop DT National Institute of Standards and Technology certification and accreditation packages. - Leverage CDS as single authority implementing standard security policies for test and across the Missile Defense System. 			

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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 0603914C / Ballistic Missile Defense Test	Project (Number/Name) MC04 / Cyber Operations		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<p>- Continue to define cyber investments, risks and benefits used to reduce vulnerabilities and protect critical administrative and test data.</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		7.735	8.333	8.552
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy The Cyber Operations is a collaboration between subject matter expertise in the Government, Federally Funded Research & Development Center, 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 0400 / 4						R-1 Program Element (Number/Name) PE 0603914C / <i>Ballistic Missile Defense Test</i>						Project (Number/Name) MC04 / <i>Cyber Operations</i>			
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
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
Network / System Certification and Accreditation (C&A) - MC Contractor Support - IT & Cybersecurity Management (ITCM)	C/CPFF	FIVE STONES RESEARCH CORPORATION : Various	0.000	0.817	Nov 2022	3.218	Nov 2023	3.282	Nov 2024	-		3.282	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - MC Contractor Support - Various	C/CPFF	Various : Various	3.753	0.992	Nov 2022	0.600	Nov 2023	0.618	Nov 2024	-		0.618	Continuing	Continuing	Continuing
Subtotal			3.753	1.809		3.818		3.900		-		3.900	Continuing	Continuing	N/A
Remarks N/A															
Test and Evaluation (\$ 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
Network / System Certification and Accreditation (C&A) - CSS - Test Support/CCRM	C/CPFF	DECISIVE ANALYTICS CORPORATION : Various	0.000	0.020	Nov 2022	0.520	Nov 2023	0.531	Nov 2024	-		0.531	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 0603914C / Ballistic Missile Defense Test				Project (Number/Name) MC04 / Cyber Operations					
Test and Evaluation (\$ 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
Network / System Certification and Accreditation (C&A) - Cybersecurity Civ	Allot	MDA : Various	2.957	0.008	Oct 2022	0.000		0.000		-		0.000	0.000	2.965	0.000
Network / System Certification and Accreditation (C&A) - MC Contractor Support	C/CPFF	Various : Various	43.770	0.662	Nov 2022	0.000		0.000		-		0.000	0.000	44.432	0.000
Network / System Certification and Accreditation (C&A) - MC Contractor Support, CSM/ CND	C/CPFF	SYSTEM HIGH CORPORATION : Various	0.000	2.615	Nov 2022	1.177	Nov 2023	1.275	Nov 2024	-		1.275	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Test Support CSSP	Various	CCDC-AvMC, Colsa, GSA, SAIC : AL	31.461	0.000		0.000		0.000		-		0.000	0.000	31.461	0.000
Network / System Certification and Accreditation (C&A) - Test Support CSSP - COLSA	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : Various	0.000	0.000		1.650	Nov 2023	1.673	Nov 2024	-		1.673	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Test Support CSSP - GSA	MIPR	GSA - GENERAL SERVICES ADMINISTRATION (GSA) : AL	0.000	1.421	Nov 2022	1.168	Nov 2023	1.173	Nov 2024	-		1.173	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Test Support CSSP - Jacobs	C/CPIF	JACOBS TECHNOLOGY INC. : Various	0.000	1.200	Nov 2022	0.000		0.000		-		0.000	0.000	1.200	0.000
Subtotal			78.188	5.926		4.515		4.652		-		4.652	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 0603914C / Ballistic Missile Defense Test						Project (Number/Name) MC04 / Cyber Operations			
Test and Evaluation (\$ 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
Remarks N/A															
Management Services (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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			81.941	7.735		8.333		8.552		-		8.552	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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MC04 Cyber Operations Planned										◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇

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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 0603914C / Ballistic Missile Defense Test	Project (Number/Name) MC04 / Cyber Operations	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MC04 Cyber Operations Planned	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 0603914C / Ballistic Missile Defense Test				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: Program Wide Support	165.488	13.356	12.940	14.148	-	14.148	17.687	15.949	19.581	20.479	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency Program Element (PEs) each Fiscal Year (FY) based on the total Agency budget, and therefore fluctuates per PE by FY.

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	13.356	12.940	14.148
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			

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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 0603914C / <i>Ballistic Missile Defense Test</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Increase from FY 2024 to FY 2025 provides the PWS allocation 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.</p>			
Accomplishments/Planned Programs Subtotals		13.356	12.940
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0603914C / <i>Ballistic Missile Defense Test</i>				Project (Number/Name) MD40 / <i>Program Wide Support</i>					
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities and Maintenance	MIPR	DOD - USA - ARMY GARRISON REDSTONE ARSENAL (USAG RSA) : AL	0.000	0.000		0.000		10.812	Nov 2024	-		10.812	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations Management	Various	Various : Multi: AL, CA, CO, VA	6.459	0.000		0.000		0.000		-		0.000	0.000	6.459	0.000
Program Wide Support - Agency Operations and Support	C/CPFF	NETWORK MANAGEMENT RESOURCES, INC. : AL	0.000	1.150	Nov 2022	2.602	Nov 2023	0.500	Nov 2024	-		0.500	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Other Agency Services	MIPR	DOD - DEFENSE FINANCE AND ACCOUNTING SERVICES (DFAS) : IN	11.936	2.561	Nov 2022	3.016	Nov 2023	0.500	Nov 2024	-		0.500	Continuing	Continuing	Continuing
Program Wide Support - Facilities and Maintenance - SRM	MIPR	Various : Multi: AK,AL,CA,VA	11.841	0.000		0.000		0.000		-		0.000	0.000	11.841	0.000
Subtotal			30.236	3.711		5.618		11.812		-		11.812	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 0603914C / <i>Ballistic Missile Defense Test</i>				Project (Number/Name) MD40 / <i>Program Wide Support</i>					

Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	N/A

Remarks
N/A

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services	C/CPFF	Veterans Technology, LLC : AL	135.252	9.645	Dec 2022	7.322	Dec 2023	2.336	Dec 2024	-		2.336	Continuing	Continuing	Continuing
Subtotal			135.252	9.645		7.322		2.336		-		2.336	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	165.488	13.356	12.940	14.148	-	14.148	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 0603914C / Ballistic Missile Defense Test								Project (Number/Name) MD40 / Program Wide Support							
Significant Event Complete ▲				Milestone Decision Complete ★				Element Test Complete ◆				System Level Test Complete ●				Complete Activity ◆							
Significant Event Planned △				Milestone Decision Planned ☆				Element Test Planned ◇				System Level Test Planned ○				Planned Activity ◇							
								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 0603914C / Ballistic Missile Defense Test	Project (Number/Name) MD40 / Program Wide Support	

Schedule Details

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

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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	R-1 Program Element (Number/Name)											
0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	PE 0603915C / <i>Ballistic Missile Defense Targets</i>											
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	5,070.325	572.380	570.258	604.708	-	604.708	584.070	429.635	515.282	584.771	Continuing	Continuing
MC05: <i>Cyber Operations</i>	11.107	1.870	1.752	1.775	-	1.775	1.810	1.847	1.883	1.921	Continuing	Continuing
MT05: <i>BMDs Targets Program</i>	4,867.916	549.853	548.058	579.654	-	579.654	557.578	409.914	490.234	555.561	Continuing	Continuing
MD40: <i>Program Wide Support</i>	191.302	20.657	20.448	23.279	-	23.279	24.682	17.874	23.165	27.289	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Increase in FY 2025 provides future flight test adjustments in accordance with the current Integrated Master Test Plan (IMTP).

A. Mission Description and Budget Item Justification

The Missile Defense System Targets Program provides centrally managed targets and countermeasures development and procurement for a cost effective, integrated system-level approach to Missile Defense System testing. Based on engineering assessments of threat intelligence data, the Missile Defense System Targets Program develops, builds, and supports the launch of Short Range Ballistic Missile (Less than 1000 Kilometer range) targets, Medium Range Ballistic Missile (1000-3000 Kilometer Range) targets, Intermediate Range Ballistic Missile (3000-5500 Kilometer Range) targets, Intercontinental Ballistic Missile (Greater than 5500 Kilometer range) targets, and Multi-Class Components to test, verify, and validate the performance of the Missile Defense System against threats. The Missile Defense System Targets Program provides an economical and reliable inventory of targets, which are representative of feasible future threats and supports demonstration of the capability of the evolving layered Missile Defense System in a simultaneous test and operations threat environment.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	579.075	570.258	583.747	-	583.747
Current President's Budget	572.380	570.258	604.708	-	604.708
Total Adjustments	-6.695	0.000	20.961	-	20.961
• 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	-0.029	0.000			
• Other Adjustment	-6.666	0.000	20.961	-	20.961

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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 / BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 0603915C / Ballistic Missile Defense Targets	
<div>Change Summary Explanation</div> <div>Decrease in FY 2023 reflects realignment of funds to higher Agency priorities.</div> <div>Increase in FY 2025 reflects future flight tests adjustments in accordance with the current IMTP.</div>		

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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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MC05 / 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
MC05: Cyber Operations	11.107	1.870	1.752	1.775	-	1.775	1.810	1.847	1.883	1.921	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note N/A												
A. Mission Description and Budget Item Justification												
Cybersecurity Operations sustains Missile Defense Agency (MDA) Targets and Countermeasures (TC) Risk Management Framework (RMF) standards, Computer Network Defense (CND) Local Control Center, and Controls Validation Testing (CVT) activities. TC cybersecurity operations maintain the Authorization and Accreditation Enterprise Mission Assurance Support Service (eMASS) repository, capturing the RMF documentation (artifacts, validation results, and Cybersecurity Risk Assessment results, Authorization Official accreditation decisions, and Plans of Action and Milestones (POA&Ms) on all MDA TC information systems non-compliance activities). The TC Cybersecurity operations support the monitoring and tracking of Cybersecurity mitigations detailed in the cybersecurity POA&Ms within eMASS. The CND Local Control Center validates Assured Compliance Assessment Solution vulnerabilities, Endpoint Security Solution compliance, ArcSight deployment, and ensures distribution and tracking of Cybersecurity Tasking Orders for the entire TC cybersecurity portfolio. The Independent Verification and Validation group testing ensures the integrity and compliance of the MDA TC cybersecurity compliance for all TC cybersecurity portfolio. These validation activities include the analysis of validation results from compliance monitoring, risk assessments and reviews of proposed Program Manager/Information Systems Security Manager POA&Ms for the MDA Targets and Countermeasures program. Activities in the Project are necessary to comply with the Federal Information Security Management Act, Department of Defense (DoD), and MDA cybersecurity standards/requirements.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: Network / System Certification and Accreditation (C&A) Articles:									1.870	1.752	1.775	
									-	-	-	
Description: The Network/Systems C&A project sustains the MDA DoD RMF and CVT activities, analysis of validation results, risk assessments and reviews of proposed Program Manager/Information Assurance Manager POA&Ms for MDA Ballistic Missile Defense Test Program mission systems. It maintains the C&A eMASS data repository, capturing the RMF documentation (artifacts, validation results, and Information Assurance Risk Assessment results, and Designated Approving Authority accreditation decisions) and POA&M on all MDA information systems.												
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 0603915C / <i>Ballistic Missile Defense Targets</i>	Project (Number/Name) MC05 / <i>Cyber Operations</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
- SEE ABOVE. FY 2025 Plans: - SEE ABOVE. FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals		1.870	1.752
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
The acquisition strategy for MDA Consolidated Support for Assistance Services (A&AS) consists of contract actions to industry for: a) engineering and technical support; b) studies, analyses, and evaluations; and 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 A&AS 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 0603915C / <i>Ballistic Missile Defense Targets</i>						Project (Number/Name) MC05 / <i>Cyber Operations</i>			
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
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
Network / System Certification and Accreditation (C&A) - TEAMS Support	Various	Various : AL	5.284	0.000		0.000		0.000		-		0.000	0.000	5.284	0.000
Network / System Certification and Accreditation (C&A) - TEAMS Support - Cybersecurity Compliance and Risk Management	Various	Various : Various	0.000	0.288	Jan 2023	0.000		0.000		-		0.000	0.000	0.288	0.000
Network / System Certification and Accreditation (C&A) - TEAMS Support - IT and Cyber Management	C/CPFF	FIVE STONES RESEARCH CORPORATION : AL	0.000	0.099	Aug 2023	1.100	Nov 2023	1.100	Nov 2024	-		1.100	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - TEAMS Support -Cyber Security Management	C/CPFF	SYSTEM HIGH CORPORATION : VA	0.000	1.322	Nov 2022	0.000		0.000		-		0.000	0.000	1.322	0.000
Network / System Certification and Accreditation (C&A) - TEAMS Support / Civilian Pay - Cyber Compliance and Risk Management	Various	Various : Various	0.823	0.161	Oct 2022	0.652	Oct 2023	0.675	Oct 2024	-		0.675	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 0603915C / <i>Ballistic Missile Defense Targets</i>						Project (Number/Name) MC05 / <i>Cyber Operations</i>			
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
Network / System Certification and Accreditation (C&A) - Windows 10 Upgrade	C/CPAF	Northrop Grumman Space Systems (NGSS) : Chandler, AZ	5.000	0.000		0.000		0.000		-		0.000	0.000	5.000	0.000
Subtotal			11.107	1.870		1.752		1.775		-		1.775	Continuing	Continuing	N/A
Remarks N/A															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Management Services (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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			11.107	1.870		1.752		1.775		-		1.775	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 0603915C / Ballistic Missile Defense Targets			Project (Number/Name) MC05 / Cyber Operations			
	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks Award Date reflects date of first obligation. Additional obligations may occur incrementally throughout the year. Previous references to Orbital Sciences Corporation and Northrop Grumman Innovation Systems have been updated to Northrop Grumman Space Systems to reflect current corporate structure.										

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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 0603915C / Ballistic Missile Defense Targets						Project (Number/Name) MC05 / Cyber Operations																					
Significant Event Complete ▲		Milestone Decision Complete ★		Element Test Complete ◆		System Level Test Complete ●						Complete Activity ◆						Significant Event Planned △		Milestone Decision Planned ☆		Element Test Planned ◇		System Level Test Planned ○						Planned Activity ◇			
						FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
MC05 Cyber Activities (FY 2023).						◆	◆	◆	◆																								
MC05 Cyber Activities (FY 2024)										◇	◇	◇	◇																				
MC05 Cyber Activities (FY 2025)														◇	◇	◇	◇																
MC05 Cyber Activities (FY 2026)																	◇	◇	◇	◇													
MC05 Cyber Activities (FY 2027)																				◇	◇	◇	◇										
MC05 Cyber Activities (FY 2028)																							◇	◇	◇	◇							
MC05 Cyber Activities (FY 2029)																												◇	◇	◇	◇		

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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 0603915C / Ballistic Missile Defense Targets	Project (Number/Name) MC05 / Cyber Operations	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MC05 Cyber Activities (FY 2023).	1	2023	4	2023
MC05 Cyber Activities (FY 2024)	1	2024	4	2024
MC05 Cyber Activities (FY 2025)	1	2025	4	2025
MC05 Cyber Activities (FY 2026)	1	2026	4	2026
MC05 Cyber Activities (FY 2027)	1	2027	4	2027
MC05 Cyber Activities (FY 2028)	1	2028	4	2028
MC05 Cyber Activities (FY 2029)	1	2029	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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MT05 / BMDS Targets Program			
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
MT05: BMDS Targets Program	4,867.916	549.853	548.058	579.654	-	579.654	557.578	409.914	490.234	555.561	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note Increase in FY 2025 reflects future flight test adjustments in accordance with the current Integrated Master Test Plan (IMTP).												
A. Mission Description and Budget Item Justification The mission of the Missile Defense System Targets Program is to provide an economical and reliable inventory of targets that are representative of feasible future threats. These targets enable demonstration of Missile Defense System capabilities in operationally realistic scenarios. The Missile Defense System Targets Program develops and acquires five target types across four target classes. The classes include: Short Range Ballistic Missiles (SRBM), Medium Range Ballistic Missiles (MRBM), Intermediate Range Ballistic Missiles (IRBM), and Intercontinental Ballistic Missiles (ICBM). The target types (Type 1-5) designate the complexity of the target within its class. Type-1 (T1) targets are simple baseline configurations. Type-2 (T2) targets have increased capability or complexity. Type-3 (T3) targets have unique configurations. Type-4 (T4) targets are subscale targets. Type-5 (T5) targets are advanced targets. The Missile Defense System Targets Program develops and provides Modified Ballistic Re-Entry Vehicles (MBRV) and Countermeasures that can be used across the spectrum of target types and classes. The Missile Defense System Targets Program provides target digital models that enable the Missile Defense Agency (MDA) weapon system program offices to simulate end to end sensor and interceptor performance during pre-mission analysis. The Missile Defense System Targets Program also provides maintenance, aging surveillance, refurbishment, and routine testing of government furnished equipment boosters and target components. The Missile Defense System Targets Program carefully plans the year of execution to assure the best use of appropriated funds. However, the Missile Defense System Targets Program must be flexible in its execution of the program in order to respond to emerging real world threats or changes in the intelligence community estimates of when a threat will be deployed. The Missile Defense System Targets Program must also work with missile defense systems engineers on a continuing basis to align the targets program to the Missile Defense System need to demonstrate capabilities as reflected in the Missile Defense System IMTP. The Missile Defense System Targets Program makes every effort to reduce instability in contracts, production base and budget while managing in this dynamic work environment. The Missile Defense System Targets Program develops and builds targets and countermeasures at multiple locations including: Orlando, FL; Huntsville, AL; and Chandler, AZ. Storage and maintenance facilities are also located throughout the country including: Huntsville, AL; White Sands, NM; Ogden, UT; Tooele, UT; and Cape Canaveral Air Force Station, FL. The Missile Defense System Targets Program consists of four major areas: Consumables, Program Planning and Operations, Resources, and Flight Test Execution.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: Consumables - Short Range Ballistic Missiles (SRBM)									45.433	26.739	8.209	

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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 0603915C / <i>Ballistic Missile Defense Targets</i>		Project (Number/Name) MT05 / <i>BMDs Targets Program</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p align="right">Articles:</p> <p>Description: Consumables include SRBM target hardware development and manufacturing.</p> <p>Target development includes non-recurring engineering, MBRVs, Countermeasures, and launch support equipment for Missile Defense System flight testing as required by the Missile Defense System IMTP. Target development provides air and ground launch capabilities to maximize flexibility in MDA test design. Development activities include requirements decomposition, design, modeling and simulation, qualification testing, characterization, missionization, and mission analysis. The Missile Defense System Targets Program Office manages target configuration, component interface specifications, range integration, reliability, mission assurance, and costs. The Missile Defense System Targets Program ensures target designs are producible, reliable, and affordable.</p> <p>Target manufacturing includes the build of targets and target components that are required to execute the Missile Defense System IMTP. Manufacturing includes government furnished equipment and new component acquisition, assembly, and integration. Also included are target characterization, quality and mission assurance, transportation, and logistics support. The Missile Defense System Targets Program delivers fully assembled and integrated targets to the Missile Defense System Test Program. Future revisions to the IMTP will likely affect target types and quantities noted in the Planned Accomplishments.</p> <p>Specific and/or unique planned accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> -SRBM T4 - continue development efforts, complete qualification of SRBM T4 Ship Set 27 to support pre-ship readiness review in FY 2024 -Continue SRBM T4 kit development and manufacturing efforts to support future target performance requirements for flight tests beginning in FY 2024 -Continue development efforts for SRBM T4 countermeasures <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> -SRBM T4 - complete qualification of SRBM T4 Ship Sets 1 and 3 to support pre-ship readiness reviews in FY2025 -Continue SRBM T4 development and recurring engineering efforts <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Decrease from FY 2024 to FY 2025 reflects completion of four SRBM T4 ship sets in FY 2024 to support future flight tests in accordance with current IMTP requirements.</p>			-	-	-
Title: Consumables - Medium Range Ballistic Missiles (MRBM)			222.459	268.894	293.568

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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 0603915C / Ballistic Missile Defense Targets	Project (Number/Name) MT05 / BMDS Targets Program
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		
	Articles:	<div>FY 2023</div> <div>FY 2024</div> <div>FY 2025</div>
<p>Description: MRBM target hardware development and manufacturing is consistent with the Description found in the Consumables-SRBM section.</p> <p>Specific and/or unique planned accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> -MRBM T3C2 - complete manufacturing of Ship Set 7 to support flight test in FY 2024 -MBRV-7 - continue recurring engineering efforts and manufacturing of MBRV-7 front sections to support MRBM flight tests -MBRV-8 - continue recurring engineering efforts and manufacturing of MBRV-8 front sections to support MRBM flight tests -MRBM T1/T2 - complete qualification of Ship Sets 3, 4, and 5 to support pre-ship readiness reviews in FY 2024; complete manufacturing and qualification of Ship Set 7 to support pre-ship readiness review in FY 2024; continuing manufacturing and qualification of Ship Sets 8, 10, and 13 for pre-ship readiness reviews in FY 2025 (Ship Set 8) and FY 2027 (Ship Set 10), and beyond the Future Years Defense Program (FYDP) (Ship Set 13) -MRBM T4 - continue manufacturing of kit hardware and countermeasures in support of future flight test requirements -MRBM T5 Advanced Target - continue development and manufacturing of Ship Sets 11, 12, 14, 15, and 16 to support pre-ship readiness reviews in FY 2028 (Ship Set 12) and beyond the FYDP (Ship Sets 11, 14, 15, and 16) -Initiate development efforts for new re-entry vehicle designs to support front ends performance requirements in future flight tests -Continue development and production efforts for Hypersonic Target Vehicle 2 (HTV-2), an alternate advanced target re-entry vehicle to address emerging threats -Continue development efforts for MRBM Countermeasures <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> -MBRV-7 - continue recurring engineering efforts and manufacturing of MBRV-7 front sections to support MRBM flight tests -MBRV-8 - continue recurring engineering efforts and manufacturing of MBRV-8 front sections to support MRBM flight tests -MRBM T1/T2 - complete manufacturing and qualification of Ship Set 8 to support pre-ship readiness review in FY 2025; continuing manufacturing and qualification of Ship Sets 10 and 13 to support pre-ship readiness reviews in FY 2027 (Ship Set 10) and FY 2030 (Ship Set 13) MRBM T5 Advanced Target - complete qualification of Ship Sets 6 and 9 to support pre-ship readiness reviews in FY 2025; continue development and manufacturing of Ship Sets 11, 12, 14, 15, and 16 to support pre-ship readiness reviews in FY 2028 (Ship Set 12), and beyond the Future Years Defense Program (FYDP) (Ship Sets 11, 14, 15, and 16) -Continue development efforts for new re-entry vehicle designs to support front ends performance requirements in future flight tests 		<div>-</div> <div>-</div> <div>-</div>

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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 0603915C / <i>Ballistic Missile Defense Targets</i>	Project (Number/Name) MT05 / <i>BMDs Targets Program</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
-Continue development and production efforts for Hypersonic Target Vehicle 2 (HTV-2), an alternate advanced target re-entry vehicle to address emerging threats -Continue development efforts for MRBM Countermeasures -Begin MRBM kit development and manufacturing efforts to support future target performance requirements for flight tests <i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Increase from FY2024 to FY2025 reflects an increase in Pacific Deterrence Initiative funding for HTV-2 target development and hardware.				
<i>Title:</i> Consumables - Intermediate Range Ballistic Missiles (IRBM) <i>Description:</i> IRBM target hardware development and manufacturing is consistent with the Description found in the Consumables-SRBM section. Specific and/or unique planned accomplishments to each FY are as follows: <i>FY 2024 Plans:</i> -IRBM T1/T2 - continue development and manufacturing of Ship Sets 9, 11, and 16 to support pre-ship readiness reviews in FY 2026 (Ship Set 9), FY 2027 (Ship Set 11), and FY 2029 (Ship Set 16) -MBRV-11 - continue recurring engineering efforts and manufacturing of MBRV-11 front sections to support IRGM flight tests -Continue development of new re-entry vehicles to meet the evolving IRBM threat, including designs to support future Next Generation Interceptor IRBM testing -Continue development and production efforts for IRBM Countermeasures and kits, including designs to support future Next Generation Interceptor IRBM testing <i>FY 2025 Plans:</i> -IRBM T1/T2 - continue development and manufacturing of Ship Sets Ship Sets 9, 11, and 16 to support pre-ship readiness reviews in FY 2026 (Ship Set 9), FY 2027 (Ship Sets 11), and FY 2029 (Ship Set 16) -MBRV-11 - continue recurring engineering efforts and manufacturing of MBRV-11 front sections to support IRBM flight tests -Continue development of new re-entry vehicles to meet the evolving IRBM threat, including designs to support future Next Generation Interceptor IRBM testing -Continue development and production efforts for IRBM Countermeasures and kits, including designs to support future Next Generation Interceptor IRBM testing <i>FY 2024 to FY 2025 Increase/Decrease Statement:</i>		45.896	35.890	64.402
		<i>Articles:</i> -	-	-

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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 0603915C / <i>Ballistic Missile Defense Targets</i>	Project (Number/Name) MT05 / <i>BMDs Targets Program</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
Increase from FY 2024 to FY 2025 provides increased development and manufacturing of MBRV-11 re-entry vehicles and IRBM T1/T2 target hardware.				
Title: Consumables - Intercontinental Ballistic Missiles (ICBM) Description: ICBM target hardware development and manufacturing is consistent with the Description found in the Consumables-SRBM section. Specific and/or unique planned accomplishments to each FY are as follows: FY 2024 Plans: -ICBM T1/T2 - continue development and manufacturing of Ship Sets 5-9 to support pre-ship readiness reviews and flight tests in FY 2028 (Ship Set 5), in FY2029 (Ship Set 6), and beyond the FYDP (Ship Sets 7-9) -MBRV-8 - continue recurring engineering efforts and manufacturing of MBRV-8 front sections to support ICBM flight tests -MBRV-11 - continue recurring engineering efforts and manufacturing of MBRV-11 front sections to support ICBM flight tests. -Continue SR-119 motor stack development efforts to replace aging C4 motors on ICBM targets, including future Next Generation Interceptor testing -Continue additional development and manufacturing efforts for ICBM Countermeasures, including designs to support future Next Generation Interceptor testing -Continue development of new re-entry vehicles to meet the evolving ICBM threat, including designs to support future Next Generation Interceptor testing -Continue manufacturing of ICBM kits, including interstage kits that provide the connection between the SR-119 stage zero motor and the Orion 50 S XLT stage 1 motor required for future ICBM targets, including future Next Generation Interceptor testing FY 2025 Plans: -ICBM T1/T2 continue development and manufacturing of Ship Sets 5-9 to support pre-ship readiness reviews and flight tests in FY 2028 (Ship Set 5), in FY 2029 (Ship Set 6), and beyond the FYDP (Ship Sets 6-9) -MBRV-8 - continue recurring engineering efforts and manufacturing of MBRV-8 front sections to support ICBM flight tests -MBRV-11 - continue recurring engineering efforts and manufacturing of MBRV-11 front sections to support ICBM flight tests -Continue SR-119 motor stack development efforts to replace aging C4 motors on ICBM targets, including future Next Generation Interceptor testing -Continue additional development and manufacturing efforts for ICBM Countermeasures, including designs to support future Next Generation Interceptor testing -Continue development of new re-entry vehicles to meet the evolving ICBM threat, including designs to support future Next Generation Interceptor testing		47.082 -	66.649 -	76.596 -

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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 0603915C / <i>Ballistic Missile Defense Targets</i>	Project (Number/Name) MT05 / <i>BMDs Targets Program</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<p>-Continue manufacturing of ICBM kits, including interstage kits that provide the connection between the SR-119 stage zero motor and the Orion 50 S XLT stage 1 motor required for future ICBM targets, including future Next Generation Interceptor testing</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Increase from FY 2024 to FY 2025 provides increased SR-119 motor stack development, countermeasures development, manufacturing of MBRV-11 re-entry vehicles, and ICBM kits.</p>				
<p><i>Title:</i> Program Planning & Operations</p> <p align="right"><i>Articles:</i></p> <p><i>Description:</i> Program Planning and Operations provides for government management of the Missile Defense System Targets Program. Included in this effort is program and business management, program administration, technical and testing oversight, verification of hardware and software development, and government manpower and infrastructure to develop, test and sustain the Missile Defense System Targets Program Office system and components. Other Government Agency (OGA) and Federally Funded Research and Development Research Centers (FFRDC) are used for highly specialized skill sets not available internally to Targets for specific time periods.</p> <p>Recurring yearly planned accomplishments include the following:</p> <ul style="list-style-type: none"> -Provide technical and business management support activities, financial management, cost and schedule performance analysis cost estimation and analysis, and integration activities -Provide program oversight, subcontract management, quality assurance, verification of hardware and software development, and technical and testing oversight -Ensure Missile Defense System Targets Program compliance with internal and external direction, policies, and regulations -Conduct Internal Program Plans that align with the MDA approved IMTP -Provide program and technical management of target launch operations activities to include oversight of mission planning, range coordination, and mission requirements <p>Specific and/or unique planned accomplishments to each FY are as follows:</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i></p>		61.201 -	63.848 -	64.380 -

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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 0603915C / <i>Ballistic Missile Defense Targets</i>		Project (Number/Name) MT05 / <i>BMD System Targets Program</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
N/A					
Title: Resources			92.083	53.015	56.121
			-	-	-
<p>Articles:</p> <p>Description: Missile Defense System Targets Program Resources consist of two sub-elements: Systems Engineering/Program Management and Logistics.</p> <p>Systems Engineering/Program Management provides technical direction to meet Target Program requirements while balancing cost, schedule, performance, and risk. It conducts functional requirements allocation to product lines, defines product line specifications/interfaces, performs configuration and data management, and follows guidelines for design reviews. It performs target system analysis to verify system performance, defines target program baselines, controls flight test configurations, and conducts pre and post-flight analysis. It identifies treaty and environmental issues and develops plans for issue resolution. It provides Quality, Safety, and Mission Assurance operations to ensure compliance with MDA requirements for design, test, manufacturing, quality, safety and reliability to ensure high quality products are delivered for test events. It also includes Single Stimulation Framework/Objective Simulation Framework compatible Modeling and Simulation (M&S) execution and improvements to evolve M&S capability; trajectory analyses; signature analyses and characterization; studies to assess alternative target and platform solutions; assessments of risk management; and design approval of government furnished equipment. Specific Systems Engineering Planned Accomplishments include:</p> <ul style="list-style-type: none"> -Continue Program Management and Business Operations for target components to provide a framework for overall management of the Missile Defense System Targets Program -Continue providing classified network connections to OGAs so their subject matter experts can be used to support Target requirements -Continue analyses of future target Launch Vehicles, Re-Entry Vehicles, and launch platforms to ensure they are threat representative and that the Agency is making use of available technology in our future designs -Continue performing Pedigree Reviews to ensure high probability of mission success -Continue information technology and classified network support to ensure sensitive target information is not compromised -Continue Software Independent Verification and Validation to provide risk reduction of flight missions for target systems under development <p>Missile Defense System Targets Program Logistics support provides target storage, aging surveillance, and transportation of target hardware in support of Missile Defense System testing. Also included are integrated logistics support for facilities, inventory maintenance, spare parts, aging surveillance, disposal, special testing for rocket motor propellants, and other hazardous material handling. This task manages and oversees accountability of all government furnished equipment and contractor acquired property. Logistics also provides common support equipment for launch vehicles, MBRVs, countermeasures, and all up integrated</p>					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>target rounds. It also supports launch site activations through the transportation of support equipment to various test sites. Specific Targets Logistics Planned Accomplishments include:</p> <ul style="list-style-type: none"> -Continue Multi-Class Inventory storage, aging surveillance, maintenance of existing assets, and transportation support that ensured availability of MBRV and ground support equipment -Conduct disposal actions of inert assets <p>Specific and/or unique planned 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: Flight Test Execution</p> <p align="right">Articles:</p> <p>Description: Flight Test Execution is performed by the Target Launch Operations group. This group conducts target mission planning, coordinates target range and mission requirements, and provides target technical information to the MDA's General Counsel to support treaty approvals. The Target Launch Operations Group is the primary link between the target developer and the Missile Defense System test community, incorporating target system constraints into the Missile Defense System mission countdown and launch constraints.</p> <p>Specific and/or unique planned accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> -Conduct final target integration with the test range and Forward Staging Area to accomplish launch operations of a MRBM target in support of Aegis Ballistic Missile Defense (BMD) using BL 9.2.4 SW demonstrating a salvo engagement firing two Standard Missile (SM)-6 Dual II Software Upgrade Program guided missiles -Conduct final target integration with the test range and Forward Staging Area to accomplish launch operations of a MRBM target with countermeasures in support of Aegis BMD using BL 9.2.3 SW performing a target scene data collect 			35.699 -	33.023 -	16.378 -

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603915C / <i>Ballistic Missile Defense Targets</i>	Project (Number/Name) MT05 / <i>BMDs Targets Program</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>-Conduct final target integration with the test range and Forward Staging Area to accomplish launch operations of MRBM targets in support of Terminal High-Altitude Area Defense (THAAD) using TH 4.0.1 software (SW) demonstrating concurrent control of THAAD interceptor and two Missile Segment Enhancements in an engagement of two MRBMs.</p> <p>-Conduct final target integration with the test range and Forward Staging Area to accomplish launch operations of a MRBM target in support of the Aegis Guam System (AGS) using AGS engineering computer program demonstrating an engagement firing an SM-3 Blk IIA guided missile.</p> <p>-Conduct final target integration with the test range and Forward Staging Area to accomplish launch operations of a SRBM target in support of Aegis Ballistic Missile Defense using BL 9.2.x SW demonstrating an engagement firing an SM-3 Blk IB threat upgrade technology refresh guided missile</p> <p>FY 2025 Plans:</p> <p>-Conduct final target integration with the test range and Forward Staging Area to accomplish launch operations of a SRBM target with countermeasures in support of THAAD using TH 4.0.1 SW, Army Navy/Transportable Radar Surveillance and Control Model 2 (AN/TPY-2) Forward Based Mode (FBM) CX5.0, and Phased Array Tracking Radar to Intercept on Target (PATRIOT) using post deployment build 8.1 SW demonstrating interoperability by exchanging Link 16 Messages</p> <p>-Conduct final target integration with the test range and Forward Staging Area to accomplish launch operations of a SRBM target with countermeasures in support of THAAD using TH 4.0.1 SW, AN/TPY-2 FBM CX5.0 demonstrating coordinated simulated engagements</p> <p>-Conduct final target integration with the test range and Forward Staging Area to accomplish launch operations of an MRBM target in support of Aegis Sea Based Terminal using BL 9.2.x SW demonstrating a simulated engagement firing an SM-6 simulated dynamic missile against a Hypersonic Glide Vehicle</p> <p>-Conduct final target integration with the test range and Forward Staging Area to accomplish launch operations of an MRBM target in support of Aegis Ballistic Missile Defense using BL 9.2.x SW demonstrating an engagement firing an SM-3 Blk IIA guided missile against a MRBM with countermeasures</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Decrease from FY 2024 to FY 2025 reflects the number and types of targets required for the mix of flight tests in the Missile Defense System IMTP, including a decrease in support for flight test missions from six in FY 2024 to three in FY 2025. FY 2025 Pacific Deterrence Initiative funding has decreased by \$6.464 million.</p>			
Accomplishments/Planned Programs Subtotals		549.853	548.058
		579.654	

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Appropriation/Budget Activity 0400 / 4				R-1 Program Element (Number/Name) PE 0603915C / <i>Ballistic Missile Defense Targets</i>				Project (Number/Name) MT05 / <i>BMDs Targets Program</i>		

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
• 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

The Missile Defense System Targets Program delivers targets and countermeasures for Missile Defense System flight-testing to counter evolving threats. Program requirements are derived from the Missile Defense System IMTP and from multiple Target System Performance Specifications (TSPS).

The Missile Defense System Targets Program is currently in various acquisition and contracting stages to deliver targets and countermeasures per multiple TSPS by target class: SRBM, MRBM, IRBM, and ICBM. Each target class may be independently solicited, evaluated, and competitively awarded based on the IMTP 'need date' priority order. The Targets Program also delivers countermeasures based on requirements and TSPS.

The Missile Defense System Targets Program competitively awarded a prime contract in 2011 to Northrop Grumman Systems Corporation (NGSC) with a Period of Performance (PoP) of March 2011 through December 2025 for air-launched IRBM targets. This award included two follow-on options, one for (8) eight IRBM targets exercised in 2014 and another for (6) six IRBM targets exercised in 2017. Two IRBM targets were added on the contract in 2018 to support the Missile Defense System Acceleration efforts. This contract also included the development and delivery of ICBM targets. The contract scope included two ICBM Stage Zero Retrofit Kits to be installed in existing air-launched IRBM targets. Four ICBM Stage Zero Kits were added in 2018.

The Missile Defense System Targets Program competitively awarded a prime contract in 2016 to NGSC with a PoP of July 2016 to December 2020 for three MRBM T3c2 targets. This award included options for up to four MRBM T3c2 targets. In August 2020 a modification was awarded to extend the base contract through March 2024 to account for two flight tests scheduled for FY 2023 and FY 2024.

The Missile Defense System Targets Program competitively awarded a prime contract in 2013 to L-3 Communications/Coleman Aerospace Corporation (Now Aerojet Rocketdyne Coleman Aerospace) with a PoP of October 2013 through December 2029 to provide six MRBM targets. Six additional targets were added to the contract in 2019 to incorporate additional IMTP requirements. The option for the third lot of six additional targets was also added to the contract in 1Q FY 2023 and the PoP was extended to December 2029. The first target from this contract was successfully launched in 4th Quarter, FY 2019.

The Missile Defense System Targets Program competitively awarded a prime contract in 2019 to NGSC with a PoP of September 2019 through September 2024 to deliver T4 Subscale Targets. This T4 Subscale contract has a base quantity of four SRBMs, five MRBMs, with options for up to 17 SRBMs and 7 MRBMs.

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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 0603915C / <i>Ballistic Missile Defense Targets</i>	Project (Number/Name) MT05 / <i>BMDs Targets Program</i>
<p>The T4-G Target and other legacy Aegis Readiness Assessment Vehicles targets are acquired through the Naval Surface Warfare Center Port Hueneme Division White Sands (NSWC PHD WS) via Military Interdepartmental Purchase Requests (MIPRs) funding transactions. NSWC PHD WS has unique sounding rocket expertise and access to existing contracts that makes this a beneficial relationship for both parties.</p> <p>The Missile Defense System Targets Program also acquires SRBM subscale targets (Black Dagger and Zombie) with special/unique guidance requirements through MIPRs from the US Army Space and Missile Defense Command.</p> <p>The Missile Defense System Targets Program competitively awarded a prime contract in 2017 to Lockheed Martin with a base PoP of November 2017 through December 2022. In December 2021, the period of performance was extended to January 2027. This action also moved from delivery of in-line missionization hardware to delivery of hardware that has been configured to a generic configuration. Based on this concept, missionization will occur once a mission has been identified in the IMTP. This effort currently requires the delivery of three MBRV-7 Configuration 2 (C2) and five MBRV-8 C2 targets, with options for two MBRV-7 C2 and five MBRV-8 C2 targets, as set forth in the IMTP. The program will begin to implement obsolescence activities as some of the avionics components and/or their constituent parts have begun to reach the end of their availability. In order to continue providing MBRV/Re-Entry Vehicle Separation Module -7 & -8 front ends for the remaining target development under this contract, the obsolete avionics components must be updated and the corresponding spares must be de-scoped from the contract. Spares for the new avionics components will be added as an option which the Government will exercise if required.</p> <p>The Missile Defense System Targets Program awarded a sole source contract in 2013 to Lockheed Martin with a base PoP of January 2014 through September 2016. The Program Office awarded a contract modification to the Targets and Countermeasures Highly Specialized Services contract that extended the PoP through September 2027. This effort provides missionization requirements-preparation and flight readiness of target assets, ordnance handling, and execution of mission reviews to support specific flight-test objectives for MBRVs.</p> <p>The Targets Program initiated development efforts with Johns Hopkins University Applied Physics Lab for the Hypersonic Target Vehicle-2 (HTV-2) utilizing an existing contract through MDA's Directorate of Engineering team. The Program Office plans to continue non-recurring engineering with University Affiliated Research Center and FFRDC partners, to include Sandia National Laboratories, for an alternate advance target re-entry vehicles materiel solutions.</p> <p>The Missile Defense System Targets Program future acquisition planning and solicitations will go through MDA Acquisition Strategy Panel(s)/Board(s) for decision-making. Future acquisition strategies are based on two premises: a) utilize existing capabilities/infrastructure and sustain an industrial base to deliver targets; and b) initiate acquisitions that delivers low cost/affordable targets that emulate evolving threats.</p>		

