

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	2,881.290	398.939	365.208	362.906	-	362.906	-	-	-	-	-	-
MT04: <i>BMDs Test Program</i>	2,710.891	372.533	341.475	337.424	-	337.424	-	-	-	-	-	-
MC04: <i>Cyber Operations</i>	52.670	10.902	8.706	8.254	-	8.254	-	-	-	-	-	-
MD40: <i>Program Wide Support</i>	117.729	15.504	15.027	17.228	-	17.228	-	-	-	-	-	-

**Program MDAP/MAIS Code:** 362

**Note**

N/A

**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 (MDS) 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 MDS Capability, followed by transfer of selected capabilities. The MDS Test Program Element (PE) is responsible for testing that provides critical data to: determine validity of models and simulations used to verify and assess MDS capabilities; validate that Elements and Components are properly designed, built, and integrated; and provide confidence that the MDS 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 (VV&A) process. The MDS Test Program, as documented in the Integrated Master Test Plan (IMTP), has a primary emphasis to provide the data necessary to verify and assess MDS capabilities in support of Technical Capability Declarations, and to anchor MDS M&S. As models are validated and accredited, MDA and the MDS Operational Test Agency (OTA) Team will utilize these models to assess MDS capabilities through a campaign of ground testing.

MDS 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 (FYDP) 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
- Provide test personnel and support services to plan and execute tests

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2022 Missile Defense Agency	<b>Date:</b> May 2021
---	-----------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>
---	---

- Collect, archive, and distribute all MDA test data/information

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Previous President's Budget	399.738	378.302	385.910	-	385.910
Current President's Budget	398.939	365.208	362.906	-	362.906
Total Adjustments	-0.799	-13.094	-23.004	-	-23.004
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-15.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	1.906			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.223	0.000			
• Missile Defeat and Defense Enhancement	0.000	0.000	0.000	-	0.000
• Other Adjustment	-0.576	0.000	-23.004	-	-23.004

**Change Summary Explanation**

Net decrease in FY 2021 reflects Congressional reduction for prior year test asset carryover and provides a portion of the undistributed Congressional add to restore Defense Wide Review (DWR) Missile Defense Agency manpower reduction.

Decrease in FY 2022 is in accordance with IMTP requirements.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
MT04: <i>BMDS Test Program</i>	2,710.891	372.533	341.475	337.424	-	337.424	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

N/A

**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 (MDS) and Element-level testing.

The MDA Test Program is responsible for all MDS testing and relies on MDS Systems 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 MDS 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 (JEON).

Note: MDA has modified the Ground-based Midcourse Defense (GMD) test program to reinforce the Agency's commitment to reducing concurrency risk in the development program and to inform the deployment of Ground-based Interceptors (GBIs) with improved capabilities. Due to the cancellation of the Remote Kill Vehicle (RKV) program, the GMD Flight Test Program is under review.

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

	FY 2020	FY 2021	FY 2022
<b>Title:</b> Program Planning and Operations	101.683	95.308	95.114
<b>Articles:</b>	-	-	-
<b>Description:</b> The MDS 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), Deputy Assistant Secretary of Defense (DASD(DT&E)), Joint Functional Component Command for Integrated Missile Defense (JFCC IMD), Joint Interoperability Test Command (JITC) and the Service Operational Test Agencies (OTA).			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021		
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<p>- Provide MDS OT) System Team resources and funding for civilian salaries and personnel support to conduct system-level test and evaluation activities of the entire MDS portfolio. The MDS OTA Team actively participates in test planning, conduct and report of flight and ground test evaluation activities and conduct cyber assessments of the MDS.</p> <p>- Implement cyber test requirements as directed by the National Defense Authorization Act (NDAA) for Fiscal Year 2016, Pub. L. No. 114-92, Sec. 1647 (a), DOT&amp;E, and DASD(DT&amp;E) to include planning, coordination, and execution of Cooperative Vulnerability and Penetration Assessments, Adversarial Assessments, and Cyber Table Top exercises.</p> <p>- Establish, maintain and execute the MDS Test program budget.</p> <p>- Provide Integrated Master Test Plan cost modeling.</p> <p>- Provide day-to-day Test Functional Area (TFA) management.</p> <p>- Provide Test organizational property accountability.</p> <p>- Establish and standardize Test issuance documents.</p> <p>- 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 (IAR) database.</p> <p>- Provide oversight and coordination of test policy guidance to ensure compliance and strategic synchronization across the Test Directorate and the MDA.</p> <p>- Manage travel, including travel to support IMTP flight and ground test events.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p><b>FY 2021 Plans:</b> - SEE ABOVE.</p> <p><b>FY 2022 Plans:</b> - SEE ABOVE</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> N/A</p>				
<b>Title:</b> Flight Test		34.713	15.398	4.002
		<b>Articles:</b> -	-	-
<p><b>Description:</b> 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 MDS fielding to the warfighter.</p> <p>- Develop flight test training requirements for Test Directors and other console operators.</p> <p>- Implement cyber test requirements as directed by the NDAA for Fiscal Year 2016, Pub. L. No. 114-92, Sec. 1647 (a), Director, Operational Test and Evaluation (DOT&amp;E), and Deputy Assistant Secretary of Defense, Developmental Test and Evaluation</p>				

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021		
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<p>(DT&amp;E) to include planning, coordination, and execution of Cooperative Vulnerability and Penetration Assessments, Adversarial Assessments, and Cyber Table Top Exercises.</p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- Identify mission risks and implement mitigation practices as required ensuring safe and successful test outcomes.</li> <li>- Provide a Failure Response Team to ensure implementation of the response plan and capture lessons learned for process improvement.</li> <li>- Train test personnel for each flight test and maintain training records for all test personnel.</li> <li>- 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.</li> <li>- Complete test planning for MDS Flight Test events.</li> <li>- Conduct mission planning and range coordination activities; provide communications security equipment and management for MDS Flight Test events.</li> <li>- Design and develop the Lessons Learned database.</li> <li>- Execute Flight Test events in accordance with the IMTP schedule.</li> </ul> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p><b>FY 2021 Plans:</b> - SEE ABOVE.</p> <p><b>FY 2022 Plans:</b> - SEE ABOVE.</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Decrease from FY 2021 to FY 2022 is in accordance with the IMTP requirements.</p>				
<p><b>Title:</b> Ground Test</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> The Ground Test Execution program plans, designs, and executes MDS ground tests in support of flight test risk reduction; MDS fielding decisions; and Doctrine, Organization, Training, Materiel, Leadership and Education, and Personnel and Facilities (DOTMLPF) assessments. In addition, enables the warfighter to effectively employ, maintain, and sustain the MDS and participate in the development of future missile defense capabilities through efficient ground testing.</p> <ul style="list-style-type: none"> <li>- Conduct System Pre-Mission Tests (SPMTs) as required to support MDS Flight Test Risk Reduction Analysis.</li> <li>- Refine and continue development of the Ground Test Mission Directors, System Mission Manager and Mission Director training plan.</