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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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MT05 / BMDS Targets Program					
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
Consumables - Short Range Ballistic Missiles (SRBM) - Countermeasures (GTRI)	FFRDC	Georgia Tech Research Institute : Huntsville, AL	2.569	2.118	Dec 2022	0.000		0.000		-		0.000	0.000	4.687	0.000
Consumables - Short Range Ballistic Missiles (SRBM) - Countermeasures (SNL)	IA	Sandia National Lab : Albuquerque, NM	19.782	3.051	Dec 2022	0.000		0.000		-		0.000	0.000	22.833	0.000
Consumables - Short Range Ballistic Missiles (SRBM) - Pathfinder Zombie / Black Dagger	MIPR	Space and Missile Defense Command : Huntsville, AL	1.576	0.000		0.000		0.000		-		0.000	0.000	1.576	0.000
Consumables - Short Range Ballistic Missiles (SRBM) - SRBM T4	C/CPFF	NORTHROP GRUMMAN : AZ	161.080	40.264	Dec 2022	20.881	Nov 2023	7.118	Dec 2024	-		7.118	Continuing	Continuing	Continuing
Consumables - Short Range Ballistic Missiles (SRBM) - Target Integration	MIPR	Naval Surface Warfare Center, Port Hueneme : Port Hueneme, CA	94.912	0.000		0.000		0.000		-		0.000	0.000	94.912	0.000
Consumables - Short Range Ballistic Missiles (SRBM) - Various (Prior Year Funding Only, No Funding in the FYDP)	Various	Various : Various	47.539	0.000		0.000		0.000		-		0.000	0.000	47.539	0.000
Consumables - Medium Range Ballistic Missiles (MRBM) - Air Launch Target Support	MIPR	Yuma Proving Grounds : Yuma, AZ	0.556	0.294	Nov 2022	0.000		0.000		-		0.000	0.000	0.850	0.000
Consumables - Medium Range Ballistic Missiles (MRBM) - Aviation Fueling	MIPR	DOD - DEFENSE LOGISTICS AGENCY (DLA) : VA	0.000	0.021	Dec 2022	0.022	Dec 2023	0.015	Dec 2024	-		0.015	Continuing	Continuing	Continuing
Consumables - Medium Range Ballistic Missiles (MRBM) - Countermeasures (GTRI)	FFRDC	Georgia Tech Research Institute : Huntsville, AL	17.067	2.258	Dec 2022	0.000		0.000		-		0.000	0.000	19.325	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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MT05 / BMDS Targets Program					
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
Consumables - Medium Range Ballistic Missiles (MRBM) - Countermeasures (MIT LL)	FFRDC	MASSACHUSETTS INSTITUTE OF TECHNOLOGY : MA	19.977	4.009	Dec 2022	11.464	Dec 2023	1.496	Dec 2024	-		1.496	Continuing	Continuing	Continuing
Consumables - Medium Range Ballistic Missiles (MRBM) - Countermeasures (SNL)	IA	SNL (Sandia National Laboratory) : NM	158.187	25.695	Dec 2022	33.882	Dec 2023	37.699	Dec 2024	-		37.699	Continuing	Continuing	Continuing
Consumables - Medium Range Ballistic Missiles (MRBM) - HTV-2 (CCDC)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	0.000	0.000		6.329	Nov 2023	39.032	Nov 2024	-		39.032	0.000	45.361	0.000
Consumables - Medium Range Ballistic Missiles (MRBM) - HTV-2 (JHU APL)	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	0.000	12.000	Dec 2022	37.071	Dec 2023	38.923	Nov 2024	-		38.923	0.000	87.994	0.000
Consumables - Medium Range Ballistic Missiles (MRBM) - MBRVs	C/CPAF	LOCKHEED MARTIN CORPORATION : AL	513.935	15.546	Nov 2022	15.881	Nov 2023	30.270	Nov 2024	-		30.270	Continuing	Continuing	Continuing
Consumables - Medium Range Ballistic Missiles (MRBM) - MRBM T1/T2	C/CPAF	L-3 Coleman Aerospace : FL	615.929	109.820	Nov 2022	105.977	Nov 2023	99.174	Nov 2024	-		99.174	Continuing	Continuing	Continuing
Consumables - Medium Range Ballistic Missiles (MRBM) - MRBM T3c2	C/CPAF	Northrop Grumman Space Systems : Chandler, AZ	244.046	0.000		0.000		0.000		-		0.000	0.000	244.046	0.000
Consumables - Medium Range Ballistic Missiles (MRBM) - MRBM T4	C/CPAF	NORTHROP GRUMMAN : AZ	79.351	40.441	Nov 2022	22.419	Nov 2023	8.115	Nov 2024	-		8.115	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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MT05 / BMDS Targets Program					
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
Consumables - Medium Range Ballistic Missiles (MRBM) - Range Safety	MIPR	Reagan Test Site : Kwajalein Atoll	0.116	0.332	Dec 2022	0.000		0.000		-		0.000	0.000	0.448	0.000
Consumables - Medium Range Ballistic Missiles (MRBM) - Re-entry Vehicles	FFRDC	Applied Physics Lab/Johns Hopkins University : Laurel, MD	85.137	0.000		0.000		0.000		-		0.000	0.000	85.137	0.000
Consumables - Medium Range Ballistic Missiles (MRBM) - TPS Support	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	33.899	1.709	Dec 2022	1.608	Dec 2023	0.000		-		0.000	0.000	37.216	0.000
Consumables - Medium Range Ballistic Missiles (MRBM) - Various (Prior Year Funding Only, No Funding in the FYDP)	Various	Various : Various	32.363	0.000		0.000		0.000		-		0.000	0.000	32.363	0.000
Consumables - Medium Range Ballistic Missiles (MRBM) - eSR19	C/CPAF	L-3 Coleman Aerospace : FL	0.000	0.000		21.054	Dec 2023	34.572	Dec 2024	-		34.572	0.000	55.626	0.000
Consumables - Intermediate Range Ballistic Missiles (IRBM) - Countermeasures (SNL)	IA	SNL (Sandia National Laboratory) : NM	28.213	1.952	Jun 2023	10.638	Dec 2023	6.329	Dec 2024	-		6.329	Continuing	Continuing	Continuing
Consumables - Intermediate Range Ballistic Missiles (IRBM) - IRBM Re-entry Vehicles	C/CPAF	NORTHROP GRUMMAN : AZ	0.000	24.146	Mar 2023	16.102	Dec 2023	28.502	Dec 2024	-		28.502	Continuing	Continuing	Continuing
Consumables - Intermediate Range Ballistic Missiles (IRBM) - IRBM T1/T2	C/CPAF	NORTHROP GRUMMAN : AZ	718.790	18.536	Mar 2023	5.565	Dec 2023	27.787	Dec 2024	-		27.787	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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MT05 / BMDs Targets Program					
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
Consumables - Intermediate Range Ballistic Missiles (IRBM) - MBRVs	C/CPAF	LOCKHEED MARTIN CORPORATION : AL	0.000	0.000		0.000		1.784	Dec 2024	-		1.784	Continuing	Continuing	Continuing
Consumables - Intermediate Range Ballistic Missiles (IRBM) - Re-entry Vehicles	C/CPAF	Lockheed Martin Space Systems Company : Huntsville, AL	83.502	1.262	Jun 2023	0.000		0.000		-		0.000	0.000	84.764	0.000
Consumables - Intermediate Range Ballistic Missiles (IRBM) - Various (Prior Year Funding Only, No Funding in the FYDP)	Various	Various : Various	10.455	0.000		0.000		0.000		-		0.000	0.000	10.455	0.000
Consumables - Intercontinental Ballistic Missiles (ICBM) - Countermeasures (MIT LL)	FFRDC	MIT Lincoln Laboratory : Hanscom AFB, Lexington, MA	20.483	11.393	Dec 2022	0.000		0.000		-		0.000	0.000	31.876	0.000
Consumables - Intercontinental Ballistic Missiles (ICBM) - Countermeasures (SNL)	IA	SNL (Sandia National Laboratory) : NM	18.402	6.635	Dec 2022	17.950	Dec 2023	25.147	Dec 2024	-		25.147	Continuing	Continuing	Continuing
Consumables - Intercontinental Ballistic Missiles (ICBM) - ICBM Re-entry Vehicles	C/CPAF	NORTHROP GRUMMAN : AZ	0.000	0.617	Dec 2022	2.789	Dec 2023	3.270	Dec 2024	-		3.270	Continuing	Continuing	Continuing
Consumables - Intercontinental Ballistic Missiles (ICBM) - ICBM T1/T2	C/CPAF	NORTHROP GRUMMAN : AZ	361.552	15.327	Nov 2022	28.170	Nov 2023	26.698	Nov 2024	-		26.698	Continuing	Continuing	Continuing
Consumables - Intercontinental Ballistic Missiles (ICBM) - MBRVs	C/CPAF	LOCKHEED MARTIN CORPORATION : AL	35.521	0.000		0.000		2.972	Nov 2024	-		2.972	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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MT05 / BMDS Targets Program					
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
Consumables - Intercontinental Ballistic Missiles (ICBM) - Static Fire Support	MIPR	Naval Air Weapons Station : China Lake, CA	0.980	0.394	Dec 2022	0.000		0.000		-		0.000	0.000	1.374	0.000
Consumables - Intercontinental Ballistic Missiles (ICBM) - Various (Prior Year Funding Only, No Funding in the FYDP)	Various	Various : Various	12.201	0.000		0.000		0.000		-		0.000	0.000	12.201	0.000
Consumables - Joint Emergent Operational Need Statement (JEON) - Various (Prior Year Funding Only, No Funding in the FYDP)	Various	Various : Various	50.027	0.000		0.000		0.000		-		0.000	0.000	50.027	0.000
Resources - Intermodal Logistics Support	MIPR	DOD - USA - ARMY INTERMODAL AND DISTRIBUTION PLATFORM MANAGEMENT OFFICE (AIDPMO) : IL	0.000	0.000		0.000		0.958	Dec 2024	-		0.958	0.000	0.958	0.000
Resources - Pedigree Reviews	FFRDC	THE AEROSPACE CORPORATION : CA	0.000	0.000		0.000		3.909	Dec 2024	-		3.909	0.000	3.909	0.000
Subtotal			3,468.147	337.820		357.802		423.770		-		423.770	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 0603915C / <i>Ballistic Missile Defense Targets</i>						Project (Number/Name) MT05 / <i>BMDS Targets Program</i>			
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
Consumables - Medium Range Ballistic Missiles (MRBM) - MBRVs	C/CPAF	LOCKHEED MARTIN CORPORATION : AL	0.000	0.000		4.068	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Consumables - Medium Range Ballistic Missiles (MRBM) - MRBM T1/T2	C/CPAF	L-3 Coleman Aerospace : FL	0.000	0.000		2.510	Nov 2023	1.667	Nov 2024	-		1.667	Continuing	Continuing	Continuing
Consumables - Medium Range Ballistic Missiles (MRBM) - MRBM T3c2	C/CPAF	NORTHROP GRUMMAN : AZ	0.000	9.944	Nov 2022	3.946	Nov 2023	0.000		-		0.000	0.000	13.890	0.000
Consumables - Medium Range Ballistic Missiles (MRBM) - Network Services - MRBM T1/T2 Target Support	Various	Various : Various	2.061	0.390	Nov 2022	0.181	Nov 2023	0.199	Nov 2024	-		0.199	Continuing	Continuing	Continuing
Consumables - Intermediate Range Ballistic Missiles (IRBM) - IRBM T1/T2	C/CPAF	NORTHROP GRUMMAN : AZ	0.000	0.000		3.581	Dec 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Consumables - Intercontinental Ballistic Missiles (ICBM) - ICBM Motor Services	C/CPAF	NORTHROP GRUMMAN : UT	15.234	5.183	Nov 2022	5.701	Nov 2023	15.691	Nov 2024	-		15.691	Continuing	Continuing	Continuing
Consumables - Intercontinental Ballistic Missiles (ICBM) - ICBM T1/T2	C/CPAF	NORTHROP GRUMMAN : AZ	0.000	0.000		5.599	Nov 2023	2.818	Nov 2024	-		2.818	Continuing	Continuing	Continuing
Consumables - Intercontinental Ballistic Missiles (ICBM) - MBRVs	C/CPAF	LOCKHEED MARTIN CORPORATION : AL	0.000	7.533	Nov 2022	6.440	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Program Planning & Operations - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	257.095	29.008	Oct 2022	27.974	Oct 2023	28.274	Oct 2024	-		28.274	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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MT05 / BMDS Targets Program					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Planning & Operations - Civilian Travel	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : AL	17.032	2.080	Nov 2022	2.212	Nov 2023	2.317	Nov 2024	-		2.317	Continuing	Continuing	Continuing
Program Planning & Operations - FFRDC Support (JHU APL)	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	11.621	2.003	Dec 2022	1.743	Dec 2023	1.825	Dec 2024	-		1.825	Continuing	Continuing	Continuing
Program Planning & Operations - IT Support	Various	Various : AL	10.466	1.308	Dec 2022	1.240	Dec 2023	1.305	Dec 2024	-		1.305	Continuing	Continuing	Continuing
Program Planning & Operations - Safety and Logistics Support - Network Services	Various	Various : Various	10.295	0.517	Nov 2022	0.442	Nov 2023	0.463	Nov 2024	-		0.463	Continuing	Continuing	Continuing
Program Planning & Operations - TEAMS Support	Various	Various : AL	361.573	0.000		0.000		0.000		-		0.000	0.000	361.573	0.000
Program Planning & Operations - TEAMS Support - MDS Engineering	C/IDIQ	PARSONS GOVERNMENT SERVICES INC. : AL	0.000	26.265	Nov 2022	30.237	Nov 2023	30.196	Nov 2024	-		30.196	Continuing	Continuing	Continuing
Program Planning & Operations - TEAMS Support - Systems Engineering	C/IDIQ	Rothe Ares JV, LLC : TX	0.000	0.020	Jun 2023	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Planning & Operations - Various (Prior Year Funding Only, No Funding in the FYDP)	Various	Various : Various	1.098	0.000		0.000		0.000		-		0.000	0.000	1.098	0.000
Resources - ACU Maintenance - Maintenance Support - Garrison Support - Hazard Materials - Disposal	MIPR	DOD - USA - ARMY GARRISON REDSTONE ARSENAL (USAG RSA) : AL	11.855	1.056	Nov 2022	0.946	Nov 2023	0.895	Nov 2024	-		0.895	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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MT05 / BMDS Targets Program					
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
Resources - Advanced Target Front End Configuration 3	C/CPFF	Verity Integrated Systems : AL	0.000	10.000	Jun 2023	0.000		0.000		-		0.000	0.000	10.000	0.000
Resources - Engineering Services - Logistics Support - Transportation	MIPR	U.S. BANK NATIONAL ASSOCIATION : MN	9.385	1.582	Nov 2022	2.044	Nov 2023	0.202	Nov 2024	-		0.202	Continuing	Continuing	Continuing
Resources - FFRDC Reactive Target Simulation	IA	Sandia National Laboratories, New Mexico (SNL) : NM	8.000	0.000		0.000		0.000		-		0.000	0.000	8.000	0.000
Resources - FFRDC Support / Trade Studies (Aerospace)	FFRDC	THE AEROSPACE CORPORATION : AL	40.030	2.560	Dec 2022	4.619	Dec 2023	4.837	Dec 2024	-		4.837	Continuing	Continuing	Continuing
Resources - FFRDC Support / Trade Studies (JHU APL)	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	10.424	0.964	Nov 2022	1.016	Nov 2023	1.017	Nov 2024	-		1.017	Continuing	Continuing	Continuing
Resources - FFRDC Support / Trade Studies (SNL)	IA	SNL (Sandia National Laboratory) : NM	20.235	5.065	Dec 2022	5.268	Dec 2023	5.517	Dec 2024	-		5.517	Continuing	Continuing	Continuing
Resources - Garrison Support	MIPR	DOD - USA - ARMY GARRISON REDSTONE ARSENAL (USAG RSA) : TBD	3.890	0.000		0.000		0.000		-		0.000	0.000	3.890	0.000
Resources - Independent Verification and Validation	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	103.552	6.318	Nov 2022	6.676	Nov 2023	6.993	Nov 2024	-		6.993	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 0603915C / <i>Ballistic Missile Defense Targets</i>						Project (Number/Name) MT05 / <i>BMDS Targets Program</i>			
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
Resources - Integration and Analysis Center (Concordia)	C/IDIQ	CONCORDIA TECHNOLOGIES LLC : AL	0.000	12.000	Jun 2023	0.000		0.000		-		0.000	0.000	12.000	0.000
Resources - Integration and Analysis Center (Parsons)	C/IDIQ	PARSONS GOVERNMENT SERVICES INC. : TBD	5.000	0.000		0.000		0.000		-		0.000	0.000	5.000	0.000
Resources - MRBM T3c2 Engineering Services Support	C/CPAF	NORTHROP GRUMMAN : UT	0.000	1.350	Dec 2022	1.133	Dec 2023	0.000		-		0.000	0.000	2.483	0.000
Resources - Motor Activities	MIPR	DOD - USSF - SPACE AND MISSILE SYSTEMS CENTER (SMC) : NM	3.767	6.235	Nov 2022	6.854	Nov 2023	0.582	Nov 2024	-		0.582	Continuing	Continuing	Continuing
Resources - Pedigree Reviews	FFRDC	THE AEROSPACE CORPORATION : CA	16.501	4.501	Nov 2022	3.158	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Resources - RCS Testing - Motor Static Fire Testing - Motor Storage	MIPR	DOD - USSF - SPACE AND MISSILE SYSTEMS CENTER (SMC) : Various	14.164	1.786	Nov 2022	0.996	Nov 2023	9.373	Nov 2024	-		9.373	Continuing	Continuing	Continuing
Resources - Reactive Target Simulation (Concordia)	C/IDIQ	CONCORDIA TECHNOLOGIES LLC : AL	0.000	20.000	Jun 2023	0.000		0.000		-		0.000	0.000	20.000	0.000
Resources - Reactive Target Simulation (Parsons)	C/IDIQ	PARSONS GOVERNMENT SERVICES INC. : AL	12.000	0.000		0.000		0.000		-		0.000	0.000	12.000	0.000
Resources - Sustaining Support and Maintenance	C/CPFF	VENTURI, INC. : AL	4.036	2.356	Jan 2023	2.711	Jan 2024	2.963	Jan 2025	-		2.963	Continuing	Continuing	Continuing
Resources - TEAMS Support	Various	Various : Various	35.975	1.783	Jan 2023	0.000		0.000		-		0.000	0.000	37.758	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 0603915C / <i>Ballistic Missile Defense Targets</i>						Project (Number/Name) MT05 / <i>BMDS Targets Program</i>			
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
Resources - TEAMS Support - Acquisition Support	C/IDIQ	BCF SOLUTIONS, INC. : AL	0.000	1.938	Feb 2023	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Resources - TEAMS Support - Business Operations	C/IDIQ	Veterans Technology, LLC : AL	0.000	1.989	Nov 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Resources - TEAMS Support - Facilities, Logistics, and Environmental Support	C/IDIQ	STRATEGIC ALLIANCE SOLUTIONS LLC : AL	0.000	0.241	Aug 2023	1.495	Nov 2023	1.880	Nov 2024	-		1.880	Continuing	Continuing	Continuing
Resources - TEAMS Support - Logistics Support	C/IDIQ	VENTURI, INC. : AL	0.000	1.527	Nov 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Resources - TEAMS Support - Quality and Mission Assurance	C/IDIQ	AI SOLUTIONS, INC. : AL	0.000	3.260	Nov 2022	2.971	Nov 2023	3.165	Nov 2024	-		3.165	Continuing	Continuing	Continuing
Resources - TEAMS Support - Safety - Security - Specialized Engineering	Various	Various : Various	0.000	0.000		1.508	Nov 2023	1.570	Nov 2024	-		1.570	Continuing	Continuing	Continuing
Resources - TEAMS Support - Technical Services	C/IDIQ	ARES Technical Services Corporation : AL	0.000	1.286	Nov 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Resources - Target Integration and Storage	MIPR	DOD - USA - ARMY GARRISON REDSTONE ARSENAL (USAG RSA) : AL	0.000	0.000		1.233	Dec 2023	1.240	Dec 2024	-		1.240	Continuing	Continuing	Continuing
Resources - Technical Data Lab	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : AL	1.330	0.486	Nov 2022	1.154	Nov 2023	1.182	Nov 2024	-		1.182	Continuing	Continuing	Continuing
Resources - Various (Prior Year Funding Only, No Funding in the FYDP)	Various	Various : Various	206.200	0.000		0.000		0.000		-		0.000	0.000	206.200	0.000
Resources - Wind Tunnel Support	MIPR	DOD - USAF - ARNOLD	7.324	3.800	Dec 2022	4.360	Dec 2023	4.698	Dec 2024	-		4.698	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 0603915C / <i>Ballistic Missile Defense Targets</i>						Project (Number/Name) MT05 / <i>BMDS Targets Program</i>			
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
		ENGINEERING DEVELOPMENT CENTER (AEDC) : TN													
Subtotal			1,200.143	176.334		144.016		130.869		-		130.869	Continuing	Continuing	N/A
Remarks N/A															
Test and Evaluation (\$ 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
Consumables - Short Range Ballistic Missiles (SRBM) - Countermeasures (GTRI)	FFRDC	GEORGIA TECH APPLIED RESEARCH CORPORATION : AL	0.000	0.000		0.537	Nov 2023	0.000		-		0.000	0.000	0.537	0.000
Consumables - Short Range Ballistic Missiles (SRBM) - Countermeasures (SNL)	IA	SNL (Sandia National Laboratory) : NM	0.000	0.000		0.537	Nov 2023	0.000		-		0.000	0.000	0.537	0.000
Consumables - Short Range Ballistic Missiles (SRBM) - SRBM T4	C/CPAF	NORTHROP GRUMMAN : AZ	0.000	0.000		4.784	Nov 2023	1.091	Nov 2024	-		1.091	0.000	5.875	0.000
Consumables - Medium Range Ballistic Missiles (MRBM) - Countermeasures (SNL)	IA	SNL (Sandia National Laboratory) : NM	0.000	0.000		0.000		0.452	Dec 2024	-		0.452	0.000	0.452	0.000
Consumables - Medium Range Ballistic Missiles (MRBM) - IRBM T1/T2	C/CPAF	LOCKHEED MARTIN CORPORATION : AL	0.000	0.000		0.000		0.151	Dec 2024	-		0.151	Continuing	Continuing	Continuing
Consumables - Medium Range Ballistic Missiles (MRBM) - MBRVs	C/CPAF	LOCKHEED MARTIN CORPORATION : AL	0.000	0.000		0.621	Nov 2023	0.000		-		0.000	0.000	0.621	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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MT05 / BMDS Targets Program					
Test and Evaluation (\$ 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
Consumables - Medium Range Ballistic Missiles (MRBM) - MRBM T1/T2	C/CPAF	L-3 Coleman Aerospace : FL	0.000	0.000		1.861	Nov 2023	1.803	Nov 2024	-		1.803	Continuing	Continuing	Continuing
Consumables - Intermediate Range Ballistic Missiles (IRBM) - IRBM T1/T2	C/CPAF	NORTHROP GRUMMAN : AZ	0.000	0.000		0.004	Nov 2023	0.000		-		0.000	0.000	0.004	0.000
Flight Test Execution - Air Force Test Center Support	MIPR	DOD - USAF - 412TH TEST WING (412 TW) : CA	23.966	5.067	Nov 2022	2.389	Nov 2023	2.570	Nov 2024	-		2.570	Continuing	Continuing	Continuing
Flight Test Execution - Air Launch Target Support	MIPR	DOD - USAF - DEPARTMENT OF THE AIR FORCE (USAF) : WA	2.023	3.714	Dec 2022	6.103	Dec 2023	1.515	Dec 2024	-		1.515	Continuing	Continuing	Continuing
Flight Test Execution - Flight Test Execution Support (MDA)	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : AL	13.391	0.000		0.000		0.000		-		0.000	0.000	13.391	0.000
Flight Test Execution - Flight Test Execution Support (NSWC)	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) PORT HUENEME DIVISION (PHD) : CA	7.952	0.000		0.000		0.000		-		0.000	0.000	7.952	0.000
Flight Test Execution - Flight Test Transportation	MIPR	DOD - DEFENSE FINANCE AND ACCOUNTING SERVICES (DFAS) : IN	35.133	6.874	Nov 2022	5.134	Nov 2023	1.924	Nov 2024	-		1.924	Continuing	Continuing	Continuing
Flight Test Execution - Launch Execution (Coleman Aerospace)	C/CPAF	L-3 Coleman Aerospace : FL	13.021	5.942	Nov 2022	8.460	Nov 2023	3.946	Nov 2024	-		3.946	Continuing	Continuing	Continuing
Flight Test Execution - Launch Execution (NGSS)	C/CPAF	NORTHROP GRUMMAN : AZ	23.371	3.186	Nov 2022	2.464	Nov 2023	0.000		-		0.000	0.000	29.021	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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MT05 / BMDS Targets Program					
Test and Evaluation (\$ 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
Flight Test Execution - Range Support (KTF)	MIPR	DOE - DEPARTMENT OF ENERGY (DOE) : HI	5.785	1.820	Dec 2022	0.000		0.000		-		0.000	0.000	7.605	0.000
Flight Test Execution - Range Support (PMRF)	MIPR	DOD - USN - PACIFIC MISSILE RANGE FACILITY BARKING SANDS (PMRF) : HI	22.527	2.031	Nov 2022	0.000		0.000		-		0.000	0.000	24.558	0.000
Flight Test Execution - Range Support (RTS)	MIPR	DOD - USA - REDSTONE TEST CENTER (RTC) : AL	13.320	0.000		0.000		0.000		-		0.000	0.000	13.320	0.000
Flight Test Execution - Range Support (WSMR)	MIPR	DOD - USA - WHITE SANDS MISSILE RANGE (WSMR) : NM	0.000	0.000		0.354	Nov 2023	0.000		-		0.000	0.000	0.354	0.000
Flight Test Execution - Spectrum Support and Analysis - COMSEC Utility - Communications - Electromagnetic Interference Analysis	Various	Various : Various	4.149	1.466	Nov 2022	1.488	Nov 2023	1.164	Nov 2024	-		1.164	Continuing	Continuing	Continuing
Flight Test Execution - TEAMS Support	Various	Various : Various	18.224	0.000		0.000		0.000		-		0.000	0.000	18.224	0.000
Flight Test Execution - TEAMS Support - Flight Test	C/IDIQ	MP SOLUTIONS, LLC : VA	0.000	3.855	Nov 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Flight Test Execution - TEAMS Support - Test Support	C/IDIQ	Mobius Consulting : AL	0.000	0.000		3.965	Nov 2023	4.066	Nov 2024	-		4.066	Continuing	Continuing	Continuing
Flight Test Execution - Target Transportation - Captive Carry Support - Flight Gear Equipment/ Certification - Forward Staging	Various	Various : Various	2.328	0.320	Nov 2022	0.362	Nov 2023	0.177	Nov 2024	-		0.177	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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MT05 / BMDS Targets Program					
Test and Evaluation (\$ 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
Flight Test Execution - Test Verification Instruments	MIPR	DOD - USA - YUMA PROVING GROUND (YPG) : AZ	4.440	1.424	Nov 2022	2.304	Nov 2023	1.016	Nov 2024	-		1.016	Continuing	Continuing	Continuing
Flight Test Execution - Various (Prior Year Funding Only, No Funding in the FYDP)	Various	Various : Various	9.996	0.000		0.000		0.000		-		0.000	0.000	9.996	0.000
Subtotal			199.626	35.699		41.367		19.875		-		19.875	Continuing	Continuing	N/A
Remarks N/A															
Management Services (\$ 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
Resources - TEAMS Support - Administration Support	C/IDIQ	TBD : AL	0.000	0.000		0.823	Nov 2023	1.004	Nov 2024	-		1.004	Continuing	Continuing	Continuing
Resources - TEAMS Support - Agency Operations Support	C/IDIQ	TBD : AL	0.000	0.000		1.120	Nov 2023	0.837	Nov 2024	-		0.837	Continuing	Continuing	Continuing
Resources - TEAMS Support - Planning and Acquisition Support	C/IDIQ	TBD : AL	0.000	0.000		2.930	Nov 2023	3.299	Nov 2024	-		3.299	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		4.873		5.140		-		5.140	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			4,867.916	549.853		548.058		579.654		-		579.654	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 0603915C / Ballistic Missile Defense Targets		Project (Number/Name) MT05 / BMDS Targets Program				
	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract	

Remarks

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

Previous references to Orbital Sciences Corporation and Northrop Grumman Innovation Systems have been updated to Northrop Grumman Systems Corporation (NGSC) to reflect current corporate structure.

Defense of Guam variable flight test funding is captured in the PE 0603914C BMD Test.

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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 0603915C / Ballistic Missile Defense Targets										Project (Number/Name) MT05 / BMDs Targets Program									
Significant Event Complete ▲ Significant Event Planned △		Milestone Decision Complete ★ Milestone Decision Planned ☆		Element Test Complete ◆ Element Test Planned ◇		System Level Test Complete ● System Level Test Planned ○				Complete Activity ◆ Planned Activity ◇														
					FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029							
MRBM Type 3/Configuration 2 Pre-Ship Readiness Review (Ship Set 6)					▲																			
IRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 10)							▲																	
MRBM Type 1/Type2 Pre-Ship Readiness Review (Ship Set 2)							▲																	
IRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 7b)								△																
MRBM Type 3/Configuration 2 Pre-Ship Readiness Review (Ship Set 7)								△																
MRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 3)								△																
MRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 5)									△															
MRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 4)									△															
MRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 7)										△														
SRBM Type 4 Pre-Ship Readiness Review (Ship Set 27)										△														
SRBM Type 4 Pre-Ship Readiness Review (Ship Set 1)											△													
SRBM Type 4 Pre-Ship Readiness Review (Ship Set 3)											△													
MRBM Type 5 (Advanced Target) Pre-Ship Readiness Review (Ship Set 6)											△													
MRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 8)												△												
MRBM Type 5 (Advanced Target) Pre-Ship Readiness Review (Ship Set 9)													△											
IRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 8)													△											
IRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 9)														△										
MRBM Type 4 Pre-Ship Readiness Review (Ship Set 1)															△									
SRBM Type 4 Pre-Ship Readiness Review (Ship Set 4)															△									
IRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 11)																△								
MRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 10)																	△							
SRBM Type 4 Pre-Ship Readiness Review (Ship Set 2)																	△							
MRBM Type 4 Pre-Ship Readiness Review (Ship Set 2)																		△						
MRBM Type 4 Pre-Ship Readiness Review (Ship Set 3)																		△						

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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 0603915C / Ballistic Missile Defense Targets										Project (Number/Name) MT05 / BMDS Targets Program									
Significant Event Complete ▲ Significant Event Planned △					Milestone Decision Complete ★ Milestone Decision Planned ☆					Element Test Complete ◆ Element Test Planned ◇					System Level Test Complete ● System Level Test Planned ○					Complete Activity ◆ Planned Activity ◇									
										FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029							
MRBM Type 4 Pre-Ship Readiness Review (Ship Set 4)																				△									
SRBM Black Dagger Pre-Ship Readiness Review (Ship Set 15)																						△							
ICBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 5)																						△							
ICBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 6)																											△		
IRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 12)																											△		

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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 0603915C / <i>Ballistic Missile Defense Targets</i>	Project (Number/Name) MT05 / <i>BMDs Targets Program</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MRBM Type 3/Configuration 2 Pre-Ship Readiness Review (Ship Set 6)	1	2023	1	2023
IRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 10)	3	2023	3	2023
MRBM Type 1/Type2 Pre-Ship Readiness Review (Ship Set 2)	3	2023	3	2023
IRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 7b)	1	2024	1	2024
MRBM Type 3/Configuration 2 Pre-Ship Readiness Review (Ship Set 7)	1	2024	1	2024
MRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 3)	1	2024	1	2024
MRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 5)	2	2024	2	2024
MRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 4)	2	2024	2	2024
MRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 7)	4	2024	4	2024
SRBM Type 4 Pre-Ship Readiness Review (Ship Set 27)	4	2024	4	2024
SRBM Type 4 Pre-Ship Readiness Review (Ship Set 1)	1	2025	1	2025
SRBM Type 4 Pre-Ship Readiness Review (Ship Set 3)	1	2025	1	2025
MRBM Type 5 (Advanced Target) Pre-Ship Readiness Review (Ship Set 6)	1	2025	1	2025
MRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 8)	3	2025	3	2025
MRBM Type 5 (Advanced Target) Pre-Ship Readiness Review (Ship Set 9)	2	2026	2	2026
IRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 8)	2	2026	2	2026
IRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 9)	3	2026	3	2026
MRBM Type 4 Pre-Ship Readiness Review (Ship Set 1)	4	2026	4	2026
SRBM Type 4 Pre-Ship Readiness Review (Ship Set 4)	4	2026	4	2026
IRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 11)	1	2027	1	2027
MRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 10)	2	2027	2	2027
SRBM Type 4 Pre-Ship Readiness Review (Ship Set 2)	2	2027	2	2027

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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 0603915C / Ballistic Missile Defense Targets	Project (Number/Name) MT05 / BMDS Targets Program	
		Start		End
Events		Quarter	Year	Quarter Year
MRBM Type 4 Pre-Ship Readiness Review (Ship Set 2)		3	2027	3 2027
MRBM Type 4 Pre-Ship Readiness Review (Ship Set 3)		3	2027	3 2027
MRBM Type 4 Pre-Ship Readiness Review (Ship Set 4)		3	2027	3 2027
SRBM Black Dagger Pre-Ship Readiness Review (Ship Set 15)		1	2028	1 2028
ICBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 5)		1	2028	1 2028
ICBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 6)		2	2029	2 2029
IRBM Type 1/Type 2 Pre-Ship Readiness Review (Ship Set 12)		2	2029	2 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 0603915C / Ballistic Missile Defense Targets				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: Program Wide Support	191.302	20.657	20.448	23.279	-	23.279	24.682	17.874	23.165	27.289	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	20.657	20.448	23.279
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			

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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 0603915C / <i>Ballistic Missile Defense Targets</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> PWS is allocated on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year. Increase from FY 2024 to FY 2025 reflects additional PWS FTEs being funded in this PE.</p>			
Accomplishments/Planned Programs Subtotals		20.657	20.448
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MD40 / Program Wide Support					
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations Management	C/CPFF	NETWORK MANAGEMENT RESOURCES, INC. : AL	7.308	0.000		3.894	Nov 2023	3.207	Nov 2024	-		3.207	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	Various	Various : Various	0.698	0.424	Nov 2022	2.573	Nov 2023	1.966	Nov 2024	-		1.966	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support, International, and Materiel and Readiness	MIPR	Various Multi: : Various	2.386	0.000		0.000		0.000		-		0.000	0.000	2.386	0.000
Program Wide Support - Facilities and Maintenance SRM	MIPR	Various : Various	27.517	0.000		0.000		0.000		-		0.000	0.000	27.517	0.000
Program Wide Support - OGA	MIPR	DOD - DEFENSE LOGISTICS AGENCY (DLA) : Multi: AL, VA	1.009	1.612	Nov 2022	0.000		0.000		-		0.000	0.000	2.621	0.000
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	63.648	0.000		0.000		0.000		-		0.000	0.000	63.648	0.000
Subtotal			102.566	2.036		6.467		5.173		-		5.173	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 0603915C / Ballistic Missile Defense Targets				Project (Number/Name) MD40 / Program Wide Support					
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Contract Support	C/CPFF	STRATEGIC ALLIANCE BUSINESS GROUP LLC : AL	70.414	10.839	Nov 2022	6.763	Nov 2023	6.110	Nov 2024	-		6.110	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Acq	C/CPFF	SYSTEM HIGH CORPORATION : AL	0.000	7.782	Nov 2022	2.944	Nov 2023	7.774	Nov 2024	-		7.774	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Other Agency Services (FFP)	C/CPFF	CHENEGA : AL	18.322	0.000		3.004	Dec 2023	3.010	Dec 2024	-		3.010	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	Various	Various : Various	0.000	0.000		1.270	Nov 2023	1.212	Nov 2024	-		1.212	Continuing	Continuing	Continuing
Subtotal			88.736	18.621		13.981		18.106		-		18.106	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			191.302	20.657		20.448		23.279		-		23.279	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 0603915C / Ballistic Missile Defense Targets			Project (Number/Name) MD40 / Program Wide Support				
	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract	

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 0603915C / Ballistic Missile Defense Targets	Project (Number/Name) MD40 / Program Wide Support	

Schedule Details

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

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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 I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604102C / <i>Guam Defense Development</i>
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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	110.621	383.252	397.578	415.794	-	415.794	247.793	183.214	303.003	218.941	Continuing	Continuing
MD65: <i>Defense of Guam Development</i>	110.621	368.802	385.132	399.787	-	399.787	237.322	175.592	289.381	208.724	Continuing	Continuing
MD40: <i>Program Wide Support</i>	-	14.450	12.446	16.007	-	16.007	10.471	7.622	13.622	10.217	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

The increase from fiscal year (FY) 2024 to FY 2025 provides additional funding to support Guam architecture and schedule as part of the Pacific Deterrence Initiative (PDI).

A. Mission Description and Budget Item Justification

This program develops a Missile Defense System for the defense of Guam against ballistic, hypersonic, and cruise missile threats as a high priority mission for the Department of Defense. The Missile Defense System will form a key part of strategic deterrence and supports the PDI.

In FY 2022, the Missile Defense Agency (MDA) initiated studies and analysis, architecture development and siting analysis. FY 2023 continued architecture development and increased the development and modification of the distributed radar, Aegis Guam System support, environmental studies, site design, activation and advanced planning. Starting in FY 2024, the program leverages the results of studies and analysis to continue to provide for developing and fielding distributed land-based launchers, distributed sensors, and integrated communications across Guam. The architecture acquisition process also provides increased Aegis Weapon System development for Guam integration, site activation, environmental protection, engineering, and interoperability activities to balance costs and associated risks. FY 2025 continues the advancements of FY 2024 leading up to an on-island flight experiment planned for early FY 2025.

The FY 2025 end-state architecture includes integration efforts between MDA, U.S. Army, and U.S. Navy systems, which includes a 360 degree persistent integrated air and missile defense with distributed Mk-41 Vertical Launching Systems, and an Army Navy/Transportable Radar Surveillance and Control-6 (AN/TPY-6) to provide for the Defense of Guam. Guam Architecture System will be controlled by a Joint Command Center with additional Integrated Air and Missile Defense Battle Command System; Aegis Guam System; and Command and Control, Battle Management and Communications mission node providing local continuity of operations. Initial capability will be demonstrated on Guam in calendar year (CY) 2024, enhanced capability in CY 2029, and future additional capability in the 2030's. (Additional information available in a higher classification level).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency				Date: March 2024	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0604102C I Guam Defense Development			
B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	393.201	397.578	291.301	-	291.301
Current President's Budget	383.252	397.578	415.794	-	415.794
Total Adjustments	-9.949	0.000	124.493	-	124.493
• 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	-8.196	0.000			
• Other Adjustment	-1.753	0.000	124.493	-	124.493
Change Summary Explanation					
The increase in FY 2025 from PB 2024 to PB 2025 provides additional funding to support Guam architecture and schedule as part of the PDI. This includes additional software development needed for the complexity in systems engineering for the AN/TPY-6 Radar and Aegis Guam System programs due to the architecture's dispersed radars with multiple types of launchers.					

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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 0604102C / Guam Defense Development				Project (Number/Name) MD65 / Defense of Guam Development			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MD65: Defense of Guam Development	110.621	368.802	385.132	399.787	-	399.787	237.322	175.592	289.381	208.724	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

The increase from fiscal year (FY) 2024 to FY 2025 provides additional funding to support Guam architecture and schedule as part of the Pacific Deterrence Initiative (PDI).

A. Mission Description and Budget Item Justification

The Missile Defense Agency (MDA) is developing a Missile Defense System for Guam defense against a range of missile threats. The Department of Defense (DoD) has undertaken studies on a range of missile defense architecture options, emphasizing effectiveness, survivability, and flexibility against an evolving threat. The architecture design includes integration efforts between MDA, U.S. Army (USA), and U.S. Navy systems (USN). MDA develops key weapon systems included in the DoD Architecture led by the Army in the Joint Program Executive Office. This Program Element supports PDI.

In FY 2022, the MDA initiated studies and analysis, architecture development and siting analysis. FY 2023 continued architecture development and increased the development and modification of the distributed radar, Aegis Guam System support, environmental studies, site design, activation and advanced planning. Starting in FY 2024, the program leverages the results of studies and analysis to continue to provide for developing and fielding distributed land-based launchers, distributed sensors, and integrated communications across Guam. The architecture acquisition process also provides increased Aegis Weapon System development for Guam integration, site activation, environmental protection, engineering, and interoperability activities to balance costs and associated risks. FY 2025 continues the advancements of FY 2024 leading up to an on-island flight experiment planned for early FY 2025.

The FY 2025 end-state architecture also includes integration efforts between MDA, USA, and USN systems, which includes a 360 degree persistent integrated air and missile defense with distributed Mk-41 Vertical Launching Systems, and an Army Navy/Transportable Radar Surveillance and Control-6 (AN/TPY-6) to provide for the Defense of Guam. Guam Architecture System will be controlled by a Joint Command Center with additional Integrated Air and Missile Defense Battle Command System; Aegis Guam System; and Command and Control, Battle Management and Communications mission node providing local continuity of operations. Initial capability will be demonstrated on Guam in calendar year (CY) 2024, enhanced capability in CY 2029, and future additional capability in the 2030's. (Additional information available in a higher classification level).

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

	FY 2023	FY 2024	FY 2025
Title: Guam Radar Development and Integration	226.107	164.149	212.830
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 0604102C / <i>Guam Defense Development</i>	Project (Number/Name) MD65 / <i>Defense of Guam Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>Description: Develop, procure, deliver, and integrate distributed land-based radar capability for use in acquiring, tracking, identifying, and discriminating threats to Guam, including the necessary on-island support equipment for power, data communications to Aegis Guam system, cooling, and environmental protection. Provide transportation, delivery, integration, testing, operations, and limited spares. Planned activities include:</p> <ul style="list-style-type: none"> - Continue land-based radar system development - Continue radar system component acquisition; including Active Electronically Scanned Array antenna subsystems, power conversion and storage subsystems, mission processing subsystems, and radar signal processing subsystems for multiple distributed operating locations - Continue design and acquisition of radar environmental protection (Radomes & Mission Module Complexes) - Execute integration and test for first array <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Continue land-based radar system development - Continue radar system component acquisition; including Active Electronically Scanned Array antenna subsystems, power conversion and storage subsystems, mission processing subsystems, and radar signal processing subsystems for multiple distributed operating locations - Continue design and acquisition of radar environmental protection (Radomes) - Initiate integration and test for first array <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Fabrication and integration of tactical cabinets, bolt-on scanner, and mission modules with all the associated power and cooling requirements for Tactical Array Units <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>Increase from FY 2024 to FY 2025 provides tactical processing equipment to enable the distributed processing architecture (multiple sites) to handle the volume of data coming off each array. Further provides environmentally controlled mission module complexes for expanded tactical processing equipment and components enabling transportability including array platforms, mission modules, and relocatable equipment units. PDI funding increased by \$48.7 million.</p>			
<p>Title: Program Operations</p> <p align="right">Articles:</p> <p>Description: Provides the program management oversight and inter-Agency/Service coordination to integrate a capability to defend Guam against ballistic and cruise missile attack. Activities involve coordination with the Office of Secretary of Defense</p>		11.376 -	20.383 -
		22.986 -	

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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 0604102C / Guam Defense Development	Project (Number/Name) MD65 / Defense of Guam Development		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
Guam Joint Program Executive Office, USN, USA, United States Indo-Pacific Command, and the island of Guam to evaluate complex architecture integration activities.				
FY 2024 Plans: - See Above				
FY 2025 Plans: - See Above				
FY 2024 to FY 2025 Increase/Decrease Statement: Increase of \$2.6 million from FY 2024 to FY 2025 provides PDI funding for cyber security initiatives in support of FEM-02 test and the Joint Command Center development on island starting in FY 2025 to counter adversaries expected regional threats.				
Title: Guam Site Environmental, Activation and Advanced Planning		21.530	63.600	22.028
Articles:		-	-	-
Description: The Environmental, Site Activation, and Advanced Planning accomplishment leads all efforts for Guam defense to complete the environmental impacts and assessments as required by federal Laws. Performs geotechnical, topographical, environmental, and unexploded ordnance efforts to support siting of Guam defense assets. Performs advance planning and site preparation for required military construction on Guam. Performs site activation and facilities sustainment.				
FY 2024 Plans: - Increase advance planning activities for site activation and construction on Guam - Begin installation of admin facilities, communications, and other on island support - Increase environmental impact studies and assessments activities as required by federal Law - Continue Munitions and Explosives of Concern (MEC) investigations and commence MEC removal actions - Begin equipment purchases for the initial deployment				
FY 2025 Plans: - Continue advance planning activities for Enhanced Integrated Air and Missile Defense site construction on Guam - Continue site activation and other on island support - Completion of environmental impact studies and assessments activities - Completion of MEC investigations and removal actions				
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 0604102C / <i>Guam Defense Development</i>	Project (Number/Name) MD65 / <i>Defense of Guam Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
Decrease of \$41.6 million of PDI funding from FY 2024 to FY 2025 reflects the completion and approval of both MEC and Environmental Impact Statements in FY 2025.			
Title: Guam Weapon System Engineering Description: Provide Aegis Guam system (AGS) architecture and systems engineering activities necessary to provide an integrated air and missile defense system on Guam against ballistic missile threats. Activities include threat engineering, specifications development, software validation and verification, usage at development test sites, modeling and simulations, risk management, pre-mission test analysis, performance analysis, and baseline management and control. FY 2024 Plans: <ul style="list-style-type: none"> - Continue design & development of AGS enclosures and finalize transportation plans - Continue design & development of Command, Control, Communications, Computers, and Intelligence (C4I) enclosure, towers and integration plans - Continue Concept of Operations development for AGS, including electro-magnetic interference mitigation, and commercial air traffic de-confliction - Begin development of training and logistics, including technical publications and transportation requirements, for support plans for AGS - Conduct AGS system requirements development, trace, and establish configuration management for coordination with all participating external agencies and organizations - Conduct required system feasibility analysis - Continue development of SysML model to support AGS development and technical reviews - Participate in Integrated Product Teams consisting of MDA and Army Rapid Capabilities and Critical Technologies Office (RCCTO) for integration of Solid-State Radars and transportable launchers - Conduct Ballistic Missile Defense Systems Test Bed (BTS) laboratory upgrades necessary to ensure Defense of Guam (DoG) Surrogate/Hardware In the Loop (HWIL) availability required for DoG Program baseline development, demonstrations and testing - Conduct Development (Dev) and Integration and Test (I&T) laboratories upgrades necessary to ensure DoG Program integrated baseline development, demonstrations and testing at Original Equipment Manufacturers (OEM) development, test and integration site - Develop initial AGS technical publications necessary to inform the design, development, installation and maintenance activities in a format to be used as the basis for final facilities design and for reference in future warfighter decisions - Conduct shipment of materials/parts/systems/sub-systems necessary to establish the Dev and I&T laboratories as well as equipment delivery to Guam in support of the first flight test currently planned in FY 2025 		109.789	137.000
Articles:		-	-
			141.943

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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 0604102C / <i>Guam Defense Development</i>		Project (Number/Name) MD65 / <i>Defense of Guam Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Conduct modeling and simulation (M&S) of advanced threats, including development of threat models and tools, and produce threat data for simulations - Conduct system-level design and specifications for Guam Defense - Develop Guam-specific M&S framework updates and tailor core truth models for ground and flight test - Begin integration of M&S required for DoG performance assessment - Provide system test requirements and planning documents for Guam defense - Initiate accreditation activities for models and M&S framework to be used in DoG performance assessment <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Continue required system feasibility analysis - Maintain SysML model to support AGS development and technical reviews - Continue M&S of advanced threats, including development of threat models and tools, and produce threat data for simulations - Continue system-level design and specifications for Guam Defense - Continue Guam-specific M&S framework updates and tailor core truth models for ground and flight test - Conduct integration of M&S required for DoG performance assessment - Provide system test requirements and planning documents for Guam defense - Continue accreditation activities for models and M&S framework to be used in DoG performance assessment - Continue design & development of AGS enclosures and finalize transportation plans - Continue design & development of C4I enclosure, towers and integration plans - Continue Concept of Operations development for AGS, including electro-magnetic interference mitigation, and commercial air traffic de-confliction - Continue development of training and logistics, including technical publications and transportation requirements, for support plans for AGS optimizes existing capabilities and easily adapted for Lead Service use - Continue AGS system requirements development, trace, and establish configuration management for coordination with all participating external agencies and organizations - Continue BTS laboratory upgrades necessary to ensure DoG Surrogate/HWIL availability required for DoG Program baseline development, demonstrations and testing - Complete Dev and I&T laboratories upgrades necessary to ensure DoG Program integrated baseline development, demonstrations and testing at OEM development, test and integration site - Continue development of initial AGS technical publications necessary to inform the design, development, installation and maintenance activities in a format to be used as the basis for final facilities design and for reference in future warfighter decisions - Conduct shipment of materials/parts/systems/sub-systems necessary to establish the Dev and I&T laboratories, as well as equipment delivery to Guam in support of FEM-02 currently planned in FY 2025 					

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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 0604102C / <i>Guam Defense Development</i>	Project (Number/Name) MD65 / <i>Defense of Guam Development</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Continue AGS requirements necessary to achieve compliance with Missile Defense System requirements and participate in DoG requirements review including element level, as well as Multi-Element level integration testing - Continue Aegis compliance threat space and performance analysis to inform requirements development and optimize AGS performance - Continue design and code of new electronic protection techniques that take advantage of solid-state radar technologies - Continue design and development of new radar adaptation data, fire control calculation changes to support remote launchers, encrypted communication methods between AGS components, and modular Guam Defense System Operations Center components - Continue to coordinate with external stakeholders and agencies supporting AGS weapons system requirements for Satellite Communications interoperability and Internet Protocol services - Develop detailed system-level design and interface specifications for Guam Defense <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Increase of \$4.9M in PDI funding from FY 2024 to FY 2025 provides increased systems and software engineering development activities to support the DoD Guam acquisition strategy and timeline.</p>			
Accomplishments/Planned Programs Subtotals	368.802	385.132	399.787

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
• 0208902C: <i>MD65: Defense of Guam Procurement</i>	26.514	169.627	22.602	-	22.602	1.716	0.000	0.000	0.000	0.000	220.459
• 0603890C: <i>BMD Enabling Programs</i>	589.588	597.720	609.406	-	609.406	623.893	625.985	659.983	677.858	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
• 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
• 0604878C: <i>Aegis BMD Test</i>	165.619	193.484	135.019	-	135.019	169.731	143.292	154.413	168.707	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 0604102C / Guam Defense Development				Project (Number/Name) MD65 / Defense of Guam Development			

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
• 0604879C: Ballistic Missile Defense Sensor Test	88.326	111.049	96.864	-	96.864	104.578	160.011	172.749	183.147	Continuing	Continuing

Remarks

D. Acquisition Strategy

Acquisition strategy for Guam Defense consists of contract actions to industry, and agreements with DoD organizations and Federally Funded Research and Development Centers to develop, demonstrate, and field a Missile Defense System on Guam. MDA is leveraging existing programs of record with existing and planned contracts. Major contributors include Aegis Weapon System; contributing capabilities as part of its future deliveries to support the AGS, and AN/TPY-6 Radar development. The AN/TPY-6 is the joint designation for the Homeland Defense Radar-Guam and is the sensor for the AGS.

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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 0604102C / Guam Defense Developme nt				Project (Number/Name) MD65 / Defense of Guam Development					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Guam Defense C2BMC - C2BMC Advanced Overhead Persistent Infra- Red Planning & Analysis	C/CPFF	BLUEHALO : AL	1.348	0.000		0.000		0.000		-		0.000	0.000	1.348	0.000
Guam Defense C2BMC - C2BMC Advanced Overhead Persistent Infra- Red Planning & Analysis (USAF)	MIPR	DOD - USAF - SECRETARY OF THE AIR FORCE, DIRECTOR FOR BUDGET INVESTMENT (SAF/ FMBI) : Various	2.879	0.000		0.000		0.000		-		0.000	0.000	2.879	0.000
Guam Defense C2BMC - Communications Development	Various	Various : Various	1.091	0.000		0.000		0.000		-		0.000	0.000	1.091	0.000
Guam Defense C2BMC - Guam Defense System (GDS) - C2BMC Advanced Threat Tracking Architecture (NG)	C/CPAF	NORTHROP GRUMMAN : CO	3.045	0.000		0.000		0.000		-		0.000	0.000	3.045	0.000
Guam Defense C2BMC - Guam Defense System (GDS) - C2BMC Communications Network (CPU)	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : MD	3.500	0.000		0.000		0.000		-		0.000	0.000	3.500	0.000
Guam Radar Development and Integration - Sensor Development (Various)	Various	Various : Various	0.000	1.283	Oct 2022	0.000		1.866	Nov 2024	-		1.866	Continuing	Continuing	Continuing
Guam Radar Development and Integration - Sensor Development - Prime	C/IDIQ	LOCKHEED MARTIN CORPORATION : NJ	23.061	218.417	Oct 2022	134.060	Nov 2023	197.529	Nov 2024	-		197.529	Continuing	Continuing	Continuing
Guam Weapon System Engineering - AB Guam Development BAE	C/CPIF	BAE SYSTEMS TECHNOLOGY SOLUTIONS & SERVICES INC. : Various	0.000	1.211	Nov 2022	0.000		2.631	Nov 2024	-		2.631	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 0604102C / Guam Defense Development					Project (Number/Name) MD65 / Defense of Guam Development				
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Guam Weapon System Engineering - ABE Guam Development IDT	C/CPFF	INNOVATIVE DEFENSE TECHNOLOGIES, LLC : DC	0.000	0.815	Nov 2022	1.526	Nov 2023	0.000		-		0.000	0.000	2.341	0.000
Guam Weapon System Engineering - ABS Guam Development LM	C/CPFF	LOCKHEED MARTIN CORPORATION : NJ	12.108	59.099	Jan 2023	76.991	Nov 2023	81.070	Nov 2024	-		81.070	Continuing	Continuing	Continuing
Guam Weapon System Engineering - ABS Guam Development NAVSEA	MIPR	DOD - USN - NAVAL SEA SYSTEMS COMMAND (NAVSEA) : VA	0.000	1.577	Nov 2022	0.000		1.815	Nov 2024	-		1.815	Continuing	Continuing	Continuing
Guam Weapon System Engineering - ABS Guam Development NIWC	MIPR	DOD - USN - NAVAL INFORMATION WARFARE CENTER (NIWC) : CA	0.000	15.760	Nov 2022	18.651	Nov 2023	0.000		-		0.000	0.000	34.411	0.000
Guam Weapon System Engineering - ABS Guam Development NSWC DD	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) DAHLGREN DIVISION (NSWCDD) : VA	1.697	3.315	Nov 2022	2.006	Nov 2023	5.020	Nov 2024	-		5.020	Continuing	Continuing	Continuing
Guam Weapon System Engineering - ABS Guam Development USTRANSCOM	MIPR	TRANSCOM INC : Various	0.000	0.000		2.500	Nov 2023	6.870	Nov 2024	-		6.870	Continuing	Continuing	Continuing
Guam Weapon System Engineering - Aegis Design and Engineering - Requirements Development	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	2.157	1.119	Nov 2022	2.808	Nov 2023	0.000		-		0.000	0.000	6.084	0.000
Guam Weapon System Engineering - Aegis Guam Systems Engineering,	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT	2.501	0.000		0.000		0.000		-		0.000	0.000	2.501	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 0604102C / Guam Defense Developme nt				Project (Number/Name) MD65 / Defense of Guam Development					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test, and Integration (CPU)		COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : MD													
Guam Weapon System Engineering - Aegis Launcher Beowulf Software/ Hardware Refresh Long-Lead Material (CPU)	C/CPIF	LOCKHEED MARTIN CORPORATION : NJ	0.317	0.000		0.000		0.000		-		0.000	0.000	0.317	0.000
Guam Weapon System Engineering - Aegis Launcher Development (CPU)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : MD	1.499	0.000		0.000		0.000		-		0.000	0.000	1.499	0.000
Guam Weapon System Engineering - Aegis Launcher Integration - Launcher Development Material	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : MD	2.146	0.000		0.000		0.000		-		0.000	0.000	2.146	0.000
Guam Weapon System Engineering - Aegis Launcher Non-Recurring Engineering Material (CPU)	C/CPIF	LOCKHEED MARTIN CORPORATION : NJ	5.754	0.000		0.000		0.000		-		0.000	0.000	5.754	0.000
Guam Weapon System Engineering - Aegis Technical Development	Various	Various : Various	1.155	2.303	Nov 2022	2.218	Nov 2023	4.541	Nov 2024	-		4.541	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 0604102C / Guam Defense Development	Project (Number/Name) MD65 / Defense of Guam Development
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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
Guam Weapon System Engineering - Architect Support	Various	Various : Various	1.079	0.000		0.000		0.000		-		0.000	0.000	1.079	0.000
Guam Weapon System Engineering - Architect Support (CPU)	Various	Various : Various	0.045	0.000		0.000		0.000		-		0.000	0.000	0.045	0.000
Guam Weapon System Engineering - Systems Engineering NSWC (PHD)	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) PORT HUENEME DIVISION (PHD) : CA	0.000	2.905	Nov 2022	0.000		0.000		-		0.000	0.000	2.905	0.000
Guam Weapon System Engineering - Systems Engineering PEO C4I	MIPR	DOD - USA - PROGRAM EXECUTIVE OFFICE COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS & INTELLIGENCE (PEO : DC	0.000	0.522	Nov 2022	0.000		0.000		-		0.000	0.000	0.522	0.000
Subtotal			65.382	308.326		240.760		301.342		-		301.342	Continuing	Continuing	N/A

Remarks

Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year. In accordance with the Financial Management Regulation cost category definitions, some items have transferred to appropriate cost categories.

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
Guam Defense C2BMC - Communications Support	Various	Various : Various	1.264	0.000		0.000		0.000		-		0.000	0.000	1.264	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 0604102C / Guam Defense Developme nt				Project (Number/Name) MD65 / Defense of Guam Development					
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
Guam Radar Development and Integration - Integration Risk Reduction	Various	Various : AL	0.000	0.000		20.642	Dec 2023	0.000		-		0.000	0.000	20.642	0.000
Guam Radar Development and Integration - Radar Development Services	Various	Various : Various	2.241	0.888	Mar 2023	1.675	Dec 2023	2.546	Nov 2024	-		2.546	Continuing	Continuing	Continuing
Guam Radar Development and Integration - Sensor Development	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	0.000	0.000		0.000		2.681	Dec 2024	-		2.681	Continuing	Continuing	Continuing
Guam Radar Development and Integration - Sensor Development - JHU/APL	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	0.773	1.502	Apr 2023	1.535	Dec 2023	1.457	Nov 2024	-		1.457	Continuing	Continuing	Continuing
Guam Radar Development and Integration - Sensor Development - MITRE	FFRDC	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : VA	0.000	0.643	Apr 2023	0.000		1.039	Nov 2024	-		1.039	Continuing	Continuing	Continuing
Guam Radar Development and Integration - Sensor Development - TEAMS Acquisition	C/CPFF	BCF SOLUTIONS, INC. : AL	0.000	0.553	Apr 2023	0.000		1.629	Nov 2024	-		1.629	Continuing	Continuing	Continuing
Guam Radar Development and Integration - Sensor Development - TEAMS Engineering	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	0.000	0.000		0.000		3.972	Nov 2024	-		3.972	Continuing	Continuing	Continuing
Program Operations - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	0.500	6.211	Oct 2022	12.000	Oct 2023	10.558	Oct 2024	-		10.558	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 0604102C / Guam Defense Developme nt				Project (Number/Name) MD65 / Defense of Guam Development					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Operations - Management Integration DG (Various)	Various	Various : Various	1.833	1.701	Nov 2022	3.628	Nov 2023	6.460	Nov 2024	-		6.460	Continuing	Continuing	Continuing
Program Operations - Management Integration DG JHU APL	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	0.570	1.329	Nov 2022	1.791	Nov 2023	1.829	Nov 2024	-		1.829	Continuing	Continuing	Continuing
Program Operations - Management Integration DG MITRE	FFRDC	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : MD	0.500	1.250	Nov 2022	1.441	Nov 2023	1.475	Nov 2024	-		1.475	Continuing	Continuing	Continuing
Program Operations - Management Integration DG TN MDSE	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	0.000	0.675	Nov 2022	1.362	Nov 2023	2.500	Nov 2024	-		2.500	Continuing	Continuing	Continuing
Guam Site Environmental, Activation and Advanced Planning - Facilities Planning, Siting, Studies & Environmental (CPU)	MIPR	DOD - USN - NAVAL FACILITIES ENGINEERING COMMAND (NAVFAC) HAWAII : HI	6.220	0.000		0.000		0.000		-		0.000	0.000	6.220	0.000
Guam Site Environmental, Activation and Advanced Planning - Facilities and E3 Support (Various)	Various	Various : Various	0.180	0.212	Nov 2022	0.305	Nov 2023	0.000		-		0.000	0.000	0.697	0.000
Guam Site Environmental, Activation and Advanced Planning - Guam NAVFAC Advanced Planning, Siting, Studies	MIPR	DOD - USN - NAVAL FACILITIES ENGINEERING COMMAND (NAVFAC) : Various	0.000	0.000		0.000		0.687	Nov 2024	-		0.687	Continuing	Continuing	Continuing
Guam Site Environmental, Activation and Advanced Planning - Guam NAVFAC	MIPR	DOD - USN - NAVAL FACILITIES ENGINEERING	0.000	0.000		0.000		3.000	Nov 2024	-		3.000	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 0604102C / Guam Defense Development				Project (Number/Name) MD65 / Defense of Guam Development					
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 Planning, Siting, Studies In house Spt		COMMAND (NAVFAC) : Various													
Guam Site Environmental, Activation and Advanced Planning - Guam NAVFAC Environmental	MIPR	DOD - USN - NAVAL FACILITIES ENGINEERING COMMAND (NAVFAC) : Various	0.000	0.000		0.000		7.055	Nov 2024	-		7.055	Continuing	Continuing	Continuing
Guam Site Environmental, Activation and Advanced Planning - Guam NAVFAC Environmental Support	MIPR	DOD - USN - NAVAL FACILITIES ENGINEERING COMMAND (NAVFAC) HAWAII : HI	0.794	5.257	May 2023	19.892	Nov 2023	0.000		-		0.000	0.000	25.943	0.000
Guam Site Environmental, Activation and Advanced Planning - Guam NAVFAC Planning, Siting, and Studies	MIPR	DOD - USN - NAVAL FACILITIES ENGINEERING COMMAND (NAVFAC) HAWAII : HI	1.088	6.942	May 2023	25.494	Nov 2023	0.000		-		0.000	0.000	33.524	0.000
Guam Site Environmental, Activation and Advanced Planning - Guam Site Activation	MIPR	TBD : Various	0.000	0.000		0.000		7.644	Dec 2024	-		7.644	Continuing	Continuing	Continuing
Guam Site Environmental, Activation and Advanced Planning - Guam Tobyhanna Shelters	MIPR	DOD - USA - TOBYHANNA ARMY DEPOT (TYAD) : PA	0.000	0.400	Aug 2023	0.000		0.000		-		0.000	0.000	0.400	0.000
Guam Site Environmental, Activation and Advanced Planning - Guam USACE Advanced Planning, Siting, Studies & Environmental	MIPR	DOD - USA - US ARMY CORPS OF ENGINEERS (USACE) : Various	7.238	8.719	May 2023	17.909	Nov 2023	3.642	Nov 2024	-		3.642	Continuing	Continuing	Continuing
Guam Weapon System Engineering - Engineering	C/CPIF	NORTHROP GRUMMAN : AL	1.708	0.000		0.000		0.000		-		0.000	0.000	1.708	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 0604102C / Guam Defense Development				Project (Number/Name) MD65 / Defense of Guam Development					
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
Modeling and Simulation (CPU)															
Guam Weapon System Engineering - AB Travel	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : VA	0.000	0.298	Nov 2022	7.600	Nov 2023	4.225	Nov 2024	-		4.225	Continuing	Continuing	Continuing
Guam Weapon System Engineering - AB Various (TEAMS, NSWC Dahlgren)	Various	Various : Various	0.000	1.570	Nov 2022	0.000		0.000		-		0.000	0.000	1.570	0.000
Guam Weapon System Engineering - ABS Guam Development (GTS, KES)	MIPR	Various : Various	0.000	0.000		0.000		7.908	Nov 2024	-		7.908	Continuing	Continuing	Continuing
Guam Weapon System Engineering - ABS Guam Development Support NAVSEA (LM)	MIPR	DOD - USN - NAVAL SEA SYSTEMS COMMAND (NAVSEA) : MD	0.000	1.221	Nov 2022	0.000		3.221	Nov 2024	-		3.221	Continuing	Continuing	Continuing
Guam Weapon System Engineering - Engineering (CPU)	C/CPIF	BOEING : VA	0.956	0.000		0.000		0.000		-		0.000	0.000	0.956	0.000
Guam Weapon System Engineering - Engineering Integration	Various	Various : Various	1.742	0.825	Jan 2023	3.269	Nov 2023	0.000		-		0.000	0.000	5.836	0.000
Guam Weapon System Engineering - Engineering Integration and Threat Analysis	Various	Various : Various	1.572	0.000		0.000		0.987	Nov 2024	-		0.987	Continuing	Continuing	Continuing
Guam Weapon System Engineering - Engineering Threat Analysis	C/CPIF	SYSTEMS ENGINEERING INC : MD	0.000	2.490	Nov 2022	2.162	Nov 2023	3.032	Nov 2024	-		3.032	Continuing	Continuing	Continuing
Guam Weapon System Engineering - Engineering/ Analysis/Integration	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND	0.000	1.961	Dec 2022	3.333	Nov 2023	1.936	Nov 2024	-		1.936	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 0604102C / Guam Defense Development				Project (Number/Name) MD65 / Defense of Guam Development					
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
		MISSILE CENTER (AVMC) : AL													
Guam Weapon System Engineering - GDS M&S Support - Industry	C/CPIF	NORTHROP GRUMMAN : Various	0.000	6.255	Jan 2023	4.036	Nov 2023	3.030	Nov 2024	-		3.030	Continuing	Continuing	Continuing
Guam Weapon System Engineering - GDS M&S Support - Industry 2	C/CPAF	LOCKHEED MARTIN CORPORATION : AL	0.000	1.675	Jan 2023	2.010	Nov 2023	4.864	Nov 2024	-		4.864	Continuing	Continuing	Continuing
Guam Weapon System Engineering - GDS Sys Engineering - Industry	C/CPIF	BOEING : AL	1.898	2.659	Apr 2023	4.800	Nov 2023	5.208	Nov 2024	-		5.208	Continuing	Continuing	Continuing
Guam Weapon System Engineering - GDS Sys Engineering - OGA	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	1.898	0.000		0.000		2.048	Nov 2024	-		2.048	Continuing	Continuing	Continuing
Guam Weapon System Engineering - GDS-TEAMS MDSE	C/CPAF	PARSONS GOVERNMENT SERVICES INC. : Various	0.000	0.809	Jul 2023	3.090	Nov 2023	3.537	Nov 2024	-		3.537	Continuing	Continuing	Continuing
Guam Weapon System Engineering - Guam Weapon System Support	Various	Various : Various	0.443	0.000		0.000		0.000		-		0.000	0.000	0.443	0.000
Guam Weapon System Engineering - Special Projects	Various	Various : Various	9.867	1.400	May 2023	0.000		0.000		-		0.000	0.000	11.267	0.000
Subtotal			43.285	57.445		137.974		98.170		-		98.170	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 0604102C / Guam Defense Development				Project (Number/Name) MD65 / Defense of Guam Development					
Management Services (\$ 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
Guam Radar Development and Integration - Radar Development Services	Various	Various : Various	0.557	0.000		3.016	Dec 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Guam Radar Development and Integration - Sensor Development - TEAMS Business Ops	C/CPFF	Veterans Technology, LLC : AL	0.000	0.076	Nov 2022	0.000		0.111	Nov 2024	-		0.111	Continuing	Continuing	Continuing
Guam Radar Development and Integration - Sensor Development TEAMS Engineering	C/IDIQ	PARSONS GOVERNMENT SERVICES INC. : AL	1.300	2.745	Mar 2023	3.221	Dec 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Program Operations - Management Integration DG Sharepoint	C/CPFF	NMR Consulting : AL	0.000	0.210	Nov 2022	0.161	Nov 2023	0.164	Nov 2024	-		0.164	Continuing	Continuing	Continuing
Program Operations - Management Integration DG Sharepoint CPU	C/CPFF	NMR Consulting : AL	0.097	0.000		0.000		0.000		-		0.000	0.000	0.097	0.000
Subtotal			1.954	3.031		6.398		0.275		-		0.275	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			110.621	368.802		385.132		399.787		-		399.787	Continuing	Continuing	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 0604102C / Guam Defense Development										Project (Number/Name) MD65 / Defense of Guam Development									
Significant Event Complete ▲		Milestone Decision Complete ★		Element Test Complete ◆		System Level Test Complete ●		Complete Activity ◆																
Significant Event Planned △		Milestone Decision Planned ☆		Element Test Planned ◇		System Level Test Planned ○		Planned Activity ◇																
					FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029							
Environmental - Advance Planning, Evaluation, and Monitoring					◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇						
Architecture and Engineering - Architecture Development and Assessment					◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇						
Environmental - Impact Assessment					◇	◇	◇	◇	◇	◇	◇	◇												
AN/TPY-6 Radar Development - Transportable Array Unit 1					◇	◇	◇	◇	◇	◇														
AN/TPY-6 Radar Development - Transportable Array Unit 2					◇	◇	◇	◇	◇	◇														
FEM-02 Environmental Assessment					◇	◇	◇	◇	◇	◇	◇													
Radar Development - Equipment Shelter					◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇								
Environmental - Sites Activation Activities					◇	◇	◇	◇	◇	◇	◇	◇	◇	◇										
Aegis Guam - System Engineering					◇	◇	◇	◇	◇	◇	◇	◇	◇	◇										
Aegis Guam - Technology Design for Integration, Assembly, Test and Verification					◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇							
Aegis Guam System Requirement Review							◆																	
AN/TPY-6 Radar Development - Transportable Array Unit 3							◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇							
Aegis Software Release #1								◆																
AN/TPY-6 Radar Development - Transportable Array Unit 4								◇	◇	◇	◇	◇	◇	◇										
Guam In Progress Review (IPR) -1								◆																
Guam Preliminary Design Review (PDR)								◆																
Aegis Software Release #2									◇															
Guam Executive In Progress Review (EIPR)-1										◇														
Guam Critical Design Review (CDR)											◇													
FEM-02												◇												
Guam Initial Deployment																								
GTI-24 (I)															◇									
GTD-24 (I)																	◇							
AN/TPY-6 Radar Development - Transportable Array Unit 5																	◇							

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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 0604102C / Guam Defense Development						Project (Number/Name) MD65 / Defense of Guam Development							
Significant Event Complete ▲		Significant Event Planned △		Milestone Decision Complete ★		Milestone Decision Planned ☆		Element Test Complete ◆		Element Test Planned ◇		System Level Test Complete ●		System Level Test Planned ○		Complete Activity ◆		Planned Activity ◇	
						FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029	
Radar I&T																		◆	
Emergency Operational Capability (EOC)																			◆

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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 0604102C / <i>Guam Defense Development</i>	Project (Number/Name) MD65 / <i>Defense of Guam Development</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Environmental - Advance Planning, Evaluation, and Monitoring	1	2023	4	2029
Architecture and Engineering - Architecture Development and Assessment	1	2023	4	2029
Environmental - Impact Assessment	1	2023	3	2025
AN/TPY-6 Radar Development - Transportable Array Unit 1	1	2023	2	2024
AN/TPY-6 Radar Development - Transportable Array Unit 2	1	2023	3	2024
FEM-02 Environmental Assessment	1	2023	1	2025
Radar Development - Equipment Shelter	1	2023	4	2027
Environmental - Sites Activation Activities	1	2023	4	2026
Aegis Guam - System Engineering	1	2023	4	2026
Aegis Guam - Technology Design for Integration, Assembly, Test and Verification	1	2023	4	2029
Aegis Guam System Requirement Review	3	2023	3	2023
AN/TPY-6 Radar Development - Transportable Array Unit 3	3	2023	1	2029
Aegis Software Release #1	4	2023	4	2023
AN/TPY-6 Radar Development - Transportable Array Unit 4	1	2024	1	2026
Guam In Progress Review (IPR) -1	1	2024	1	2024
Guam Preliminary Design Review (PDR)	1	2024	1	2024
Aegis Software Release #2	2	2024	2	2024
Guam Executive In Progress Review (EIPR)-1	3	2024	3	2024
Guam Critical Design Review (CDR)	4	2024	4	2024
FEM-02	1	2025	1	2025
Guam Initial Deployment	1	2025	1	2025
GTI-24 (I)	3	2027	3	2027

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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 0604102C / Guam Defense Development	Project (Number/Name) MD65 / Defense of Guam Development	
		Start		End
Events		Quarter	Year	Quarter Year
GTD-24 (I)		3	2028	3 2028
AN/TPY-6 Radar Development - Transportable Array Unit 5		1	2029	4 2029
Radar I&T		2	2029	2 2029
Emergency Operational Capability (EOC)		4	2029	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 0604102C / Guam Defense Developme nt				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: Program Wide Support	-	14.450	12.446	16.007	-	16.007	10.471	7.622	13.622	10.217	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

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

A. Mission Description and Budget Item Justification

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

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

	FY 2023	FY 2024	FY 2025
Title: Program Wide Support	14.450	12.446	16.007
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			

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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 0604102C / <i>Guam Defense Development</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans: - SEE ABOVE.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: PWS is allocated on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year. Increase from FY 2024 to FY 2025 reflects additional PWS FTEs being funded in this PE.</p>			
Accomplishments/Planned Programs Subtotals		14.450	12.446
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>The acquisition strategy for MDA Consolidated Support consists of contract actions to industry for: a) Engineering and technical support; b) studies, analyses, and evaluations; and c) management and professional services to MDA functional organizations and program offices. With a focus to achieve Small Business goals, MDA is leveraging existing contracts and will competitively award new contracts to meet MDA's Fiscal Years 2020-2030 Advisory and Assistance Services (A&AS) support.</p>			

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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 0604102C / Guam Defense Development				MD40 / Program Wide Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations Support	C/CPFF	LSINC : AL	0.000	1.700	Nov 2022	0.000		0.000		-		0.000	0.000	1.700	0.000
Program Wide Support - Agency Operations and Support Other Agency Services	MIPR	DOD - DEFENSE FINANCE AND ACCOUNTING SERVICES (DFAS) : IN	0.000	2.250	Nov 2022	3.300	Nov 2023	4.373	Nov 2024	-		4.373	Continuing	Continuing	Continuing
Subtotal			0.000	3.950		3.300		4.373		-		4.373	Continuing	Continuing	N/A
Remarks															
N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Financial	C/CPFF	Veterans Technology, LLC : AL	0.000	2.000	Dec 2022	1.646	Dec 2023	3.019	Dec 2024	-		3.019	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Security	C/CPFF	INTREPID TV LTD : AL	0.000	3.500	Nov 2022	3.500	Nov 2023	4.639	Nov 2024	-		4.639	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	Kepler Research, Incorporated : AL	0.000	5.000	Dec 2022	4.000	Dec 2023	3.976	Dec 2024	-		3.976	Continuing	Continuing	Continuing
Subtotal			0.000	10.500		9.146		11.634		-		11.634	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 0604102C / Guam Defense Development					Project (Number/Name) MD40 / Program Wide Support				
	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	0.000	14.450		12.446		16.007		-		16.007	Continuing	Continuing	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 0604102C / Guam Defense Development								Project (Number/Name) MD40 / Program Wide Support							
Significant Event Complete ▲				Milestone Decision Complete ★				Element Test Complete ◆				System Level Test Complete ●				Complete Activity ◆							
Significant Event Planned △				Milestone Decision Planned ☆				Element Test Planned ◇				System Level Test Planned ○				Planned Activity ◇							
								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 0604102C / Guam Defense Developme nt	Project (Number/Name) MD40 / Program Wide Support	

Schedule Details

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

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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	R-1 Program Element (Number/Name)											
0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	PE 0604115C / <i>Technology Maturation Initiatives</i>											
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	506.530	16.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	522.530
MD98: <i>Directed Energy Demonstrator Development</i>	506.530	16.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	522.530

Program MDAP/MAIS Code: 362

Note

N/A. No funding is requested for this program in FY 2025 and the outyears.

A. Mission Description and Budget Item Justification

Technology Maturation Initiatives (TMI) demonstrates the utility of directed energy for missile defense. The Missile Defense Agency's (MDA) directed energy plan incrementally demonstrates and improves the constituent components required to execute a directed energy acquisition, tracking, and lethality kill chain. The directed energy effort advances the technology readiness levels of emerging and developing technologies, while simultaneously assessing the performance and contributions to the Missile Defense System architecture. TMI included analysis, development, demonstration, systems engineering and test efforts to examine, develop, and improve directed energy systems, disruptive directed energy concepts, sensors, and future missile defense technologies.

Directed Energy Demonstrator Development addressed technology risk reduction and maturation for high powered strategic lasers, beam control, lethality, and related technologies. The efforts remain tightly coupled with Office of the Undersecretary of Defense Research and Engineering (OUSD(R&E)) High Energy Laser Development Road Map, and are essential to mature strategic laser technology.

MDA collaborates with the Combatant Commands, Defense Advanced Research Projects Agency, Department of Energy, Joint Directed Energy Transition Office, Military Departments, National Laboratories and OUSD(R&E) in a systems engineering based strategy to research, analyze, develop and test directed energy weapons technology.

MDA continues to participate in the Department's Directed Energy Reviews.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency					Date: March 2024
Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 0604115C <i>I Technology Maturation Initiatives</i>			
B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	16.000	0.000	0.000	-	0.000
Current President's Budget	16.000	0.000	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• 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	0.000	0.000			
• Other Adjustment	0.000	0.000	0.000	-	0.000
<u>Change Summary Explanation</u>					
N/A					

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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 0604115C / <i>Technology Maturation Initiatives</i>				Project (Number/Name) MD98 / <i>Directed Energy Demonstrator Development</i>			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MD98: <i>Directed Energy Demonstrator Development</i>	506.530	16.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	522.530
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note N/A. No funding is requested for this program in FY 2025 and the outyears.												
A. Mission Description and Budget Item Justification The Directed Energy Demonstrator Development (DEDD) project develops, integrates, and tests the component technologies required to scale electric lasers to hundreds of kilowatts. Laser scaling focused on maturing laser capability to levels sufficient to enter into the Office of the Undersecretary of Defense Research and Engineering High Energy Laser Road Map efforts. The DEDD project provided the necessary technology, test data, and operations familiarity to successfully transition to a higher power directed energy weapon. MDA continues to participate in the Department's Directed Energy Reviews.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2023	FY 2024	FY 2025
Title: Directed Energy Demonstrator Development <div style="text-align: right;">Articles:</div>										16.000	0.000	0.000
Description: Laser scaling develops, integrates, and tests the component technologies required for scaling electric lasers while maintaining optimal size, weight, and power metrics and near diffraction limited beam quality.										-	-	-
FY 2024 Plans: - No funding is requested in FY 2024 for this effort												
FY 2025 Plans: N/A												
FY 2024 to FY 2025 Increase/Decrease Statement: N/A												
Accomplishments/Planned Programs Subtotals										16.000	0.000	0.000
C. Other Program Funding Summary (\$ in Millions) N/A												
Remarks												

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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 0604115C / Technology Maturation Initiatives	Project (Number/Name) MD98 / Directed Energy Demonstrator Development
<p>D. Acquisition Strategy</p> <p>Employ various contracting strategies in a flexible manner to maximize the contribution to MDA. Execute through utilization of small businesses, leverage the Nation's engineering centers of excellence (Federally Funded Research and Development Centers and University Affiliated Research Centers); generate cooperatives with other Government Agencies to provide concept modeling and assessment capability. This strategy uses agency and partner subject matter experts and government model-based assessments to inform Better Buying Power acquisition decisions.</p>		

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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 0604115C / <i>Technology Maturation Initiatives</i>				Project (Number/Name) MD98 / <i>Directed Energy Demonstrator Development</i>					
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
Directed Energy Demonstrator Development - Adaptive Optics Effectiveness Demonstration	C/CPFF	Various : Various	9.000	0.000		0.000		0.000		-		0.000	0.000	9.000	0.000
Directed Energy Demonstrator Development - Beam Control and Lethality Demonstration	C/CPFF	Multi : Multi	27.561	0.000		0.000		0.000		-		0.000	0.000	27.561	0.000
Directed Energy Demonstrator Development - Directed Energy CPU	Various	Various : Various	0.000	3.395	May 2023	0.000		0.000		-		0.000	0.000	3.395	0.000
Directed Energy Demonstrator Development - Industry Laser Scaling and Technology Transfer	C/CPFF	Boeing : CA	18.412	0.000		0.000		0.000		-		0.000	0.000	18.412	0.000
Directed Energy Demonstrator Development - LPLD Preliminary Design A	C/CPFF	Lockheed Martin : CA	40.494	0.000		0.000		0.000		-		0.000	0.000	40.494	0.000
Directed Energy Demonstrator Development - LPLD Preliminary Design B	C/CPFF	General Atomics : CA	36.841	0.000		0.000		0.000		-		0.000	0.000	36.841	0.000
Directed Energy Demonstrator Development - LPLD Preliminary Design C	C/CPFF	Boeing : CA	36.361	0.000		0.000		0.000		-		0.000	0.000	36.361	0.000
Directed Energy Demonstrator Development - LPLD	C/CPFF	Lockheed Martin : CA	26.000	0.000		0.000		0.000		-		0.000	0.000	26.000	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 0604115C / <i>Technology Maturation Initiatives</i>				Project (Number/Name) MD98 / <i>Directed Energy Demonstrator Development</i>					
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
System Critical Design A (CPU)															
Directed Energy Demonstrator Development - LPLD System Critical Design B (CPU)	C/CPFF	General Atomics : CA	26.000	0.000		0.000		0.000		-		0.000	0.000	26.000	0.000
Directed Energy Demonstrator Development - LPLD System Critical Design C (CPU)	C/CPFF	Boeing : CA	26.000	0.000		0.000		0.000		-		0.000	0.000	26.000	0.000
Directed Energy Demonstrator Development - Laser Lethality Demonstration	C/CPFF	General Atomics, AFRL, Redstone Testing Center, White Sands Missile Range : CA, AL, NM	11.378	0.000		0.000		0.000		-		0.000	0.000	11.378	0.000
Directed Energy Demonstrator Development - Laser Scaling	C/Various	MIT LL, LLNL : MA, CA	136.658	0.000		0.000		0.000		-		0.000	0.000	136.658	0.000
Directed Energy Demonstrator Development - Laser Scaling - Diode Pumped Alkali Laser (CPU)	MIPR	LLNL (Lawrence Livermore National Laboratory) : CA	47.400	3.156	Apr 2023	0.000		0.000		-		0.000	0.000	50.556	0.000
Directed Energy Demonstrator Development - Laser Scaling - Diode Pumped Alkali Laser (CPU) Contract	C/CPFF	LOCKHEED MARTIN CORPORATION : Various	0.000	3.844	Jan 2024	0.000		0.000		-		0.000	0.000	3.844	0.000
Directed Energy Demonstrator	C/Various	Various : Various	2.500	0.000		0.000		0.000		-		0.000	0.000	2.500	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 0604115C / <i>Technology Maturation Initiatives</i>				Project (Number/Name) MD98 / <i>Directed Energy Demonstrator Development</i>					
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
Development - Machine Learning Adaptive Optics															
Directed Energy Demonstrator Development - Microwave Technology Assessment	C/CPFF	RAYTHEON : AZ	5.500	0.000		0.000		0.000		-		0.000	0.000	5.500	0.000
Directed Energy Demonstrator Development - Performance Analysis	MIPR	MIT LL, Aviation and Missile Research Development and Engineering Center (AMRDEC),Combat Capabilities Development Command - Aviation and Missile Center (CCDC-AMC), AFRL, USAFA, Semquest : MA, AL, NM, CO	12.469	0.000		0.000		0.000		-		0.000	0.000	12.469	0.000
Directed Energy Demonstrator Development - Short Pulsed Laser Lethality Assessment	C/CPFF	UNIVERSITY OF ROCHESTER : NY	9.000	5.605	Jun 2023	0.000		0.000		-		0.000	0.000	14.605	9.000
Directed Energy Demonstrator Development - Technology Transfer/Component Development	C/CPIF	Boeing : CA	16.209	0.000		0.000		0.000		-		0.000	0.000	16.209	0.000
Subtotal			487.783	16.000		0.000		0.000		-		0.000	0.000	503.783	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 0604115C / <i>Technology Maturation Initiatives</i>						Project (Number/Name) MD98 / <i>Directed Energy Demonstrator Development</i>			
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
Directed Energy Demonstrator Development - Advisory and Assistance Services	Allot	MDA Multi : AL, NM	8.013	0.000		0.000		0.000		-		0.000	0.000	8.013	0.000
Directed Energy Demonstrator Development - Engineering and Technical Services	MIPR	Aviation and Missile Research Development and Engineering Center (AMRDEC), Combat Capabilities Development Command - Aviation and Missile Center (CCDC-AMC) : AL	2.221	0.000		0.000		0.000		-		0.000	0.000	2.221	0.000
Directed Energy Demonstrator Development - FFRDC	FFRDC	Aerospace : AL, NM	3.317	0.000		0.000		0.000		-		0.000	0.000	3.317	0.000
Directed Energy Demonstrator Development - Facility Support	MIPR	377th ABW, Phoenix : NM	0.483	0.000		0.000		0.000		-		0.000	0.000	0.483	0.000
Directed Energy Demonstrator Development - Facility Sustainment	C/CPFF	Multi : AL, NM	1.281	0.000		0.000		0.000		-		0.000	0.000	1.281	0.000
Directed Energy Demonstrator Development - Information Technology	C/CPFF	Northrop Grumman, Jacobs Technology : CO	3.282	0.000		0.000		0.000		-		0.000	0.000	3.282	0.000
Directed Energy Demonstrator Development - Travel	Allot	MDA Multi : AL, NM	0.150	0.000		0.000		0.000		-		0.000	0.000	0.150	0.000
Subtotal			18.747	0.000		0.000		0.000		-		0.000	0.000	18.747	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 0604115C / Technology Maturation Initiatives				Project (Number/Name) MD98 / Directed Energy Demonstrator Development					
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
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			506.530	16.000		0.000		0.000		-		0.000	0.000	522.530	N/A
Remarks N/A															

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PE 0604115C: *Technology Maturation Initiatives*
Missile Defense Agency

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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 0604115C / Technology Maturation Initiatives	Project (Number/Name) MD98 / Directed Energy Demonstrator Development	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Laser Scaling Development - Diode Pumped Alkali Laser (DPAL) Continued	2	2023	4	2023
Optimize laser performance	2	2023	4	2023
Studies for transition of technology from the Laboratory to Industry	2	2023	4	2023

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0604181C I Hypersonic Defense							
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	1,141.018	513.267	208.997	182.283	-	182.283	193.100	205.122	250.208	327.698	Continuing	Continuing
MD29: Hypersonic Defense	1,110.067	505.407	190.555	175.266	-	175.266	184.940	196.589	238.960	312.405	Continuing	Continuing
MD40: Program Wide Support	30.951	7.860	18.442	7.017	-	7.017	8.160	8.533	11.248	15.293	Continuing	Continuing
Program MDAP/MAIS Code: 362												

Note

Decrease from FY 2024 to FY 2025 reflects the expected savings from the selection of a single missile system prime contractor and the cooperative development agreement with the Japan Ministry of Defense. Resources provide transition of the program requirements allocation and system design to development and testing of preliminary design hardware and software builds. Hypersonic technology maturation, risk reduction and system engineering activities will be completed to support preliminary design development and testing of the missile concept. Aegis Weapon System upgrades to leverage the Glide Phase Interceptor for regional hypersonic glide phase defense will continue to mature including work toward system level preliminary design incorporating one missile concept and the development of weapon system code for demonstration in early flight experiments.

A. Mission Description and Budget Item Justification

Strategic competitors and regional adversaries are heavily investing in offensive and defensive hypersonic capabilities, and currently have operational hypersonic strike and defensive systems deployed. These are challenging realities of the emerging missile threat environment that United States Missile Defense policy, strategy, and capabilities must address. These competitors continue to expand the capability and capacity of their offensive and defensive hypersonic missile inventories for both strategic and regional hypersonic missiles. Rogue nations have also demonstrated hypersonic missiles in recent flight tests.

The Hypersonic Defense (HD) Program Element includes execution of the systems engineering activities, upgrade of existing systems, investment in new technologies, and development of new regional defensive capabilities and maturation for delivery in the 2030s. The Missile Defense Agency's Hypersonic Missile Defense strategy includes leveraging existing systems, delivering an initial regional layered defense capability, and increasing defense capabilities in the future.

Activities enabling this strategy are as follows:

- Develop a regional Glide Phase Interceptor capability to engage hypersonic threats during the glide phase of flight. The Preliminary Design Review is planned in FY 2030, Critical Design Review is planned in FY 2033, and delivery in FY 2035.
- Integrate existing and new overhead sensors like the Hypersonic and Ballistic Tracking Space Sensor to track and support intercepts to counter hypersonic threats.
- Update existing Ballistic Missile Defense System Overhead Architecture to use information from satellites to create tracks on hypersonic threats.
- Modify existing Aegis SPY radar, fire control, and communications, as well as Command & Control, Battle Management, and Communications for track and warning of hypersonic threats.
- Execute systems engineering for HD including architecture analysis, technology prioritization, requirements development, planning and analysis.

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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 I BA 4:</i> <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604181C <i>I Hypersonic Defense</i>
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- Partner with the Services and other agencies to leverage work on common technologies, test infrastructure, weapon development, testing, and war-gaming.
- Partner with Allies where possible.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	517.977	208.997	218.939	-	218.939
Current President's Budget	513.267	208.997	182.283	-	182.283
Total Adjustments	-4.710	0.000	-36.656	-	-36.656
• 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	-4.710	0.000			
• Other Adjustment	0.000	0.000	-36.656	-	-36.656

Change Summary Explanation

Decrease in FY 2025 reflects the expected savings from the selection of a single missile system prime contractor and the cooperative development agreement with the Japan Ministry of Defense. Resources provide for the transition of program requirements and system design to the development and testing of preliminary design hardware and software builds.

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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 0604181C / <i>Hypersonic Defense</i>				Project (Number/Name) MD29 / <i>Hypersonic Defense</i>			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MD29: <i>Hypersonic Defense</i>	1,110.067	505.407	190.555	175.266	-	175.266	184.940	196.589	238.960	312.405	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Decrease from FY 2024 to FY 2025 reflects the expected savings from the selection of a single missile system prime contractor and the cooperative development agreement with the Japan Ministry of Defense. Resources provide transition of the program requirements allocation and system design to development and testing of preliminary design hardware and software builds. Hypersonic technology maturation, risk reduction and system engineering activities will be completed to support preliminary design development and testing of the missile concept. Aegis Weapon System upgrades to leverage the Glide Phase Interceptor for regional hypersonic glide phase defense will continue to mature including work toward system level preliminary design incorporating one missile concept and the development of weapon system code for demonstration in early flight experiments.

A. Mission Description and Budget Item Justification

Strategic competitors and regional adversaries are heavily investing in hypersonics, both offense and defense, and currently have operational hypersonic strike and defensive systems deployed. These are challenging realities of the emerging missile threat environment that United States Missile Defense policy, strategy, and capabilities must address. These competitors continue to expand the capability and capacity of their offensive and defensive hypersonic missile inventories for both strategic and regional hypersonic missiles. Rogue nations have also demonstrated hypersonic missiles in flight tests.

The Hypersonic Defense (HD) Program Element includes executing systems engineering activities, upgrading existing systems, investing in new technologies and maturation, and developing new regional defensive capabilities. Missile Defense Agency's (MDA) counter hypersonic threats strategy includes leveraging existing systems, delivering an initial regional layered defense capability, and increasing defense capabilities in the future. Activities enabling this strategy are the following:

- Develop a regional Glide Phase Intercept capability to engage hypersonic threats during the glide phase of flight.
- Integrate existing and new overhead sensors like the Hypersonic and Ballistic Tracking Space Sensor to track and support intercepts to counter hypersonic threats.
- Update existing Ballistic Missile Defense System Overhead Architecture to use information from satellites to create tracks on hypersonic threats.
- Modify existing Aegis SPY radar, fire control, and communications, as well as Command & Control, Battle Management, and Communications for track and warning of hypersonic threats.
- Execute systems engineering for HD, including architecture analysis, technology prioritization, requirements development, planning, and analysis.
- Partner with the Services and other agencies to leverage work on common technologies, test infrastructure, weapon development, testing, and war-gaming.
- Partner with additional Allies where possible.

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

	FY 2023	FY 2024	FY 2025
Title: Regional Hypersonic Missile Defense Capability	505.407	190.555	175.266
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 0604181C / Hypersonic Defense	Project (Number/Name) MD29 / Hypersonic Defense		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>Description: Develop and deliver a defensive capability to engage and defeat regional hypersonic threats during the glide phase of flight using the proven Aegis Weapon System. This will provide an additional layer of regional hypersonic defense from an Aegis ship, which also complements the Sea-Based Terminal capability by extending the battlespace. The defensive capability includes the development of a regional Glide Phase Interceptor missile that reduces the operational seam currently used by hypersonic threats to fly between air defense and ballistic missile defense systems. The effort also includes updates to the Aegis Weapon System for planning, tracking and conducting remote engagements against hypersonic threats within the Missile Defense System as well as conducting studies and advancing hypersonic capability to Legacy Aegis Weapon Systems. Perform Systems Engineering, architecture analysis, modeling and simulation, advanced hypersonic technology development, and integrate the new capability into the Missile Defense System.</p> <p>Recurring accomplishments:</p> <p>Regional Glide Phase Interceptor Missile</p> <ul style="list-style-type: none">- Conduct Missile Concept Technical Analysis to support development of feasibility data which supports missile subassembly requirement development.- Conduct Missile legacy component assessments to support the initial concept design that will house and use the legacy components. Mission Assurance data is required to justify the operating environments the legacy components will be in and any modifications necessary to support the Glide Phase Interceptor mission.- Conduct Element-level Modeling and Simulation (M&S) development to lay the foundation of the design and ensure early subassembly design concepts support integrated missile performance to the Glide Phase Interceptor requirements.- Continue Development and Maturation of Critical Technology Elements across limited areas of the all up round.- Execute design activities for hardware, software, support systems, human interfaces, cybersecurity, and mechanical and electrical interfaces.- Purchase limited materials to support proof of design and design verification testing in support of establishing the preliminary interceptor design.- Conduct hypersonic threat development and lethality development.- Explore additional international cooperative development opportunities through agreements between United States and allied nations. <p>Aegis Weapon System</p> <ul style="list-style-type: none">- Mature design concepts and models as needed to incorporate and evolve Aegis Weapon System upgrades and Interceptor integration activities.- Conduct interoperability planning of Aegis Weapon System Regional Glide Phase capability with the Missile Defense System.- Continue and finalize development activities to support FTX-40 and FTM-43 targeted capabilities.					

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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 0604181C / <i>Hypersonic Defense</i>		Project (Number/Name) MD29 / <i>Hypersonic Defense</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>- Execute development, execution and risk reduction activities to include Search & Track and Glide Phase Interceptor engagement software builds to support planned flight tests and additional test of opportunity options.</p> <p>Disruptive Technology for Future Architecture</p> <p>- Improve seeker performance and testing capability in relevant environments.</p> <p>- Mature high performance on-demand and reliable propulsion technology.</p> <p>- Continue development of advanced technology concepts and component technology maturation to counter the evolving threats.</p> <p>Engineering Enablers</p> <p>- Continue architecture analysis for regional HD and continue implementation of digital engineering.</p> <p>- Align system requirements to Element specifications to include functional, interface, performance, and design suitability requirements.</p> <p>- Perform HD lethality range testing and material characterization.</p> <p>- Provide limited test analysis and M&S framework development.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <p>Aegis Weapon System</p> <p>- Complete Systems Engineering efforts and conduct Aegis Weapons System Requirements Review, which establishes the Aegis Ballistic Missile Defense element specification requirements for a regional Glide Phase Interceptor capability and the integration of the regional Glide Phase Interceptor layered defense.</p> <p>FY 2025 Plans:</p> <p>Aegis Weapon System</p> <p>- Evolve and mature systems engineering efforts to flow system level requirements to subsystem requirement specifications and begin preliminary design activities.</p> <p>- Develop updated weapon system code to support demonstration of capability in partner flight tests and flight experiments to include FTX-40 and FTM-43.</p> <p>- Continue refinement of engagement and shot selection algorithms to optimize performance across the Glide Phase Interceptor threat and battlespace.</p> <p>Missile System</p> <p>- Evolve and mature a single missile system design.</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 0604181C / <i>Hypersonic Defense</i>	Project (Number/Name) MD29 / <i>Hypersonic Defense</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<p>- Implement and execute the cooperative development agreement with the Japan Ministry of Defense partner.</p> <p>Engineering Enablers</p> <p>- Provide limited Missile Defense System-level engineering support, to include alignment of system and subsystem technical requirements, limited Glide Phase Interceptor lethality support, and development of HD/Glide Phase Interceptor-specific M&S updates.</p> <p>- Mature technology to address current and future hypersonic threats.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i></p> <p>Decrease from FY 2024 to FY 2025 reflects the expected savings from the selection of a single missile system prime contractor and the cooperative development agreement with the Japan Ministry of Defense. Resources provide transition of the program requirements allocation and system design to development and testing of preliminary design hardware and software builds. Hypersonic technology maturation, risk reduction and system engineering activities will be completed to support preliminary design development and testing of the missile concept. Aegis Weapon System upgrades to leverage the Glide Phase Interceptor for regional hypersonic glide phase defense will continue to mature including work toward system level preliminary design incorporating one missile concept and the development of weapon system code for demonstration in early flight experiments.</p>			
Accomplishments/Planned Programs Subtotals	505.407	190.555	175.266

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
• 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
• 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
• 0603890C: <i>BMD Enabling Programs</i>	589.588	597.720	609.406	-	609.406	623.893	625.985	659.983	677.858	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
• 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

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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 0604181C / Hypersonic Defense				Project (Number/Name) MD29 / Hypersonic Defense		

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
• 1206895C: Ballistic Missile Defense System Space Programs	125.695	109.483	119.561	-	119.561	122.691	125.114	44.489	55.956	Continuing	Continuing

Remarks

D. Acquisition Strategy

To optimize Missile Defense System performance, MDA leverages the nation's engineering centers of excellence at government agencies, Military Services, Federally Funded Research and Development Centers, University Affiliated Research Centers and industries. The executing agents use varying contracting strategies in a flexible manner to maximize their contribution to the Missile Defense System. MDA acquires products and services by competitive means to the extent that is possible, practical and uses the Advanced Technology Broad Agency Announcement process to award concept definition contracts.

For the regional Glide Phase Interceptor, MDA developed the acquisition strategy to utilize a Broad Agency Announcement for the competitive selection and award of Other Transaction Authority agreements. This strategy awarded three Missile System contracts in November 2021, with the continuation of two contracts in June 2022, and the selection of a single missile prime in August 2023 to drive innovation and savings in missile system modification. Sole source Weapon Systems contract awarded in July 2022.

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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 0604181C / <i>Hypersonic Defense</i>						Project (Number/Name) MD29 / <i>Hypersonic Defense</i>			
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
Hypersonic Defense - Component Technology for Sensors and Weapons	Various	Various : AL	20.500	0.000		0.000		0.000		-		0.000	0.000	20.500	0.000
Engineering Enablers - Hypersonics Lab	C/CPFF	JACOBS TECHNOLOGY INC. : AL	1.856	0.000		0.000		0.000		-		0.000	0.000	1.856	0.000
Engineering Enablers - Hypersonics Lab -2	Various	Various : AL	0.642	0.000		0.000		0.000		-		0.000	0.000	0.642	0.000
Hypersonic Defense - Missile Defense System C2BMC Upgrades	C/Various	Various : AL	33.645	0.000		0.000		0.000		-		0.000	0.000	33.645	0.000
Hypersonic Defense - Missile Defense System Sensor Upgrades - AN/TPY-2	SS/CPFF	Raytheon : MA	16.474	0.000		0.000		0.000		-		0.000	0.000	16.474	0.000
Hypersonic Defense - Missile Defense System Sensor Upgrades - LRDR	C/FFP	Lockheed Martin : NJ	12.007	0.000		0.000		0.000		-		0.000	0.000	12.007	0.000
Regional Hypersonic Missile Defense Capability - Missile System - RMD	C/FFP	RAYTHEON : AZ	46.761	182.520	Oct 2022	65.228	Nov 2023	0.000		-		0.000	0.000	294.509	0.000
Regional Hypersonic Missile Defense Capability - Missile System - NG	C/FFP	NORTHROP GRUMMAN : AZ	46.094	181.974	Oct 2022	65.228	Nov 2023	0.000		-		0.000	0.000	293.296	0.000
Regional Hypersonic Missile Defense Capability - Missile System Prime-GPI	C/TBD	TBD : Various	0.000	0.000		0.000		98.946	Nov 2024	-		98.946	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Missile System- LM	C/FFP	LOCKHEED MARTIN CORPORATION : NJ	14.825	0.000		0.000		0.000		-		0.000	14.825	29.650	0.000
Engineering Enablers - Regional Hypersonic Defense - Systems	IA	DOE - DEPARTMENT OF ENERGY (DOE) : Various	20.190	0.000		0.000		0.000		-		0.000	0.000	20.190	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 0604181C / Hypersonic Defense				Project (Number/Name) MD29 / Hypersonic Defense					
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
Engineering - Lethality and Analysis															
Engineering Enablers - Regional Hypersonic Defense - Systems Engineering - M&S	C/Various	Various : AL	18.836	0.000		0.000		0.000		-		0.000	0.000	18.836	0.000
Engineering Enablers - Regional Hypersonic Defense - Systems Engineering - SNL	IA	Department of Energy (DOE)/National Nuclear Security Administration/ Sandia Field Office (NNSA SFO) : NM	6.695	0.000		0.000		0.000		-		0.000	0.000	6.695	0.000
Engineering Enablers - Regional Hypersonic Defense - Systems Engineering - Threat Engineering	Various	Various : AL	18.687	0.000		0.000		0.000		-		0.000	0.000	18.687	0.000
Engineering Enablers - Regional Hypersonic Defense - Systems Engineering -- FFRDC/ UARC	Various	Various : AL, VA	57.193	0.000		0.000		0.000		-		0.000	0.000	57.193	0.000
Engineering Enablers - Regional Hypersonic Defense - Systems Engineering – Requirements Development	Various	Various : Various	4.971	0.000		0.000		0.000		-		0.000	0.000	4.971	0.000
Hypersonic Defense - Sensor Technology - Advanced Threat Tracking and Analysis / Low Latency Processing	MIPR	Various : AL, CA	13.016	0.000		0.000		0.000		-		0.000	0.000	13.016	0.000
Hypersonic Defense - Sensor Technology -	Various	Various : AL	21.522	0.000		0.000		0.000		-		0.000	0.000	21.522	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 0604181C / Hypersonic Defense				Project (Number/Name) MD29 / Hypersonic Defense					
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
Sensor Concept and Development															
Engineering Enablers - System Design/ Specification	C/CPAF	BOEING : AL	4.231	0.000		0.000		0.000		-		0.000	0.000	4.231	0.000
Hypersonic Defense - Systems Engineering	Allot	MDA : AL, VA	5.444	0.000		0.000		0.000		-		0.000	0.000	5.444	0.000
Hypersonic Defense - Systems Engineering -- CSS	C/CPFF	TEAMS : AL, VA	6.688	0.000		0.000		0.000		-		0.000	0.000	6.688	0.000
Hypersonic Defense - Systems Engineering -- FFRDC/UARC	Various	Various : VA, AL	7.257	0.000		0.000		0.000		-		0.000	0.000	7.257	0.000
Hypersonic Defense - Systems Engineering -- Industry	C/CPAF	Boeing : AL	3.539	0.000		0.000		0.000		-		0.000	0.000	3.539	0.000
Regional Hypersonic Missile Defense Capability - Systems Engineering Support	Various	Various : Various	2.332	8.183	Oct 2022	0.519	Nov 2023	0.000		-		0.000	0.000	11.034	0.000
Hypersonic Defense - Technology Development Program Operations	Allot	MDA : AL, VA	11.861	0.000		0.000		0.000		-		0.000	0.000	11.861	0.000
Engineering Enablers - Testing & Assessment	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	1.278	0.000		0.000		0.000		-		0.000	0.000	1.278	0.000
Hypersonic Defense - Weapon Concept Definition & Risk Reduction	C/Various	Various : AL	38.301	0.000		0.000		0.000		-		0.000	0.000	38.301	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 0604181C / Hypersonic Defense				Project (Number/Name) MD29 / Hypersonic Defense					
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
Regional Hypersonic Missile Defense Capability - Weapon System Modification-GPI	C/CPIF	LOCKHEED MARTIN CORPORATION : NJ	0.000	27.356	Nov 2022	18.135	Nov 2023	22.000	Nov 2024	-		22.000	Continuing	Continuing	Continuing
Disruptive Technologies for Future Architecture - Component Technology for Sensors and Weapons - Propulsion and Aero-Controls	C/CPFF	NORTHROP GRUMMAN : Various	4.000	0.000		0.000		0.000		-		0.000	0.000	4.000	0.000
Disruptive Technologies for Future Architecture - Component Technology for Sensors and Weapons - Seeker and Aero-Optics - Boeing	C/CPFF	BOEING : AL	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	0.000
Disruptive Technologies for Future Architecture - Component Technology for Sensors and Weapons - Seeker and Aero-Optics - SDL	C/CPFF	SPACE DYNAMICS LABORATORY : Various	3.200	0.000		0.000		0.000		-		0.000	0.000	3.200	0.000
Disruptive Technologies for Future Architecture - Regional Hypersonic Defense - Component Technology for Sensors and Weapons	MIPR	Various : AL	64.876	0.000		0.000		0.000		-		0.000	0.000	64.876	0.000
Disruptive Technologies for Future Architecture - Regional Hypersonic Defense - Sensor Technology - Advanced Threat Tracking and Analysis / Low Latency Processing	MIPR	Various : AL, CA	24.026	0.000		0.000		0.000		-		0.000	0.000	24.026	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 0604181C / Hypersonic Defense				Project (Number/Name) MD29 / Hypersonic Defense					
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
Disruptive Technologies for Future Architecture - Regional Hypersonic Defense - Sensor Technology / Sensor Concept and Development	MIPR	DOD - USAF - SECRETARY OF THE AIR FORCE, FINANCIAL MANAGEMENT (SAF/FM) : Various	32.622	0.000		0.000		0.000		-		0.000	0.000	32.622	0.000
Leverage and Upgrade Existing Systems - Regional Hypersonic Defense - C2BMC Regional GPI	C/CPAF	SciTec : Newark, NJ	4.181	0.000		0.000		0.000		-		0.000	0.000	4.181	0.000
Leverage and Upgrade Existing Systems - Regional Hypersonic Defense - C2BMC Regional GPI Prototype/ Development	C/CPAF	Northrop Grumman : CO	12.600	0.000		0.000		0.000		-		0.000	0.000	12.600	0.000
Leverage and Upgrade Existing Systems - Regional Hypersonic Defense - Missile Defense System C2BMC	Various	Various : Various	35.470	0.000		0.000		0.000		-		0.000	0.000	35.470	0.000
Leverage and Upgrade Existing Systems - Regional Hypersonic Defense - Missile Defense System C2BMC Upgrades (Prime)	C/CPIF	Lockheed Martin : AL	18.653	0.000		0.000		0.000		-		0.000	0.000	18.653	0.000
Leverage and Upgrade Existing Systems - Regional Hypersonic Defense - Missile Defense System C2BMC Upgrades for HD	C/CPAF	Northrop Grumman : CO	33.366	0.000		0.000		0.000		-		0.000	0.000	33.366	0.000
Leverage and Upgrade Existing Systems - Regional Hypersonic	C/FFP	Lockheed Martin : NJ	4.189	0.000		0.000		0.000		-		0.000	0.000	4.189	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 0604181C / Hypersonic Defense				Project (Number/Name) MD29 / Hypersonic Defense					
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
Defense - Missile Defense System Sensor Upgrades															
Leverage and Upgrade Existing Systems - Regional Hypersonic Defense - Missile Defense System Sensor Upgrades - AN/TPY-2	SS/CPFF	Raytheon : MA	35.687	0.000		0.000		0.000		-		0.000	0.000	35.687	0.000
Leverage and Upgrade Existing Systems - Regional Hypersonic Defense-Missile Defense System C2BMC Upgrades BAA	C/CPFF	LOCKHEED MARTIN CORPORATION : TX	9.377	0.000		0.000		0.000		-		0.000	0.000	9.377	0.000
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense - Engineering Support	MIPR	NSWCD : VA	9.259	0.000		0.000		0.000		-		0.000	0.000	9.259	0.000
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense - Interface Change Proposals	MIPR	NIWC PAC : CA	2.091	0.000		0.000		0.000		-		0.000	0.000	2.091	0.000
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense - Missile System	C/Various	Various : Various	3.496	0.000		0.000		0.000		-		0.000	0.000	3.496	0.000
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense - Missile System - RMD	C/FFP	RAYTHEON : AZ	12.204	0.000		0.000		0.000		-		0.000	0.000	12.204	0.000
Regional Glide Phase Defeat Weapon System - Regional Hypersonic	C/FFP	NORTHROP GRUMMAN : AZ	11.035	0.000		0.000		0.000		-		0.000	0.000	11.035	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 0604181C / <i>Hypersonic Defense</i>						Project (Number/Name) MD29 / <i>Hypersonic Defense</i>			
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
Defense - Missile System - NG															
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense - Missile System-LM	C/FFP	LOCKHEED MARTIN CORPORATION : NJ	9.114	0.000		0.000		0.000		-		0.000	0.000	9.114	0.000
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense - Special Studies	C/CPAF	APL : MD	9.314	0.000		0.000		0.000		-		0.000	0.000	9.314	0.000
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense - Systems Engineering	FFRDC	MIT/LL : MA	4.300	0.000		0.000		0.000		-		0.000	0.000	4.300	0.000
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense - Systems Engineering Support	Various	Various : Various	0.443	0.000		0.000		0.000		-		0.000	0.000	0.443	0.000
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense - Systems Engineering-MIT	FFRDC	MIT/LL : MA	4.300	0.000		0.000		0.000		-		0.000	0.000	4.300	0.000
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense - Weapon Concept Definition and Risk Reduction	C/Various	Various : VA	42.126	0.000		0.000		0.000		-		0.000	0.000	42.126	0.000
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense - Weapon System Modification	C/CPIF	Lockheed Martin : NJ	44.165	0.000		0.000		0.000		-		0.000	0.000	44.165	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 0604181C / <i>Hypersonic Defense</i>	Project (Number/Name) MD29 / <i>Hypersonic Defense</i>
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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
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense -MDA	Allot	MDA : AL, VA	10.952	0.000		0.000		0.000		-		0.000	0.000	10.952	0.000
Regional Glide Phase Defeat Weapon System - Regional Hypersonic Defense- Weapon System Special Studies	Various	Various : Various	3.000	0.000		0.000		0.000		-		0.000	0.000	3.000	0.000
Subtotal			883.391	400.033		149.110		120.946		-		120.946	Continuing	Continuing	N/A

Remarks

N/A

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
Regional Hypersonic Missile Defense Capability - Engineering Enablers - M&S for GPI - Advanced CTM	C/CPAF	DECIBEL RESEARCH, INC : AL	0.000	1.032	Nov 2022	0.000		0.000		-		0.000	0.000	1.032	0.000
Regional Hypersonic Missile Defense Capability - Advanced Architecture - Architecture Design (AFLCMC)	MIPR	DOD - USAF - AIR FORCE LIFE CYCLE MANAGEMENT CENTER (AFLCMC) : MA	0.000	1.250	Nov 2022	0.284	Nov 2023	0.264	Nov 2024	-		0.264	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Advanced Architecture - Architecture Design (CCDC)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	0.000	4.791	Nov 2022	1.075	Nov 2023	1.107	Nov 2024	-		1.107	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability	MIPR	DOD - USA - COMMUNICATIONS	0.000	1.345	Nov 2022	0.253	Nov 2023	0.245	Nov 2024	-		0.245	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 0604181C / Hypersonic Defense						Project (Number/Name) MD29 / Hypersonic Defense			
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 - Architecture Design (CECOM)		ELECTRONICS COMMAND (CECOM) : MD													
Regional Hypersonic Missile Defense Capability - Advanced Architecture - Architecture Design (JHU APL)	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	0.000	2.615	Nov 2022	0.446	Nov 2023	0.414	Nov 2024	-		0.414	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Advanced Architecture - Architecture Design (SMC)	MIPR	DOD - USSF - SPACE AND MISSILE SYSTEMS CENTER (SMC) : CA	0.000	2.765	Nov 2022	0.455	Nov 2023	0.422	Nov 2024	-		0.422	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Advanced Architecture - Program Ops (TEAMS - MTSI)	C/CPFF	MODERN TECHNOLOGY SOLUTIONS, INC. : Various	0.000	1.117	Nov 2022	0.000		0.000		-		0.000	0.000	1.117	0.000
Regional Hypersonic Missile Defense Capability - Advanced Architecture - Program Ops (TEAMS Next - nTSI)	C/CPFF	NTSI LLC : Various	0.000	3.405	Feb 2023	0.000		0.000		-		0.000	0.000	3.405	0.000
Regional Hypersonic Missile Defense Capability - Advanced Architecture - Program Ops (TEAMS Next)	C/CPFF	Various : Various	0.000	1.076	Nov 2022	1.342	Nov 2023	1.415	Nov 2024	-		1.415	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Advanced Architecture - Program Ops (TEAMS)	C/CPIF	PARSONS GOVERNMENT SERVICES INC. : Various	0.000	1.698	Nov 2022	1.693	Nov 2023	1.787	Nov 2024	-		1.787	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : VA	0.000	0.000		0.864	Oct 2023	0.895	Oct 2024	-		0.895	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability	C/CPFF	JOHNS HOPKINS UNIVERSITY	0.000	0.000		3.218	Nov 2023	0.000		-		0.000	0.000	3.218	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 0604181C / Hypersonic Defense				Project (Number/Name) MD29 / Hypersonic Defense					
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
- Component Technology - Risk Reduction - JHU/APL		APPLIED PHYSICS LABORATORY LLC, THE : Various													
Regional Hypersonic Missile Defense Capability - Component Technology - Risk Reduction - MIT/LL	MIPR	DOD - USAF - AIR FORCE LIFE CYCLE MANAGEMENT CENTER (AFLCMC) : MA	0.000	3.610	May 2023	0.000		0.000		-		0.000	0.000	3.610	0.000
Regional Hypersonic Missile Defense Capability - Component Technology - Risk Reduction - SNL	IA	DOE - DEPARTMENT OF ENERGY (DOE) : NM	0.000	4.209	Dec 2022	0.000		0.000		-		0.000	0.000	4.209	0.000
Regional Hypersonic Missile Defense Capability - Component Technology Development	C/CPFF	Various : AL	0.000	3.986	Dec 2022	3.177	Dec 2023	0.000		-		0.000	0.000	7.163	0.000
Regional Hypersonic Missile Defense Capability - Component Technology for Sensors and Weapons - Propulsion and Aero-Controls	C/CPFF	NORTHROP GRUMMAN : Various	0.000	3.750	Dec 2022	0.945	Dec 2023	0.000		-		0.000	0.000	4.695	0.000
Regional Hypersonic Missile Defense Capability - Component Technology for Sensors and Weapons - Propulsion and Aero-Controls (Aerojet)	C/CPFF	Aerojet Rocketdyne : Various	0.000	2.304	May 2023	0.000		0.000		-		0.000	0.000	2.304	0.000
Regional Hypersonic Missile Defense Capability - Component Technology for Sensors and Weapons - Seeker and Aero-Optics - Boeing	C/CPFF	BOEING : AL	0.000	0.000		2.039	Dec 2023	0.000		-		0.000	0.000	2.039	0.000
Regional Hypersonic Missile Defense Capability - Component Technology	C/CPFF	SPACE DYNAMICS LABORATORY : Various	0.000	0.170	May 2023	0.966	Dec 2023	0.000		-		0.000	0.000	1.136	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 0604181C / Hypersonic Defense						Project (Number/Name) MD29 / Hypersonic Defense			
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
for Sensors and Weapons - Seeker and Aero-Optics - SDL															
Regional Hypersonic Missile Defense Capability - Engineering Enablers - Modeling and Simulation	Various	Various : Various	0.000	0.362	Oct 2022	0.000		0.000		-		0.000	0.000	0.362	0.000
Regional Hypersonic Missile Defense Capability - Engineering Enablers - Modeling and Simulations	C/CPAF	NORTHROP GRUMMAN : Various	0.000	2.226	Dec 2022	0.000		0.000		-		0.000	0.000	2.226	0.000
Regional Hypersonic Missile Defense Capability - Engineering Enablers - Systems Engineering (TEAMs and DEVCOM)	Various	Various : Various	0.000	1.443	Dec 2022	2.983	Nov 2023	3.020	Nov 2024	-		3.020	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Engineering Enablers - Systems Engineering - CS Specialty	C/CPFF	MODERN TECHNOLOGY SOLUTIONS, INC. : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	0.000
Regional Hypersonic Missile Defense Capability - Engineering Enablers - Systems Engineering - Lethality and Analysis	IA	DOE - DEPARTMENT OF ENERGY (DOE) : Various	0.000	4.501	Nov 2022	0.000		0.000		-		0.000	0.000	4.501	0.000
Regional Hypersonic Missile Defense Capability - Engineering Enablers - Systems Engineering - Requirements Development	Various	BOEING : Various	0.000	2.475	Dec 2022	1.926	Nov 2023	0.000		-		0.000	0.000	4.401	0.000
Regional Hypersonic Missile Defense Capability - Engineering Enablers - Systems Engineering - Threat Engineering	Various	Various : AL	0.000	2.107	Dec 2022	0.000		0.000		-		0.000	0.000	2.107	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 0604181C / Hypersonic Defense				Project (Number/Name) MD29 / Hypersonic Defense					
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
Regional Hypersonic Missile Defense Capability - Engineering Support- Dahlgren-GPI	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) DAHLGREN DIVISION (NSWCDD) : VA	12.253	15.907	Nov 2022	9.068	Nov 2023	14.613	Nov 2024	-		14.613	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Engineering Support- IWS-GPI	MIPR	Program Executive Office (PEO) Integrated Warfare Systems (IWS)/3L : DC	0.000	1.461	Nov 2022	0.000		1.461	Nov 2024	-		1.461	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Engineering Support- MTSI-GPI	C/CPAF	MODERN TECHNOLOGY SOLUTIONS, INC. : TBD	0.000	0.000		0.000		1.975	Nov 2024	-		1.975	0.000	1.975	0.000
Regional Hypersonic Missile Defense Capability - Leverage and Upgrade Existing Systems - C2BMC Regional GPI Upgrades	C/CPFF	NORTHROP GRUMMAN : CO	0.000	11.934	Dec 2022	0.000		0.000		-		0.000	0.000	11.934	0.000
Regional Hypersonic Missile Defense Capability - Regional Hypersonic Defense Capacity - Various	Various	Various : Various	0.000	0.000		0.000		2.487	Nov 2024	-		2.487	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Regional Hypersonic Missile Defense Capability - Engineering Enablers - Risk Reduction	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : Various	0.000	0.000		0.000		2.000	Nov 2024	-		2.000	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Regional Hypersonic Missile Defense Capability-	Various	Various : Various	0.000	0.000		0.000		3.674	Nov 2024	-		3.674	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 0604181C / Hypersonic Defense				Project (Number/Name) MD29 / Hypersonic Defense					
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
Component Technology Development															
Regional Hypersonic Missile Defense Capability - Regional Hypersonic Missile Defense Capability-Component Technology Performance Analysis-MTSI	C/CPFF	MODERN TECHNOLOGY SOLUTIONS, INC. : Various	0.000	0.000		0.000		2.860	Dec 2024	-		2.860	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Regional Hypersonic Missile Defense Capability-Component Technology for Sensors and Weapons-High Temperature Materials	C/CPFF	KRATOS Company : Various	0.000	0.000		0.000		1.700	Dec 2024	-		1.700	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Regional Hypersonic Missile Defense Capability-Component Technology for Sensors and Weapons-Propulsion and Aero-Controls	C/CPFF	NORTHROP GRUMMAN : Various	0.000	0.000		0.000		2.600	Dec 2024	-		2.600	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Sensor Technology / Sensor Concept and Development	MIPR	DOD - USAF - SECRETARY OF THE AIR FORCE, FINANCIAL MANAGEMENT (SAF/FM) : Various	0.000	2.625	Jan 2023	0.000		0.000		-		0.000	0.000	2.625	0.000
Regional Hypersonic Missile Defense Capability - Special Programs - Classified Analysis and Development	Various	Classified Performer : Various	0.000	4.839	Nov 2022	0.000		0.000		-		0.000	0.000	4.839	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 0604181C / Hypersonic Defense				Project (Number/Name) MD29 / Hypersonic Defense					
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
Regional Hypersonic Missile Defense Capability - Special Studies-APL-GPI	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	7.269	13.371	Oct 2022	7.311	Nov 2023	7.676	Nov 2024	-		7.676	Continuing	Continuing	Continuing
Regional Hypersonic Missile Defense Capability - Systems Engineering (Aerospace)	FFRDC	DOD - USSF - SPACE AND MISSILE SYSTEMS CENTER (SMC) : CA	2.800	0.000		0.000		0.000		-		0.000	0.000	2.800	0.000
Regional Hypersonic Missile Defense Capability - Systems Engineering (Various)	Various	Various : Various	26.535	0.000		0.000		0.000		-		0.000	0.000	26.535	0.000
Regional Hypersonic Missile Defense Capability - Systems Engineering - Architect Analysis Support	MIPR	DOD - USAF - AIR FORCE LIFE CYCLE MANAGEMENT CENTER (AFLCMC) : MA	5.108	0.000		0.000		0.000		-		0.000	0.000	5.108	0.000
Regional Hypersonic Missile Defense Capability - Systems Engineering - CS Support	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	13.445	0.000		0.000		0.000		-		0.000	0.000	13.445	0.000
Regional Hypersonic Missile Defense Capability - Systems Engineering HAMRS	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	7.095	0.000		0.000		0.000		-		0.000	0.000	7.095	0.000
Regional Hypersonic Missile Defense Capability - Systems Engineering JHU/APL	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	15.199	0.000		0.000		0.000		-		0.000	0.000	15.199	0.000
Regional Hypersonic Missile Defense Capability - Systems Engineering MITRE	FFRDC	DOD - USA - COMMUNICATIONS ELECTRONICS	1.832	0.000		0.000		0.000		-		0.000	0.000	1.832	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 0604181C / Hypersonic Defense				Project (Number/Name) MD29 / Hypersonic Defense					
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
		COMMAND (CECOM) : MD													
Regional Hypersonic Missile Defense Capability - Systems Engineering-MIT-GPI	FFRDC	DOD - USAF - AIR FORCE LIFE CYCLE MANAGEMENT CENTER (AFLCMC) : MA	0.000	3.000	Nov 2022	3.400	Nov 2023	3.705	Nov 2024	-		3.705	Continuing	Continuing	Continuing
Subtotal			91.536	105.374		41.445		54.320		-		54.320	Continuing	Continuing	N/A
Remarks N/A															
Test and Evaluation (\$ 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
Partnered Flight Test Participation - Partner Flight Test Participation (DOE)	MIPR	DOE - DEPARTMENT OF ENERGY (DOE) : NM	7.450	0.000		0.000		0.000		-		0.000	0.000	7.450	0.000
Partnered Flight Test Participation - Partner Flight Test Participation (L-3 Comms)	C/CPAF	L-3 COMMUNICATIONS CORPORATION : OK	6.559	0.000		0.000		0.000		-		0.000	0.000	6.559	0.000
Partnered Flight Test Participation - Partner Flight Test Participation (MARAD)	IA	DOT - MARITIME ADMINISTRATION (MARAD) NATIONAL DEFENSE RESERVE FLEET (NDRF) : TBD	6.091	0.000		0.000		0.000		-		0.000	0.000	6.091	0.000
Partnered Flight Test Participation - Partner Flight Test Participation (PMRF)	MIPR	DOD - USN - PACIFIC MISSILE RANGE FACILITY BARKING SANDS	108.195	0.000		0.000		0.000		-		0.000	0.000	108.195	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 0604181C / Hypersonic Defense	Project (Number/Name) MD29 / Hypersonic Defense
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Test and Evaluation (\$ 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
		(PMRF) : AL/CA/CO/DC/HI/TN/TX													
Partnered Flight Test Participation - Partner Flight Test Participation (Test Wing)	MIPR	DOD - USAF - 412TH TEST WING (412 TW) : CA	3.000	0.000		0.000		0.000		-		0.000	0.000	3.000	0.000
Partnered Flight Test Participation - Partner Flight Test Participation - CCDC	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : TBD	1.092	0.000		0.000		0.000		-		0.000	0.000	1.092	0.000
Partnered Flight Test Participation - Partner Flight Test Participation - PMRF	MIPR	DOD - USN - PACIFIC MISSILE RANGE FACILITY BARKING SANDS (PMRF) : CA	1.633	0.000		0.000		0.000		-		0.000	0.000	1.633	0.000
Partnered Flight Test Participation - Partner Flight Test Participation-NAWC	MIPR	DOD - USN - NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION (NAWCAD) SURFACE/ AVIATION INTEROPERABILITY LA : MD	1.120	0.000		0.000		0.000		-		0.000	0.000	1.120	0.000
Subtotal			135.140	0.000		0.000		0.000		-		0.000	0.000	135.140	N/A

Remarks

N/A

Management Services (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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 0604181C / Hypersonic Defense				Project (Number/Name) MD29 / Hypersonic Defense					
Management Services (\$ 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
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			1,110.067	505.407		190.555		175.266		-		175.266	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-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 0604181C / Hypersonic Defense										Project (Number/Name) MD29 / Hypersonic Defense							
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					
Weapons Technology Risk Reduction Contract(s) Award										◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇		
Hypersonic Threat Sensor Technology Development										◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	
Regional Hypersonic Defense Sensor & Weapons Component Technology Capability Development										◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇
Technology Plan Review											◆																
Technology Development Decision												◆															
Weapons System Requirement Review															◇												

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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 0604181C / Hypersonic Defense	Project (Number/Name) MD29 / Hypersonic Defense	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Weapons Technology Risk Reduction Contract(s) Award	1	2023	4	2029
Hypersonic Threat Sensor Technology Development	1	2023	4	2029
Regional Hypersonic Defense Sensor & Weapons Component Technology Capability Development	1	2023	4	2029
Technology Plan Review	2	2023	2	2023
Technology Development Decision	3	2023	3	2023
Weapons System Requirement Review	4	2024	4	2024

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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 0604181C / Hypersonic Defense				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: Program Wide Support	30.951	7.860	18.442	7.017	-	7.017	8.160	8.533	11.248	15.293	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	7.860	18.442	7.017
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 0604181C / <i>Hypersonic Defense</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>Maintenance) to keep the Department's inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Decrease from FY 2024 to FY 2025 reflects the PWS allocation 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.</p>			
Accomplishments/Planned Programs Subtotals		7.860	18.442
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>The acquisition strategy for MDA Consolidated Support consists of contract actions to industry for: a) Engineering and technical support; b) studies, analyses, and evaluations; and c) management and professional services to MDA functional organizations and program offices. With a focus to achieve Small Business goals, MDA is leveraging existing contracts and will competitively award new contracts to meet MDA's Fiscal Years 2020-2030 Advisory and Assistance Services (A&AS) support.</p>			

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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 0604181C / Hypersonic Defense				Project (Number/Name) MD40 / Program Wide Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities and Maintenance	MIPR	Army Garrison Resource : AL, CO, CA, VA	6.485	0.015	Nov 2022	0.000		0.000		-		0.000	0.000	6.500	0.000
Program Wide Support - Agency Facilities and Maintenance SRM	MIPR	Army Corps of Engineers/ Huntsville : Multi: AK, AL, CA, CO, HI, VA	5.454	1.496	Nov 2022	3.371	Nov 2023	0.000		-		0.000	0.000	10.321	0.000
Program Wide Support - Agency Operations Management	Various	Various : Multi, AL, CA, CO, VA	2.161	0.000		0.000		0.000		-		0.000	0.000	2.161	0.000
Program Wide Support - Agency Operations and Support Other Agency Services	MIPR	Various : Multi: AK/ AL/CA/CO/HI/MD/ VA/NJ/NY/OCONUS	0.265	0.000		0.000		0.000		-		0.000	0.000	0.265	0.000
Program Wide Support - Agency Operations and Support Services	C/Various	Various : Multi: AK, AL, CA, CO, HI, VA	6.519	6.349	Nov 2022	0.000		0.000		-		0.000	0.000	12.868	0.000
Program Wide Support - Agency Operations and Support Services #2	C/FFP	Cherokee Nation Red Wing : Various	0.000	0.000		4.890	Nov 2023	3.449	Nov 2024	-		3.449	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services #3	C/FFP	HUNTSVILLE REHABILITATION FOUNDATION : AL	0.000	0.000		7.317	Nov 2023	2.371	Nov 2024	-		2.371	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations, Sustainment and GPC	Various	Various : Multi: AK, AL, CA, HI, NY, NM, VA	3.469	0.000		0.000		1.197	Nov 2024	-		1.197	Continuing	Continuing	Continuing
Program Wide Support - Facilities Maintenance	MIPR	Various : Multi: AK, AL, CA, CO, HI, VA	6.598	0.000		0.000		0.000		-		0.000	0.000	6.598	0.000
Subtotal			30.951	7.860		15.578		7.017		-		7.017	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 0604181C / Hypersonic Defense				Project (Number/Name) MD40 / Program Wide Support					
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services	C/CPFF	STRATEGIC ALLIANCE BUSINESS GROUP LLC : AL	0.000	0.000		2.864	Nov 2023	0.000		-		0.000	0.000	2.864	0.000
Subtotal			0.000	0.000		2.864		0.000		-		0.000	0.000	2.864	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			30.951	7.860		18.442		7.017		-		7.017	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 0604181C / Hypersonic Defense								Project (Number/Name) MD40 / Program Wide Support											
Significant Event Complete ▲				Milestone Decision Complete ★				Element Test Complete ◆				System Level Test Complete ●				Complete Activity ◆											
Significant Event Planned △				Milestone Decision Planned ☆				Element Test Planned ◇				System Level Test Planned ○				Planned Activity ◇											
								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 0604181C / Hypersonic Defense	Project (Number/Name) MD40 / Program Wide Support	

Schedule Details

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

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0604873C I Long Range Discrimination Radar (LRDR)							
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	1,302.557	65.991	103.517	100.882	-	100.882	63.560	56.020	64.457	72.759	Continuing	Continuing
MD96: Long Range Discrim Radar (LRDR)	1,239.462	63.263	99.837	96.998	-	96.998	60.874	53.689	61.559	69.364	Continuing	Continuing
MD40: Program Wide Support	63.095	2.728	3.680	3.884	-	3.884	2.686	2.331	2.898	3.395	Continuing	Continuing
Program MDAP/MAIS Code: 362												
Note												
N/A												
A. Mission Description and Budget Item Justification												
<p>The LRDR program supports and contributes to the Missile Defense Agency mission of developing and deploying a layered Missile Defense System to defend the homeland from missile attacks of all ranges, in all phases of flight by providing persistent long-range midcourse discrimination, precision tracking and hit assessment as an element of the Missile Defense System Homeland Defense Capability. The LRDR program also supports the Space Domain Awareness (SDA) and Space Object Identification (SOI) mission area.</p>												
<p>The LRDR Program Element includes the requirements to design, develop, integrate, deliver, field, and sustain the LRDR. The LRDR operates in the S-band frequency with a scalable and open systems architecture to mitigate evolving threats and integrates into the Missile Defense System through the Command and Control, Battle Management, and Communications (C2BMC) system. This Program Element includes Missile Defense System threat discrimination improvements to enhance effectiveness against the evolving threat. The result will be a Missile Defense System architecture more capable of discriminating and interpreting re-entry vehicles with a higher degree of confidence to improve Warfighter engagement doctrine, and conserve Ground Based Interceptor inventory. The LRDR is comprised of an equipment shelter, two radar array faces, a mission control facility for radar operations, and supporting facilities and infrastructure. The Secretary of the Air Force approved Clear Space Force Station, formerly known as Clear Air Force Station, AK as the LRDR site. The United States Space Force (USSF) Space Operations Command is the designated Lead Major Command. The initial fielding of LRDR was completed on December 6, 2021. In cooperation with the Northern Command, the Space Command, and the USSF, an incremental fielding approach is being taken. The early use fielding of the LRDR SDA capability is planned for early FY 2024. Fielding of the LRDR Increment 6B.1 capability will occur when LRDR is added to the Missile Defense System Operational Capability Baseline (OCB), currently planned for 1Q FY 2025, delayed by the replanning of formal ground testing of the final LRDR Increment 6B.1 software. Operational Acceptance (OA) by the USSF is planned for 2Q FY 2025 following completion of LRDR Increment 6B.1 fielding and Flight Test Other (FTX)-26. Completion of the LRDR System Transition and Transfer follows OA and is planned for 4Q FY 2025.</p>												
<p>The LRDR Program Element supports the fielding of the LRDR capabilities described below:</p>												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency				Date: March 2024		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0604873C I Long Range Discrimination Radar (LRDR)				
<p>- The LRDR capability that will be fielded when LRDR is added to the Missile Defense System Increment 6B.1 OCB includes increased Missile Defense System raid handling capability, conventional and advanced discrimination capabilities, implementation of mitigation techniques in denied environments, Missile Defense System integration and remote ops via C2BMC, including cyber protection/interoperability, autonomous and cued acquisition capabilities, initial sensor bias reporting, inherent SDA capability, and Electronic Protection (EP) capabilities. Operational fielding of the LRDR capability will be completed when added to the OCB in FY 2024. As stated previously, an incremental fielding approach is being taken to field the SDA capability in advance of the full Missile Defense System capability.</p> <p>- The LRDR capability that will be fielded with the Missile Defense System Increment 6C/7 includes software upgrades to LRDR to improve bias monitoring and reporting, increased discrimination capability that is expanded to a broader spectrum of threats and Resident Space Object scenes, increased support to the SDA/ SOI mission with additional reporting, expanded threat loading and threat type including addition of hypersonic threat requirements, cybersecurity upgrades, reliability upgrades, cost reduction initiatives to reduce life cycle operating costs, and characterization testing and improvements to EP capability. Operational fielding of the LRDR Increment 6C/7 capability will be completed when added to the OCB in FY 2026.</p> <p>- The LRDR capability that will be fielded with the Missile Defense System Increment 10 includes software upgrades to LRDR to improve capabilities against advanced threats and includes interface modifications to synchronize and verify requirements with the Next Generation Interceptor. Operational fielding of the LRDR Increment 10 capability will be completed when added to the OCB in FY 2028.</p>						
B. Program Change Summary (\$ in Millions)		FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget		75.120	103.517	100.114	-	100.114
Current President's Budget		65.991	103.517	100.882	-	100.882
Total Adjustments		-9.129	0.000	0.768	-	0.768
• 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		-1.486	0.000			
• Other Adjustment		-7.643	0.000	0.768	-	0.768
Change Summary Explanation						
N/A						

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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 0604873C / Long Range Discrimination Radar (LRDR)				Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)			
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
MD96: Long Range Discrim Radar (LRDR)	1,239.462	63.263	99.837	96.998	-	96.998	60.874	53.689	61.559	69.364	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

The LRDR program supports and contributes to the Missile Defense Agency (MDA) mission of developing and deploying a layered Missile Defense System to defend the homeland from missile attacks of all ranges, in all phases of flight by providing persistent long-range midcourse discrimination, precision tracking and hit assessment as an element of the Missile Defense System Homeland Defense Capability. The LRDR program also supports the Space Domain Awareness (SDA) and Space Object Identification (SOI) mission area.

The LRDR Program Element includes the requirements to design, develop, integrate, deliver, field, and sustain the LRDR. The LRDR operates in the S-band frequency with a scalable and open systems architecture to mitigate evolving threats and integrates into the Missile Defense System through the Command and Control, Battle Management, and Communications (C2BMC) system. This Program Element includes Missile Defense System threat discrimination improvements to enhance effectiveness against the evolving threat. The result will be a Missile Defense System architecture more capable of discriminating and interpreting re-entry vehicles with a higher degree of confidence to improve Warfighter engagement doctrine, and conserve Ground Based Interceptor inventory. The LRDR is comprised of an equipment shelter, two radar array faces, a mission control facility for radar operations, and supporting facilities and infrastructure. The Secretary of the Air Force approved Clear Space Force Station (CSFS), formerly known as Clear Air Force Station, AK as the LRDR site. The United States Space Force (USSF) Space Operations Command is the designated Lead Major Command. The initial fielding of LRDR was completed on December 6, 2021. In cooperation with the Northern Command (NORTHCOM), the Space Command (SPACECOM), and the USSF, an incremental fielding approach is being taken. The early use fielding of the LRDR SDA capability is planned for early FY 2024. Fielding of the LRDR Increment 6B.1 capability will occur when LRDR is added to the Missile Defense System Operational Capability Baseline (OCB), currently planned for 1Q FY 2025, delayed by the replanning of formal ground testing of the final LRDR Increment 6B.1 software. Operational Acceptance (OA) by the USSF is planned for 2Q FY 2025 following completion of LRDR Increment 6B.1 fielding and Flight Test Other (FTX)-26. Completion of the LRDR System Transition and Transfer follows OA and is planned for 4Q FY 2025.

The LRDR Program Element supports the fielding of the LRDR capabilities described below:

- The LRDR capability that will be fielded when LRDR is added to the Missile Defense System Increment 6B.1 OCB includes increased Missile Defense System raid handling capability, conventional and advanced discrimination capabilities, implementation of mitigation techniques in denied environments, Missile Defense System integration and remote ops via C2BMC, including cyber protection/interoperability, autonomous and cued acquisition capabilities, initial sensor bias reporting, inherent

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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 0604873C / Long Range Discrimination Radar (LRDR)	Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)		
SDA capability, and Electronic Protection (EP) capabilities. Operational fielding of the LRDR capability will be completed when added to the OCB in FY 2024. As stated previously, an incremental fielding approach is being taken to field the SDA capability in advance of the full Missile Defense System capability.				
<p>- The LRDR capability that will be fielded with the Missile Defense System Increment 6C/7 includes software upgrades to LRDR to improve bias monitoring and reporting, increased discrimination capability that is expanded to a broader spectrum of threats and Resident Space Object scenes, increased support to the SDA/ SOI mission with additional reporting, expanded threat loading and threat type including addition of hypersonic threat requirements, cybersecurity upgrades, reliability upgrades, cost reduction initiatives to reduce life cycle operating costs, and characterization testing and improvements to EP capability. Operational fielding of the LRDR Increment 6C/7 capability will be completed when added to the OCB in FY 2026.</p> <p>- The LRDR capability that will be fielded with the Missile Defense System Increment 10 includes software upgrades to LRDR to improve capabilities against advanced threats and includes interface modifications to synchronize and verify requirements with the Next Generation Interceptor. Operational fielding of the LRDR Increment 10 capability will be completed when added to the OCB in FY 2028.</p>				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
Title: Long Range Discrimination Radar (LRDR)		63.263	99.837	96.998
Articles:		-	-	-
Description: The LRDR program includes requirement development activities associated with systems engineering, software development, discrimination improvements, design reviews, testing, and modeling and simulation efforts for radar development. Efforts include LRDR site activation and preparation of site infrastructure for construction activities. The program will develop and integrate C2BMC systems for LRDR functionality. The program will develop, maintain, and deliver radar software Increment 6B.1 and establish the installation verification and validation lab for testing of operational software. The program includes purchasing, manufacturing, integrating and testing of radar materials. This program will also establish the operational baseline, initiate radar operations and communication, and initiate sustainment operations. The program includes logistics management, reliability, availability, maintainability efforts, data management, and operations support for the LRDR program office. This project also includes Missile Defense System Increment 6C/7 software upgrades to LRDR to further verify and improve discrimination techniques and capability, verify and improve electronic protection techniques and capability, expand capability to a broader spectrum of threats, including hypersonic missile threats, increase support to SDA and SOI, updates to current cybersecurity requirements, and implement cost reduction initiatives to reduce life cycle operating costs. This project also includes Missile Defense System Increment 10 software upgrades to LRDR to improve capabilities against advanced threats, interface modifications to synchronize and verify requirements with the Next Generation Interceptor, and post Transition and Transfer radar sustainment costs.				
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 0604873C / Long Range Discrimination Radar (LRDR)	Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Complete demobilization of Temporary Workforce Camp at CSFS, AK - Complete Fielding of SDA Early Use capability and Increment 6B.1 capability - Receive final builds of Increment 6C/7 software - Initiate Increment 6C/7 ground testing - Complete Interim Contractor Support phase 2 - Initiate post-transfer development and Operations and Sustainment efforts - Continue efforts to achieve OA by USSF by FY 2025 - Continue closeout activities for Transition and Transfer of LRDR to the USSF - Initiate LRDR development of Increment 10 capability <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Achieve OA - Complete Transition and Transfer to USSF - Continue Increment 6C/7 Ground Testing - Continue Increment 10 capability development - Continue providing Interim Contractor Support (Phase 3) and necessary forward engineering to support CSFS <p>FY 2024 to FY 2025 Increase/Decrease Statement: N/A</p>			
Accomplishments/Planned Programs Subtotals	63.263	99.837	96.998

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0208866C MD11: Missile Defense System Radars Program, Operations and Maintenance	203.624	227.768	254.680	-	254.680	276.039	283.073	248.353	254.384	Continuing	Continuing
• 0603882C: Ballistic Missile Defense Midcourse Defense Segment	670.808	903.633	768.227	-	768.227	856.218	842.985	956.974	1,007.150	Continuing	Continuing
• 0603884C: Ballistic Missile Defense Sensors	228.807	239.159	209.002	-	209.002	205.087	202.555	209.816	214.110	Continuing	Continuing
• 0603896C: Ballistic Missile Defense Command and	587.689	554.201	569.662	-	569.662	570.632	587.929	618.050	651.885	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 0604873C / Long Range Discrimination Radar (LRDR)				Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)			

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
<i>Control, Battle Management & Communication</i>											
• 0603904C: <i>Missile</i>	47.629	50.549	54.525	-	54.525	56.851	58.115	59.600	61.362	Continuing	Continuing
<i>Defense Integration and Operations Center (MDIOC)</i>											
• 0604879C: <i>Ballistic Missile</i>	88.326	111.049	96.864	-	96.864	104.578	160.011	172.749	183.147	Continuing	Continuing
<i>Defense Sensor Test</i>											
• 31299903: <i>MILCON</i>	47.063	1.035	4.745	-	4.745	0.600	0.600	0.600	0.600	0.000	55.243
<i>PLANNING and DESIGN</i>											

Remarks

D. Acquisition Strategy

The approved LRDR acquisition strategy incorporates robust acquisition practices to ensure delivery of a best -value solution that meets mission performance requirements and reduces lifecycle costs. The MDA awarded a fixed-price incentive contract to Lockheed Martin Corporation of Moorestown, NJ, on October 21, 2015, to design, develop, manufacture, integrate & test, and field the LRDR prime mission equipment. The prime contract included other fixed-price and cost-reimbursable line items and options to balance acquisition costs and risks. Performance and cost incentives were included to motivate contractor performance. The radar prime contractor will deliver a complete technical data package, enabling the government to effectively and affordably sustain the system. MDA synchronized the radar development contract efforts with a simultaneous Military Construction effort executed through the US Army Corps of Engineers. The LRDR completed the initial fielding milestone on December 6, 2021, for Missile Defense System integration and testing of the Increment 6B.1 capability and an expected fielding of LRDR when it is added to the Missile Defense System OCB in FY 2024. The Acquisition Strategy was updated in FY 2021 to add the Increment 6C/7 capability. MDA awarded Lockheed Martin a cost-plus incentive fee contract on September 20, 2021, to develop and deliver the Increment 6/7 software upgrade. An LRDR Acquisition Strategy Decision Memorandum was signed in February 2023, granting authority to proceed with a sole source contract modification to Lockheed Martin to develop Increment 10 capability, which includes hardware and software sustainment. MDA approved the Justification and Approval in March 2023. The request for proposal was released to Lockheed Martin in May 2023.

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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 0604873C / Long Range Discrimination Radar (LRDR)				Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)					
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
Long Range Discrimination Radar (LRDR) - BMEWS Remediation and Removal	MIPR	USACE : AL, AK	25.110	0.000		0.000		0.000		-		0.000	0.000	25.110	0.000
Long Range Discrimination Radar (LRDR) - Civilians/ Travel	Allot	MDA : AL	13.803	4.417	Oct 2022	4.261	Oct 2023	3.971	Oct 2024	-		3.971	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - Communications Integration	SS/CPIF	Lockheed Martin : AL, NJ	34.986	0.000		0.000		0.000		-		0.000	0.000	34.986	0.000
Long Range Discrimination Radar (LRDR) - Contract Support Services - No longer funded in this cost category	Various	Various : Various	14.348	0.000		0.000		0.000		-		0.000	0.000	14.348	0.000
Long Range Discrimination Radar (LRDR) - FFRDC/ UARC - No longer funded in this cost category	FFRDC	GTRI, JHU/APL, MITRE, MIT/LL : AL, GA, IL, MA, VA	9.754	0.000		0.000		0.000		-		0.000	0.000	9.754	0.000
Long Range Discrimination Radar (LRDR) - Hybrid Program Office -No longer funded in this cost category	MIPR	US Air Force : Various	0.692	0.000		0.000		0.000		-		0.000	0.000	0.692	0.000
Long Range Discrimination Radar (LRDR) - IV&V	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) AVIATION AND MISSILE CENTER (AVMC) : AL	23.934	4.833	Dec 2022	2.750	Nov 2023	0.000		-		0.000	0.000	31.517	0.000
Long Range Discrimination Radar (LRDR) - LRDR Product Support (Various)	Various	Various : Various	0.000	0.000		0.000		5.703	Jul 2025	-		5.703	0.000	5.703	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 0604873C / Long Range Discrimination Radar (LRDR)				Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)					
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
Long Range Discrimination Radar (LRDR) - Prime Contractor - Increment 10	C/CPIF	LOCKHEED MARTIN CORPORATION : TBD	0.000	0.000		19.712	Mar 2024	28.009	Mar 2025	-		28.009	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - Prime Contractor - Increment 6C/7	SS/CPIF	LOCKHEED MARTIN CORPORATION : Various	64.375	12.735	Feb 2023	36.028	Oct 2023	32.611	Oct 2024	-		32.611	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - Prime Contractor -Increment 6B.1	C/FPIF	LOCKHEED MARTIN CORPORATION : NJ	857.857	2.500	Dec 2022	0.000		0.000		-		0.000	0.000	860.357	0.000
Long Range Discrimination Radar (LRDR) - Program Office - No longer funded in this cost category	Various	Various : Various	10.616	0.000		0.000		0.000		-		0.000	0.000	10.616	0.000
Long Range Discrimination Radar (LRDR) - Radar Operations, Sustainment, and Fuel - No longer funded in this cost category	MIPR	DOD - USSF - US SPACE FORCE (USSF) : AK	23.238	0.000		0.000		0.000		-		0.000	0.000	23.238	0.000
Long Range Discrimination Radar (LRDR) - Site Activation & Studies	MIPR	USACE : AL, AK	129.983	0.086	Jan 2023	0.000		0.000		-		0.000	0.000	130.069	0.000
Subtotal			1,208.696	24.571		62.751		70.294		-		70.294	Continuing	Continuing	N/A
Remarks															
Increase in LRDR Prime Contractor - Increment 10 from FY 2024 to FY 2025 provides a ramp-up of agile software builds that result in a final release for ground testing.															

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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 0604873C / Long Range Discrimination Radar (LRDR)				Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)					
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
Long Range Discrimination Radar (LRDR) - Contract Support Services	Various	Various : Various	2.250	2.603	Nov 2022	1.398	Oct 2023	2.404	Nov 2024	-		2.404	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - Contract Support Services - Logistics	C/CPFF	VENTURI, INC. : AL	1.360	1.506	Nov 2022	1.271	Nov 2023	1.050	Nov 2024	-		1.050	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - Contract Support Services - Systems Engineering	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : CA	3.020	4.266	Nov 2022	2.694	Nov 2023	1.815	Nov 2024	-		1.815	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - FFRDC - MITRE	FFRDC	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : VA	1.002	1.097	Jan 2023	0.766	Nov 2023	0.817	Nov 2024	-		0.817	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - High Altitude Electromagnetic Pulse (HEMP) Testing	MIPR	DOD - DEFENSE THREAT REDUCTION AGENCY (DTRA) : AK	0.000	1.558	May 2023	1.382	Sep 2024	0.000		-		0.000	0.000	2.940	0.000
Long Range Discrimination Radar (LRDR) - Prime Radar Integration	MIPR	DOD - USA - US ARMY CORPS OF ENGINEERS (USACE) : Various	0.000	4.867	Nov 2022	2.890	Nov 2023	0.000		-		0.000	0.000	7.757	0.000
Long Range Discrimination Radar (LRDR) - Radar / Software Sustainment	C/CPIF	LOCKHEED MARTIN CORPORATION : Various	0.000	0.000		0.000		18.691	Jan 2025	-		18.691	Continuing	Continuing	Continuing
Long Range Discrimination Radar (LRDR) - Radar Operations, Sustainment, and Fuel	MIPR	DOD - USSF - US SPACE FORCE (USSF) : AK	17.815	20.750	Mar 2023	25.674	Nov 2023	0.206	Nov 2024	-		0.206	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 0604873C / Long Range Discrimination Radar (LRDR)						Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)			
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
Long Range Discrimination Radar (LRDR) - UARC - GTRI	SS/CPFF	GEORGIA TECH APPLIED RESEARCH CORPORATION : Various	2.421	0.000		0.000		0.000		-		0.000	0.000	2.421	0.000
Long Range Discrimination Radar (LRDR) - UARC - JHU/APL	FFRDC	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : Various	2.898	2.045	Nov 2022	1.011	Nov 2023	1.721	Nov 2024	-		1.721	Continuing	Continuing	Continuing
Subtotal			30.766	38.692		37.086		26.704		-		26.704	Continuing	Continuing	N/A
Remarks Decrease in LRDR Radar Operations, Sustainment, and Fuel from FY 2024 to FY 2025 reflects a transition of some costs to USSF.															
			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			1,239.462	63.263		99.837		96.998		-		96.998	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 0604873C / Long Range Discrimination Radar (LRDR)	Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Long Range Discrimination Radar Capability	1	2023	4	2028
GTD-08a (N/I) (Missile Defense System Ground Test)	1	2023	1	2023
FTX-26 (OT) (SN, OT Target Only Flight Test)	4	2023	4	2023
FTX-49	4	2023	4	2023
LRDR Space Domain Awareness Early Use Fielding	2	2024	2	2024
GTI-08b (N/I)	3	2024	3	2024
GTI-08b Part 2	3	2024	3	2024
GTD-08b (N/I)	4	2024	1	2025
LR-08b (N/I)	4	2024	4	2024
LRDR Increment 6B.1 Fielding (LRDR added to Increment 6B.1 OCB)	1	2025	1	2025
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)	2	2025	2	2025
Operational Acceptance (OA)	2	2025	2	2025
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)	4	2025	4	2025
LRDR Increment 6C/7 Fielding (LRDR added to Increment 6C/7 OCB)	1	2026	1	2026
GTD-13 (N/I) (Missile Defense System Ground Test)	2	2026	2	2026
LR-13	3	2026	3	2026
GTI-14 Sprint 1 (N/I)	4	2026	4	2026
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)	3	2027	3	2027
GTD-14 (N/I) ((Missile Defense System Ground Test)	4	2027	4	2027
LRDR Increment 10 Fielding (LRDR added to the Increment 10 OCB)	1	2028	1	2028
GTI-16 Sprint 1 (N/I)	4	2028	4	2028
GTI-16 Sprint 2 (N/I)	3	2029	3	2029

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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 0604873C / Long Range Discrimination Radar (LRDR)	Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR)	

Events	Start		End	
	Quarter	Year	Quarter	Year
GTD-16 (N/I)	4	2029	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 0604873C / Long Range Discrimination Radar (LRDR)				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: Program Wide Support	63.095	2.728	3.680	3.884	-	3.884	2.686	2.331	2.898	3.395	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency program elements (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)

Title: Program Wide Support		FY 2023	FY 2024	FY 2025
Articles:		2.728	3.680	3.884
		-	-	-
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				

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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 0604873C / <i>Long Range Discrimination Radar (LRDR)</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> N/A</p>			
Accomplishments/Planned Programs Subtotals		2.728	3.680
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0604873C / Long Range Discrimination Radar (LRDR)				Project (Number/Name) MD40 / Program Wide Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities and Maintenance SRM (MIPR)	MIPR	Various : Multi: AL, VA, Aust, Japan	24.395	0.000		0.000		0.000		-		0.000	0.000	24.395	0.000
Program Wide Support - Agency Operations Management	C/CPFF	Various : Multi: AL, CA, CO, VA	0.625	0.000		0.000		0.000		-		0.000	0.000	0.625	0.000
Program Wide Support - Agency Operations Sustainment and GPC	C/FFP	Various : Multi: AL, CA, CO, VA etc.	2.327	0.000		0.000		0.000		-		0.000	0.000	2.327	0.000
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	5.126	0.000		0.000		0.000		-		0.000	0.000	5.126	0.000
Subtotal			32.473	0.000		0.000		0.000		-		0.000	0.000	32.473	N/A
Remarks N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services	C/CPFF	CHENEGA : AL	30.622	2.728	Jan 2023	3.680	Jan 2024	3.884	Jan 2025	-		3.884	Continuing	Continuing	Continuing
Subtotal			30.622	2.728		3.680		3.884		-		3.884	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			63.095	2.728		3.680		3.884		-		3.884	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 0604873C / Long Range Discrimination Radar (LRDR)		Project (Number/Name) MD40 / Program Wide Support				
	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract	
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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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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 0604873C / Long Range Discrimination Radar (LRDR)	Project (Number/Name) MD40 / Program Wide Support	

Schedule Details

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

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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 I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604874C <i>I Improved Homeland Defense Interceptors</i>
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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	1,874.839	1,795.728	2,130.838	1,697.121	-	1,697.121	1,034.859	1,406.953	625.913	404.970	Continuing	Continuing
MD80: <i>Next Generation Interceptor Development (NGI)</i>	1,742.757	1,759.383	2,056.063	1,631.788	-	1,631.788	991.128	1,348.422	597.775	386.071	Continuing	Continuing
MD40: <i>Program Wide Support</i>	132.082	36.345	74.775	65.333	-	65.333	43.731	58.531	28.138	18.899	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Decrease from Fiscal Year (FY) 2024 to FY 2025 reflects the selection of a single Prime contractor to continue development through Critical Design Review (CDR) and beyond.

A. Mission Description and Budget Item Justification

The Improved Homeland Defense Interceptor Program Element will develop, integrate, test, and deliver a Next Generation Interceptor for Homeland Defense, meeting the U.S. Northern Command's (USNORTHCOM) Operational Needs for its homeland defense interceptor. The Next Generation Interceptor acquisition covers the development, integration, and testing of an All Up Round (AUR) consisting of a boost vehicle/multiple kill vehicle payload capable of surviving both natural and hostile environments while countering the allocated threats.

The Next Generation Interceptor will provide the Warfighter a cost-effective solution that is lethal across the specified threat space; upgradeable to address future and advancing threats; and fully integrated into the Ground-Based Midcourse Defense Weapon System (GWS). The Missile Defense Agency (MDA) issued a Request for Proposal in FY 2020 and competitively awarded two best value contracts on March 24, 2021, for a Next Generation Interceptor acquisition, which covers the development, integration, and testing of an AUR consisting of a boost vehicle/multiple kill vehicle payload. The MDA maintained the competitive environment through Preliminary Design Reviews (PDR) and Knowledge Point (KP) 1 in FY 2024 to reduce technical risk, encourage schedule acceleration, and support the Department's ability to field a system capable of negating the expanding threat. With the PDR/KP #1 data, the MDA will select a single Prime contractor for continued development through a CDR; qualification, integrated GWS/AUR and flight testing; and AUR production. The budget requested continues to support the planned first Next Generation Interceptor delivery no later than FY 2028, which addresses the number one priority requirement in the USNORTHCOM Operational Needs for missile defense of the homeland.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency				Date: March 2024	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0604874C I Improved Homeland Defense Interceptors			
B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	1,833.357	2,130.838	2,110.409	-	2,110.409
Current President's Budget	1,795.728	2,130.838	1,697.121	-	1,697.121
Total Adjustments	-37.629	0.000	-413.288	-	-413.288
• 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	-38.052	0.000			
• Other Adjustment	0.423	0.000	-413.288	-	-413.288
Change Summary Explanation					
Decrease in FY 2025 reflects the selection of a single Next Generation Interceptor design to proceed through development and integration into the GMD Weapon System.					

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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 0604874C / Improved Homeland Defense Interceptors				Project (Number/Name) MD80 / Next Generation Interceptor Development (NGI)			
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
MD80: Next Generation Interceptor Development (NGI)	1,742.757	1,759.383	2,056.063	1,631.788	-	1,631.788	991.128	1,348.422	597.775	386.071	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Decrease from Fiscal Year (FY) 2024 to FY 2025 reflects the selection of a single Prime contractor to continue development through Critical Design Review (CDR) and beyond.

A. Mission Description and Budget Item Justification

The Improved Homeland Defense Interceptor Program Element will develop, integrate, test, and deliver a Next Generation Interceptor for defense of the Nation, meeting the U.S. Northern Command's (USNORTHCOM) Operational Needs for the Next Generation Interceptor. The Next Generation Interceptor acquisition covers the development, integration, and testing of an integrated All Up Round (AUR) consisting of a boost vehicle/multiple kill vehicle payload capable of surviving both natural and hostile environments while countering the allocated threats.

The Next Generation Interceptor will provide the Warfighter a cost-effective solution that is lethal across the specified threat space; upgradeable to address future and advancing threats; and fully integrated into the Ground-Based Midcourse Defense Weapon System (GWS). The Missile Defense Agency (MDA) issued a Request for Proposal in FY 2020 and competitively awarded two best value contracts on March 24, 2021, for a Next Generation Interceptor acquisition, which covers the development, integration, and testing of an AUR consisting of a boost vehicle/multiple kill vehicle payload. The MDA maintained the competitive environment through Preliminary Design Reviews (PDR) and Knowledge Point (KP) 1 in FY 2024 to reduce technical risk, encourage schedule acceleration, and support the Department's ability to field a system capable of negating the expanding threat. With the PDR/KP #1 data, the MDA will select a single Prime contractor for continued development through a CDR; qualification, integrated GWS/AUR and flight testing; and AUR production. The budget requested continues to support the planned first Next Generation Interceptor delivery no later than FY 2028, which addresses the number one priority requirement in the USNORTHCOM Operational Needs for missile defense of the homeland.

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

	FY 2023	FY 2024	FY 2025
Title: Next Generation Interceptor Development (NGI)	1,738.847	2,033.969	1,612.795
Articles:	-	-	-
Description: The Improved Homeland Defense Interceptor Program Element will deliver a Next Generation Interceptor for Homeland Defense. The Next Generation Interceptor has a multiple kill vehicle payload, improves survivability against natural and hostile environments, and increases the performance capability against 2030 and beyond threats as compared to the currently fielded Ground Based Interceptors.			

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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 0604874C / <i>Improved Homeland Defense Interceptors</i>		Project (Number/Name) MD80 / <i>Next Generation Interceptor Development (NGI)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>Recurring efforts include:</p> <ul style="list-style-type: none"> - Conduct the interceptor design and development to include completion of design trade studies and engineering analyses - Conduct analysis of design performance countering the allocated threats - Conduct activities to support achieving Knowledge Points and milestone technical review entrance/exit criteria - Conduct parts testing, including radiation/suitability testing in support of final design - Conduct Parts, Materials, and Processes Control Board review and approval - Conduct incremental delivery of the Development, Security, and Operations software factory for continuous delivery and integration of Next Generation Interceptor software updates <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Complete AUR PDR and initiate post PDR activities - Continue flight-like sub-assembly testing - Continue part and sub-assembly qualification testing - Continue executing test and prototyping - Continue Critical Technology Element designs and risk mitigations in support of CDRs - Continue to purchase long lead materials for the initial AUR test articles - Continue to develop Next Generation Interceptor AUR transportation and emplacement concept of operations including peculiar support equipment requirements - Mature Next Generation Interceptor to Ground-Based Midcourse Defense (GMD) Weapon System interface specifications and descriptions - Continue design validation and parts survivability testing - Initiate sub-assembly CDRs - Deliver Minimum Software Capability Release - Continue proof of manufacturability for major sub-systems - Update initial reliability and availability/supportability assessment <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Complete boost vehicle design - Complete multiple kill vehicle payload design - Deliver software capability release updates - Deliver updated high-fidelity models and simulations representing the integrated AUR design - Complete integrated AUR design 					

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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 0604874C / <i>Improved Homeland Defense Interceptors</i>		Project (Number/Name) MD80 / <i>Next Generation Interceptor Development (NGI)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Complete KP #2, which includes sub-assembly qualifications, verification of AUR performance using verified models, and completion of propulsion and sensor performance testing - Complete AUR CDR - Complete boost vehicle qualification testing - Complete payload qualification testing - Initiate integrated AUR qualification testing - Generate evidence for KP #3, which includes live sequence demonstrations, confirmation of AUR supportability, software, and completion of subsystem qualification - Complete AUR Supportability Demonstrations - Initiate pre-production planning and related logistics life cycle evaluation - Continue acquisition of materials for AUR test articles <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects the selection of a single Prime contractor to continue development through CDR and beyond.</p>					
<p>Title: Program Operations</p> <p align="right">Articles:</p> <p>Description: Program Operations provides:</p> <ul style="list-style-type: none"> - Technical and business management support, financial management, cost and schedule performance analysis, cost estimation and analyses, configuration management, and integration activities to ensure the program meets cost, schedule, and performance goals - GMD Next Generation Interceptor program compliance with internal and external direction, policies, and regulations to deliver critical capability via a consistent and disciplined process while maintaining a competitive environment to reduce technical risk throughout the design development activities and secure competitive production pricing - Mission assurance and manufacturing processes to include quality, configuration management, manufacturing, and safety in all phases of the system life cycle, throughout the supply chain, and at all levels of assembly emphasizing high yield rates which minimize test and rework costs - Technical and testing oversight; cyber security support; hardware and software quality, safety, and mission assurance; and integrated logistics support <p>FY 2024 Plans: SEE ABOVE</p> <p>FY 2025 Plans:</p>			20.536 -	22.094 -	18.993 -

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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 0604874C / <i>Improved Homeland Defense Interceptors</i>	Project (Number/Name) MD80 / <i>Next Generation Interceptor Development (NGI)</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
SEE ABOVE			
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Decrease from FY 2024 to FY 2025 reflects a reduction to contractor support services due to transitioning from two Next Generation Interceptor Government management teams to a single team and retaining support for close out of the contract not selected to continue.			
Accomplishments/Planned Programs Subtotals	1,759.383	2,056.063	1,631.788

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

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• 0208866C: <i>BMD Midcourse Defense Operations and Maintenance</i>	187.045	174.789	184.280	-	184.280	164.687	162.851	222.765	249.896	Continuing	Continuing
• 0208866C: <i>MD08: GMD Procurement</i>	11.300	0.000	20.796	-	20.796	88.586	82.206	0.000	0.000	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
• 0604887C: <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>	84.335	41.824	40.006	-	40.006	50.994	122.374	126.853	137.676	Continuing	Continuing

Remarks

D. Acquisition Strategy

Ground-Based Midcourse Defense's (GMD's) overarching acquisition strategy included a competitive source selection to develop and test an integrated All Up Round (AUR) interceptor to meet Warfighter requirements and defeat the 2030 and beyond threat. Missile Defense Agency (MDA) competitively awarded two best value contracts for the Next Generation Interceptor to Northrop Grumman (known as Next Generation Interceptor Gold Program) and Lockheed Martin (known as Next Generation Interceptor Black Program) in March 2021. Each Contractor's design development and component testing led to completion of a PDR and KP #1, which provides significant risk reduction and confidence to select a single Next Generation Interceptor All Up Round design to proceed to the Critical Design Review and beyond. MDA established future knowledge points and flight tests to evaluate Next Generation Interceptor components and GMD Weapon System performance during continued development and to support future production decisions.

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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 0604874C / <i>Improved Homeland Defense Interceptors</i>	Project (Number/Name) MD80 / <i>Next Generation Interceptor Development (NGI)</i>
<p>The Next Generation Interceptor efforts include, but are not limited to, systems engineering; hardware, software, and firmware development; manufacturing, integration and checkout/test; and delivery of Next Generation Interceptors, culminating in an initial campaign of four intercept flight tests. Based on successful capability demonstration during multiple flight tests, MDA will seek progressive approvals from the Under Secretary of Defense for Acquisition and Sustainment to proceed with procurement of operational AURs.</p> <p>A contract option is available to extend efforts through December 2028 for activities and hardware to support Missile Defense System Ground Testing, as well as activities and hardware to deliver up to ten (10) Next Generation Interceptor units in an integrated AUR configuration to support the corresponding Missile Defense System flight test campaigns. Contemporaneous with KP #1, the contractors will submit a proposal for an additional test article and 20 production units, broken into two production lots.</p> <p>The Next Generation Interceptor competitive acquisition strategy met its intended goals for the technology development phase with reduced technical risk, acceleration of technical maturity, and encouraged competitive efficiencies; this supports the Department's ability to field this critical capability to negate the expanding threat for United States Northern Command's (USNORTHCOM's) operational timeline.</p> <p>In addition to the Next Generation Interceptor Contract, GMD's overarching Acquisition Strategy includes a GMD Weapon System (GWS) Contract and Systems Integration, Test, and Readiness (SITR) Contract to execute the full scope of the GMD development efforts for Missile Defense System incremental delivery. Each contract is structured to break out major efforts into separate Contract Line Item Numbers with individual incentives for management insight, accounting, and property accountability.</p> <p>Other Enabling GMD Acquisition Strategies (budgeted for in PE 0603882C).</p> <p>The GWS Contract was competitively awarded to Northrop Grumman Systems Corporation in July 2022 to provide design, development, production, product-level testing, sustainment planning, and maintenance of the current GMD Weapon System products including development to integrate the Next Generation Interceptor into the GMD Weapon System. The GWS contractor is responsible for developing weapon system solutions, including fire control and communication systems improvements, required to update the legacy system to remain effective while Next Generation Interceptor is under development, as well as preparing for the integration of Next Generation Interceptor and other future Missile Defense System capabilities. The GWS Contract will provide the Warfighter capability to operate the GMD Weapon System with a mixed fleet of Ground Based Interceptors and Next Generation Interceptors, and enable communications exchanges between the GMD Weapon System and in-flight payloads. All of this must be accomplished while maintaining a robust cyber defense network capable of detecting and defending against current and future cybersecurity threats.</p> <p>The MDA also competitively awarded the SITR Contract to provide, along with the Technical Direction Agent, a synergistic approach in executing the GMD engineering, integration, test, and readiness of the integrated GMD Weapon System, which operates with the current Ground Based Interceptor and is adding infrastructure for the integration and testing of Next Generation Interceptor. The SITR contractor is the Government's partner for day-to-day operation and sustainment of the fielded GMD Weapon System alongside the USNORTHCOM Warfighters. While the Government maintains overall weapon system integration responsibilities and authority, the SITR</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
0400 / 4	PE 0604874C / Improved Homeland Defense Interceptors	MD80 / Next Generation Interceptor Development (NGI)
contractor assumes a supporting role aiding with overall GMD integration including physical and logical integration of the GMD Components, to include Next Generation Interceptor, and Missile Defense System enterprise level integration, planning, and execution of all necessary testing to verify and validate requirements compliance.		

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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 0604874C / Improved Homeland Defense Interceptors						Project (Number/Name) MD80 / Next Generation Interceptor Development (NGI)			
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
Next Generation Interceptor Development (NGI) - NGI Development & System Support	C/CPIF	Lockheed-Martin, Northrop-Grumman : Various	898.806	0.000		0.000		0.000		-		0.000	0.000	898.806	0.000
Next Generation Interceptor Development (NGI) - NGI Development - Lockheed Martin	C/CPIF	LOCKHEED MARTIN CORPORATION : Various	404.030	873.056	Nov 2022	863.115	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Next Generation Interceptor Development (NGI) - NGI Development - Northrop Grumman	C/CPIF	NORTHROP GRUMMAN : Various	402.806	856.292	Nov 2022	1,164.619	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Next Generation Interceptor Development (NGI) - NGI Development - TBD	C/CPIF	TBD : TBD	0.000	0.000		0.000		1,593.279	Nov 2024	-		1,593.279	Continuing	Continuing	Continuing
Subtotal			1,705.642	1,729.348		2,027.734		1,593.279		-		1,593.279	Continuing	Continuing	N/A
Remarks Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year. FY 2025 funding request listed as performer TBD will be allocated to either Lockheed Martin or Northrop Grumman after selection.															
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
Next Generation Interceptor Development (NGI) - Development Lab & System Support - Naval Surface Warfare Center	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) CRANE DIVISION : IN	0.000	1.973	Nov 2022	0.000		0.000		-		0.000	0.000	1.973	0.000
Next Generation Interceptor Development	MIPR	DOD - USA - COMBAT CAPABILITIES	4.257	2.750	Jan 2023	6.235	Jan 2024	5.138	Nov 2024	-		5.138	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 0604874C / Improved Homeland Defense Interceptors				Project (Number/Name) MD80 / Next Generation Interceptor Development (NGI)					
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
(NGI) - Development Lab & System Support - CCDC		DEVELOPMENT COMMAND (CCDC) : AL													
Next Generation Interceptor Development (NGI) - Development Lab & System Support - Dept of Energy (DOE)	MIPR	DOE - BROOKHAVEN NATIONAL LABORATORY (BNL) : NY	0.000	3.778	Nov 2022	0.000		0.000		-		0.000	0.000	3.778	0.000
Next Generation Interceptor Development (NGI) - Development Lab & System Support - NASA	MIPR	NASA - NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA) : NM	0.000	0.000		0.000		12.005	Nov 2024	-		12.005	Continuing	Continuing	Continuing
Next Generation Interceptor Development (NGI) - Development Lab & System Support - Various	Various	Various : Various	1.620	0.514	Jan 2023	0.000		0.893	Nov 2024	-		0.893	Continuing	Continuing	Continuing
Next Generation Interceptor Development (NGI) - Development Lab & System Support - WSMR	MIPR	DOD - USA - WHITE SANDS MISSILE RANGE (WSMR) : NM	0.458	0.484	Nov 2022	0.000		1.480	Nov 2024	-		1.480	Continuing	Continuing	Continuing
Program Operations - Government Civilian Salaries/Travel	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	19.098	8.700	Oct 2022	9.546	Oct 2023	10.938	Oct 2024	-		10.938	Continuing	Continuing	Continuing
Subtotal			25.433	18.199		15.781		30.454		-		30.454	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-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 0604874C / Improved Homeland Defense Interceptors				Project (Number/Name) MD80 / Next Generation Interceptor Development (NGI)					
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Operations - Contract Support Services - Parsons	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	10.117	10.320	Nov 2022	11.146	Nov 2023	4.548	Nov 2024	-		4.548	Continuing	Continuing	Continuing
Program Operations - Contract Support Services - Various	C/CPFF	Various : Various	1.565	1.516	Nov 2022	1.402	Nov 2023	2.026	Nov 2024	-		2.026	Continuing	Continuing	Continuing
Program Operations - Contract Support Services - nTSI	C/CPFF	NTSI LLC : AL	0.000	0.000		0.000		1.481	Nov 2024	-		1.481	Continuing	Continuing	Continuing
Subtotal			11.682	11.836		12.548		8.055		-		8.055	Continuing	Continuing	N/A
Remarks															
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.															
			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			1,742.757	1,759.383		2,056.063		1,631.788		-		1,631.788	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 0604874C / Improved Homeland Defense Interceptors										Project (Number/Name) MD80 / Next Generation Interceptor Development (NGI)									
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							
Next Generation Interceptor TD Phase										◇	◇	◇	◇	◇	◇	◇													
Next Generation Interceptor PD Phase													◇	◇	◇	◇	◇	◇	◇	◇	◇								
Next Generation Interceptor IP Phase																					◇	◇	◇	◇	◇	◇			
Next Generation Interceptor (Black) PDR													▲																
Next Generation Interceptor (Gold) PDR														△															
Next Generation Interceptor (TBD) CDR																	◇	◇											

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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 0604874C / Improved Homeland Defense Interceptors	Project (Number/Name) MD80 / Next Generation Interceptor Development (NGI)	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Next Generation Interceptor TD Phase	1	2023	3	2024
Next Generation Interceptor PD Phase	3	2024	2	2027
Next Generation Interceptor IP Phase	2	2027	4	2029
Next Generation Interceptor (Black) PDR	4	2023	4	2023
Next Generation Interceptor (Gold) PDR	2	2024	2	2024
Next Generation Interceptor (TBD) CDR	3	2025	4	2025

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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 0604874C / Improved Homeland Defense Interceptors				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: Program Wide Support	132.082	36.345	74.775	65.333	-	65.333	43.731	58.531	28.138	18.899	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency Program Elements (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 Missile Defense Agency (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	36.345	74.775	65.333
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 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			

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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 0604874C / <i>Improved Homeland Defense Interceptors</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>unified communications support; materiel and readiness and central property management of equipment; the 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.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> N/A</p>			
Accomplishments/Planned Programs Subtotals		36.345	74.775
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0604874C / Improved Homeland Defense Interceptors						Project (Number/Name) MD40 / Program Wide Support			
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities and Maintenance #3	MIPR	Army Corps of Engineers/ Huntsville : Various	0.000	0.000		0.000		1.729	Nov 2024	-		1.729	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services #2	C/CPFF	DISTRICT FLEET, LLC : Various	0.000	0.000		1.049	Nov 2023	0.000		-		0.000	0.000	1.049	0.000
Program Wide Support - Agency Operations and Support Services #3	Various	Various : Various	0.000	0.000		0.014	Nov 2023	0.000		-		0.000	0.000	0.014	0.000
Program Wide Support - Agency Operations and Support Services #4	C/CPFF	Cherokee Nation Red Wing : Various	0.000	0.000		1.337	Nov 2023	0.000		-		0.000	0.000	1.337	0.000
Program Wide Support - Agency Facilities and Maintenance	MIPR	Army Garrison Resource : AL, VA	33.941	13.410	Nov 2022	13.488	Nov 2023	0.000		-		0.000	0.000	60.839	0.000
Program Wide Support - Agency Facilities and Maintenance #2	MIPR	NAVY, UNITED STATES DEPARTMENT OF THE : VA	0.000	0.000		0.000		1.444	Nov 2024	-		1.444	Continuing	Continuing	Continuing
Program Wide Support - Agency Facilities and Maintenance SRM	MIPR	Army Corps of Engineers : Multi: AK, AL, CA, CO, HI, NY, VA	3.775	0.093	Nov 2022	3.811	Nov 2023	0.000		-		0.000	0.000	7.679	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 0604874C / Improved Homeland Defense Interceptors						Project (Number/Name) MD40 / Program Wide Support			
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operation and Support Services	Various	Various : Various	65.834	19.709	Nov 2022	0.000		0.000		-		0.000	0.000	85.543	0.000
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	2.456	1.726	Oct 2022	24.819	Oct 2023	33.322	Oct 2024	-		33.322	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training #2	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	0.000	0.000		0.000		1.343	Nov 2024	-		1.343	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services #6	MIPR	Army Corps of Engineers : Various	0.000	0.000		1.036	Nov 2023	0.000		-		0.000	0.000	1.036	0.000
Program Wide Support - Agency Operations and Support Services #7	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : Various	0.000	0.000		0.000		10.017	Nov 2024	-		10.017	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services #8	C/CPFF	STRATEGIC ALLIANCE SOLUTIONS LLC : Various	0.000	0.000		0.000		11.346	Nov 2024	-		11.346	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations, Sustainment and GPC	C/FFP	Facilities Resource Group : Multi: AK, AL, CA, HI, NY, VA	3.560	1.407	Nov 2022	2.652	Nov 2023	0.000		-		0.000	0.000	7.619	0.000
Subtotal			109.566	36.345		48.206		59.201		-		59.201	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 0604874C / Improved Homeland Defense Interceptors				Project (Number/Name) MD40 / Program Wide Support				

Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	N/A

Remarks
N/A

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Other Agency Services	C/CPFF	BCF SOLUTIONS, INC. : AL	22.516	0.000		5.537	Nov 2023	6.132	Nov 2024	-		6.132	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : AL	0.000	0.000		21.032	Nov 2023	0.000		-		0.000	0.000	21.032	0.000
Subtotal			22.516	0.000		26.569		6.132		-		6.132	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	132.082	36.345	74.775	65.333	-	65.333	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Significant Event Complete ▲ Significant Event Planned △				Milestone Decision Complete ★ Milestone Decision Planned ☆				Element Test Complete ◆ Element Test Planned ◇				System Level Test Complete ● System Level Test Planned ○				Complete Activity ◆ Planned Activity ◇																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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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 0604874C / Improved Homeland Defense Interceptors	Project (Number/Name) MD40 / Program Wide Support	

Schedule Details

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

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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 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>
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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	337.108	67.789	47.577	25.673	-	25.673	61.982	120.465	56.615	55.131	Continuing	Continuing
MT07: <i>THAAD Test</i>	320.079	65.256	45.886	24.685	-	24.685	59.363	115.453	54.070	52.558	Continuing	Continuing
MD40: <i>Program Wide Support</i>	17.029	2.533	1.691	0.988	-	0.988	2.619	5.012	2.545	2.573	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Decrease from FY 2024 to FY 2025 is in accordance with the current Integrated Master Test Plan (IMTP).

A. Mission Description and Budget Item Justification

Ballistic Missile Defense Terminal Defense Segment Test provides the Terminal High Altitude Area Defense (THAAD) program's participation in Missile Defense System Flight Tests and Ground Tests in accordance with the IMTP. THAAD Test coordinates with Operational Test Agencies, conducts pretest planning, coordination and analysis, conducts flight test operations, performs post-flight test reporting, and performs data distribution and storage.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>
Previous President's Budget	69.762	47.577	65.379	-	65.379
Current President's Budget	67.789	47.577	25.673	-	25.673
Total Adjustments	-1.973	0.000	-39.706	-	-39.706
• 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	0.000	0.000			
• Other Adjustment	-1.973	0.000	-39.706	-	-39.706

Change Summary Explanation

The decrease in FY 2025 is in accordance with the current IMTP.

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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 0604876C / Ballistic Missile Defense Terminal Defense Segment Test				Project (Number/Name) MT07 / THAAD 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
MT07: THAAD Test	320.079	65.256	45.886	24.685	-	24.685	59.363	115.453	54.070	52.558	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note Decrease from FY 2024 to FY 2025 is in accordance with the current Integrated Master Test Plan (IMTP).												
A. Mission Description and Budget Item Justification Terminal High Altitude Area Defense (THAAD) Test conducts Missile Defense System Flight Tests and Ground Tests with other Missile Defense System elements (such as Army Navy / Transportable Radar Surveillance and Control (AN/TPY-2), Missile Defense System Command, Control, Battle Management, and Communication (C2BMC), Phased Array Tracking Intercept of Target (PATRIOT), and Aegis) in accordance with the IMTP. THAAD Test coordinates with Operational Test Agencies, conducts all pre and post flight test, ground test, cyber security enhancements, and wargames and exercises requirements.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: Flight Test Execution Articles: Description: Performs all requirements to support flight test execution such as mission planning, pre-flight integration testing, conduct of readiness reviews, test asset transportation, flight test execution and data collection, post flight test reporting and data distribution in accordance with the IMTP. Specific and/or unique planned 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 is in accordance with the current IMTP.									49.884	26.869	8.915	
									-	-	-	
Title: Ground Test Execution Articles: Description: Ground Test (GT) Execution includes:									6.898	8.214	4.003	
									-	-	-	

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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 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>		Project (Number/Name) MT07 / <i>THAAD Test</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - THAAD participation in Missile Defense System GT operational scenario events to validate THAAD's ability to conduct coordinated engagements with Aegis and PATRIOT operating with C2BMC and AN/TPY-2. - Pre-mission planning, pre- and post-mission analyses, reporting, and execution to support Missile Defense System Ground and Flight Test campaigns. - GT of element hardware and software prior to hardware-in-the-loop testing and enable a continuous capacity based Sprint vs. lengthy individual GT campaign environment, enabling a more efficient process for ground testing and reducing test cycle time. - Continued performance assessments to evaluate system performance and interoperability within the Missile Defense System. - Participation in Wargames and Exercises that support the Combatant Commands with modeling and simulations and subject matter expertise during exercise events. Continue to assist in developing/refining Tactics, Techniques, and Procedures and Pre-Planned Responses to incorporate in future events. Demonstrate THAAD capability to the warfighter community in the Integrated Air and Missile Defense environment. <p>Specific and/or unique planned 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 is in accordance with the current IMTP.</p>					
<p>Title: Resources</p> <p align="right">Articles:</p> <p>Description: Resources includes:</p> <ul style="list-style-type: none"> - On-site range support for THAAD maintenance, repair, and pre-mission analysis to ensure THAAD test asset readiness. - Data management, facilities operations, and post-test reporting in support of Missile Defense System tests to ensure data collection and readiness for mission execution. - Performance Assessments to evaluate system performance and interoperability within the Missile Defense System. <p>Specific and/or unique planned accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p>			4.369 -	7.749 -	8.560 -

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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 0604876C / Ballistic Missile Defense Terminal Defense Segment Test	Project (Number/Name) MT07 / THAAD Test		
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: Increase from FY 2024 to FY 2025 is in accordance with the current IMTP.				
Title: Wargames and Exercises Articles: Description: Wargames and Exercises support the Combatant Commands with model and simulations and subject matter expertise during exercise events. Continue to assist in developing/refining Tactics, Techniques, and Procedures and Pre-Planned Responses to incorporate in future events. Demonstrate THAAD capability to the warfighter community in the Integrated Air and Missile Defense environment. This requirement was realigned to the Ground Test Execution accomplishment starting in FY 2024. Specific and/or unique planned accomplishments to each FY are as follows: FY 2024 Plans: N/A. FY 2025 Plans: N/A. FY 2024 to FY 2025 Increase/Decrease Statement: N/A.		0.425 -	0.000 -	0.000 -
Title: Test Program Operations Articles: Description: Program Operations provides strategic planning, program integration, acquisition, engineering, financial management, internal reviews and audits, and program assessments for THAAD Test Activities. Specific and/or unique planned accomplishments to each FY are as follows: FY 2024 Plans:		3.680 -	3.054 -	3.207 -

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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 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>				Project (Number/Name) MT07 / <i>THAAD Test</i>				
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										65.256	45.886	24.685
C. Other Program Funding Summary (\$ in Millions)												
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>	
• 0208866C: MD07: THAAD Procurement	239.994	216.782	246.995	-	246.995	476.227	645.357	656.946	674.361	Continuing	Continuing	
• 0208866C: THAAD Operations and Maintenance	86.037	89.297	91.790	-	91.790	93.995	96.024	97.945	99.904	Continuing	Continuing	
• 0603881C: Ballistic Missile Defense Terminal Defense Segment	194.264	220.311	367.279	-	367.279	543.868	554.429	464.018	314.936	Continuing	Continuing	
• 0603914C: Ballistic Missile Defense Test	376.650	360.455	367.491	-	367.491	418.514	383.362	435.626	438.825	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
<p>THAAD awards Task Orders on the Advanced Capability Development (ACD) Indefinite Delivery Indefinite Quantity (IDIQ) contract for the continuation of THAAD development and test as described and approved in the Missile Defense Agency IMTP. The discrete task orders allow management and tracking of IMTP-related work. The ACD contract ordering period ends in January 2025, with the final delivery period for all ordered work to end in January 2026. As such, the THAAD program plans to award a new IDIQ contract called THAAD Follow on Development Contract (TFODC) by January 2025. TFODC will support discrete task orders for IMTP-related work beyond the ACD delivery period.</p> <p>THAAD also utilizes other contracts with industry as well as agreements with other U.S. Government organizations in order to develop, test and upgrade the THAAD Weapon system.</p>												

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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 0604876C / Ballistic Missile Defense Terminal Defense Segment Test				Project (Number/Name) MT07 / THAAD Test					
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Test and Evaluation (\$ 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
Flight Test Execution - Execution, Support and Planning (CCDC)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	7.525	3.852	Nov 2022	6.189	Nov 2023	0.433	Nov 2024	-		0.433	Continuing	Continuing	Continuing
Flight Test Execution - Execution, Support and Planning (RTC)	MIPR	DOD - USA - REDSTONE TEST CENTER (RTC) : AL	0.877	2.200	Nov 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Flight Test Execution - Execution, Support and Planning (Various)	Various	Various : Various	1.642	25.878	Nov 2022	3.492	Nov 2023	4.318	Nov 2024	-		4.318	Continuing	Continuing	Continuing
Flight Test Execution - Execution, Support and Planning (WSMR)	MIPR	DOD - USA - WHITE SANDS MISSILE	0.000	1.215	Nov 2022	3.856	Nov 2023	4.164	Nov 2024	-		4.164	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 0604876C / Ballistic Missile Defense Te rminal Defense Segment Test				Project (Number/Name) MT07 / THAAD Test					
Test and Evaluation (\$ 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
		RANGE (WSMR) : NM													
Flight Test Execution - Planning, Analysis, and Execution	SS/IDIQ	LOCKHEED MARTIN CORPORATION : AL	84.674	12.026	Nov 2022	13.332	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Flight Test Execution - Planning, Analysis, and Execution (DMVA)	SS/IDIQ	ALASKA DEPARTMENT OF MILITARY AND VETERANS AFFAIRS (DMVA) : AK	0.121	4.713	Nov 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Flight Test Execution - Prior Years Execution, Support and Planning	Various	MDA / US Army Combat Capabilities Development Command (CCDC) / KLC / RTS : AL / CO / AK / HI / Wake Island / Kwajalein	121.552	0.000		0.000		0.000		-		0.000	0.000	121.552	121.552
Ground Test Execution - Ground Test Support	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) : AL	6.910	6.298	Nov 2022	7.751	Nov 2023	3.562	Nov 2024	-		3.562	Continuing	Continuing	Continuing
Ground Test Execution - Ground Test Support - Various	Various	Various : Various	32.798	0.600	Nov 2022	0.000		0.000		-		0.000	0.000	33.398	33.398
Ground Test Execution - Wargames and Exercises	MIPR	DOD - USA - SPACE AND MISSILE DEFENSE COMMAND (SMDC) : AL	0.000	0.000		0.463	Nov 2023	0.441	Nov 2024	-		0.441	Continuing	Continuing	Continuing
Resources - Test and Range Infrastructure (CCDC)	MIPR	DOD - USA - COMBAT CAPABILITIES DEVELOPMENT	0.000	0.000		3.252	Nov 2023	5.431	Nov 2024	-		5.431	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 0604876C / Ballistic Missile Defense Te rminal Defense Segment Test				Project (Number/Name) MT07 / THAAD Test					
Test and Evaluation (\$ 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
		COMMAND (CCDC) : AL													
Resources - Test and Range Infrastructure (LM)	MIPR	LOCKHEED MARTIN CORPORATION : AL	2.682	1.466	Nov 2022	2.467	Nov 2023	1.785	Nov 2024	-		1.785	Continuing	Continuing	Continuing
Resources - Test and Range Infrastructure (RTC)	MIPR	DOD - USA - REDSTONE TEST CENTER (RTC) : AL	0.000	0.000		1.300	Nov 2023	0.600	Nov 2024	-		0.600	Continuing	Continuing	Continuing
Resources - Test and Range Infrastructure (Various)	Various	Various : Various	36.971	2.903	Nov 2022	0.730	Nov 2023	0.744	Nov 2024	-		0.744	Continuing	Continuing	Continuing
Wargames and Exercises - Wargames and Exercises	MIPR	DOD - USA - SPACE AND MISSILE DEFENSE COMMAND (SMDC) : AL	2.481	0.425	Nov 2022	0.000		0.000		-		0.000	0.000	2.906	2.906
Test Program Operations - All Prior Years	Various	Various : Various	17.670	0.000		0.000		0.000		-		0.000	0.000	17.670	17.670
Test Program Operations - Contractor Support Services	C/CPFF	MP SOLUTIONS, LLC : VA	3.440	3.440	Nov 2022	2.852	Nov 2023	2.946	Nov 2024	-		2.946	Continuing	Continuing	Continuing
Test Program Operations - Test Program Operations (Various)	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	0.736	0.240	Nov 2022	0.202	Nov 2023	0.261	Nov 2024	-		0.261	Continuing	Continuing	Continuing
Subtotal			320.079	65.256		45.886		24.685		-		24.685	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 0604876C / Ballistic Missile Defense Terminal Defense Segment Test						Project (Number/Name) MT07 / THAAD Test			
Management Services (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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			320.079	65.256		45.886		24.685		-		24.685	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					R-1 Program Element (Number/Name)										Project (Number/Name)									
0400 / 4					PE 0604876C / Ballistic Missile Defense Terminal Defense Segment Test										MT07 / THAAD Test									
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							
GTD-08a (N/I) (Missile Defense System Ground Test)					◆																			
GTI-08b (N/I)								◇																
GTD-08b (N/I)									◇	◇														
GTI-ISR (23) (Missile Defense System Ground Test)								◇																
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)										◇														
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)											◇													
FTX-28 E1 (TH, DT/OT Tracking Exercise Flight Test)												△												
FTX-28 E3 (TH, DT/OT Tracking Exercise Flight Test)												△												
GTD-13 (N/I) (Missile Defense System Ground Test)												◇												
GTI-12 (E/C)												◇												
GTD-12 (E/C) (Missile Defense System Ground Test)												◇												
GTI-ASI (26) (Missile Defense System Ground Test)												◇												
GTI-14 Sprint 1 (N/I)													◇											
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)														◇										
FTX-28 E2 (TH, DT/OT Tracking Exercise Flight Test)														△										
TH CTV-04														△										
FTT-26 (MRBM T1)														△										
GTD-14 (N/I) ((Missile Defense System Ground Test)															◇									
GTI-ISR (27) (Missile Defense System Ground Test)															◇									
GTI-15 (E/C)																◇								
FTT-24 (Black Dagger)																	△							
GTD-15 (E/C)																		◇						
GTI-16 Sprint 1 (N/I)																			◇					
GTI-ASI (28)																				◇				

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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 0604876C / Ballistic Missile Defense Terminal Defense Segment Test										Project (Number/Name) MT07 / THAAD Test									
Significant Event Complete ▲		Significant Event Planned △		Milestone Decision Complete ★		Milestone Decision Planned ☆		Element Test Complete ◆		Element Test Planned ◇		System Level Test Complete ●		System Level Test Planned ○		Complete Activity ◆		Planned Activity ◇											
										FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029							
TH CTV-03 (TH Flight Test)																						△							
GTI-16 Sprint 2 (N/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 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>	Project (Number/Name) MT07 / <i>THAAD Test</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GTD-08a (N/I) (Missile Defense System Ground Test)	1	2023	1	2023
GTI-08b (N/I)	3	2024	3	2024
GTD-08b (N/I)	4	2024	1	2025
GTI-ISR (23) (Missile Defense System Ground Test)	3	2024	3	2024
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)	2	2025	2	2025
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)	4	2025	4	2025
FTX-28 E1 (TH, DT/OT Tracking Exercise Flight Test)	1	2026	1	2026
FTX-28 E3 (TH, DT/OT Tracking Exercise Flight Test)	1	2026	1	2026
GTD-13 (N/I) (Missile Defense System Ground Test)	2	2026	2	2026
GTI-12 (E/C)	2	2026	2	2026
GTD-12 (E/C) (Missile Defense System Ground Test)	3	2026	3	2026
GTI-ASI (26) (Missile Defense System Ground Test)	3	2026	3	2026
GTI-14 Sprint 1 (N/I)	4	2026	4	2026
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)	3	2027	3	2027
FTX-28 E2 (TH, DT/OT Tracking Exercise Flight Test)	3	2027	3	2027
TH CTV-04	3	2027	3	2027
FTT-26 (MRBM T1)	3	2027	3	2027
GTD-14 (N/I) ((Missile Defense System Ground Test)	4	2027	4	2027
GTI-ISR (27) (Missile Defense System Ground Test)	4	2027	4	2027
GTI-15 (E/C)	1	2028	1	2028
FTT-24 (Black Dagger)	2	2028	2	2028
GTD-15 (E/C)	3	2028	3	2028

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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 0604876C / Ballistic Missile Defense Te
rminal Defense Segment Test

Project (Number/Name)

MT07 / THAAD Test

	Start		End	
Events	Quarter	Year	Quarter	Year
GTI-16 Sprint 1 (N/I)	4	2028	4	2028
GTI-ASI (28)	4	2028	4	2028
TH CTV-03 (TH Flight Test)	2	2029	2	2029
GTI-16 Sprint 2 (N/I)	3	2029	3	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 0604876C / Ballistic Missile Defense Te rminal Defense Segment Test				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: Program Wide Support	17.029	2.533	1.691	0.988	-	0.988	2.619	5.012	2.545	2.573	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency Program Elements (PE) 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)

Title: Program Wide Support		FY 2023	FY 2024	FY 2025
Articles:		2.533	1.691	0.988
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		-	-	-

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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 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p>FY 2024 Plans: - SEE ABOVE.</p> <p>FY 2025 Plans: - SEE ABOVE.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: PWS is allocated on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year. Decrease from FY 2024 to FY 2025 reflects PWS FTEs funded by an alternate Agency PE.</p>			
Accomplishments/Planned Programs Subtotals		2.533	1.691
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>						Project (Number/Name) MD40 / <i>Program Wide Support</i>			
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations Management Support	MIPR	DOD - DEFENSE FINANCE AND ACCOUNTING SERVICES (DFAS) : IN	1.054	1.917	Dec 2022	1.691	Dec 2023	0.000		-		0.000	0.000	4.662	0.000
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	C/CPFF	Various : VA	4.174	0.000		0.000		0.000		-		0.000	0.000	4.174	0.000
Program Wide Support - Agency Operations and Support Services	C/CPFF	YORKTOWN SYSTEMS GROUP, INC. : Multi: AL, VA	11.801	0.616	Nov 2022	0.000		0.000		-		0.000	0.000	12.417	0.000
Subtotal			17.029	2.533		1.691		0.000		-		0.000	0.000	21.253	N/A
Remarks N/A															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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 0604876C / Ballistic Missile Defense Terminal Defense Segment Test					Project (Number/Name) MD40 / Program Wide Support				
Test and Evaluation (\$ 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
<u>Remarks</u> N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services, includes FFRDC/UARC	C/CPFF	YORKTOWN SYSTEMS GROUP, INC. : AL	0.000	0.000		0.000		0.988	Dec 2024	-		0.988	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		0.988		-		0.988	Continuing	Continuing	N/A
<u>Remarks</u> 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			17.029	2.533		1.691		0.988		-		0.988	Continuing	Continuing	N/A
<u>Remarks</u> 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 0604876C / Ballistic Missile Defense Terminal Defense Segment Test										Project (Number/Name) MD40 / Program Wide Support									
Significant Event Complete ▲				Milestone Decision Complete ★				Element Test Complete ◆				System Level Test Complete ●				Complete Activity ◆													
Significant Event Planned △				Milestone Decision Planned ☆				Element Test Planned ◇				System Level Test Planned ○				Planned Activity ◇													
										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 0604876C / Ballistic Missile Defense Terminal Defense Segment Test	Project (Number/Name) MD40 / Program Wide Support	

Schedule Details

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

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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 0604878C / <i>Aegis BMD Test</i>
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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	868.489	165.619	193.484	135.019	-	135.019	169.731	143.292	154.413	168.707	Continuing	Continuing
MT09: <i>AEGIS BMD Test</i>	831.993	158.982	186.236	129.436	-	129.436	162.558	137.331	147.471	160.834	Continuing	Continuing
MD40: <i>Program Wide Support</i>	36.496	6.637	7.248	5.583	-	5.583	7.173	5.961	6.942	7.873	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Decrease from FY 2024 to FY 2025 is in accordance with the current Integrated Master Test Plan (IMTP).

A. Mission Description and Budget Item Justification

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

This Program Element works with all U.S. Armed Services that participate in the Missile Defense System level Operational Test Agency Team. With the support of the Director of Operational Test and Evaluation, the Missile Defense Agency (MDA) has developed a test program to improve confidence in missile defense capabilities under development and ensure the capabilities transferred to the warfighter are operationally effective, suitable, and survivable. As part of the MDA's rigorous test program, System Pre-Flight predictions provide confidence in test execution by predicting element performance and exercising element interfaces. System Post-Flight Reconstruction replicates the Missile Defense System configuration, actual environmental conditions, and target dynamics observed in flight to anchor Modeling and Simulation results. The IMTP is event-oriented and extends until the collection of all identified data is completed ensuring adequate test investments.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency				Date: March 2024	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0604878C / Aegis BMD Test			
B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	175.619	193.484	135.473	-	135.473
Current President's Budget	165.619	193.484	135.019	-	135.019
Total Adjustments	-10.000	0.000	-0.454	-	-0.454
• 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	0.000	0.000			
• Other Adjustment	-10.000	0.000	-0.454	-	-0.454
Change Summary Explanation					
-Increase in FY 2025 is in accordance with the current IMTP.					

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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 0604878C / Aegis BMD Test				Project (Number/Name) MT09 / AEGIS BMD 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
MT09: AEGIS BMD Test	831.993	158.982	186.236	129.436	-	129.436	162.558	137.331	147.471	160.834	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Decrease from FY 2024 to FY 2025 is in accordance with the current Integrated Master Test Plan (IMTP). FY 2025 Pacific Deterrence Initiative funding has decreased by \$35.9 million due to the completion of the FEM-02 requirement.

A. Mission Description and Budget Item Justification

The FY 2023 Sea-Based Weapon Systems Test Program concentrates on critical IMTP flight tests that support the U.S. Navy, Weapon System Certification, and Missile Production Decision requirements. Sea-Based Weapon Systems will concentrate on Aegis baseline (BL) 9.C2 (Ballistic Missile Defense (BMD) 5.x) enhancements and Standard Missile (SM)-3 Block IIA testing.

The FY 2024 Sea-Based Weapon Systems Test Program concentrates on critical IMTP flight tests that support the U.S. Navy, Integrated Air and Missile Defense testing, Weapon System Certification, and Missile Production Decision requirements. Sea-Based Weapon Systems will concentrate on Aegis BL 9.C2 (BMD 5.x) enhancements, SM-3 Block IIA and IB testing, and conduct observations of Aegis BL 10 (BMD 6.x) and Regional Glide Phase Weapon System in order to support development of those programs. Additionally, FY 2024 efforts will support the appropriate flight tests to validate Missile Defense System capabilities on Guam.

The FY 2025 Sea-Based Weapon Systems Test Program concentrates on critical IMTP flight tests that support the U.S. Navy, Weapon System Certification, and Missile Production Decision requirements. Sea-Based Weapon Systems will concentrate on Aegis BL 9.C2 (BMD 5.x) enhancements to include Sea-Based Terminal capabilities, and SM-3 Block IIA and IB testing. Additionally, developmental testing will be conducted to make observations of Aegis BL 10 (BMD 6.x) and Regional Glide Phase Weapon System in order to support development of those programs.

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

	FY 2023	FY 2024	FY 2025
Title: Aegis BMD Flight Test Execution	79.414	140.101	86.818
Articles:	-	-	-
Description: Sea-Based Weapon Systems Flight Test Program performs comprehensive testing of Aegis BMD components and their interoperability with the Missile Defense System using accredited Modeling & Simulation (M&S) that provides the evidence required for the Missile Defense Agency (MDA) and Combatant Commanders to transition the capability to the Operational Capability Baseline. All flight testing is reflected in the R-4 schedule and the IMTP.			
Recurring Accomplishments include: -Prepare for and conduct Missile Defense System Flight Test events as reflected in the IMTP and the R-4 schedule. -Collect Aegis BMD data for M&S anchoring used in comprehensive flight testing.			

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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 0604878C / <i>Aegis BMD Test</i>		Project (Number/Name) MT09 / <i>AEGIS BMD Test</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<p>-Conduct Aegis BMD specific analysis during pre- and post-mission analysis phases to confirm pre-mission predictions of mission success and validate post-test results.</p> <p>-Conduct test milestone reviews to ensure readiness for test execution and accomplishment of test objectives.</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 in accordance with the current IMTP. FY 2025 Pacific Deterrence Initiative funding has decreased by \$35.9 million due to the completion of the FEM-02 requirement.</p>					
<p>Title: Aegis BMD Ground Test Execution</p> <p align="right">Articles:</p> <p>Description: Sea-Based Weapon Systems Ground Test (GT) Program performs comprehensive testing of Aegis BMD Components and their interoperability with the Missile Defense System using accredited M&S that provides the evidence required for the MDA and Combatant Commanders to transition the capability to the Operational Capability Baseline. More specifically, ground testing is used to collect data for Aegis BMD characterization and assessment, flight test risk reduction, and exploration of scenarios where flight testing is either impracticable or impossible.</p> <p>Recurring Accomplishments include:</p> <p>-Participate in BMD System GT to include pre-mission analysis, mission execution, and post-mission analysis.</p> <p>-Conduct planning to ensure Aegis Ashore Missile Defense Test Complex, Missile Defense System Test Bed San Diego, and Lockheed Martin Rotary and Mission Systems Computer Program Test Site capabilities support Aegis BMD testing, exercises, flight tests, and demonstration requirements. This includes upgrades to the ground testing labs to ensure compliance with operational and test baselines.</p> <p>-Conduct testing of U.S. Navy Command, Control, Communications, Computers Intelligence Systems and Aegis BMD baselines to ensure Missile Defense System interoperability.</p> <p>-Participate in System Level Ground Testing as an element of the layered Missile Defense System to collect data for Aegis BMD characterization and assessment.</p> <p>-Perform operation support of Hardware in the loop (HWIL) M&S for Element ground testing.</p>			25.523 -	18.998 -	23.640 -

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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 0604878C / Aegis BMD Test	Project (Number/Name) MT09 / AEGIS BMD Test		
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:					
FY 2024 Plans: -SEE ABOVE.					
FY 2025 Plans: -SEE ABOVE.					
FY 2024 to FY 2025 Increase/Decrease Statement: Increase from FY 2024 to FY 2025 provides ground testing lab upgrades to ensure compliance with operational and test baselines.					
Title: Aegis BMD Test Resources			38.622	20.632	11.144
Articles:			-	-	-
Description: This effort provides resources to conduct ground and flight testing to improve confidence in missile defense capabilities under development and ensure the capabilities transferred to the warfighter are operationally effective, suitable, and survivable.					
Recurring Accomplishments include: - Provide Core Test and Evaluation support for Sea-Based Weapon Systems missions and laboratories, field activities, range support activities, analysis activities, and shipboard and land-based test site test teams. - Provide Test & Evaluation infrastructure support for Sea-Based Weapon Systems Test Missions as reflected in the IMTP to collect truth data for post-event analysis. - Exercise tactical communications during testing to ensure interoperability with the Missile Defense System and Combatant Command systems. - Conduct test planning to include assessment of target requirements, and preparation of the range to ensure all missions are executable and apply to the technical program objectives. - Develop and execute risk-reduction activities to minimize or mitigate shipboard and missile test and programs risks. - Develop and execute data collection plans and supporting instrumentation requirements.					
Specific and/or unique accomplishments to each FY are as follows:					
FY 2024 Plans: -SEE ABOVE.					
FY 2025 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 0604878C / <i>Aegis BMD Test</i>	Project (Number/Name) MT09 / <i>AEGIS BMD Test</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
-SEE ABOVE.			
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 is in accordance with the current IMTP.			
Title: Engineering & Analysis		5.591	0.000
Articles:		-	-
Description: Engineering & Analysis Description: The Engineering and Analysis effort provides essential Missile Defense System ground and flight test event planning, execution, and evaluation activities for each test event.			
<p>Accomplishments:</p> <ul style="list-style-type: none"> - Design test architecture, define test objectives and evaluation criteria, define target requirements, and generate ground and flight test scenarios appropriate to the data collection requirements to assess Missile Defense System performance and anchor M&S. - Coordinate with Operational Test Agency to address, coordinate, and disposition test issues to achieve closure through recommended action plans. - Deliver Hardware-in-the-Loop (HWIL) M&S integration test cases. - Conduct HWIL M&S integration benchmarking, and integrate the Missile Defense System HWIL M&S framework with MDA and non-MDA Elements into the test event Missile Defense System architecture. - Integrate, test, and deliver end-to-end Missile Defense System simulations supporting ground test missions. - 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. - Provide test configuration management; risk assessments; and anomaly/deficiency review, assessment and closure. - Analyze test results to identify verification and validation data collection shortfalls and reassign objectives to future test events as required. - Document Missile Defense System test observations for system-level test anomalies and coordinate the resulting Missile Defense System Discrepancy Reports within the Failure Reporting, Analysis, and Corrective Action System - Provide the Quick Look Brief, Mission Data Review (MDR), and Executive MDR. - Provide long-range Missile Defense System IMTP planning and integration strategies related to overarching Missile Defense System analysis product integration. - Upgrade test analysis tools to enhance analysis capability and efficiency. - Populate the Modular Analysis and Reporting Suite database with data from the most recently completed tests to support as-built analysis and capability assessments. - Provide engineering analysis process software, to include System Coordination and Observation Reporting Environment, Software Change Analysis Review Environment, File Manager, and ManPower Loading. 			

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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 0604878C / Aegis BMD Test					Project (Number/Name) MT09 / AEGIS BMD Test		
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: FY 2024 Plans: No funding is requested in this Accomplishment beginning in FY 2024. FY 2025 Plans: No funding is requested in this Accomplishment in FY 2025. FY 2024 to FY 2025 Increase/Decrease Statement: N/A												
Title: Test Program Operations Articles: Description: This activity funds the Government and contractor workforce that manage the overall Sea-Based Weapon Systems test program and enables the program to develop, build, and test standard missiles and the associated Aegis Weapon Systems. This project includes all operations support for the Aegis program office related to Engineering and Testing. 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: Increase from FY 2024 to FY 2025 is in accordance with the current IMTP.										9.832 -	6.505 -	7.834 -
Accomplishments/Planned Programs Subtotals										158.982	186.236	129.436
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	
• 0603892C: AEGIS BMD	586.329	693.727	649.255	-	649.255	602.818	539.786	649.556	714.388	Continuing	Continuing	
• 0604102C: Guam Defense Development	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	

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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 0604878C / Aegis BMD Test			Project (Number/Name) MT09 / AEGIS BMD Test		

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
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Remarks

D. Acquisition Strategy

The Sea-Based Weapon Systems test acquisition strategy allows for the execution of a comprehensive Missile Defense System test program that supports fielding capabilities to the Warfighter. The Sea-Based Weapon Systems Test Program utilizes full and open competition to develop, acquire and deliver test planning artifacts, range safety plans, as well as support for the management and conduct of Sea-Based Weapon Systems test events in accordance with the MDA Flight and Ground Test IMTP. This includes contract actions to industry, agreements with Department of Defense organizations, Federally Funded Research and Development Centers and University Affiliated Research Centers to plan and execute Sea-Based Weapon Systems Flight and Ground Test Program.

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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 0604878C / Aegis BMD Test				Project (Number/Name) MT09 / AEGIS BMD Test					
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis BMD Flight Test Execution - CPF	MIPR	COMPACTFLT : HI	6.333	0.000		2.960	Jan 2024	1.460	Jan 2025	-		1.460	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - Corona	MIPR	NSWC Corona : CA	23.935	6.189	Jan 2023	21.270	Jan 2024	7.100	Jan 2025	-		7.100	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - Corvid	C/CPFF	Corvid Technologies Inc : NC	0.000	1.890	Jan 2023	0.000		0.000		-		0.000	1.890	3.780	0.000
Aegis BMD Flight Test Execution - DMEA	MIPR	DMEA : McClellan, CA	1.819	0.000		1.040	Dec 2023	0.740	Jan 2025	-		0.740	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - Flight Test Execution	SS/CPFF	Lockheed Martin : NJ	17.433	5.452	Dec 2022	13.412	Dec 2023	9.812	Jan 2025	-		9.812	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - Flight Test Execution - DOT MARAD	MIPR	DOT : MARAD	13.193	4.692	Apr 2023	7.100	Jan 2024	4.400	Jan 2025	-		4.400	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - Flight Test Execution - RMS	SS/CPFF	Raytheon : AZ	19.838	4.047	Dec 2022	5.945	Dec 2023	5.000	Jan 2025	-		5.000	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - JHU/APL	SS/CPFF	JHU/APL : Columbia MD	34.966	2.048	Feb 2023	23.488	Dec 2023	10.571	Jan 2025	-		10.571	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - L3 Communications	C/CPFF	L3 Communications : Waco, TX	7.989	1.250	Dec 2022	2.860	Dec 2023	1.960	Jan 2025	-		1.960	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - NAWC/AD	MIPR	NAWC/AD-PHX Air : Pax River, MD	10.123	0.000		2.360	Dec 2023	2.960	Jan 2025	-		2.960	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - NAWC/PM	MIPR	NAWC/PM : Pt. Mugu, CA	18.747	3.623	Dec 2022	5.100	Dec 2023	5.100	Jan 2025	-		5.100	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - NIWC PAC	MIPR	Naval Information Warfare Center (NIWC) : San Diego, CA	8.551	1.930	Nov 2022	7.018	Dec 2023	7.018	Jan 2025	-		7.018	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - NSWC DD	MIPR	NSWC Dahlgren : Dahlgren, VA	14.552	6.031	Jan 2023	12.882	Jan 2024	7.860	Jan 2025	-		7.860	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - NSWCCR	MIPR	NSWC Carderock : Potomac, MD	10.142	0.000		2.093	Dec 2023	1.093	Jan 2025	-		1.093	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 0604878C / Aegis BMD Test				Project (Number/Name) MT09 / AEGIS BMD Test					
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis BMD Flight Test Execution - PHD	MIPR	NSWC PHD : Pt. Hueneme, CA	26.495	3.930	Dec 2022	9.627	Dec 2023	9.688	Jan 2025	-		9.688	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - PMRF	MIPR	PMRF Barking Sands : Kauai, HI	41.505	27.398	Dec 2022	10.271	Dec 2023	10.215	Jan 2025	-		10.215	Continuing	Continuing	Continuing
Aegis BMD Flight Test Execution - US SMDC	MIPR	DOD - USA - SPACE AND MISSILE DEFENSE COMMAND (SMDC) : AL	0.000	3.450	Feb 2023	0.000		0.000		-		0.000	0.000	3.450	0.000
Aegis BMD Flight Test Execution - Various	MIPR	Various : HI, VA, CA, MA, NC, NJ, AZ	145.906	7.484	Dec 2022	12.675	Dec 2023	1.841	Jan 2025	-		1.841	Continuing	Continuing	Continuing
Aegis BMD Ground Test Execution - NMR	SS/CPFF	NETWORK MANAGEMENT RESOURCES, INC. : CO	0.000	1.471	May 2023	0.000		0.000		-		0.000	0.000	1.471	0.000
Aegis BMD Ground Test Execution - DAHLGREN	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) DAHLGREN DIVISION (NSWCDD) : VA	0.000	2.334	Jan 2023	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Aegis BMD Ground Test Execution - CORONA	MIPR	NSWC Corona : CA	6.974	1.414	Dec 2022	1.015	Dec 2023	1.015	Jan 2025	-		1.015	Continuing	Continuing	Continuing
Aegis BMD Ground Test Execution - JHU/APL MDA	SS/CPFF	JHU/APL : MDA	11.978	2.881	Dec 2022	3.401	Dec 2023	3.201	Jan 2025	-		3.201	Continuing	Continuing	Continuing
Aegis BMD Ground Test Execution - LM	SS/CPFF	Lockheed Martin : Moorestown, NJ	41.704	2.078	Dec 2022	5.225	Dec 2023	5.200	Dec 2024	-		5.200	Continuing	Continuing	Continuing
Aegis BMD Ground Test Execution - NIWC PAC	MIPR	Naval Information Warfare Center (NIWC) : San Diego, CA	52.412	12.380	Dec 2022	7.457	Dec 2023	7.400	Jan 2025	-		7.400	Continuing	Continuing	Continuing
Aegis BMD Ground Test Execution - PHD	MIPR	NSWC PHD : Pt. Hueneme, CA	10.686	1.825	Nov 2022	1.900	Dec 2023	1.824	Jan 2025	-		1.824	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 0604878C / Aegis BMD Test				Project (Number/Name) MT09 / AEGIS BMD Test					
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis BMD Ground Test Execution - Various	MIPR	Various : Various	4.395	1.140	May 2023	0.000		5.000	Jan 2025	-		5.000	Continuing	Continuing	Continuing
Aegis BMD Test Resources - L3 Communications	C/CPFF	L-3 COMMUNICATIONS CORPORATION : TX	0.000	3.200	Feb 2023	0.000		0.000		-		0.000	0.000	3.200	0.000
Aegis BMD Test Resources - APL	SS/CPFF	JHU/APL : Columbia MD	37.510	1.413	Dec 2022	2.633	Dec 2023	1.633	Jan 2025	-		1.633	Continuing	Continuing	Continuing
Aegis BMD Test Resources - USTRANSCOM	MIPR	TRANSCOM INC : Various	0.000	1.604	May 2023	0.000		0.000		-		0.000	1.604	3.208	0.000
Aegis BMD Test Resources - CORONA	MIPR	NSWC Corona : CA	35.160	7.682	Dec 2022	5.769	Dec 2023	2.269	Jan 2025	-		2.269	Continuing	Continuing	Continuing
Aegis BMD Test Resources - MIT/LL	MIPR	MASSACHUSETTS INSTITUTE OF TECHNOLOGY : MA	0.000	6.193	Jan 2023	0.000		0.000		-		0.000	0.000	6.193	0.000
Aegis BMD Test Resources - NAWC/PM	MIPR	NAWC/PM : Pt. Mugu, CA	5.161	1.036	Dec 2022	2.500	Dec 2023	1.500	Jan 2025	-		1.500	Continuing	Continuing	Continuing
Aegis BMD Test Resources - NIWC PAC	MIPR	Naval Information Warfare Center (NIWC) : San Diego, CA	14.558	1.800	Dec 2022	2.200	Dec 2023	1.212	Jan 2025	-		1.212	Continuing	Continuing	Continuing
Aegis BMD Test Resources - NSWCDD	MIPR	NSWC Dahlgren : Dahlgren, VA	22.422	2.265	Dec 2022	3.128	Dec 2023	2.128	Jan 2025	-		2.128	Continuing	Continuing	Continuing
Aegis BMD Test Resources - PHD	MIPR	NSWC PHD : Pt. Hueneme, CA	37.218	8.921	Dec 2022	3.524	Dec 2023	1.524	Jan 2025	-		1.524	Continuing	Continuing	Continuing
Aegis BMD Test Resources - Various	MIPR	Various : HI, VA, CA, MA, MD	34.860	4.508	Nov 2022	0.878	Dec 2023	0.878	Jan 2025	-		0.878	Continuing	Continuing	Continuing
Engineering & Analysis - Engineering Support	C/CPAF	Northrop Grumman : AL, CO	8.201	0.000		0.000		0.000		-		0.000	0.000	8.201	0.000
Engineering & Analysis - FFRDC/UARC	MIPR	Various : AL, CO, VA	17.029	0.000		0.000		0.000		-		0.000	0.000	17.029	0.000
Engineering & Analysis - HWIL Infrastructure	C/CPFF	Various : Various	0.000	1.315	Nov 2022	0.000		0.000		-		0.000	0.000	1.315	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 0604878C / Aegis BMD Test				Project (Number/Name) MT09 / AEGIS BMD Test					
Test and Evaluation (\$ 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
Engineering & Analysis - Industry	C/CPAF	Boeing : AL	4.334	0.000		0.000		0.000		-		0.000	0.000	4.334	0.000
Engineering & Analysis - NME	MIPR	CCDC : CO, AL	10.917	0.000		0.000		0.000		-		0.000	0.000	10.917	0.000
Engineering & Analysis - NME Support	MIPR	Naval Information Warfare Center (NIWC) : CA	2.876	0.000		0.000		0.000		-		0.000	0.000	2.876	0.000
Engineering & Analysis - OGA	MIPR	CCDC : AL	31.750	1.612	Nov 2022	0.000		0.000		-		0.000	0.000	33.362	0.000
Engineering & Analysis - Performance Analysis	MIPR	GTRI : Huntsville, AL	5.045	1.276	Nov 2022	0.000		0.000		-		0.000	0.000	6.321	0.000
Engineering & Analysis - Teledyne	MIPR	Teledyne Brown Engineering : Huntsville ,AL	6.832	0.000		0.000		0.000		-		0.000	0.000	6.832	0.000
Engineering & Analysis - Various	Various	Various : Various	0.000	1.388	Nov 2022	0.000		0.000		-		0.000	0.000	1.388	0.000
Test Program Operations - Civ Salary	Allot	MDA : Dahlgren, VA	2.106	4.407	Dec 2022	1.667	Dec 2023	2.864	Jan 2025	-		2.864	Continuing	Continuing	Continuing
Test Program Operations - MDA Travel	Allot	MDA : Dahlgren, VA	1.929	0.789	Dec 2022	0.000		0.000		-		0.000	0.000	2.718	0.000
Test Program Operations - NAVSEA Civ Sal	MIPR	NAVSEA : Washington DC	1.710	1.938	Nov 2022	0.000		0.000		-		0.000	0.000	3.648	0.000
Test Program Operations - Various	MIPR	Various : Various	11.469	2.698	Dec 2022	4.838	Dec 2023	4.970	Jan 2025	-		4.970	Continuing	Continuing	Continuing
Subtotal			820.763	158.982		186.236		129.436		-		129.436	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						R-1 Program Element (Number/Name)				Project (Number/Name)					
0400 / 4						PE 0604878C / Aegis BMD Test				MT09 / AEGIS BMD Test					
Management Services (\$ 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
Test Program Operations - MIDAESS	C/CPFF	Various : Various	11.230	0.000		0.000		0.000		-		0.000	0.000	11.230	0.000
Subtotal			11.230	0.000		0.000		0.000		-		0.000	0.000	11.230	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			831.993	158.982		186.236		129.436		-		129.436	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 0604878C / Aegis BMD Test					Project (Number/Name) MT09 / AEGIS BMD Test																	
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										
GTD-08a (N/I) (Missile Defense System Ground Test)					◆																						
JFTM-07 E4 (JAPAN, DT Intercept Flight Test)					▲																						
GTD-07b (AA)					◆																						
FTM-31 E1a (AEGIS SBT, DT/OT Intercept Flight Test)						◆																					
GTI-09 Sprint 2 (E/C) (Missile Defense System Ground Test)						◆	◆																				
FTX-26 (OT) (SN, OT Target Only Flight Test)								▲																			
FTM-48								▲																			
FTG-12 (GM, DT/OT Intercept Flight Test)								▲																			
FTM-32 (AEGIS SBT, DT/OT Intercept Flight Test)									△																		
FTX-23 (AEGIS 5.1, DT Tracking Exercise Flight Test)									△																		
GTI-08b (N/I)										◇																	
GTI-ISR (23) (Missile Defense System Ground Test)										◇																	
Pacific Dragon-24 E1 (ARAV-B)											△																
Pacific Dragon-24 E2 (ARAV-T1)											△																
GTD-08b (N/I)											◇	◇															
FEM-02											◇																
FTM-37 (AEGIS 5.1, DT/OT Intercept Flight Test)											△																
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)												◇															
FTX-40 (AEGIS 5.1, DT Tracking Exercise Flight Test)												△															
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)													◇														
FTM-30 (AEGIS 5.1, DT/OT Intercept Flight Test)												△															
GTI-12 (E/C)														◇													
GTD-13 (N/I) (Missile Defense System Ground Test)														◇													
GTD-12 (E/C) (Missile Defense System Ground Test)																◇											

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency															Date: March 2024														
Appropriation/Budget Activity										R-1 Program Element (Number/Name)										Project (Number/Name)									
0400 / 4										PE 0604878C / Aegis BMD Test										MT09 / AEGIS BMD Test									
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							
FTM-43 (AEGIS 5.1, DT/OT Intercept Flight Test)																													
GTI-ASI (26) (Missile Defense System Ground Test)																													
FTM-40 (AEGIS 6, DT/OT Intercept Flight Test)																													
GTI-14 Sprint 1 (N/I)																													
FTM-41 (AEGIS 6, DT/OT Intercept Flight Test)																													
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)																													
GTI-24 (I)																													
(EX) ASTRAL KNIGHT 27																													
GTD-14 (N/I) ((Missile Defense System Ground Test)																													
FTM-42 (MRBM T-4x3, BQM-177A X4)																													
GTI-ISR (27) (Missile Defense System Ground Test)																													
GTI-15 (E/C)																													
FTM-47 (MRBM T4 X3/BQM-177 X4)																													
GTD-24 (I)																													
GTD-15 (E/C)																													
Pacific Dragon-28 E1 (ARAV-B)																													
GTI-16 Sprint 1 (N/I)																													
Pacific Dragon-28 E2 (ARAV-B)																													
GTI-ASI (28)																													
Pacific Dragon-28 E3 (SM-3 Blk 1A)																													

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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 0604878C / <i>Aegis BMD Test</i>	Project (Number/Name) MT09 / <i>AEGIS BMD Test</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GTD-08a (N/I) (Missile Defense System Ground Test)	1	2023	1	2023
JFTM-07 E4 (JAPAN, DT Intercept Flight Test)	1	2023	1	2023
GTD-07b (AA)	1	2023	1	2023
FTM-31 E1a (AEGIS SBT, DT/OT Intercept Flight Test)	2	2023	2	2023
GTI-09 Sprint 2 (E/C) (Missile Defense System Ground Test)	2	2023	3	2023
FTX-26 (OT) (SN, OT Target Only Flight Test)	4	2023	4	2023
FTM-48	1	2024	1	2024
FTG-12 (GM, DT/OT Intercept Flight Test)	1	2024	1	2024
FTM-32 (AEGIS SBT, DT/OT Intercept Flight Test)	2	2024	2	2024
FTX-23 (AEGIS 5.1, DT Tracking Exercise Flight Test)	2	2024	2	2024
GTI-08b (N/I)	3	2024	3	2024
GTI-ISR (23) (Missile Defense System Ground Test)	3	2024	3	2024
Pacific Dragon-24 E1 (ARAV-B)	4	2024	4	2024
Pacific Dragon-24 E2 (ARAV-T1)	4	2024	4	2024
GTD-08b (N/I)	4	2024	1	2025
FEM-02	1	2025	1	2025
FTM-37 (AEGIS 5.1, DT/OT Intercept Flight Test)	1	2025	1	2025
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)	2	2025	2	2025
FTX-40 (AEGIS 5.1, DT Tracking Exercise Flight Test)	2	2025	2	2025
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)	4	2025	4	2025
FTM-30 (AEGIS 5.1, DT/OT Intercept Flight Test)	4	2025	4	2025
GTI-12 (E/C)	2	2026	2	2026
GTD-13 (N/I) (Missile Defense System Ground Test)	2	2026	2	2026

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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 0604878C / <i>Aegis BMD Test</i>	Project (Number/Name) MT09 / <i>AEGIS BMD Test</i>
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Events	Start		End	
	Quarter	Year	Quarter	Year
GTD-12 (E/C) (Missile Defense System Ground Test)	3	2026	3	2026
FTM-43 (AEGIS 5.1, DT/OT Intercept Flight Test)	3	2026	3	2026
GTI-ASI (26) (Missile Defense System Ground Test)	3	2026	3	2026
FTM-40 (AEGIS 6, DT/OT Intercept Flight Test)	3	2026	3	2026
GTI-14 Sprint 1 (N/I)	4	2026	4	2026
FTM-41 (AEGIS 6, DT/OT Intercept Flight Test)	1	2027	1	2027
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)	3	2027	3	2027
GTI-24 (I)	3	2027	3	2027
(EX) ASTRAL KNIGHT 27	3	2027	3	2027
GTD-14 (N/I) ((Missile Defense System Ground Test)	4	2027	4	2027
FTM-42 (MRBM T-4x3, BQM-177A X4)	4	2027	4	2027
GTI-ISR (27) (Missile Defense System Ground Test)	4	2027	4	2027
GTI-15 (E/C)	1	2028	1	2028
FTM-47 (MRBM T4 X3/BQM-177 X4)	2	2028	2	2028
GTD-24 (I)	3	2028	3	2028
GTD-15 (E/C)	3	2028	3	2028
Pacific Dragon-28 E1 (ARAV-B)	4	2028	4	2028
GTI-16 Sprint 1 (N/I)	4	2028	4	2028
Pacific Dragon-28 E2 (ARAV-B)	4	2028	4	2028
GTI-ASI (28)	4	2028	4	2028
Pacific Dragon-28 E3 (SM-3 Blk 1A)	4	2028	4	2028

Note

* FTM-37 (AEGIS 5.1, DT/OT Intercept Flight Test) under review

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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 0604878C / Aegis BMD Test				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: Program Wide Support	36.496	6.637	7.248	5.583	-	5.583	7.173	5.961	6.942	7.873	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)

Title: Program Wide Support		FY 2023	FY 2024	FY 2025
Articles:		6.637	7.248	5.583
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 0604878C / <i>Aegis BMD Test</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>Maintenance) to keep the Department's inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Decrease from FY 2024 to FY 2025 reflects the PWS allocation on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.</p>			
Accomplishments/Planned Programs Subtotals		6.637	7.248
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>The acquisition strategy for MDA Consolidated Support consists of contract actions to industry for: a) Engineering and technical support; b) studies, analyses, and evaluations; and c) management and professional services to MDA functional organizations and program offices. With a focus to achieve Small Business goals, MDA is leveraging existing contracts and will competitively award new contracts to meet MDA's Fiscal Years 2020-2030 Advisory and Assistance Services (A&AS) support.</p>			

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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 0604878C / Aegis BMD Test						Project (Number/Name) MD40 / Program Wide Support			
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations Management	MIPR	DOD - DEFENSE COURIER DIVISION (DCD) : VA	1.108	0.170	Dec 2022	0.000		0.000		-		0.000	0.000	1.278	0.000
Program Wide Support - Agency Operations User Services	C/CPAF	Various : Multi: AL, CA, CO, VA	0.324	0.000		0.000		0.000		-		0.000	0.000	0.324	0.000
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Allot	Various : MDA Multi: AL, CO, CA, VA,	10.761	0.000		0.000		0.000		-		0.000	0.000	10.761	0.000
Program Wide Support - Agency Operations and Support Other Agency Services (MIPR)	MIPR	Various : Various	1.268	0.638	Nov 2022	0.396	Nov 2023	0.508	Nov 2024	-		0.508	Continuing	Continuing	Continuing
Subtotal			13.461	0.808		0.396		0.508		-		0.508	Continuing	Continuing	N/A
Remarks N/A															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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					R-1 Program Element (Number/Name)					Project (Number/Name)					
0400 / 4					PE 0604878C / Aegis BMD Test					MD40 / Program Wide Support					
Test and Evaluation (\$ 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
Remarks N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations Contract Support	C/CPFF	SYSTEMS ENGINEERING INC : AL	0.000	0.000		2.268	Nov 2023	0.000		-		0.000	2.268	4.536	0.000
Program Wide Support - Agency Operations and Support Other Agency Services (FFP)	C/CPFF	Veterans Technology, LLC : AL	23.035	5.829	Dec 2022	4.584	Dec 2023	5.075	Dec 2024	-		5.075	Continuing	Continuing	Continuing
Subtotal			23.035	5.829		6.852		5.075		-		5.075	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			36.496	6.637		7.248		5.583		-		5.583	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 0604878C / Aegis BMD Test												Project (Number/Name) MD40 / Program Wide Support																	
Significant Event Complete ▲				Milestone Decision Complete ★				Element Test Complete ◆				System Level Test Complete ●				Complete Activity ◆																									
Significant Event Planned △				Milestone Decision Planned ☆				Element Test Planned ◇				System Level Test Planned ○				Planned Activity ◇																									
												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 0604878C / Aegis BMD Test	Project (Number/Name) MD40 / Program Wide Support	

Schedule Details

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

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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 0604879C / <i>Ballistic Missile Defense Sensor Test</i>
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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	611.451	88.326	111.049	96.864	-	96.864	104.578	160.011	172.749	183.147	Continuing	Continuing
MT11: <i>BMDs Radars Test</i>	584.112	85.119	106.820	93.135	-	93.135	100.159	153.354	164.983	174.600	Continuing	Continuing
MD40: <i>Program Wide Support</i>	27.339	3.207	4.229	3.729	-	3.729	4.419	6.657	7.766	8.547	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Decrease from Fiscal Year (FY) 2024 to FY 2025 is in accordance with the Integrated Master Test Plan (IMTP) requirements.

A. Mission Description and Budget Item Justification

The Missile Defense Agency executes a robust test program, including flight and ground tests supporting both strategic and regional Missile Defense System capabilities against medium- and long-range threats. The Sensors elements of the Missile Defense System IMTP are intended to demonstrate the integrated missile defense capabilities under development to ensure the capabilities delivered to the Warfighter are operationally effective, suitable, and survivable. The Sensors Test Program Element specifically includes the planning, execution, and analysis of flight and ground tests, as well as the associated infrastructure to provide data required for Missile Defense technical Capability Declarations.

The Sensors Test program supports integration of radar improvements into the Missile Defense System, mid- and far-term Discrimination Improvements, and Operational Test and Evaluation of the theater/regional and strategic Missile Defense System architecture.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>
Previous President's Budget	88.326	111.049	90.697	-	90.697
Current President's Budget	88.326	111.049	96.864	-	96.864
Total Adjustments	0.000	0.000	6.167	-	6.167
• 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	0.000	0.000			
• Other Adjustment	0.000	0.000	6.167	-	6.167

Change Summary Explanation

Increase in FY 2025 is in accordance with the current IMTP.

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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 0604879C / Ballistic Missile Defense Sensor Test				Project (Number/Name) MT11 / BMDS Radars 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
MT11: BMDS Radars Test	584.112	85.119	106.820	93.135	-	93.135	100.159	153.354	164.983	174.600	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note Decrease from Fiscal Year (FY) 2024 to FY 2025 is in accordance with the Integrated Master Test Plan (IMTP) requirements.												
A. Mission Description and Budget Item Justification This project provides activities for planning, analysis, and execution of Missile Defense System flight test events, including pre- and post-test ground testing (e.g. Digital and Hardware-in-the-Loop (HWIL) System Pre-Mission Tests and System Federation Validation Events). Sensors Test provides planning, analysis, and execution in accordance with the Ground Test Concept of Operations (CONOPS) supporting the Ground Test level of effort concept for Missile Defense System system-level ground tests identified in the IMTP. Test infrastructure funding provides for HWIL labs, Mission Operation Center/Mission Support Center (MOC/MSC), and program management required to operate and maintain a flight and ground test capability.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: Test Resources Articles: Description: Test Resources efforts include configuration and maintenance of Sensors HWILs for use in ground test execution (Missile Defense System testing and element interoperability developmental testing) and in Missile Defense System flight test execution pre-mission testing, and technical oversight to all Missile Defense System system-level activities with Sensors participation. It also includes conducting the detailed test event planning and design, integration, and execution for all Missile Defense System ground test campaigns. Test Resources provides support for evolving Objective Simulation Framework (software upgrades) integration into the Missile Defense System HWIL ground test execution and flight test execution. It also provides a Level of Effort support to Missile Defense System Ground Tests in accordance with the Missile Defense System IMTP and the Ground Test CONOPS. 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:									66.469	77.089	77.687	
									-	-	-	

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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 0604879C / Ballistic Missile Defense Sensor Test				Project (Number/Name) MT11 / BMDS Radars Test				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
N/A												
Title: Flight Test Execution									18.650	29.731	15.448	
Articles:									-	-	-	
Description: Flight Test Execution includes test planning, pre-flight analysis, transportation of radars and MOC/MSC, test execution, and post-flight analysis for Sensors' participation in Missile Defense System flight tests in accordance with the Missile Defense System IMTP.												
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 is in accordance with the current IMTP. FY 2025 PDI funding has decreased by \$12.664 million as a result of the completion of FEM-02 IMTP requirements.												
Accomplishments/Planned Programs Subtotals									85.119	106.820	93.135	
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	
• 0603884C: Ballistic Missile Defense Sensors	228.807	239.159	209.002	-	209.002	205.087	202.555	209.816	214.110	Continuing	Continuing	
• 0603896C: Ballistic Missile Defense Command and Control, Battle Management & Communication	587.689	554.201	569.662	-	569.662	570.632	587.929	618.050	651.885	Continuing	Continuing	
• 0603898C: Ballistic Missile Defense Joint Warfighter Support	50.942	48.248	47.723	-	47.723	48.921	50.062	51.376	52.565	Continuing	Continuing	
• 0603904C: Missile Defense Integration and Operations Center (MDIOC)	47.629	50.549	54.525	-	54.525	56.851	58.115	59.600	61.362	Continuing	Continuing	

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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 0604879C / Ballistic Missile Defense Sensor Test				Project (Number/Name) MT11 / BMDS Radars Test			
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
• 0603907C: Sea Based X-Band Radar (SBX)	163.297	177.868	197.339	-	197.339	176.888	162.741	177.598	188.253	Continuing	Continuing
• 0603914C: Ballistic Missile Defense Test	376.650	360.455	367.491	-	367.491	418.514	383.362	435.626	438.825	Continuing	Continuing
• 0604873C: Long Range Discrimination Radar (LRDR)	65.991	103.517	100.882	-	100.882	63.560	56.020	64.457	72.759	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
Sensors Test uses multiple development and Test and Evaluation contracts for the continuation of Sensor Radar development and testing as described and approved in the Missile Defense Agency IMTP. Sensors also utilizes other contracts with industry as well as agreements with other U.S. Government organizations in order to develop, test and upgrade the Sensors Radar systems.											

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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 0604879C / <i>Ballistic Missile Defense Sensor Test</i>						Project (Number/Name) MT11 / <i>BMDs Radars Test</i>			
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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Test and Evaluation (\$ 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
Test Resources - AN/TPY-2, SBX, UEWR & CD OSF Integration & Infrastructure, Sys Test Lab	C/CPAF	Raytheon : MA	151.155	40.612	Nov 2022	45.430	Nov 2023	43.409	Nov 2024	-		43.409	Continuing	Continuing	Continuing
Test Resources - Civilians/Travel	Allot	MDA : AL/VA	15.442	5.468	Oct 2022	5.094	Oct 2023	6.596	Oct 2024	-		6.596	Continuing	Continuing	Continuing
Test Resources - Communications Development - OGA	MIPR	Secretary of the Air Force (SAF) : NCR	1.516	0.000		0.000		0.000		-		0.000	0.000	1.516	0.000
Test Resources - Communications and Networks	C/CPAF	JACOBS TECHNOLOGY INC. : CO	5.696	1.134	May 2023	0.000		0.000		-		0.000	0.000	6.830	0.000
Test Resources - Contract Support Services	C/CPFF	YORKTOWN SYSTEMS GROUP, INC. : AL	7.164	0.105	Nov 2022	0.000		0.098	Nov 2024	-		0.098	Continuing	Continuing	Continuing
Test Resources - Contract Support Services - Test Support	C/CPFF	MP SOLUTIONS, LLC : Various	3.078	3.350	Nov 2022	4.450	Nov 2023	3.925	Nov 2024	-		3.925	Continuing	Continuing	Continuing
Test Resources - Cyber Win10 Implementation - MDDC Lab Analysis Infrastructure	C/IDIQ	Analytical Services, Inc. : AL	0.825	0.000		0.000		0.000		-		0.000	0.000	0.825	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 0604879C / Ballistic Missile Defense Sensor Test					Project (Number/Name) MT11 / BMDS Radars Test				
Test and Evaluation (\$ 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
Test Resources - Cybersecurity - BGTC and SBIRS	C/IDIQ	Northrop Grumman Space & Mission System : CO	1.600	0.000		0.000		0.000		-		0.000	0.000	1.600	0.000
Test Resources - Cybersecurity - Tactical Communication Environment Segment (TCES)	MIPR	DOD - USN - NAVAL INFORMATION WARFARE SYSTEMS COMMAND (NAVWAR) : CA	0.190	0.000		0.000		0.000		-		0.000	0.000	0.190	0.000
Test Resources - Element/System Test Lab Facilities	C/CPAF	NORTHROP GRUMMAN : CO	0.000	4.600	Sep 2023	0.000		0.000		-		0.000	0.000	4.600	0.000
Test Resources - General Infrastructure and OGA Support	Various	Various : AL, NM	10.650	0.000		2.825	Nov 2023	3.936	Nov 2024	-		3.936	Continuing	Continuing	Continuing
Test Resources - HDR-G Missile Defense System Level Testing	TBD	TBD : TBD	0.000	0.000		3.867	Nov 2023	3.958	Jul 2025	-		3.958	Continuing	Continuing	Continuing
Test Resources - LRDR OSF Integration & Infrastructure, Sys Test Lab	C/CPFF	Lockheed Martin : NJ	17.530	11.200	Nov 2022	15.423	Nov 2023	15.765	Nov 2024	-		15.765	Continuing	Continuing	Continuing
Test Resources - UEWR SSF Integration & Infrastructure, Sys Test Lab	C/FPIF	deciBel : AL	14.655	0.000		0.000		0.000		-		0.000	0.000	14.655	0.000
Flight Test Execution - AN/TPY-2, SBX UEWR & CD Missile Defense System Level Testing	C/CPAF	Raytheon : MA	133.178	11.625	Nov 2022	10.280	Nov 2023	9.525	Nov 2024	-		9.525	Continuing	Continuing	Continuing
Flight Test Execution - Agency Level Testing Support	C/CPAF	L-3 Communications : AL	17.000	0.000		0.000		0.000		-		0.000	0.000	17.000	0.000
Flight Test Execution - FT Security, Site Activation & Deployments Missile	Various	Various : AI, CO, HI, Wake Island	44.627	4.000	Sep 2023	4.324	Nov 2023	5.002	Nov 2024	-		5.002	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 0604879C / Ballistic Missile Defense Sensor Test				Project (Number/Name) MT11 / BMDS Radars Test					
Test and Evaluation (\$ 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
Defense System Level Testing															
Flight Test Execution - HDR-G Missile Defense System Level Testing	TBD	TBD : TBD	0.000	0.000		13.585	Nov 2023	0.921	Jul 2025	-		0.921	Continuing	Continuing	Continuing
Flight Test Execution - IMTP Flight Test	MIPR	DOD - USN - NAVAL AIR WARFARE CENTER WEAPONS DIVISION (NAWCWD), POINT MUGU : CA	3.497	0.000		0.000		0.000		-		0.000	0.000	3.497	0.000
Flight Test Execution - LRDR Missile Defense System Level Testing	SS/CPFF	Lockheed Martin : NJ	12.111	3.025	Sep 2023	0.000		0.000		-		0.000	0.000	15.136	0.000
Flight Test Execution - OGA Sensor Research & Development	MIPR	Secretary of the Air Force : NCR	4.500	0.000		0.000		0.000		-		0.000	0.000	4.500	0.000
Flight Test Execution - System-Level Post Flight Reconstruction (SPFR)	MIPR	CCDC AVMC : AL	2.736	0.000		1.542	Nov 2023	0.000		-		0.000	0.000	4.278	0.000
Flight Test Execution - UEWR/CD Missile Defense System Level Testing	C/FPIF	deciBel : AL	1.152	0.000		0.000		0.000		-		0.000	0.000	1.152	0.000
Ground Test Execution - AN/TPY-2, SBX, UEWR/CD Missile Defense System Level Testing	C/CPAF	Raytheon : MA	125.324	0.000		0.000		0.000		-		0.000	0.000	125.324	0.000
Ground Test Execution - Long Range Discrimination Missile Defense System Level Testing	C/CPFF	Lockheed Martin : NJ	10.486	0.000		0.000		0.000		-		0.000	0.000	10.486	0.000
Subtotal			584.112	85.119		106.820		93.135		-		93.135	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 0604879C / Ballistic Missile Defense Sensor Test						Project (Number/Name) MT11 / BMDS Radars Test			
Test and Evaluation (\$ 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
Remarks N/A															
Management Services (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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			584.112	85.119		106.820		93.135		-		93.135	Continuing	Continuing	N/A
Remarks Award Dates reflect date of first obligation. Additional obligations may incrementally occur throughout the year.															

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PE 0604879C: *Ballistic Missile Defense Sensor Test*
Missile Defense Agency

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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 0604879C / Ballistic Missile Defense Sensor Test										Project (Number/Name) MT11 / BMDS Radars Test									
Significant Event Complete ▲ Significant Event Planned △					Milestone Decision Complete ★ Milestone Decision Planned ☆					Element Test Complete ◆ Element Test Planned ◇					System Level Test Complete ● System Level Test Planned ○					Complete Activity ◆ Planned Activity ◇									
										FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029							
LR-13																													
JFTX-01 E2 (JAPAN, DT Tracking Exercise Flight Test)																													
JFTX-01 E1 (JAPAN, DT Tracking Exercise Flight Test)																													
GTI-14 Sprint 1 (N/I)																													
FTG-16 (GM, DT Intercept Flight Test)																													
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)																													
FTX-28 E2 (TH, DT/OT Tracking Exercise Flight Test)																													
FTT-26 (MRBM T1)																													
TH CTV-04																													
GTI-24 (I)																													
FTG-17 (GM, DT/OT Intercept Flight Test)																													
GTD-14 (N/I) ((Missile Defense System Ground Test)																													
GTI-ISR (27) (Missile Defense System Ground Test)																													
GTI-15 (E/C)																													
FTT-24 (Black Dagger)																													
FTG-18 (DT/OT)																													
GTD-15 (E/C)																													
GTD-24 (I)																													
GTI-16 Sprint 1 (N/I)																													
GTI-ASI (28)																													
TH CTV-03 (TH Flight Test)																													
GTI-16 Sprint 2 (N/I)																													
FTO-04																													
GTD-16 (N/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 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) MT11 / <i>BMDs Radars Test</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GTD-08a (N/I) (Missile Defense System Ground Test)	1	2023	1	2023
SICO -09-1	1	2023	1	2023
SICO-09-2	2	2023	2	2023
GTI-09 Sprint 2 (E/C) (Missile Defense System Ground Test)	2	2023	3	2023
SICO-09-3	3	2023	3	2023
SICO-08a-02	4	2023	4	2023
FTX-49	4	2023	4	2023
FTX-26 (OT) (SN, OT Target Only Flight Test)	4	2023	4	2023
FTG-12 (GM, DT/OT Intercept Flight Test)	1	2024	1	2024
SICO 9-4	2	2024	2	2024
GTI-08b (N/I)	3	2024	3	2024
GTI-08b Part 2	3	2024	3	2024
GTI-ISR (23) (Missile Defense System Ground Test)	3	2024	3	2024
GTD-08b (N/I)	4	2024	1	2025
LR-08b (N/I)	4	2024	4	2024
FEM-02	1	2025	1	2025
GTI-101 (E/C)	2	2025	2	2025
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)	2	2025	2	2025
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)	4	2025	4	2025
FTX-28 E1 (TH, DT/OT Tracking Exercise Flight Test)	1	2026	1	2026
FTX-28 E3 (TH, DT/OT Tracking Exercise Flight Test)	1	2026	1	2026
GTI-12 (E/C)	2	2026	2	2026

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Missile Defense Agency			Date: March 2024	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)		Project (Number/Name)	
0400 / 4	PE 0604879C / Ballistic Missile Defense Sensor Test		MT11 / BMDS Radars Test	
Events	Start		End	
	Quarter	Year	Quarter	Year
GTD-13 (N/I) (Missile Defense System Ground Test)	2	2026	2	2026
GTD-12 (E/C) (Missile Defense System Ground Test)	3	2026	3	2026
LR-13	3	2026	3	2026
JFTX-01 E2 (JAPAN, DT Tracking Exercise Flight Test)	3	2026	3	2026
JFTX-01 E1 (JAPAN, DT Tracking Exercise Flight Test)	3	2026	3	2026
GTI-14 Sprint 1 (N/I)	4	2026	4	2026
FTG-16 (GM, DT Intercept Flight Test)	2	2027	2	2027
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)	3	2027	3	2027
FTX-28 E2 (TH, DT/OT Tracking Exercise Flight Test)	3	2027	3	2027
FTT-26 (MRBM T1)	3	2027	3	2027
TH CTV-04	3	2027	3	2027
GTI-24 (I)	3	2027	3	2027
FTG-17 (GM, DT/OT Intercept Flight Test)	4	2027	4	2027
GTD-14 (N/I) ((Missile Defense System Ground Test)	4	2027	4	2027
GTI-ISR (27) (Missile Defense System Ground Test)	4	2027	4	2027
GTI-15 (E/C)	1	2028	1	2028
FTT-24 (Black Dagger)	2	2028	2	2028
FTG-18 (DT/OT)	3	2028	3	2028
GTD-15 (E/C)	3	2028	3	2028
GTD-24 (I)	3	2028	3	2028
GTI-16 Sprint 1 (N/I)	4	2028	4	2028
GTI-ASI (28)	4	2028	4	2028
TH CTV-03 (TH Flight Test)	2	2029	2	2029
GTI-16 Sprint 2 (N/I)	3	2029	3	2029
FTO-04	3	2029	3	2029

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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 0604879C / Ballistic Missile Defense Sensor Test	Project (Number/Name) MT11 / BMDS Radars Test	

Events	Start		End	
	Quarter	Year	Quarter	Year
GTD-16 (N/I)	4	2029	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 0604879C / Ballistic Missile Defense Sensor Test				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: Program Wide Support	27.339	3.207	4.229	3.729	-	3.729	4.419	6.657	7.766	8.547	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	3.207	4.229	3.729
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			

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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 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Decrease from FY 2024 to FY 2025 reflects the PWS allocation on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.</p>			
Accomplishments/Planned Programs Subtotals		3.207	4.229
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0604879C / <i>Ballistic Missile Defense Sensor Test</i>					Project (Number/Name) MD40 / <i>Program Wide Support</i>				

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
Subtotal			-	-		-		-		-		-	-	-	N/A

Remarks
N/A

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations Management	C/CPFF	SYSTEMS ENGINEERING INC : AL	2.463	0.625	Dec 2022	1.619	Dec 2023	1.323	Dec 2024	-		1.323	Continuing	Continuing	Continuing
Subtotal			2.463	0.625		1.619		1.323		-		1.323	Continuing	Continuing	N/A

Remarks
N/A

Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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 0604879C / Ballistic Missile Defense Sensor Test						Project (Number/Name) MD40 / Program Wide Support			
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services	C/CPFF	YORKTOWN SYSTEMS GROUP, INC. : AL	24.876	2.582	Apr 2023	2.610	Apr 2024	2.406	Apr 2025	-		2.406	Continuing	Continuing	Continuing
Subtotal			24.876	2.582		2.610		2.406		-		2.406	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			27.339	3.207		4.229		3.729		-		3.729	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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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 0604879C / Ballistic Missile Defense Sensor Test	Project (Number/Name) MD40 / Program Wide Support	

Schedule Details

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

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0604880C / Land Based SM-3 (LBSM3)							
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	1,319.929	23.277	22.163	22.220	-	22.220	22.500	22.899	22.996	23.495	Continuing	Continuing
MD68: AEGIS Ashore	1,261.964	20.984	20.316	20.124	-	20.124	20.270	20.647	20.672	21.083	Continuing	Continuing
MC68: Cyber Operations	10.047	1.900	1.233	1.241	-	1.241	1.265	1.290	1.290	1.316	Continuing	Continuing
MD40: Program-Wide Support	47.918	0.393	0.614	0.855	-	0.855	0.965	0.962	1.034	1.096	Continuing	Continuing
Program MDAP/MAIS Code: 362												

Note

N/A

A. Mission Description and Budget Item Justification

This program supports development of the Land-Based Standard Missile-3 capability, Aegis Ashore. On 17 September 2009, the President announced an overarching plan to provide regional missile defense to U.S. deployed forces, allies, and partners in Europe called the European Phased Adaptive Approach (EPAA). The EPAA policy specifically defines a timeline to deploy a mix of afloat and land-based Ballistic Missile Defense (BMD) capabilities. Aegis Ashore represents one of these land-based capabilities.

Aegis Ashore is a key component of EPAA Phases II (Romania) and III (Poland) and provides Aegis BMD capability against short to intermediate-range ballistic missiles in an ashore configuration. Aegis Ashore provides sophisticated engagement strategies and can adapt to threat updates within each sites designated area of responsibility. Aegis Ashore re-hosts the required BMD components of a U.S. Navy Destroyer, including: SPY-1 radar; Vertical Launch System, Computing Infrastructure; Command and Control; Communications; Computers and Intelligence Systems; and Operator Consoles.

Aegis Ashore Missile Defense Test Complex operates as a test asset that continues to inform Aegis Weapon System and Aegis Combat System developmental efforts, integration of hardware and software upgrades and modernization efforts, and analyzing real time anomalies experienced in testing and in operational scenarios.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency				Date: March 2024	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0604880C I Land Based SM-3 (LBSM3)			
B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	27.678	22.163	20.479	-	20.479
Current President's Budget	23.277	22.163	22.220	-	22.220
Total Adjustments	-4.401	0.000	1.741	-	1.741
• 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	-0.577	0.000			
• Other Adjustment	-3.824	0.000	1.741	-	1.741
Change Summary Explanation					
N/A					

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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 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD68 / AEGIS Ashore			
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
MD68: AEGIS Ashore	1,261.964	20.984	20.316	20.124	-	20.124	20.270	20.647	20.672	21.083	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

Missile Defense Agency (MDA) is responsible for maintaining the Aegis Ashore Missile Defense Test Complex (AAMDTC) at the Pacific Missile Range Facility (PMRF). MDA uses AAMDTC in support of Ground Testing, Aegis Weapon System computer program development testing, and fielding (with hardware upgrades), and support proof of concept demonstrations. AAMDTC is capable of testing and developing both shore based and sea based Aegis capabilities.

In support of European Phased Adaptive Approach Phase III, Aegis Ashore integrates the Aegis BMD 5.1 and Standard Missile Block IIA capabilities into the Aegis Ashore sites. MDA will provide all upgrades to Ballistic Missile Defense (BMD) capability, BMD specific mission equipment, and integration with existing Missile Defense System nodes for all Aegis Ashore sites.

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

	FY 2023	FY 2024	FY 2025
Title: Aegis Weapon System Development	15.839	20.316	20.124
Articles:	-	-	-
Description: Operations of the AAMDTC at the PMRF in Hawaii. Develop and test Aegis BMD capability improvements and support advanced radar and combat system studies and engineering analysis to achieve compliance with the MDA's High Altitude Electromagnetic Pulse (HEMP) Technical Performance Measure requirement and subsequent Defense Threat Reduction Agency/ United States Strategic Command/ European Command certification. Recurring Accomplishments: - Determine the minimum hardware refresh of element components and spares that ensure the test capability at AAMDTC remains current to support warfighter needs - Provide system engineering, technical, and logistics support for the AAMDTC facility and tactical elements to ensure appropriate system adaptation, readiness, availability, and effectiveness - Operations of the AAMDTC Weapons System, Computing Infrastructure; Computing Infrastructure; Command and Control; Communications; Computers and Intelligence (C4I), Vertical Launch Systems, and other equipment to ensure the existing system is ready to support Missile Defense System testing 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 0604880C / Land Based SM-3 (LBSM3)	Project (Number/Name) MD68 / AEGIS Ashore		
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					
Title: Site Activation			5.145	0.000	0.000
Articles:			-	-	-
Description: Provide site design, security; temporary facilities; utilities; administrative communications equipment and services; infrastructure modifications; generator and commercial power; leased vehicles; material handling equipment; generator fuel; supplies, barriers; guard shacks; temporary lighting; transportation of materials and equipment; translators; and emerging requirements as site activation progresses and until sites are transferred to the Navy. Accomplishments include: - Provide temporary site activation facilities, base operations support, utilities, administrative communications, on-site material handling equipment services, and equipment installation - Fuel for facility commissioning activities, backup generators, and on-site vehicle support - Technical support to facilitate processing facility change proposals and construction modifications - Post-award technical services (structural, mechanical, and electrical) to ensure quality standards and construction schedule is met - Provide HEMP validation and verification testing of the Aegis Ashore facilities Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: N/A FY 2025 Plans: N/A FY 2024 to FY 2025 Increase/Decrease Statement: N/A					
Accomplishments/Planned Programs Subtotals			20.984	20.316	20.124

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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 0604880C / Land Based SM-3 (LBSM3)	Project (Number/Name) MD68 / AEGIS Ashore
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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
• 0208866C: MD09: Aegis BMD Procurement	402.235	374.756	85.000	-	85.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• 0208866C: Aegis BMD Operation and Maintenance	63.132	72.224	75.016	-	75.016	110.955	104.814	117.250	208.492	Continuing	Continuing
• 0208866C: MD73: Aegis Ashore Phase III Procurement	36.067	2.390	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	38.457
• 0208866C: MD90: Aegis BMD Hardware and Software	72.170	27.825	32.040	-	32.040	27.906	25.365	13.864	11.896	Continuing	Continuing
• 0603892C: AEGIS BMD	586.329	693.727	649.255	-	649.255	602.818	539.786	649.556	714.388	Continuing	Continuing
• 0604878C: Aegis BMD Test	165.619	193.484	135.019	-	135.019	169.731	143.292	154.413	168.707	Continuing	Continuing

Remarks

D. Acquisition Strategy

Operations and maintenance of AAMDTC, to achieve mission success for testing and weapon system support, is accomplished through 3 direct contracts with industry, and 22 Statements of Work with 14 Other Government Agencies. Supporting MDA testing and weapon system development initiatives requires AAMDTC to be well maintained and keep pace with weapon system upgrades.

- Contract #1 - Directed Sole Source to 8(a) Small Business for Mission Critical Support Systems Maintenance
- Contract #2 - Sole Source for Multi-Element Engineering and Integration Team, Special Studies, and Design Documentation
- Contract #3 - Competitive for Aegis Combat System Operations and Maintenance

Majority of OGA support comes from:

- Naval Surface Warfare Center- Dahlgren Division (NSWCDD) - System Engineering and Configuration Management Support
- PMRF - Base Operations Services and Tennant Command Costs
- Naval Facilities Engineering Command (NAVFAC) - Utilities (Power, Water, Sewer)
- NSWC Port Hueneme - In-service Engineering Agent/Logistics Support (replacement parts/hardware upgrades)
- Naval Information Warfare Center- Pacific (NIWC PAC) - C4I and Combat System subject matter experts

Poland Site Activation goes to Mission Support Program Office and utilizes NAVFAC and U. S. Army Corps of Engineers Europe District (Core of Engineers North Atlantic Union) CENAU to award and administer contracts for base operating support, commercial power, temporary site activation facilities, and integrated electronic security systems.

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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 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD68 / AEGIS Ashore					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis Weapon System Development - AWS Development - LM-MD68	SS/CPFF	MDA Lockheed Martin : Moorestown, NJ	64.407	1.891	Nov 2022	0.000		0.000		-		0.000	0.000	66.298	0.000
Aegis Weapon System Development - AWS Development -MDA Kupono-MD68	SS/CPFF	MDA Kupono : HI	1.511	1.256	Nov 2022	0.000		0.000		-		0.000	0.000	2.767	0.000
Aegis Weapon System Development - AWS Development – Restoration & Modernization- MD68	Various	Various : Various	1.741	0.161	Nov 2022	0.000		0.000		-		0.000	0.000	1.902	0.000
Aegis Weapon System Development - AWS Development- MDA-MD68	Allot	MDA : VA	1.658	1.206	Nov 2022	0.000		0.000		-		0.000	0.000	2.864	0.000
Aegis Weapon System Development - AWS Development- NAVFAC- MD68	MIPR	NAVFAC : HI	12.425	3.105	Nov 2022	0.000		0.000		-		0.000	0.000	15.530	0.000
Aegis Weapon System Development - AWS Development- NAVSEA- MD68	C/CR	NAVSEA-LM/BAE, NAVWAR, NSWC CD : San Diego, CA; Baltimore, MD; Minneapolis, MN	20.730	0.530	Nov 2022	0.000		0.000		-		0.000	0.000	21.260	0.000
Aegis Weapon System Development - AWS Development- NAVWAR- MD68	MIPR	NIWC PAC : San Diego,CA	53.201	2.464	Nov 2022	0.000		0.000		-		0.000	0.000	55.665	0.000
Aegis Weapon System Development - AWS Development- NSWC Crane-MD68	MIPR	NSWC Crane : IN	0.120	0.048	Nov 2022	0.000		0.000		-		0.000	0.000	0.168	0.000
Aegis Weapon System Development - AWS Development- NSWC DD- MD68	MIPR	NSWC Dahlgren : Dahlgren, VA	53.612	2.274	Nov 2022	0.000		0.000		-		0.000	0.000	55.886	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 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD68 / AEGIS Ashore					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis Weapon System Development - AWS Development- NSWC PHD-MD68	MIPR	NSWC PHD, NSWC, DOI, Aegis Techrep : CA, NJ, ID, MD, IN	48.736	0.575	Nov 2022	0.000		0.000		-		0.000	0.000	49.311	0.000
Aegis Weapon System Development - AWS Development- NSWC-Philadelphia-MD68	MIPR	NSWC Philadelphia : PA	0.334	0.087	Nov 2022	0.000		0.000		-		0.000	0.000	0.421	0.000
Aegis Weapon System Development - AWS Development- PMRF-MD68	MIPR	PMRF : Hawaii	20.540	1.157	Nov 2022	0.000		0.000		-		0.000	0.000	21.697	0.000
Aegis Weapon System Development - AWS Development- SSC PAC Pearl Harbor-MD68	MIPR	Naval Warfare Systems Center (NSWC)/(SSC-PAC) : HI	4.362	0.915	Nov 2022	0.000		0.000		-		0.000	0.000	5.277	0.000
Aegis Weapon System Development - AWS Development- Various-MD68	FFRDC	Various : CECOM/ MITRE, JHU/APL, MIT/LL, DOI	839.861	0.170	Nov 2022	0.000		0.000		-		0.000	0.000	840.031	0.000
Site Activation - DTRA support to construction Romania and Poland-MD68	MIPR	DTRA : Ft. Belvoir, VA	6.469	0.000		0.000		0.000		-		0.000	0.000	6.469	0.000
Site Activation - IESS Support-MD68	MIPR	USAF LCMC Wright Patterson AFB : OH	1.783	0.000		0.000		0.000		-		0.000	0.000	1.783	0.000
Site Activation - Poland Admin Communications-MD68	MIPR	DISA : Scott AFB, IL	4.911	0.000		0.000		0.000		-		0.000	0.000	4.911	0.000
Site Activation - Poland Base Operating Support-MD68	MIPR	NAVFAC : Poland	24.816	5.145	Feb 2023	0.000		0.000		-		0.000	0.000	29.961	0.000
Site Activation - Poland Commercial and Temporary Utilities-MD68	MIPR	NAVFAC : Poland	5.815	0.000		0.000		0.000		-		0.000	0.000	5.815	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 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD68 / AEGIS Ashore					
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
Site Activation - Poland Fuel- MD68	MIPR	DLA : Fort Belvoir, Virginia	2.294	0.000		0.000		0.000		-		0.000	0.000	2.294	0.000
Site Activation - Poland Navy Leases/ Material Handling Services- MD68	MIPR	NAVFAC : Naples Italy	3.158	0.000		0.000		0.000		-		0.000	0.000	3.158	0.000
Site Activation - Romania/ Poland Security Guards / Escorts-MD68	C/FFP	Chenega Infinity : Chantilly, VA	2.778	0.000		0.000		0.000		-		0.000	0.000	2.778	0.000
Site Activation - Transportation of Aegis Weapon System-MD68	MIPR	SDDC : Scotts AFB, IL	6.742	0.000		0.000		0.000		-		0.000	0.000	6.742	0.000
Site Activation - USACE in-house support in Poland-MD68	MIPR	CEHNC : Huntsville, AL	4.789	0.000		0.000		0.000		-		0.000	0.000	4.789	0.000
Site Activation - USACE support in Poland- MD68	MIPR	CENAU : Poland	6.241	0.000		0.000		0.000		-		0.000	0.000	6.241	0.000
Site Activation - USACE-Guam	MIPR	DOD - USA - ENGINEERING AND SUPPORT CENTER, HUNTSVILLE (HNC) : AL	0.030	0.000		0.000		0.000		-		0.000	0.000	0.030	0.000
Site Activation - USACE-Guam- MD68	MIPR	DOD - USA - ENGINEERING AND SUPPORT CENTER, HUNTSVILLE (HNC) : AL	0.482	0.000		0.000		0.000		-		0.000	0.000	0.482	0.000
Site Activation - Various-MD68	Various	Various : Various	68.418	0.000		0.000		0.000		-		0.000	0.000	68.418	0.000
Subtotal			1,261.964	20.984		0.000		0.000		-		0.000	0.000	1,282.948	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 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD68 / AEGIS Ashore					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis Weapon System Development - AWS Development (Various)	Various	Various : Various	0.000	0.000		6.573	Nov 2023	5.111	Nov 2024	-		5.111	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development- MDA/ LM Combat System Engineering, Test Event, and Site Support- MD68	SS/CPFF	LOCKHEED MARTIN CORPORATION : NJ	0.000	0.000		1.413	Nov 2023	2.850	Nov 2024	-		2.850	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development- Modernization- MD68	Various	Various : Various	0.000	0.000		1.730	Nov 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development- PMRF Non-BMDS Range Services- MD68	MIPR	DOD - USN - PACIFIC MISSILE RANGE FACILITY BARKING SANDS (PMRF) : HI	0.000	0.000		1.002	Nov 2023	0.919	Nov 2024	-		0.919	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development- Romania HEMP Hardening- MD68	MIPR	Various : Various	0.000	0.000		1.679	Nov 2023	0.976	Nov 2024	-		0.976	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-MDA/LM AAMDTC Technical and Logistics Support labor- MD68	SS/CPFF	LOCKHEED MARTIN CORPORATION : NJ	0.000	0.000		2.439	Nov 2023	3.972	Nov 2024	-		3.972	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-NAVFAC PMRF- MD68	MIPR	DOD - USN - NAVAL FACILITIES ENGINEERING COMMAND (NAVFAC) HAWAII : HI	0.000	0.000		1.832	Nov 2023	2.772	Nov 2024	-		2.772	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS	MIPR	DOD - USN - NAVAL SURFACE WARFARE	0.000	0.000		1.173	Nov 2023	0.905	Nov 2024	-		0.905	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 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD68 / AEGIS Ashore					
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
Development-NSWC DD PMRF- MD68		CENTER (NSWC) DAHLGREN DIVISION (NSWCDD) : VA													
Aegis Weapon System Development - AWS Development-SSC PAC PMRF- MD68	MIPR	DOD - USN - NAVAL INFORMATION WARFARE CENTER (NIWC) PACIFIC : CA	0.000	0.000		1.117	Nov 2023	1.225	Nov 2024	-		1.225	Continuing	Continuing	Continuing
Aegis Weapon System Development - Restoration & Modernization (Various)	Various	Various : Various	0.000	0.000		1.358	Nov 2023	1.394	Nov 2024	-		1.394	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		20.316		20.124		-		20.124	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			1,261.964	20.984		20.316		20.124		-		20.124	Continuing	Continuing	N/A
Remarks Funding in the All Prior Years column represents a summary of Prior Years Total Costs for inactive contracts and MIPRs 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						R-1 Program Element (Number/Name)								Project (Number/Name)									
0400 / 4						PE 0604880C / Land Based SM-3 (LBSM3)								MD68 / AEGIS Ashore									
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					
EPAA Phase III Technical Capability Declaration (TCD)						◆																	
Poland Construction Complete								◆															
Poland Beneficial Occupancy Date (BOD)								◆															
AAMDTC Maintenance and Upgrades						◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇				
Integrated Master Test Plan (IMTP)						◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇				
AAMDTC Operations and Test						◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇				

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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 0604880C / Land Based SM-3 (LBSM3)	Project (Number/Name) MD68 / AEGIS Ashore	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
EPAA Phase III Technical Capability Declaration (TCD)	2	2023	2	2023
Poland Construction Complete	4	2023	4	2023
Poland Beneficial Occupancy Date (BOD)	4	2023	4	2023
AAMDTC Maintenance and Upgrades	1	2023	4	2029
Integrated Master Test Plan (IMTP)	1	2023	4	2029
AAMDTC Operations and Test	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 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MC68 / 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
MC68: Cyber Operations	10.047	1.900	1.233	1.241	-	1.241	1.265	1.290	1.290	1.316	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

Sustain Missile Defense Agency (MDA) Department of Defense Information Assurance Certification and Accreditation Program (DIACAP) and Controls Validation Testing (CVT) activities, analysis of validation results, risk assessments and reviews of proposed Program Manager/Information Assurance Manager Plans of Action and Milestones for MDA Aegis Ballistic Missile Defense (BMD) mission systems. It maintains the Certification and Accreditation (C&A) data repository, capturing the DIACAP documentation (artifacts, validation results, and Information Assurance Risk Assessment results, and Designated Approving Authority (DAA) accreditation decisions) on all MDA Information Systems.

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

	FY 2023	FY 2024	FY 2025
Title: Network / System Certification and Accreditation (C&A)	1.900	1.233	1.241
Articles:	-	-	-
<p>Description: Monitor and track cybersecurity mitigation detailed in Information Technology Security Guidance. Activities include preparation of C&A documentation and accreditation recommendations to the MDA Senior Information Assurance Officer /Certification Authority and DAA. Independent Verification and Validation team actions ensure the availability, integrity, authentication, confidentiality and non-repudiation of the MDA mission, test and administrative systems. Activities in the Project are necessary to comply with the Federal Information Systems Management Act.</p> <p>Recurring Accomplishments:</p> <ul style="list-style-type: none"> - Provide Cybersecurity engineering and architecture requirements planning for Aegis BMD systems - Coordinate the development and implementation of Aegis BMD Risk Management Framework (RMF) accreditation packages - Conduct regular CVT of Aegis BMD systems and provide a Risk Assessment Report to mitigate cybersecurity deficiencies - Conduct annual cybersecurity reviews on the Aegis BMD systems to assess compliance in implementing and maintaining RMF controls - Implement hardware/software to conduct continuous daily monitoring - Conduct monthly reviews of systems in eMass - Provide daily management of eMass <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 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 0604880C / Land Based SM-3 (LBSM3)	Project (Number/Name) MC68 / Cyber Operations		
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		1.900	1.233	1.241
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
Aegis Ashore primarily achieves the cybersecurity mission through Other Government Agencies Statements Of Work with Naval Information Warfare Command Pacific and Naval Surface Warfare Center Philadelphia, to implement cybersecurity best practices, assist with authorizations to connect and operate connected systems, install system patches and upgrade software, support cyber testing and analysis, and ensuring mandatory cyber clauses are included and enforced on contracts.				

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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 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MC68 / Cyber Operations					
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
Network / System Certification and Accreditation (C&A) - Cyber Operations-PMRF- MC68	MIPR	PMRF : HI	0.481	0.000		0.000		0.000		-		0.000	0.000	0.481	0.000
Network / System Certification and Accreditation (C&A) - Lockheed Martin- MC68	C/CPFF	Lockheed Martin : Moorestown, NJ	0.048	0.000		0.000		0.000		-		0.000	0.000	0.048	0.000
Network / System Certification and Accreditation (C&A) - NAVSEA- MC68	MIPR	NAVSEA : Washington, DC	1.843	0.000		0.000		0.000		-		0.000	0.000	1.843	0.000
Network / System Certification and Accreditation (C&A) - NAVWAR- MC68	MIPR	DOD - USN - NAVAL INFORMATION WARFARE SYSTEMS COMMAND (NAVWAR) : CA	5.044	0.833	Nov 2022	0.000		0.000		-		0.000	0.000	5.877	0.000
Network / System Certification and Accreditation (C&A) - NSWC Corona- MC68	MIPR	NSWC Corona : CA	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	0.000
Network / System Certification and Accreditation (C&A) - NSWC Philadelphia- MC68	MIPR	DOD - USN - NAVAL SURFACE WARFARE CENTER (NSWC) PHILADELPHIA DIVISION (NSWCPD) : PA	2.381	1.067	Nov 2022	0.000		0.000		-		0.000	0.000	3.448	0.000
Subtotal			10.047	1.900		0.000		0.000		-		0.000	0.000	11.947	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						R-1 Program Element (Number/Name)				Project (Number/Name)					
0400 / 4						PE 0604880C / Land Based SM-3 (LBSM3)				MC68 / 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
Network / System Certification and Accreditation (C&A) - Various-Network/ System Certification and Accreditation	Various	Various : Various	0.000	0.000		1.233	Nov 2023	1.241	Nov 2024	-		1.241	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		1.233		1.241		-		1.241	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			10.047	1.900		1.233		1.241		-		1.241	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-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 0604880C / Land Based SM-3 (LBSM3)										Project (Number/Name) MC68 / Cyber Operations																	
Significant Event Complete ▲					Milestone Decision Complete ★					Element Test Complete ◆					System Level Test Complete ●					Complete Activity ◆																	
Significant Event Planned △					Milestone Decision Planned ☆					Element Test Planned ◇					System Level Test Planned ○					Planned Activity ◇																	
										FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
Cyber Operations										◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇

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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 0604880C / Land Based SM-3 (LBSM3)	Project (Number/Name) MC68 / Cyber Operations	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
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 0604880C / Land Based SM-3 (LBSM3)				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: Program-Wide Support	47.918	0.393	0.614	0.855	-	0.855	0.965	0.962	1.034	1.096	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	0.393	0.614	0.855
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 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>Maintenance) to keep the Department's inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Increase from FY 2024 to FY 2025 provides the PWS allocation 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.</p>			
Accomplishments/Planned Programs Subtotals		0.393	0.614
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>The acquisition strategy for MDA Consolidated Support consists of contract actions to industry for: a) Engineering and technical support; b) studies, analyses, and evaluations; and c) management and professional services to MDA functional organizations and program offices. With a focus to achieve Small Business goals, MDA is leveraging existing contracts and will competitively award new contracts to meet MDA's Fiscal Years 2020-2030 Advisory and Assistance Services (A&AS) support.</p>			

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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 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD40 / Program-Wide Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations Management	Various	Various: Multi : AL, CA, CO, VA	2.341	0.000		0.000		0.000		-		0.000	0.000	2.341	0.000
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	15.928	0.000		0.000		0.000		-		0.000	0.000	15.928	0.000
Subtotal			18.269	0.000		0.000		0.000		-		0.000	0.000	18.269	N/A
Remarks N/A															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Services	C/CPFF	CHENEGA : AL	29.649	0.393	Jan 2023	0.614	Nov 2023	0.855	Nov 2024	-		0.855	Continuing	Continuing	Continuing
Subtotal			29.649	0.393		0.614		0.855		-		0.855	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			47.918	0.393		0.614		0.855		-		0.855	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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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 0604880C / Land Based SM-3 (LBSM3)	Project (Number/Name) MD40 / Program-Wide Support	

Schedule Details

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

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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 0604887C / <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>
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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	577.293	84.335	41.824	40.006	-	40.006	50.994	122.374	126.853	137.676	Continuing	Continuing
MT08: <i>Midcourse Test</i>	557.087	80.374	40.160	38.466	-	38.466	48.839	117.283	121.150	131.251	Continuing	Continuing
MD40: <i>Program Wide Support</i>	20.206	3.961	1.664	1.540	-	1.540	2.155	5.091	5.703	6.425	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

N/A

A. Mission Description and Budget Item Justification

Missile Defense Midcourse Defense Segment Test provides flight, ground, and cyber testing of Ground-Based Midcourse Defense (GMD) hardware and software to demonstrate an integrated GMD capability to counter the allocated threats. The GMD hardware and software is tested in an integrated environment with Missile Defense System Sensors; Command and Control, Battle Management, and Communications; Warfighters; and national collection assets to assess and demonstrate the ability to defend the United States against ballistic missiles.

Primary activities include GMD flight test execution, ground test execution, cyber test execution, test resources, and program operations. GMD flight tests provide the opportunity to test actual hardware and software and to demonstrate Missile Defense System interoperability under operationally realistic conditions. GMD participates in integrated Missile Defense System ground tests executed in both the Hardware-in-the-Loop (HWIL) lab environment and with deployed operational assets providing integrated performance data supporting GMD hardware and software fielding decisions. GMD conducts system level cyber tests and participates in integrated Missile Defense System level cyber tests executed both in the HWIL lab environment and using operational assets providing performance data supporting cyber, operational resilience, and system survivability assessments. GMD test resources provides the infrastructure and laboratories to support the GMD test program as well as day-to-day operations of the GMD test program to include support for test planning, execution, and post-event reconstruction. Program operations provides for technical and business management support of the GMD test program.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Missile Defense Agency				Date: March 2024	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0604887C I Ballistic Missile Defense Midcourse Defense Segment Test			
B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	84.075	41.824	40.284	-	40.284
Current President's Budget	84.335	41.824	40.006	-	40.006
Total Adjustments	0.260	0.000	-0.278	-	-0.278
• 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	0.000	0.000			
• Other Adjustment	0.260	0.000	-0.278	-	-0.278
Change Summary Explanation					
N/A					

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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 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test				Project (Number/Name) MT08 / Midcourse 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
MT08: Midcourse Test	557.087	80.374	40.160	38.466	-	38.466	48.839	117.283	121.150	131.251	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note N/A												
A. Mission Description and Budget Item Justification												
Missile Defense Midcourse Defense Segment Test provides flight, ground, and cyber testing of Ground-Based Midcourse Defense (GMD) hardware and software to demonstrate an integrated GMD capability to counter the allocated threats. The GMD hardware and software is tested in an integrated environment with Missile Defense System Sensors; Command and Control, Battle Management, and Communications; Warfighters; and national collection assets to assess and demonstrate the ability to defend the United States against ballistic missiles.												
Primary activities include GMD flight test execution, ground test execution, cyber test execution, test resources, and program operations. GMD flight tests provide the opportunity to test actual hardware and software and to demonstrate Missile Defense System interoperability under operationally realistic conditions. GMD participates in integrated Missile Defense System ground tests executed in both the Hardware-in-the-Loop (HWIL) lab environment and with deployed operational assets providing integrated performance data supporting GMD hardware and software fielding decisions. GMD conducts system level cyber tests and participates in integrated Missile Defense System level cyber tests executed both in the HWIL lab environment and using operational assets providing performance data supporting cyber, operational resilience, and system survivability assessments. GMD test resources provides the infrastructure and laboratories to support the GMD test program as well as day-to-day operations of the GMD test program to include support for test planning, execution, and post-event reconstruction. Program operations provides for technical and business management support of the GMD test program.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: Resources									16.866	15.294	15.727	
									-	-	-	
Description: Provides the infrastructure and laboratories to support the GMD test program as well as the day-to-day operations of the GMD test program to include support for test planning, execution, and post-event reconstruction.												
Recurring efforts include: - Provide GMD System Test Laboratory environments to support hardware and software testing prior to entry into Missile Defense System flight, ground, and/or cyber level tests - Provide GMD System Test Laboratory environments to support execution of ground and/or cyber testing - Provide operations and sustainment of GMD System Test Laboratories in support of flight, ground, and/or cyber testing												

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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 0604887C / <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>	Project (Number/Name) MT08 / <i>Midcourse Test</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>Description: Flight tests demonstrate the capabilities and/or phenomenology that cannot be adequately tested or obtained during ground testing. Flight tests also provide opportunities to test actual hardware and software and to demonstrate Missile Defense System interoperability under operationally realistic conditions. Flight test execution provides the Government and Industry support personnel for planning, integration, execution, and analysis of GMD support for Missile Defense System flight tests.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> -Complete post-test analysis of Flight Test Other (FTX)-26. This is a non-intercept Operational Test demonstrating the Long Range Discrimination Radar (LRDR) Increment 6B capabilities. GMD will test fire control capabilities by receiving and processing LRDR track and discrimination results passed from C2BMC to GMD Fire Control in order to conduct a simulated engagement against an ICBM-representative target with countermeasures. -Conduct post-test analysis of FTG-12. This flight test mission demonstrates Missile Defense System Increment 6B Homeland Defense functionality upgrades in a GMD intercept flight test using a Ground Based Interceptor with a 2-/3-Stage Selectable Configuration 2 Booster and a Capability Enhancement (CE)-II Block 1 EKV in an engagement of an IRBM with CMs launched from VSFB, California. -Completes flight testing on the DSC and continues transition to the GWS and SITR contracts. <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - SEE ABOVE <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>The decrease from FY 2024 to FY 2025 is in accordance with the current Integrated Master Test Plan.</p>			
<p>Title: Ground Test Execution</p> <p align="right">Articles:</p> <p>Description: Ground tests provide integrated performance data supporting GMD hardware and software fielding decisions and provide a venue for the Warfighter to assess Tactics, Techniques, & Procedures. Ground tests are executed both in the HWIL lab environment and using operational assets. HWIL lab tests provide integrated performance data on GMD hardware and software capabilities. Ground tests using operational assets and tactical communication networks assess the interoperability of GMD hardware and software with other Missile Defense System assets. Cyber tests provide performance data supporting cyber, operational resilience, and system survivability assessments. Ground test execution provides the Government and Industry support personnel for planning, integration, execution, and analysis of GMD support for Missile Defense System ground and cyber tests.</p>		5.883 -	14.131 -
		13.482 -	

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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 0604887C / Ballistic Missile Defense Mi dcourse Defense Segment Test	Project (Number/Name) MT08 / Midcourse Test		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
<p>Recurring efforts include:</p> <ul style="list-style-type: none">- Conduct Integrated Ground Test planning, pre-mission analysis, integration, execution including Sprints, and post-mission analysis- Conduct Distributed Ground Test planning, pre-mission analysis, integration, execution, and post-mission analysis- Conduct Cooperative Vulnerability and Penetration Assessment cyber testing and analysis- Conduct Adversarial Assessment cyber testing and analysis <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none">-Continue execution and post-mission analysis of Ground Test Integrated (GTI)-08b (N/I) and conduct planning, integration, execution, and post-mission analysis of GTD-08b (N/I) for OA of performance for Increment 6B.2 Operational Capability. This event provides data to support fielding for the Missile Defense System Increment 6B.2 capability which includes EKV 11 with improved discrimination capability and SKA.-Conduct planning, integration, and execution of GTI-13 Sprint 1 Northern Command /Indo-Pacific Command (N/I) for OA of performance for Increment 6C/7 Operational Capability. These events provide data to support fielding for the Missile Defense System Increment 6C/7 capability which includes C2BMC provided BMD System Track for GMD Homeland Defense Engagements and Expanded Active Sensor Bias and Full Reporting. Note: GTI-13 Sprint 1 will be the first GMD ground test to participate in the MDA transition to the new ground test CONOPs approach. This approach supports more agile fielding as components of the Missile Defense System are ready to integrate and test rather than conducting a single major test event when all Missile Defense System components are ready.-Continue pre-mission analysis, integration, execution and post-mission analysis for Cyber Test events to support Missile Defense System weapon system fielding and operational acceptance.-Support and participate in the continued MDA transition to full implementation of the CONOPS supporting the Ground Test Sprint events. The Ground Test Sprint events support more agile fielding as individual components of the Missile Defense System are ready to integrate and test, compared to conducting a single major test event when all Missile Defense System components are ready. <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>				
Title: Program Operations		9.574	9.422	9.257
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 0604887C / <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>				Project (Number/Name) MT08 / <i>Midcourse Test</i>				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2023	FY 2024	FY 2025
<p>Description: - Technical and business management support, financial management, cost and schedule performance analyses, cost estimation and analysis, configuration management, and integration activities to ensure the program meets cost, schedule, and performance goals</p> <p>- GMD test program compliance with internal and external direction, policies, and regulations</p> <p>- Mission assurance processes to include quality, configuration management, and safety</p> <p>- Technical and testing oversight; cyber security support; hardware and software quality, safety, and mission assurance; and integrated logistics support</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										80.374	40.160	38.466
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost	
• 0208866C: MD08: GMD Procurement	11.300	0.000	20.796	-	20.796	88.586	82.206	0.000	0.000	Continuing	Continuing	
• 0208866C: Midcourse Defense Operation and Maintenance	187.045	174.789	184.280	-	184.280	164.687	162.851	222.765	249.896	Continuing	Continuing	
• 0603882C: Ballistic Missile Defense Midcourse Defense Segment	670.808	903.633	768.227	-	768.227	856.218	842.985	956.974	1,007.150	Continuing	Continuing	
• 0604874C: Improved Homeland Defense Interceptors	1,795.728	2,130.838	1,697.121	-	1,697.121	1,034.859	1,406.953	625.913	404.970	Continuing	Continuing	
Remarks												

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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 0604887C / <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>	Project (Number/Name) MT08 / <i>Midcourse Test</i>
<p>D. Acquisition Strategy</p> <p>The Ground-Based Midcourse Defense (GMD) program will continue to execute testing, development, and evolutionary acquisition through incremental development. The Agency acquisition strategy ensures GMD components are upgraded to improve GMD Weapon System performance in order to retain the proven GMD contribution to the Missile Defense System. This acquisition approach reduces obsolescence risk, provides incremental capability improvements, and allows decision makers to make informed trades between cost, schedule, and performance while rapidly delivering improved operational and technological capabilities.</p> <p>MDA competitively awarded the Development and Sustainment Contract (DSC) to The Boeing Company in December 2011. This contract included development, fielding, test, systems engineering, integration, and configuration management; equipment manufacturing and upgrade; training, operations, and sustainment of the GMD Weapon System and associated support facilities. In January 2018, the DSC was extended with a new period of performance through 1Q FY 2024. The DSC Extension includes supporting test, engineering, software, and performance-based logistics scope. In 2022, the MDA Ground Test Re-plan resulted in the extension of minimal contract line items to support testing, engineering, hardware and software until December 2024; while performance-based logistics transitioned to a new contract after December 2023. The DSC structure breaks out major efforts into separate Contract Line Item Numbers with individual incentives for management insight, accounting, and property accountability.</p> <p>In addition to the DSC, GMD's overarching Acquisition Strategy includes a Next Generation Interceptor Contract, Ground Based Interceptor sustainment contracts, a GMD Weapon System (GWS) Contract, and a Systems Integration, Test, and Readiness (SITR) Contract to execute the full scope of the GMD development efforts for Missile Defense System incremental delivery. Each of the contracts is structured to break out major efforts into separate Contract Line Item Numbers with individual incentives for management insight, accounting, and property accountability. The Midcourse Defense Segment Test acquisition transitions from the DSC to the SITR Contract.</p> <p>GMD competitively awarded the SITR Contract on September 1, 2022 to provide, along with the Technical Direction Agent, a synergistic approach in executing the GMD engineering, integration, test, and readiness of the integrated GMD Weapon System, which operates with the current Ground-Based Interceptor and is adding infrastructure for the integration and testing of Next Generation Interceptor. The SITR contractor is charged with being the Government's technical partner for day-to-day operation and sustainment of the GMD Weapon System alongside the United States Northern Command Warfighters. While the Government maintains overall weapon system integration responsibilities and authority, the SITR contractor will assume a supporting role responsible for ensuring overall GMD integration including physical and logical integration of the GMD Components, to include the Next Generation Interceptor, and Missile Defense System enterprise level integration, planning, and execution of all necessary testing to verify and validate requirements compliance.</p> <p>GMD also uses MDA Consolidated Support contracts for engineering and technical support; studies, analyses, and evaluations; and management and professional services to GMD functional organizations and project offices. With a focus to achieve Small Business goals, MDA is leveraging existing MDA Consolidated Support contracts and will utilize MDA competitively awarded new contracts to acquire Fiscal Years 2020-2030 Advisory and Assistance Services support.</p>		

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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 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test				MT08 / Midcourse Test					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Operations - Civilian Travel (MDA)	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	0.524	0.168	Oct 2022	0.281	Oct 2023	0.295	Oct 2024	-		0.295	Continuing	Continuing	Continuing
Program Operations - Contract Support Services	C/CPFF	Various : Various	28.564	0.000		0.000		0.000		-		0.000	0.000	28.564	0.000
Program Operations - Government Civilian Salaries	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	28.108	4.860	Oct 2022	4.360	Oct 2023	4.653	Oct 2024	-		4.653	Continuing	Continuing	Continuing
Subtotal			57.196	5.028		4.641		4.948		-		4.948	Continuing	Continuing	N/A
Remarks															
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.															
Test and Evaluation (\$ 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
Resources - Cyber Security - Advanced Research Center Cyber Support	C/IDIQ	COLSA Corp : AL	4.162	0.000		0.000		0.000		-		0.000	0.000	4.162	0.000
Resources - Cyber Security - NSITE/GT Communications	MIPR	Army CCDC Aviation & Missile Center : AL	0.138	0.000		0.000		0.000		-		0.000	0.000	0.138	0.000
Resources - Cyber Win10 Implementation - MDDC Lab Analysis Infrastructure	C/IDIQ	Analytical Services, In. : AI	1.449	0.000		0.000		0.000		-		0.000	0.000	1.449	0.000
Resources - DT Government Infrastructure Support, Labs, and Communications	MIPR	DOD - USSF - VANDENBERG AIR FORCE BASE (VANDENBERG AFB) : CA	12.080	0.000		0.000		0.000		-		0.000	0.000	12.080	12.080

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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 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test				Project (Number/Name) MT08 / Midcourse Test					
Test and Evaluation (\$ 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
Resources - Engineering & Analysis - Industry Support	C/CPAF	BOEING : Various	4.221	0.000		0.000		0.000		-		0.000	0.000	4.221	0.000
Resources - Engineering & Analysis - OGA Support	MIPR	Army CCDC Aviation & Missile Center : AL	4.098	0.000		0.000		0.000		-		0.000	0.000	4.098	0.000
Resources - GMD Government Infrastructure Support, Labs, and Communications - CCDC	MIPR	USA CCDC AVIATION AND MISSILE CENTE : AL	0.000	2.249	Jan 2023	1.463	Jan 2024	1.320	Dec 2024	-		1.320	Continuing	Continuing	Continuing
Resources - GMD Government Infrastructure Support, Labs, and Communications - Defense Information System Agency (DISA)	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : MD	0.000	0.000		0.295	Jan 2024	0.000		-		0.000	0.000	0.295	0.000
Resources - GMD Government Infrastructure Support, Labs, and Communications - VSFB	MIPR	DOD - USSF - VANDENBERG AIR FORCE BASE (VANDENBERG AFB) : CA	0.000	5.872	Jan 2023	2.690	Jan 2024	2.791	Dec 2024	-		2.791	Continuing	Continuing	Continuing
Resources - GMD Government Infrastructure Support, Labs, and Communications - Various	Various	Various : Various	63.947	0.000		0.000		0.000		-		0.000	0.000	63.947	0.000
Resources - Prime Infrastructure Support, Labs, and Communications - DSC	C/CPAF	BOEING : Various	81.523	0.000		2.674	Nov 2023	0.000		-		0.000	0.000	84.197	0.000
Resources - Prime Infrastructure Support, Labs, and Communications - SITR	C/CPAF	BOEING : Various	0.028	8.745	Nov 2022	8.172	Nov 2023	11.616	Nov 2024	-		11.616	Continuing	Continuing	Continuing
Flight Test Execution - Range, Resources, and Engineering - Army Space	MIPR	Army Space and Missile Defense Command (USASMDC) : AL	0.000	2.691	Jan 2023	0.000		0.000		-		0.000	0.000	2.691	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 0604887C / Ballistic Missile Defense Mi dcourse Defense Segment Test				Project (Number/Name) MT08 / Midcourse Test					
Test and Evaluation (\$ 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
and Missile Defense Command (USASMDC)															
Flight Test Execution - Range, Resources, and Engineering - Corvid Technologies, LLC	C/CPIF	Corvid Technologies Inc : AL	0.000	2.446	Mar 2023	0.000		0.000		-		0.000	0.000	2.446	0.000
Flight Test Execution - Range, Resources, and Engineering - Department of Transportation (DOT)	MIPR	DOT - DEPARTMENT OF TRANSPORTATION (DOT) : Various	0.000	7.396	Jan 2023	0.000		0.000		-		0.000	0.000	7.396	0.000
Flight Test Execution - Range, Resources, and Engineering - L-3 COMMUNICATIONS CORPORATION	C/CPAF	L-3 COMMUNICATIONS CORPORATION : Various	0.000	1.800	Nov 2022	0.000		0.000		-		0.000	0.000	1.800	0.000
Flight Test Execution - Range, Resources, and Engineering - Naval Air Warfare Center (NAWC)/ Pax River	MIPR	DOD - USN - NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION (NAWCAD), PAX RIVER : MD	0.000	0.210	Jan 2023	0.000		0.000		-		0.000	0.000	0.210	0.000
Flight Test Execution - Range, Resources, and Engineering - Range, Resources, and Engineering - Various	Various	Various : Various	0.000	0.668	Nov 2022	0.000		0.000		-		0.000	0.000	0.668	0.000
Flight Test Execution - Range, Resources, and Engineering - Raytheon	C/CPAF	RAYTHEON : Various	0.000	1.385	Jul 2023	0.000		0.000		-		0.000	0.000	1.385	0.000
Flight Test Execution - Range, Resources, and Engineering - VSFB	MIPR	DOD - USSF - VANDENBERG AIR FORCE BASE (VANDENBERG AFB) : CA	0.000	5.008	Jan 2023	0.000		0.000		-		0.000	0.000	5.008	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 0604887C / Ballistic Missile Defense Mi dcourse Defense Segment Test				Project (Number/Name) MT08 / Midcourse Test					
Test and Evaluation (\$ 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
Flight Test Execution - Range, Resources, and Engineering - Various	MIPR	Various : Various	77.252	0.804	Mar 2023	0.000		0.000		-		0.000	0.000	78.056	0.000
Flight Test Execution - Range, Resources, and Engineering- White Sands Missile Range (WSMR)	MIPR	DOD - USA - WHITE SANDS MISSILE RANGE (WSMR) : NM	0.000	0.742	Jan 2023	0.000		0.000		-		0.000	0.000	0.742	0.000
Flight Test Execution - Test Planning, Test Execution, and Post-Test Silo Repair - DSC	C/CPAF	BOEING : Various	151.146	24.901	Nov 2022	1.313	Nov 2023	0.000		-		0.000	0.000	177.360	0.000
Ground Test Execution - Cybersecurity Testing - GWS	C/CPAF	NORTHROP GRUMMAN : Various	0.000	0.000		1.241	Nov 2023	1.353	Nov 2024	-		1.353	Continuing	Continuing	Continuing
Ground Test Execution - Cybersecurity Testing - SITR	C/CPAF	BOEING : Various	0.000	0.000		1.523	Nov 2023	1.695	Nov 2024	-		1.695	Continuing	Continuing	Continuing
Ground Test Execution - Cybersecurity Testing - DSC	C/CPAF	BOEING : Various	34.098	3.197	Nov 2022	0.683	Nov 2023	0.000		-		0.000	0.000	37.978	0.000
Ground Test Execution - Ground Test Sprints - DSC	C/CPAF	BOEING : Various	16.780	0.631	Nov 2022	0.792	Nov 2023	0.000		-		0.000	0.000	18.203	0.000
Ground Test Execution - Ground Test Sprints - GWS	C/CPAF	NORTHROP GRUMMAN : Various	0.000	0.000		6.035	Nov 2023	6.603	Nov 2024	-		6.603	Continuing	Continuing	Continuing
Ground Test Execution - Ground Test Sprints - SITR	C/CPAF	BOEING : Various	0.000	2.055	Feb 2023	3.857	Nov 2023	3.831	Nov 2024	-		3.831	Continuing	Continuing	Continuing
Ground Test Execution - Ground Test-04 Campaign	C/CPAF	BOEING : Various	3.355	0.000		0.000		0.000		-		0.000	0.000	3.355	0.000
Ground Test Execution - Ground Test-06 Campaign	C/CPAF	BOEING : Various	8.163	0.000		0.000		0.000		-		0.000	0.000	8.163	0.000
Ground Test Execution - Ground Test-07 Campaign	C/CPAF	BOEING : Various	25.648	0.000		0.000		0.000		-		0.000	0.000	25.648	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 0604887C / <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>						Project (Number/Name) MT08 / <i>Midcourse Test</i>			
Test and Evaluation (\$ 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
Ground Test Execution - Ground Test-08 Campaign	C/CPAF	BOEING : Various	7.304	0.000		0.000		0.000		-		0.000	0.000	7.304	0.000
Subtotal			495.392	70.800		30.738		29.209		-		29.209	Continuing	Continuing	N/A
Remarks Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year. FY 2024 request has been adjusted to reflect FY 2023 carryover.															
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Operations - Contract Support Services - MILLENNIUM	C/CPIF	MILLENNIUM CORPORATION : AL	4.499	4.546	Nov 2022	4.781	Nov 2023	4.309	Nov 2024	-		4.309	Continuing	Continuing	Continuing
Subtotal			4.499	4.546		4.781		4.309		-		4.309	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			557.087	80.374		40.160		38.466		-		38.466	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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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 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test										Project (Number/Name) MT08 / Midcourse Test					
Significant Event Complete ▲		Significant Event Planned △		Milestone Decision Complete ★		Milestone Decision Planned ☆		Element Test Complete ◆		Element Test Planned ◇		System Level Test Complete ●		System Level Test Planned ○		Complete Activity ◆		Planned Activity ◇							
										FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029			
GTD-14 (N/I) ((Missile Defense System Ground Test)																				◆					
FTG-18 (DT/OT)																					△				
GTI-16 Sprint 1 (N/I)																					◆				
FTO-04																								△	

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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 0604887C / <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>	Project (Number/Name) MT08 / <i>Midcourse Test</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Element Cyber Testing	1	2023	4	2029
GTD-08a (N/I) (Missile Defense System Ground Test)	1	2023	1	2023
AA-08a (N/I) (Missile Defense System Cybersecurity Test)	2	2023	2	2023
CVPA-08a (N/I) (Missile Defense System Cybersecurity Test)	2	2023	2	2023
FTX-26 (OT) (SN, OT Target Only Flight Test)	4	2023	4	2023
FTG-12 (GM, DT/OT Intercept Flight Test)	1	2024	1	2024
GTI-08b (N/I)	3	2024	3	2024
CVPA-08b Part 1 (N/I) (Missile Defense System Cybersecurity Test)	4	2024	4	2024
GTD-08b (N/I)	4	2024	1	2025
CVPA/AA-08b (N/I)	1	2025	1	2025
CVPA-08b Part 2	1	2025	4	2025
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)	2	2025	2	2025
CVPA-13 (N/I) Part 1	4	2025	4	2025
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)	4	2025	4	2025
GTD-13 (N/I) (Missile Defense System Ground Test)	2	2026	2	2026
AA-13 (N/I)	3	2026	3	2026
CVPA-13 (N/I) Part 2	3	2026	3	2026
GTI-14 Sprint 1 (N/I)	4	2026	4	2026
FTG-16 (GM, DT Intercept Flight Test)	2	2027	2	2027
CVPA-14 (N/I) Part 1	2	2027	2	2027
AA-14 (N/I)	4	2027	4	2027
FTG-17 (GM, DT/OT Intercept Flight Test)	4	2027	4	2027

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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 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test		Project (Number/Name) MT08 / Midcourse Test
		Start		End
Events		Quarter	Year	Quarter Year
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)		3	2027	3 2027
CVPA-14 (N/I) Part 2		4	2027	4 2027
GTD-14 (N/I) ((Missile Defense System Ground Test)		4	2027	4 2027
FTG-18 (DT/OT)		3	2028	3 2028
GTI-16 Sprint 1 (N/I)		4	2028	4 2028
FTO-04		3	2029	3 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 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test				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: Program Wide Support	20.206	3.961	1.664	1.540	-	1.540	2.155	5.091	5.703	6.425	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency Program Elements (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	3.961	1.664	1.540
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			

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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 0604887C / <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Decrease from FY 2024 to FY 2025 reflects the PWS allocation on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.</p>			
Accomplishments/Planned Programs Subtotals		3.961	1.664
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test				Project (Number/Name) MD40 / Program Wide Support					
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support	Various	Various : Various	3.226	0.000		0.000		0.000		-		0.000	3.226	6.452	0.000
Program Wide Support - Agency Operations MITRE	FFRDC	THE MITRE CORPORATION : MD	2.736	2.705	Nov 2022	0.539	Nov 2023	0.000		-		0.000	0.539	6.519	0.000
Program Wide Support - Agency Operations Management	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	0.444	0.000		0.749	Oct 2023	0.000		-		0.000	0.749	1.942	0.000
Program Wide Support - Agency Operations User Services	Reqn	Various : AL	7.655	0.928	Nov 2022	0.000		0.000		-		0.000	8.583	17.166	0.000
Program Wide Support - Agency Operations and Support Services	C/CPFF	SYSTEMS ENGINEERING INC : AL	6.145	0.328	Nov 2022	0.376	Nov 2023	1.540	Nov 2024	-		1.540	Continuing	Continuing	Continuing
Subtotal			20.206	3.961		1.664		1.540		-		1.540	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			20.206	3.961		1.664		1.540		-		1.540	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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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 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test	Project (Number/Name) MD40 / Program Wide Support	

Schedule Details

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

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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 0202057C I Safety Program Management							
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	2.316	2.442	2.484	1.771	-	1.771	1.804	1.841	1.872	1.909	Continuing	Continuing
MDSH: Safety Program Management	2.316	2.442	2.484	1.771	-	1.771	1.804	1.841	1.872	1.909	Continuing	Continuing
Program MDAP/MAIS Code: 362												
Note Decrease in FY 2025 reflects realignment from Program Element (PE) 0202057C, Safety Program Management to PE 0603890C Enabling Programs to remove non-Safety and Occupational Health (SOH) funds from this program element and align to the correct budget.												
A. Mission Description and Budget Item Justification The Missile Defense Agency (MDA) Occupational Safety and Health (OSH) establishes the program plans, policy, responsibilities, and guidelines for compliance with statutory, regulatory, and Department of Defense (DoD) policy/program directives. It also establishes MDA OSH programs designed for the protection of human resources through accident prevention; protection of MDA systems, property, and equipment; and the compliance with appropriate statutes, regulations, Executive Orders, and DoD policies. OSH develops and ensures implementation of safety requirements, mitigates safety risks to the lowest practical level, and ensures a safe workplace for all MDA employees and contractors by implementing a Safety and Occupational Health program.												
B. Program Change Summary (\$ in Millions)				FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total				
Previous President's Budget				2.417	2.484	2.542	-	2.542				
Current President's Budget				2.442	2.484	1.771	-	1.771				
Total Adjustments				0.025	0.000	-0.771	-	-0.771				
• 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				-0.007	0.000							
• Other Adjustment				0.032	0.000	-0.771	-	-0.771				
Change Summary Explanation Decrease in FY 2025 reflects realignment from PE 0202057C, Safety Program Management to PE 0603890C Enabling Programs to remove non-SOH funds from this program element and align to the correct budget.												

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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 0202057C / Safety Program Management				Project (Number/Name) MDSH / Safety Program Management			
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
MDSH: Safety Program Management	2.316	2.442	2.484	1.771	-	1.771	1.804	1.841	1.872	1.909	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Decrease in FY 2025 reflects realignment from Program Element (PE) 0202057C, Safety Program Management to PE 0603890C Enabling Programs to remove non-Safety and Occupational Health (SOH) funds from this program element and align to the correct budget.

A. Mission Description and Budget Item Justification

The Missile Defense Agency (MDA) SOH establishes the program plans, policy, responsibilities, and guidelines for compliance with statutory, regulatory, and Department of Defense (DoD) policy/program directives. It also establishes MDA OSH programs designed for the protection of human resources through accident prevention; protection of MDA systems, property, and equipment; and the compliance with appropriate statutes, regulations, Executive Orders, and DoD policies.

OSH develops and ensures implementation of safety requirements, mitigates safety risks to the lowest practical level, and ensures a safe workplace for all MDA employees and contractors by implementing a Safety and Occupational Health program.

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

	FY 2023	FY 2024	FY 2025
Title: Safety Program Management	2.442	2.484	1.771
Articles:	-	-	-
<p>Description: The OSH program ensures that all employees are provided a safe and healthful workplace through an aggressive initiative of workplace inspections, audits, and accident investigation processes.</p> <p>The 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 0202057C / Safety Program Management	Project (Number/Name) MDSH / Safety Program Management		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024	FY 2025
Decrease in FY 2025 reflects realignment from PE 0202057C, Safety Program Management to PE 0603890C Enabling Programs to remove non-SOH funds from this program element and align to the correct budget.				
Accomplishments/Planned Programs Subtotals		2.442	2.484	1.771
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy The OSH program utilizes a collaboration between subject matter expertise in the Government and Contract Support Services to ensure implementation of safety requirements, mitigate safety risks to the lowest practical level, and ensure a safe workplace for all MDA employees and contractors.				

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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 0202057C / <i>Safety Program Management</i>						Project (Number/Name) MDSH / <i>Safety Program Management</i>			
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
Safety Program Management - Safety & Occupational Health	C/CPFF	ARES CORPORATION : VA	1.130	0.807	Nov 2022	1.081	Nov 2023	0.796	Nov 2024	-		0.796	Continuing	Continuing	Continuing
Subtotal			1.130	0.807		1.081		0.796		-		0.796	Continuing	Continuing	N/A
Remarks N/A															
Management Services (\$ 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
Safety Program Management - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	1.129	1.174	Oct 2022	1.156	Oct 2023	0.895	Oct 2024	-		0.895	Continuing	Continuing	Continuing
Safety Program Management - Safety Operations (SLA)	C/CPIF	Various : Various	0.000	0.393	Mar 2023	0.167	Mar 2024	0.000		-		0.000	0.000	0.560	0.000
Safety Program Management - Safety Program Management - Travel	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	0.057	0.068	Nov 2022	0.080	Nov 2023	0.080	Nov 2024	-		0.080	Continuing	Continuing	Continuing
Subtotal			1.186	1.635		1.403		0.975		-		0.975	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			2.316	2.442		2.484		1.771		-		1.771	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 0202057C / Safety Program Management		Project (Number/Name) MDSH / Safety Program Management				
	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract	

Remarks

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 0202057C / Safety Program Management								Project (Number/Name) MDSH / Safety Program Management							
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			
Safety & Occupational Health								◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇		

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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 0202057C / Safety Program Management	Project (Number/Name) MDSH / Safety Program Management	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Safety & Occupational Health	1	2023	4	2029

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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: Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 0305103C / Cyber Security Initiative
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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	19.016	1.145	2.760	1.831	-	1.831	1.876	1.922	1.970	2.018	Continuing	Continuing
MDCS: Cyber Security Initiative	19.016	1.145	2.760	1.831	-	1.831	1.876	1.922	1.970	2.018	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Decrease from FY 2024 to FY 2025 reflects realignment of personnel to the Enabling Program Element (PE) (0603890C) for Counterintelligence support in order to centrally manage Federally Funded Research and Development Center (FFRDC) services.

A. Mission Description and Budget Item Justification

The Missile Defense Agency (MDA) Counterintelligence (CI) Division conducts CI in Cyberspace activities pursuant to Department of Defense (DoD) Directive DoDD 5240.02 (Counterintelligence) and DoD Instruction S-5240.23 (CI Activities in Cyberspace) to identify, disrupt, neutralize and mitigate foreign intelligence services and international terrorist organizations, hereafter referred to as foreign entities, to act in observable or exploitable ways. To this end, the MDA CI Division conducts activities to detect, neutralize and mitigate foreign entity-directed malicious and insider threat activities targeting MDA administrative and Missile Defense fire control networks and mobile devices.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	1.165	2.760	2.826	-	2.826
Current President's Budget	1.145	2.760	1.831	-	1.831
Total Adjustments	-0.020	0.000	-0.995	-	-0.995
• 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	-0.020	0.000			
• Other Adjustment	0.000	0.000	-0.995	-	-0.995

Change Summary Explanation

The decrease in FY 2025 reflects realignment of personnel to the Enabling PE (0603890C) for Counterintelligence support in order to centrally manage FFRDC 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 0305103C / <i>Cyber Security Initiative</i>				Project (Number/Name) MDCS / <i>Cyber Security Initiative</i>			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
MDCS: <i>Cyber Security Initiative</i>	19.016	1.145	2.760	1.831	-	1.831	1.876	1.922	1.970	2.018	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Decrease from FY 2024 to FY 2025 reflects realignment of personnel to the Enabling PE (0603890C) for Counterintelligence support in order to centrally manage Federally Funded Research and Development Center (FFRDC) services.

A. Mission Description and Budget Item Justification

The Department of Defense (DoD) Counterintelligence in Cyberspace (CIC) mission initiative falls under the functional and fiscal management of the Director, Defense Intelligence Agency (DIA). The Missile Defense Agency (MDA) Counterintelligence (CI) Division conducts defensive CIC activities pursuant to DoD Directive (DoDD) 5240.02 (Counterintelligence), DoD Instruction S-5240.23 (CI Activities in Cyberspace) and DoD Instruction 5240.26 (Countering Espionage, International Terrorism, and the CI Insider Threat), and an MDA Annex within an annual DIA-approved Implementation Plan.

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

	FY 2023	FY 2024	FY 2025
Title: DoD CI in Cyberspace Initiative	1.145	2.760	1.831
Articles:	-	-	-
<p>Description: This activity detects, identifies, neutralizes and mitigates malicious activities directed by foreign entities that target MDA cyber assets. The following actions are required on a continuing basis to accomplish the DoD CI in Cyberspace Initiative:</p> <ul style="list-style-type: none"> - Collaborate with the MDA Computer Emergency Response Team to detect, neutralize and mitigate potential foreign entity directed malicious and insider threat activities targeting MDA administrative and fire control networks, and mobility devices - Conduct CI Incident Assessment of potential foreign entity directed malicious or insider threat activities and refer suspected incidents or events to the Federal Bureau of Investigation or military department CI organizations for further investigation - Conduct CI forensics analysis of MDA computer network activity logs to identify potential indicators of malicious activities from foreign entities, insider threats, and computer network attacks or exploitations - Coordinate with national and DoD level intelligence, CI and law enforcement agencies to identify foreign entity cyber actor intrusion sets and the tactics, techniques and procedures used to target MDA and its Cleared Defense Contractor computer networks - Coordinate with MDA cleared defense contractors that have been compromised by foreign intelligence entities to capture and triage exfiltrated MDA related data, allowing MDA engineering teams to perform proper damage assessments - Provide required initial and periodic training to ensure the MDA workforce is kept apprised of foreign entity threats to DoD personnel, facilities, information, activities, and information technology systems - Protect MDA Sensitive Compartmented Information Facility and Special Access Program areas from cellular/wireless device monitoring 			

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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 0305103C / <i>Cyber Security Initiative</i>				Project (Number/Name) MDCS / <i>Cyber Security Initiative</i>				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2023	FY 2024	FY 2025
- Provide support to the MDA Counter Insider Threat program Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: - Provide CI support for Supply Chain and Cyber Risk Management (SC2RM) activities FY 2025 Plans: - SEE ABOVE. FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects the realignment of personnel supporting Counterintelligence activities in the Enabling PE (0603890C) in order to centrally manage FFRDC services.												
Accomplishments/Planned Programs Subtotals										1.145	2.760	1.831
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>	
• 0603890C: <i>BMD</i> <i>Enabling Programs</i>	589.588	597.720	609.406	-	609.406	623.893	625.985	659.983	677.858	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.												

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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 0305103C / Cyber Security Initiative				Project (Number/Name) MDCS / Cyber Security Initiative					
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
DoD CI in Cyberspace Initiative - CI in Cyberspace	Various	Various : Various	1.118	1.145	Oct 2022	2.760	Oct 2023	0.000		-		0.000	0.000	5.023	0.000
DoD CI in Cyberspace Initiative - CI in Cyberspace - Civ Salaries	Allot	MDA : VA	1.319	0.000		0.000		0.179	Oct 2024	-		0.179	Continuing	Continuing	Continuing
DoD CI in Cyberspace Initiative - Counterintelligence	C/CPFF	TEAMS : VA, AL	5.164	0.000		0.000		0.000		-		0.000	0.000	5.164	0.000
DoD CI in Cyberspace Initiative - Cybersecurity Upgrades at Cheyenne Mountain	C/CPIF	Lockheed Martin : CO	10.000	0.000		0.000		0.000		-		0.000	0.000	10.000	0.000
DoD CI in Cyberspace Initiative - Technical Surveillance & Countermeasures	MIPR	USA-TAO : Ft. Detrick, MD	1.415	0.000		0.000		1.652	Nov 2024	-		1.652	Continuing	Continuing	Continuing
Subtotal			19.016	1.145		2.760		1.831		-		1.831	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			19.016	1.145		2.760		1.831		-		1.831	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-4, RDT&E Schedule Profile: PB 2025 Missile Defense Agency														Date: March 2024																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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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 0305103C / <i>Cyber Security Initiative</i>	Project (Number/Name) MDCS / <i>Cyber Security Initiative</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MDCS Cyber Security Initiative	1	2023	4	2029

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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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>
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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	655.148	125.695	109.483	119.561	-	119.561	122.691	125.114	44.489	55.956	Continuing	Continuing
MD33: <i>MD Space Exp Center (MDSEC)</i>	145.480	29.465	35.367	37.307	-	37.307	39.019	39.814	40.616	51.434	Continuing	Continuing
MD42: <i>Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping</i>	488.029	89.964	68.538	76.027	-	76.027	76.600	78.200	0.000	0.000	0.000	877.358
MC33: <i>MD Space Exp Center (MDSEC)</i>	12.539	1.547	1.690	1.759	-	1.759	1.799	1.837	1.873	1.911	Continuing	Continuing
MD40: <i>Program-Wide Support</i>	9.100	4.719	3.888	4.468	-	4.468	5.273	5.263	2.000	2.611	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Increase from FY2024 to FY2025 provides for HBTSS testing activities

A. Mission Description and Budget Item Justification

Spacebased Kill Assessment (SKA): The SKA project will deliver dedicated space sensors contributing to hit and kill assessment for Homeland Defense. Missile Defense Agency (MDA) Missile Defense System intercept testing experience provided a solid understanding of kill assessment physics to enable exploration of this critical capability. SKA incorporates Government Accountability Office (GAO) recommendations to examine the operational feasibility of disaggregating large satellites and to provide data for the business case for shared versus dedicated satellite control, including the ground antenna networks. The favorable cost and schedule performance on SKA is also consistent with the GAO's assessment of hosted payload programs. The SKA experiment utilizes a network of small Infrared sensors integrated onto host satellites that while on orbit observe missile defense intercepts and deliver situational awareness hit and kill assessment declarations.

HBTSS: HBTSS will demonstrate a schedule-focused, cost-constrained capability to detect and track hypersonic threats and boosting conventional ballistic missiles. The key characteristic of HBTSS prototype demonstration that sets it apart from other Overhead Persistent Infrared sensors is the requirement to provide fire-control quality tracking data. The enhanced tracking accuracy through missile burn out on ballistic threats and the enhanced tracking accuracy on hypersonic threats will provide the warfighter increased missile defense weapons systems engagement capability and higher accuracy impact predictions. The requirement for fire-control data necessitates that HBTSS be a highly sensitive, low-latency, high quality of service system. Following the successful demonstration of HBTSS capabilities, the responsibility for HBTSS operational fielding will be transferred to the US Space Force and the MDA will continue the development of the next-generation of space-based fire control sensors for missile defense. Operationally, the HBTSS fire-control capability will be part of Space Development Agency's Proliferated Warfighter Space Architecture and will detect hypersonic, ballistic, and other advanced threats much sooner than terrestrial radars, providing hypersonic threat-tracking data for hand off through linked missile defense weapons.

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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 I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 1206895C / <i>Ballistic Missile Defense System Space Programs</i>
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Space Applications for Missile Defense (SAMD): SAMD consolidates MDA resources (including those efforts previously planned in PE 1206893C) to provide strategic planning, program integration, contracting, acquisition, engineering, financial management, and program assessments for development and acquisition of space applications.

This PE also funds Cybersecurity efforts necessary to support Missile Defense System Space Programs.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	129.957	109.483	119.860	-	119.860
Current President's Budget	125.695	109.483	119.561	-	119.561
Total Adjustments	-4.262	0.000	-0.299	-	-0.299
• 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	-2.593	0.000			
• Other Adjustment	-1.669	0.000	-0.299	-	-0.299

Change Summary Explanation

N/A

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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 1206895C / Ballistic Missile Defense System Space Programs				Project (Number/Name) MD33 / MD Space Exp Center (MDSEC)			
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
MD33: MD Space Exp Center (MDSEC)	145.480	29.465	35.367	37.307	-	37.307	39.019	39.814	40.616	51.434	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

The Spacebased Kill Assessment (SKA) system is composed of two segments: a space segment and a ground segment.

The space segment is composed of a network of small infrared sensors (sensors, processor cards and cabling), each mated to a different satellite. The total number of sensors and their network placement are specifically tailored for the hit and kill assessment missions. The space segment includes key design features to improve its resiliency.

The ground segment monitors the health and status of the on-orbit sensors, commands the sensors to perform the hit and kill assessment mission, and analyzes the data to make a hit/kill assessment determination. The ground segment also includes the equipment necessary for communications security and information assurance. The Missile Defense Space Center provides the critical infrastructure for SKA data, routing SKA data between the commercial payload integrator and the multi-mission Missile Defense Space Enterprise Architecture.

Space Applications for Missile Defense (SAMd) is a consolidation of functional elements of Missile Defense Agency Contractor Support Services, Federally Funded Research and Development Center/University Affiliated Research Center, and Civilian manpower into a single entity that provides acquisition, financial, and technical support across the Missile Defense Agency Space Sensors enterprise. This represents a continuation of efforts previously funded in PE 1206893C.

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

	FY 2023	FY 2024	FY 2025
Title: Spacebased Kill Assessment	21.546	27.176	28.716
Articles:	-	-	-
Description: The SKA project is designed to deliver hit and kill assessment for Homeland Defense.			
It includes:			
- SKA sensor-host satellite integration and testing			
- On-orbit operations by experimenting and participating in Missile Defense System ground and flight tests			
- Development of hit and kill assessment algorithms required to provide SKA situational awareness hit assessment			

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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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>		Project (Number/Name) MD33 / <i>MD Space Exp Center (MDSEC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> - Missile Defense Space Enterprise Architecture operations in support of SKA experimentation and testing - Supporting engineering trade studies and concept evaluations for current and future space-based sensors - Provide situational awareness hit assessment to Combatant Command United States Northern Command during declared Periods of Heightened Activity <p>Specific and/or unique accomplishments to each Fiscal Year (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: Space Applications for Missile Defense</p> <p align="right">Articles:</p> <p>Description: SAMD provides strategic planning, program integration, contracting, acquisition, engineering, financial management, and program assessments for development and acquisition of space applications</p> <p>Recurring activities include:</p> <ul style="list-style-type: none"> - Build, develop and acquire Space Applications to support the 10 Steps to Ballistic Missile Intercept - Integration of space data with the Missile Defense System to enhance system capabilities - Coordination with U.S. Space Force on development of Missile Defense space-based capabilities - Provide technical and business management support activities to provide critical program status and decision quality data - Participate in the Space Engineering Review Board - Integration of Space capabilities with the Missile Defense System - Integration of space assets within MDA's Integrated Master Test Plan - Develop and evaluate future Space Application concepts <p>FY 2024 Plans: SEE ABOVE</p> <p>FY 2025 Plans:</p>			7.919 -	8.191 -	8.591 -

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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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>	Project (Number/Name) MD33 / <i>MD Space Exp Center (MDSEC)</i>	

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			
Accomplishments/Planned Programs Subtotals	29.465	35.367	37.307

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
• 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
• 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
• 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

Remarks

D. Acquisition Strategy

The SKA priority is to provide situational awareness hit assessment to the warfighter. The SKA efforts would closely align with the MDA Technology Development acquisition life cycle phase. The acquisition strategy includes use of all available acquisition tools to include Military Interdepartmental Purchase Request/Support Agreements, existing contracts, and will competitively award new contracts as appropriate to meet requirements and deliver capabilities. To meet this priority, SKA has developed a body of evidence during Incremental Engineering Technical Review preparations to improve systems engineering and facilitate program and risk management. SKA leverages experience that the Johns Hopkins University Applied Physics Laboratory (JHU/APL) has with its extensive history of performing kill

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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 1206895C / Ballistic Missile Defense System Space Programs	Project (Number/Name) MD33 / MD Space Exp Center (MDSEC)
<p>assessment activities and conducting experiments associated with the Aegis Ballistic Missile Defense program. JHU/APL is the developer of the SKA experiment and its primary subcontractor was responsible for payload integration and hosting accommodations using a firm fixed price contract to contain costs. A direct contract has been awarded by MDA to the host integrator to improve communications and oversight. The SKA experiment uses a commercial satellite program as the platform host for a DoD payload, taking full advantage of a multi-billion dollar space and ground system that already exists.</p>		

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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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>						Project (Number/Name) MD33 / <i>MD Space Exp Center (MDSEC)</i>			

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
Spacebased Kill Assessment - Integrate SKA into Missile Defense System Comms Network & MDSC	Various	Various : Various	1.116	0.000		0.000		0.000		-		0.000	0.000	1.116	1.116
Spacebased Kill Assessment - Software Assurance	MIPR	DEVCOM : AL	0.910	0.000		0.000		0.000		-		0.000	0.000	0.910	0.910
Spacebased Kill Assessment - Transition To Ops (Mission Systems)	C/Various	Various : MDA CO, AL	16.421	0.000		0.000		0.000		-		0.000	0.000	16.421	16.421
Spacebased Kill Assessment - Transition to Ops (Developer)	C/CPFF	JHU/APL : Laurel, MD	17.326	0.000		0.000		0.000		-		0.000	0.000	17.326	17.326
Space Sensor Layer (SSL) - Space Sensor Layer (SSL) - Ground Segment	C/CPIF	Jacobs : Schriever AFB	3.798	0.000		0.000		0.000		-		0.000	0.000	3.798	3.798
Space Sensor Layer (SSL) - Space Sensor Layer (SSL) - Space Prototype Concept Activity	MIPR	SMC SpEC OTA : Various	7.207	0.000		0.000		0.000		-		0.000	0.000	7.207	7.207
Subtotal			46.778	0.000		0.000		0.000		-		0.000	0.000	46.778	N/A

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

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
Spacebased Kill Assessment - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	1.047	0.161	Oct 2022	0.166	Oct 2023	0.179	Oct 2024	-		0.179	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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>						Project (Number/Name) MD33 / <i>MD Space Exp Center (MDSEC)</i>			
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
Spacebased Kill Assessment - Contract Support Services (CSS) Various	C/CPFF	Various : Various	4.104	1.632	Nov 2022	2.031	Nov 2023	0.666	Nov 2024	-		0.666	Continuing	Continuing	Continuing
Spacebased Kill Assessment - IT User Services	C/CPIF	JACOBS TECHNOLOGY INC. : Various	0.207	0.670	Nov 2022	0.721	Nov 2023	0.740	Nov 2024	-		0.740	Continuing	Continuing	Continuing
Spacebased Kill Assessment - Spacebased Kill Assessment - Contract Support Services (CSS) Engineering Services	C/CPFF	NTSI LLC : Various	0.000	0.000		0.000		0.988	Nov 2024	-		0.988	Continuing	Continuing	Continuing
Spacebased Kill Assessment - Spacebased Kill Assessment - Development and Experimentation	C/CPIF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	59.362	8.436	Dec 2022	12.550	Oct 2023	11.448	Nov 2024	-		11.448	Continuing	Continuing	Continuing
Spacebased Kill Assessment - Spacebased Kill Assessment - FFRDC/ UARC	Various	Various : Various	4.342	0.895	Nov 2022	0.953	Nov 2023	0.972	Nov 2024	-		0.972	Continuing	Continuing	Continuing
Spacebased Kill Assessment - Spacebased Kill Assessment - Incremental Capability Operations	C/CPIF	JACOBS TECHNOLOGY INC. : CO	9.259	7.894	Nov 2022	6.892	Nov 2023	10.123	Nov 2024	-		10.123	Continuing	Continuing	Continuing
Spacebased Kill Assessment - Spacebased Kill Assessment - Incremental Capability Operations Various	Various	Various : Various	2.453	1.234	Jul 2023	2.857	Dec 2023	2.196	Dec 2024	-		2.196	Continuing	Continuing	Continuing
Spacebased Kill Assessment - Spacebased Kill Assessment - Program Mission Support	C/Various	Various : Various	1.433	0.624	Nov 2022	1.006	Nov 2023	1.404	Nov 2024	-		1.404	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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>						Project (Number/Name) MD33 / <i>MD Space Exp Center (MDSEC)</i>			
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
Space Applications for Missile Defense - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	0.000	3.950	Oct 2022	3.834	Oct 2023	4.116	Oct 2024	-		4.116	Continuing	Continuing	Continuing
Space Sensor Layer (SSL) - Contract Support Services (CSS)	C/CPFF	Various : CO, AL	4.805	0.000		0.000		0.000		-		0.000	0.000	4.805	4.805
Space Sensor Layer (SSL) - FFRDC	MIPR	Various : CA, CO, NM, VA	6.766	0.000		0.000		0.000		-		0.000	0.000	6.766	6.766
Space Sensor Layer (SSL) - MDA Civilian	Allot	MDA : CO, AL	0.744	0.000		0.000		0.000		-		0.000	0.000	0.744	0.744
Space Sensor Layer (SSL) - Program Mission Support	C/Various	Various : CO, AL, VA	0.978	0.000		0.000		0.000		-		0.000	0.000	0.978	0.978
Space Applications for Missile Defense - Space Applications for Missile Defense - Contractor Support Services (CSS) Various and UARC	C/CPFF	Various : Various	0.000	0.000		0.000		0.670	Nov 2024	-		0.670	Continuing	Continuing	Continuing
Space Sensor Layer (SSL) - UARC	C/CPFF	Various : UT, MD	3.202	0.000		0.000		0.000		-		0.000	0.000	3.202	3.202
Subtotal			98.702	25.496		31.010		33.502		-		33.502	Continuing	Continuing	N/A
Remarks															
In accordance with the Financial Management Regulation cost category definitions, some items have transferred to appropriate cost categories.															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>				Project (Number/Name) MD33 / <i>MD Space Exp Center (MDSEC)</i>					
Test and Evaluation (\$ 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
Remarks N/A															
Management Services (\$ 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
Space Applications for Missile Defense - Contractor Support Services (CSS) Engineering Support	C/CPFF	NTSI LLC : Various	0.000	2.737	Nov 2022	2.902	Nov 2023	2.990	Nov 2024	-		2.990	Continuing	Continuing	Continuing
Space Applications for Missile Defense - Space Applications for Missile Defense - Contractor Support Services (CSS) Various and UARC	Various	Various : Various	0.000	1.232	Nov 2022	1.455	Nov 2023	0.815	Nov 2024	-		0.815	Continuing	Continuing	Continuing
Subtotal			0.000	3.969		4.357		3.805		-		3.805	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			145.480	29.465		35.367		37.307		-		37.307	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 1206895C / Ballistic Missile Defense System Space Programs					Project (Number/Name) MD33 / MD Space Exp Center (MDSEC)											
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				
SKA Operations/Experimentation - 1Q FY 2023 - 4Q FY 2023					◆	◆	◆	◆													
FTX-26 (OT) (SN, OT Target Only Flight Test)								▲													
FTG-12 (GM, DT/OT Intercept Flight Test)								▲													
SKA Operations/Experimentation - 1Q FY 2024 - 4Q FY 2024								◇	◇	◇	◇										
FTM-37 (AEGIS 5.1, DT/OT Intercept Flight Test)										△											
SKA Operations/Experimentation - 1Q FY 2025 - 4Q FY 2025										◇	◇	◇	◇								
FTM-30 (AEGIS 5.1, DT/OT Intercept Flight Test)												△									
FTM-43 (AEGIS 5.1, DT/OT Intercept Flight Test)													△								
SKA Operations/Experimentation - 1Q FY 2026 - 4Q FY 2026												◇	◇	◇	◇						
SKA Operations/Experimentation - 1Q FY 2027 - 4Q FY 2027														◇	◇	◇	◇				
FTT-26 (MRBM T1)															△						
SKA Operations/Experimentation - 1Q FY 2028 - 4Q FY 2028																◇	◇	◇	◇		
FTM-47 (MRBM T4 X3/BQM-177 X4)																	△				
FTG-18 (DT/OT)																		△			
SKA Operations/Experimentation - 1Q FY 2029 - 4Q FY 2029																			◇	◇	
																			◇	◇	

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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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>	Project (Number/Name) MD33 / <i>MD Space Exp Center (MDSEC)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
SKA Operations/Experimentation - 1Q FY 2023 - 4Q FY 2023	1	2023	4	2023
FTX-26 (OT) (SN, OT Target Only Flight Test)	4	2023	4	2023
FTG-12 (GM, DT/OT Intercept Flight Test)	1	2024	1	2024
SKA Operations/Experimentation - 1Q FY 2024 - 4Q FY 2024	1	2024	4	2024
FTM-37 (AEGIS 5.1, DT/OT Intercept Flight Test)	1	2025	1	2025
SKA Operations/Experimentation - 1Q FY 2025 - 4Q FY 2025	1	2025	4	2025
FTM-30 (AEGIS 5.1, DT/OT Intercept Flight Test)	4	2025	4	2025
FTM-43 (AEGIS 5.1, DT/OT Intercept Flight Test)	3	2026	3	2026
SKA Operations/Experimentation - 1Q FY 2026 - 4Q FY 2026	1	2026	4	2026
SKA Operations/Experimentation - 1Q FY 2027 - 4Q FY 2027	1	2027	4	2027
FTT-26 (MRBM T1)	3	2027	3	2027
SKA Operations/Experimentation - 1Q FY 2028 - 4Q FY 2028	1	2028	4	2028
FTM-47 (MRBM T4 X3/BQM-177 X4)	2	2028	2	2028
FTG-18 (DT/OT)	3	2028	3	2028
SKA Operations/Experimentation - 1Q FY 2029 - 4Q FY 2029	1	2029	4	2029

Note

* FTM-37 (AEGIS 5.1, DT/OT Intercept Flight Test) under review

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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 1206895C / Ballistic Missile Defense System Space Programs				Project (Number/Name) MD42 / Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping			
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
MD42: Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping	488.029	89.964	68.538	76.027	-	76.027	76.600	78.200	0.000	0.000	0.000	877.358
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Increase from FY2024 to FY2025 provides for HBTSS testing activities

A. Mission Description and Budget Item Justification

HBTSS will demonstrate a resilient, flexible, and global capability to detect and track hypersonic missiles and detect and track ballistic missiles in the boost phase of flight. The fire-control quality tracking data will allow long range engagement of the threat while enhanced tracking accuracy through missile burn out will provide the Warfighting community increased capability in missile defense weapons systems engagement and higher accuracy impact predictions.

The HBTSS prototype demonstration's priority is to maintain the pace of the development schedule given the urgent Warfighter need to address rapidly developing threats. To meet this priority, HBTSS must use high technology readiness level components, take advantage of existing Government capabilities to minimize development, use a management culture that does not slow down the pace of development, and use Other Transaction Authority (OTA) to minimize contracting cycle times. OTAs allow the Government to work with traditional, non-traditional, and new space businesses to identify innovative solutions.

The HBTSS prototype demonstration seeks to demonstrate the ability to meet requirements derived from United States Strategic Command Prioritized Capabilities List, the National Defense Authorization Act for Fiscal Year 2019, and the Joint Requirements Oversight Council Capability Development Document for Missile Warning (MW)/Missile Defense (MD) Overhead Persistent Infrared (OPIR).

The HBTSS developed target detection algorithms and evaluated them in a Signal-chain Processing Demonstration, providing insight into the constellation architecture, communications approach, and preliminary command and control design aspects. These results informed the development of the HBTSS prototype demonstration Space Vehicles (SVs) and demonstrated the ability to detect and track dim targets in a cluttered background along with the sensitivity necessary to support the hypersonic kill chain.

Operationally, the HBTSS fire-control capability will be part of Space Development Agency's Proliferated Warfighter Space Architecture and will detect hypersonic, ballistic, and other advanced threats much sooner than terrestrial radars, providing hypersonic threat-tracking data for hand off through linked missile defense weapons.

After Launch and Early On-Orbit Testing (LEOT), HBTSS will conduct on-orbit testing, utilizing the MDA Integrated Master Test Plan (IMTP), non-IMTP partner flight test events, and Targets of Opportunity to test, characterize and validate the HBTSS performance.

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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 1206895C / Ballistic Missile Defense System Space Programs	Project (Number/Name) MD42 / Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping		
Following the successful demonstration of HBTSS capabilities, the responsibility for HBTSS operational fielding will be transferred to the US Space Force and the Missile Defense Agency will continue the development of the next-generation of space-based fire control sensors for missile defense.					
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2023	FY 2024	FY 2025
Title: Hypersonic and Ballistic Tracking Space Sensor (HBTSS)			89.964	68.538	76.027
Articles:			-	-	-
Description: HBTSS is a space-based missile tracking sensor/system program to address Warfighter requirements. The goal of this effort is to develop prototype space sensors to: -Detect and track hypersonic threats as well as boosting conventional ballistic missiles in their boost phase of flight -Support MW/MD mission -Support other missions, as capable -Leverage inherent multi-domain capabilities to provide as-capable support to the OPIR Enterprise Recurring activities include: - Validate and Characterize HBTSS Performance - Complete early orbit test activities and continue on-orbit testing - Conduct daily on-orbit satellite operations - Support the MDA test events - Support test events associated with other organizations - Develop and implement Ground and SV software updates - Conduct Satellite and Ground Segment Sustainment - Conduct HBTSS program management, oversight, and mission support Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: - Complete early orbit test activities and continue on-orbit testing - Conduct daily on-orbit satellite operations - Support the MDA test events - Support test events associated with other organizations - Develop and implement Ground and Space Vehicle software updates FY 2025 Plans: SEE ABOVE 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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>	Project (Number/Name) MD42 / <i>Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025
Increase from FY2024 to FY2025 provides for HBTSS testing activities			
Accomplishments/Planned Programs Subtotals	89.964	68.538	76.027

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
• 0603890C: <i>BMD Enabling Programs</i>	589.588	597.720	609.406	-	609.406	623.893	625.985	659.983	677.858	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
• 0604181C: <i>Hypersonic Defense</i>	513.267	208.997	182.283	-	182.283	193.100	205.122	250.208	327.698	Continuing	Continuing

Remarks

D. Acquisition Strategy

The HBTSS acquisition approach uses a phased approach to deliver warfighting capability. Each phase has a limited duration, is capability focused, and allows HBTSS to maintain schedule, reduce risk, and add new technology and capabilities when ready. The current acquisition phase consists of competitive prototyping with multiple performers utilizing OTAs. The current phase will result in the launch of the prototype demonstration SVs followed by a two-year on-orbit demonstration period to test, characterize, and validate HBTSS. Following the successful demonstration of HBTSS capabilities, the responsibility for HBTSS operational fielding will be transferred to the U.S. Space Force and the MDA will continue the development of the next-generation of space-based fire control sensors for missile defense.

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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 1206895C / Ballistic Missile Defense System Space Programs				Project (Number/Name) MD42 / Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping					
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
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Component Testing	FFRDC	Lawrence Berkley National Lab : Berkley, CA	0.139	0.062	Dec 2022	0.000		0.000		-		0.000	0.000	0.201	0.201
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Ground Segment	Various	Various : Various	7.609	0.000		0.000		0.000		-		0.000	0.000	7.609	7.609
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Ground Segment - Add Sites	C/CPIF	JACOBS TECHNOLOGY INC. : Various	1.175	0.000		0.000		0.000		-		0.000	0.000	1.175	1.175
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Ground Segment - ESL Integration	C/CPAF	NORTHROP GRUMMAN : AL	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	2.000
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Ground Segment - Network Comms	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : Various	0.166	0.000		0.000		0.000		-		0.000	0.000	0.166	0.166
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Ground Segment - Sustainment	C/CPIF	JACOBS TECHNOLOGY INC. : CO	50.264	12.758	Nov 2022	0.000		0.000		-		0.000	0.000	63.022	63.022
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Phase IIb Team 1	C/FFP	L-3 COMMUNICATIONS CORPORATION : IN	116.297	27.785	Nov 2022	20.214	Nov 2023	0.000		-		0.000	0.000	164.296	164.296
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Phase IIb Team 2	C/FFP	NORTHROP GRUMMAN : CA	147.178	20.251	Nov 2022	20.214	Nov 2023	0.000		-		0.000	0.000	187.643	187.643
Hypersonic and Ballistic Tracking Space Sensor	MIPR	Space Systems Command : CA	105.317	1.336	Jun 2023	0.000		0.000		-		0.000	0.000	106.653	106.653

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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 1206895C / Ballistic Missile Defense System Space Programs				Project (Number/Name) MD42 / Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping					
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
(HBTSS) - Launch Services															
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Launch Services Payload Integration Facility	C/FFP	ASTROTECH SPACE OPERATIONS : FL	1.649	0.000		0.000		0.000		-		0.000	0.000	1.649	1.649
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Payload Risk Reduction	MIPR	DOD - SPACE DEVELOPMENT AGENCY (SDA) : Huntsville, AL	6.269	0.000		0.000		0.000		-		0.000	0.000	6.269	6.269
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Phase IIa Team 1	C/FFP	Harris Corporation : Various	3.995	0.000		0.000		0.000		-		0.000	0.000	3.995	3.995
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Phase IIa Team 2	C/FFP	Leidos : San Diego, CA	3.995	0.000		0.000		0.000		-		0.000	0.000	3.995	3.995
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Phase IIa Team 3	C/FFP	Northrop Grumman : Los Angeles, CA	4.000	0.000		0.000		0.000		-		0.000	0.000	4.000	4.000
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Phase IIa Team 4	C/FFP	Raytheon : Los Angeles, CA	3.959	0.000		0.000		0.000		-		0.000	0.000	3.959	3.959
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Test Campaign Support - Science Team	FFRDC	MASSACHUSETTS INSTITUTE OF TECHNOLOGY : MA	0.875	0.000		0.000		0.000		-		0.000	0.000	0.875	0.875
Subtotal			454.887	62.192		40.428		0.000		-		0.000	0.000	557.507	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 1206895C / Ballistic Missile Defense Sy stem Space Programs				Project (Number/Name) MD42 / Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping					
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
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	1.852	1.670	Oct 2022	1.399	Oct 2023	1.611	Oct 2024	-		1.611	Continuing	Continuing	Continuing
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - FFRDC/UARC (Legacy Data)	Various	Various : Various	10.274	1.162	Nov 2022	0.000		0.000		-		0.000	0.000	11.436	11.436
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Contractor Support Services (CSS) Engineering Services	C/CPFF	NTSI LLC : Various	2.753	3.587	Nov 2022	3.569	Nov 2023	3.631	Nov 2024	-		3.631	Continuing	Continuing	Continuing
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Contractor Support Services (CSS) Various	C/CPFF	Various : Various	6.537	0.267	Nov 2022	1.218	Nov 2023	0.167	Nov 2024	-		0.167	Continuing	Continuing	Continuing
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - FFRDC/UARC Aerospace	FFRDC	DOD - USSF - SPACE SYSTEMS COMMAND (SSC) : CA	3.012	3.336	Nov 2022	3.163	Nov 2023	1.800	Nov 2024	-		1.800	Continuing	Continuing	Continuing
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - FFRDC/UARC MITRE	FFRDC	DOD - USA - COMMUNICATIONS ELECTRONICS COMMAND (CECOM) : CO	0.000	0.000		0.000		0.650	Nov 2024	-		0.650	Continuing	Continuing	Continuing
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - FFRDC/UARC SDL	FFRDC	UTAH STATE UNIVERSITY RESEARCH FOUNDATION : Various	3.742	4.900	Nov 2022	3.562	Nov 2023	3.613	Nov 2024	-		3.613	Continuing	Continuing	Continuing
Hypersonic and Ballistic Tracking Space Sensor	MIPR	DOD - USN - NAVAL RESEARCH	0.000	3.056	Nov 2022	0.000		0.500	Nov 2024	-		0.500	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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>						Project (Number/Name) MD42 / <i>Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping</i>			
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
(HBTSS) - HBTSS - Ground Segment Naval Research Lab		LABORATORY (NRL) : MD													
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Ground Segment Network Comms	MIPR	DOD - DEFENSE INFORMATION SYSTEMS AGENCY (DISA) : Various	0.000	0.249	Dec 2022	1.000	Nov 2023	0.200	Nov 2024	-		0.200	Continuing	Continuing	Continuing
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Ground Segment Sustainment	C/CPFF	JACOBS TECHNOLOGY INC. : CO	0.000	0.000		6.250	Nov 2023	8.000	Nov 2024	-		8.000	Continuing	Continuing	Continuing
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Ground Segment Various	Various	CLASSIFIED PERFORMER : Various	0.000	4.188	Nov 2022	1.200	Nov 2023	6.060	Nov 2024	-		6.060	Continuing	Continuing	Continuing
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Phase IIb Team 1 On-Orbit Operations	C/FFP	L-3 COMMUNICATIONS CORPORATION : IN	0.000	0.000		0.000		22.175	Nov 2024	-		22.175	Continuing	Continuing	Continuing
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Phase IIb Team 2 On-Orbit Operations	C/FFP	NORTHROP GRUMMAN : CA	0.000	0.000		0.000		21.570	Nov 2024	-		21.570	Continuing	Continuing	Continuing
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Program Mission Support	Various	Various : Various	3.607	2.821	Nov 2022	0.632	Nov 2023	3.247	Oct 2024	-		3.247	Continuing	Continuing	Continuing
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Test Campaign Support	FFRDC	DOD - USAF - AIR FORCE LIFE CYCLE MANAGEMENT	0.000	1.500	Nov 2022	0.000		1.500	Nov 2024	-		1.500	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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>						Project (Number/Name) MD42 / <i>Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping</i>			
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
		CENTER (AFLCMC) : MA													
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Test Campaign Support - Various New	Various	Various : Various	0.000	0.000		5.000	Nov 2023	0.000		-		0.000	0.000	5.000	5.000
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - Threat Tracking Advancements	C/CPFF	NORTHROP GRUMMAN : CO	1.125	0.000		0.000		0.000		-		0.000	0.000	1.125	1.125
Subtotal			32.902	26.736		26.993		74.724		-		74.724	Continuing	Continuing	N/A
Remarks N/A															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Management Services (\$ 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
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Contractor Support	C/CPFF	Various : Various	0.240	1.036	Nov 2022	1.117	Nov 2023	1.139	Nov 2024	-		1.139	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 1206895C / Ballistic Missile Defense System Space Programs						Project (Number/Name) MD42 / Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping			
Management Services (\$ 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
Services (CSS) Acquisition Support															
Hypersonic and Ballistic Tracking Space Sensor (HBTSS) - HBTSS - Contractor Support Services (CSS) Various	C/CPFF	Various : Various	0.000	0.000		0.000		0.164	Nov 2024	-		0.164	Continuing	Continuing	Continuing
Subtotal			0.240	1.036		1.117		1.303		-		1.303	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			488.029	89.964		68.538		76.027		-		76.027	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 1206895C / Ballistic Missile Defense System Space Programs					Project (Number/Name) MD42 / Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping											
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				
Payload Assembly/Integration/Test					◆	◆	◆	◆													
Space Vehicle Assembly/Integration/Test					◇	◇	◇	◇	◇												
Enterprise Ground Readiness Review (EGRR)										△											
Pre-Ship Review (PSR)										△											
Payload Calibration Test Review (PCTR)										△											
Launch Readiness Review (LRR)										△											
HBTSS Phase IIb Launch										◇											
Launch and Early Orbit Test (LEOT)										◇	◇										
On-Orbit Operations (FY2024)											◇	◇									
Targets of Opportunity (FY2024)											◇	◇									
HTB-1											○										
HTB-2												○									
Targets of Opportunity (FY2025)												◇	◇	◇	◇						
On-Orbit Operations (FY2025)												◇	◇	◇	◇						
FTX-40 (AEGIS 5.1, DT Tracking Exercise Flight Test)												△									
On-Orbit Operations (FY2026)													◇	◇	◇	◇					
Targets of Opportunity (FY2026)													◇	◇	◇	◇					
FTM-43 (AEGIS 5.1, DT/OT Intercept Flight Test)														△							
De-Orbit Operations															◇	◇	◇	◇			

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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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>	Project (Number/Name) MD42 / <i>Hypersonic & Ballistic Tracking Space Sensor (HBTSS) Prototyping</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Payload Assembly/Integration/Test	1	2023	4	2023
Space Vehicle Assembly/Integration/Test	1	2023	1	2024
Enterprise Ground Readiness Review (EGRR)	2	2024	2	2024
Pre-Ship Review (PSR)	2	2024	2	2024
Payload Calibration Test Review (PCTR)	2	2024	2	2024
Launch Readiness Review (LRR)	2	2024	2	2024
HBTSS Phase IIb Launch	2	2024	2	2024
Launch and Early Orbit Test (LEOT)	2	2024	3	2024
On-Orbit Operations (FY2024)	3	2024	4	2024
Targets of Opportunity (FY2024)	3	2024	4	2024
HTB-1	3	2024	3	2024
HTB-2	4	2024	4	2024
Targets of Opportunity (FY2025)	1	2025	4	2025
On-Orbit Operations (FY2025)	1	2025	4	2025
FTX-40 (AEGIS 5.1, DT Tracking Exercise Flight Test)	2	2025	2	2025
On-Orbit Operations (FY2026)	1	2026	4	2026
Targets of Opportunity (FY2026)	1	2026	4	2026
FTM-43 (AEGIS 5.1, DT/OT Intercept Flight Test)	3	2026	3	2026
De-Orbit Operations	1	2027	4	2027

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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 1206895C / Ballistic Missile Defense System Space Programs				Project (Number/Name) MC33 / MD Space Exp Center (MDSEC)			
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
MC33: MD Space Exp Center (MDSEC)	12.539	1.547	1.690	1.759	-	1.759	1.799	1.837	1.873	1.911	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note N/A												
A. Mission Description and Budget Item Justification Ballistic Missile Defense System Space Programs Cyber Operations sustain the Missile Defense Agency Risk Management Framework (RMF) and Security Controls Assessments (SCA)/Controls Validation Testing activities, analysis of validation results, risk assessments, and reviews of proposed Program Manager/Information System Security Manager Plans of Action and Milestones (POA&Ms) for Ballistic Missile Defense System Space Program mission systems. Activities in this Project are necessary to comply with the Federal Information Security Management Act.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: Network / System Certification and Accreditation (C&A) Articles: Description: This activity maintains the Assessment and Authorization and C&A data repository, capturing the RMF documentation (artifacts, validation results, and Information Assurance Risk Assessment results, and Designated Approving Authority (DAA) accreditation decisions) and POA&Ms on all MDA information systems. This activity prepares and submits C&A documentation and accreditation recommendations to the MDA Chief Information Officer/Certification Authority and the DAA. Independent Verification and Validation team actions ensure the availability, integrity, authentication, confidentiality, and non-repudiation of the MDA mission, test, and administrative systems. Recurring accomplishments include the following: - Monitor and track cybersecurity and mitigations detailed in Information Technology security POA&Ms - Conduct cybersecurity design, engineering, and architecture planning for information technology systems - Plan and test the cybersecurity controls for space systems - Conduct SCA testing continuous monitoring of mission systems and provide POA&Ms to mitigate cybersecurity vulnerabilities Specific and/or unique accomplishments to each FY are as follows: FY 2024 Plans: SEE ABOVE FY 2025 Plans:									1.547	1.690	1.759	
									-	-	-	

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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 1206895C / Ballistic Missile Defense System Space Programs	Project (Number/Name) MC33 / MD Space Exp Center (MDSEC)		
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				
Accomplishments/Planned Programs Subtotals		1.547	1.690	1.759
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy 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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>	Project (Number/Name) MC33 / <i>MD Space Exp Center (MDSEC)</i>
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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
Network / System Certification and Accreditation (C&A) - CORE Upgrade	C/CPAF	Northrop Grumman : Schriever AFB, CO	1.157	0.000		0.000		0.000		-		0.000	0.000	1.157	1.157
Network / System Certification and Accreditation (C&A) - MDSEA Solutions	C/CPIF	Jacobs : Schriever AFB, CO	3.471	0.000		0.000		0.000		-		0.000	0.000	3.471	3.471
Network / System Certification and Accreditation (C&A) - Network/Comm Assurance	Various	Various : Various	1.813	0.000		0.000		0.000		-		0.000	0.000	1.813	1.813
Network / System Certification and Accreditation (C&A) - SKA Communications	C/CPFF	JHU/APL : MD	0.360	0.000		0.000		0.000		-		0.000	0.000	0.360	0.360
Network / System Certification and Accreditation (C&A) - Strengthening Risk Management Framework	C/CPAF	Northrop Grumman, Various : Schriever AFB, CO	1.940	0.000		0.000		0.000		-		0.000	0.000	1.940	1.940
Subtotal			8.741	0.000		0.000		0.000		-		0.000	0.000	8.741	N/A

Remarks
In accordance with the Financial Management Regulation cost category definitions, Network / System C&A CSS has transferred to appropriate cost categories.

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
Network / System Certification and Accreditation (C&A) - Civilian Labor	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) CIVILIAN : Various	0.000	0.413	Oct 2022	0.335	Oct 2023	0.358	Oct 2024	-		0.358	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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>						Project (Number/Name) MC33 / <i>MD Space Exp Center (MDSEC)</i>			
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
Network / System Certification and Accreditation (C&A) - Contractor Support Services (CSS)	C/CPFF	Various : Various	3.798	1.134	Nov 2022	1.355	Nov 2023	1.401	Nov 2024	-		1.401	Continuing	Continuing	Continuing
Subtotal			3.798	1.547		1.690		1.759		-		1.759	Continuing	Continuing	N/A
Remarks In accordance with the Financial Management Regulation cost category definitions, Network / System C&A CSS has transferred to appropriate cost categories.															
Test and Evaluation (\$ 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
Subtotal			-	-		-		-		-		-	-	-	N/A
Remarks N/A															
Management Services (\$ 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
Subtotal			-	-		-		-		-		-	-	-	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			12.539	1.547		1.690		1.759		-		1.759	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 1206895C / Ballistic Missile Defense System Space Programs			Project (Number/Name) MC33 / MD Space Exp Center (MDSEC)				
	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract	
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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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MC33 Cyber Operations Planned										◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇</

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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 1206895C / Ballistic Missile Defense System Space Programs	Project (Number/Name) MC33 / MD Space Exp Center (MDSEC)	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MC33 Cyber Operations Planned	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 1206895C / Ballistic Missile Defense Sy stem Space 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: Program-Wide Support	9.100	4.719	3.888	4.468	-	4.468	5.273	5.263	2.000	2.611	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency Program Elements (PE) 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	4.719	3.888	4.468
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			

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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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<p>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.</p> <p><i>FY 2024 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2025 Plans:</i> - SEE ABOVE.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Increase from FY 2024 to FY 2025 provides the PWS allocation 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.</p>			
Accomplishments/Planned Programs Subtotals		4.719	3.888
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
<p>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.</p>			

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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 1206895C / <i>Ballistic Missile Defense System Space Programs</i>						Project (Number/Name) MD40 / <i>Program-Wide Support</i>			
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities and Maintenance	MIPR	Army Corps of Engineers : Multi: AL, CA, CO, VA	0.394	2.202	Nov 2022	1.255	Nov 2023	0.000		-		0.000	0.000	3.851	0.000
Program Wide Support - Agency Facilities and Maintenance SRM	MIPR	Army Corps of Engineers : Multi: AK, AL, CA, CO, HI, NY, VA	0.029	1.575	Nov 2022	2.633	Nov 2023	1.702	Nov 2024	-		1.702	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations Management	C/CPAF	Various Multi: AL, CA, : CO, VA	0.080	0.000		0.000		0.000		-		0.000	0.000	0.080	0.000
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Allot	DOD - MISSILE DEFENSE AGENCY (MDA) : Various	0.000	0.240	Nov 2022	0.000		0.000		-		0.000	0.000	0.240	0.000
Program Wide Support - Agency Operations and Support Other Agency Services	MIPR	Various : Multi: AK, AL, CO, CA, HI, MD, VA	0.380	0.000		0.000		0.000		-		0.000	0.000	0.380	0.000
Program Wide Support - Agency Operations and Support Services	MIPR	DOD - WASHINGTON HEADQUARTERS SERVICES (WHS) : VA	8.217	0.538	Dec 2022	0.000		0.000		-		0.000	0.000	8.755	0.000
Program Wide Support - Agency Operations and Support Services #3	MIPR	Army Corps of Engineers/ Huntsville : Various	0.000	0.094	Nov 2022	0.000		1.135	Nov 2024	-		1.135	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations, Sustainment and GPC	C/CPIF	JACOBS TECHNOLOGY INC. : Multi: AK, AL, CA, HI, NY, VA	0.000	0.070	Nov 2022	0.000		1.631	Nov 2024	-		1.631	Continuing	Continuing	Continuing
Subtotal			9.100	4.719		3.888		4.468		-		4.468	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 1206895C / Ballistic Missile Defense System Space Programs					Project (Number/Name) MD40 / Program-Wide Support				
	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	9.100	4.719		3.888		4.468		-		4.468	Continuing	Continuing	N/A	

Remarks

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

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PE 1206895C: *Ballistic Missile Defense System Space P...*
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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 1206895C / Ballistic Missile Defense System Space Programs	Project (Number/Name) MD40 / Program-Wide Support	

Schedule Details

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

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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 6: RDT&E Management Support					R-1 Program Element (Number/Name) PE 0605502C I Small Business Innovation Research - MDA							
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	-	111.224	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	111.224
MD45: Small Business Innovation Research	-	111.224	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	111.224
Program MDAP/MAIS Code: 362												
Note Funds are transferred into this Program Element (PE) in the execution year.												
A. Mission Description and Budget Item Justification Small Business Innovation Research (SBIR) explores innovative concepts pursuant to Public Law 106-554 (Small Business Reauthorization Act of 2000) and Public Law 107-50 (Small Business Technology Transfer Program Reauthorization Act of 2001), which mandates a two-phase competition for small businesses with innovative technology that can be commercialized. SBIR and Small Business Technology Transfer (STTR) programs will develop new dual-use technology for future Missile Defense Agency (MDA) Missile Defense System needs. Dual-use means that the technology will be judged on the potential for future private sector investment both as a vehicle for reducing development time and cost, unit costs of new Missile Defense System technology, and as a route to national economic growth through new commercial products. MDA will conduct the competition, award, and manage the contracts.												
B. Program Change Summary (\$ in Millions)				FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total				
Previous President's Budget				0.000	0.000	0.000	-	0.000				
Current President's Budget				111.224	0.000	0.000	-	0.000				
Total Adjustments				111.224	0.000	0.000	-	0.000				
• 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				111.224	0.000							
• Other Adjustment				0.000	0.000	0.000	-	0.000				
Change Summary Explanation FY 2023 funds were transferred to SBIR/STTR from other PEs in accordance with the SBIR/STTR Extension Act of 2022.												

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0605502C / Small Business Innovation Research - MDA				Project (Number/Name) MD45 / Small Business Innovation Research			
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
MD45: Small Business Innovation Research	-	111.224	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	111.224
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Funds are transferred into this Program Element (PE) in the execution year.

A. Mission Description and Budget Item Justification

Small Business Innovation Research (SBIR) explores innovative concepts pursuant to Public Law 106-554 (Small Business Reauthorization Act of 2000) and Public Law 107-50 (Small Business Technology Transfer Program Reauthorization Act of 2001), which mandates a two-phase competition for small businesses with innovative technology that can be commercialized. SBIR and Small Business Technology Transfer (STTR) programs will develop new dual-use technology for future Missile Defense Agency (MDA) Missile Defense System needs. Dual-use means that the technology will be judged on the potential for future private sector investment both as a vehicle for reducing development time and cost, unit costs of new Missile Defense System technology, and as a route to national economic growth through new commercial products. MDA will conduct the competition, award, and manage the contracts.

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

	FY 2023	FY 2024	FY 2025
Title: Small Business Innovation Research - MDA	111.224	0.000	0.000
Articles:	-	-	-
Description: MDA currently supports the Office of the Secretary of Defense (Research & Engineering) SBIR/STTR Office Critical Technology Areas as follows:			
Seed Areas of Emerging Opportunity: <ul style="list-style-type: none"> - Biotechnology - Quantum Science - Future Generation Wireless Technology - Advanced Materials 			
Effective Adoption Areas (Where there is existing vibrant commercial sector activity): <ul style="list-style-type: none"> - Trusted Artificial Intelligence and Autonomy - Integrated Network Systems-of-Systems - Microelectronics - Space Technology 			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024	
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605502C / <i>Small Business Innovation Research - MDA</i>	Project (Number/Name) MD45 / <i>Small Business Innovation Research</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
<ul style="list-style-type: none"> - Renewable Energy Generation and Storage - Advanced Computing and Software - Human-Machine Interfaces <p>Defense-Specific Areas:</p> <ul style="list-style-type: none"> - Directed Energy - Hypersonics - Integrated Sensing and Cyber <p><i>FY 2024 Plans:</i> Funds are transferred into this Program Element in the execution year. MDA plans to execute approximately \$123 million in fiscal year 2024 to support the above mentioned activities. Final amount to be determined by enactment.</p> <p><i>FY 2025 Plans:</i> Funds are transferred into this Program Element in the execution year. MDA plans to execute approximately \$115 million in fiscal year 2025 to support the above mentioned activities. Final amount to be determined by enactment.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> N/A</p>			
Accomplishments/Planned Programs Subtotals		111.224	0.000
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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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 6: RDT&E Management Support					R-1 Program Element (Number/Name) PE 0901598C I Management HQ - MDA							
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	334.014	26.352	28.363	29.033	-	29.033	29.632	30.245	30.870	31.508	Continuing	Continuing
MD38: Management Headquarters	334.014	26.352	28.363	29.033	-	29.033	29.632	30.245	30.870	31.508	Continuing	Continuing
Program MDAP/MAIS Code: 362												
Note N/A												
A. Mission Description and Budget Item Justification												
As prescribed by Department of Defense (DoD) Instruction 5100.73 Major Headquarters Activities (MHA), the Missile Defense Agency's (MDA) MHA Program Element supports the operation of MDA and funds government civilian salaries and benefits, travel, contract support services, and operations of non-fielded activities.												
MHA provides executive leadership planning, develops centralized agency policy, prepares and defends annual budget submissions, responds to external inquiries, and implements Secretary of Defense and Presidential priorities. As a DoD research, development and acquisition agency, the Headquarters Activities provide cost efficient oversight, direction, and control of initiatives and processes that assure best value, high quality, on-time, and successful performance of MDA acquisition programs. This is accomplished by ensuring acquisition and procurement program management emphasizes systems engineering; incorporates lifecycle management objectives; implements risk management; and assesses cost, schedule or performance trade-offs.												
B. Program Change Summary (\$ in Millions)				FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total				
Previous President's Budget				25.259	28.363	29.039	-	29.039				
Current President's Budget				26.352	28.363	29.033	-	29.033				
Total Adjustments				1.093	0.000	-0.006	-	-0.006				
• 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				0.000	0.000							
• Other Adjustment				1.093	0.000	-0.006	-	-0.006				
Change Summary Explanation N/A												

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency										Date: March 2024		
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0901598C / Management HQ - MDA				Project (Number/Name) MD38 / Management Headquarters			
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
MD38: Management Headquarters	334.014	26.352	28.363	29.033	-	29.033	29.632	30.245	30.870	31.508	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note N/A												
A. Mission Description and Budget Item Justification The Missile Defense Agency (MDA) Headquarters provides oversight, direction and control over MDA's acquisition programs and fielded systems. The MDA Headquarters staff functions (government salaries, government travel, and contract support services) support the mission and operations of the world-wide MDA mission.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2023	FY 2024	FY 2025	
Title: MHA Civilian Salaries Articles: Description: Provide mission support, oversight, and management of: - Acquisition, implementation of international initiatives to increase missile defense coverage to deployed forces and allies, efficiency-oriented administrative services, business operations, financial resources, human capitol, general counsel, internal review, public affairs, and media release. 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									19.724	18.750	19.148	
									-	-	-	
Title: MHA Travel Articles: Description: Provide mission essential government travel.									0.641	0.922	0.938	
									-	-	-	

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Missile Defense Agency		Date: March 2024	
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0901598C / Management HQ - MDA	Project (Number/Name) MD38 / Management Headquarters	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2023	FY 2024
FY 2024 Plans: - SEE ABOVE.			
FY 2025 Plans: - SEE ABOVE.			
FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Title: MHA Contract Services Articles:		5.987 -	8.691 -
Description: Provide contract support services to mission activities for acquisition, business operations, internal review, general counsel, administrative support and public affairs. 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			
Accomplishments/Planned Programs Subtotals		26.352	28.363
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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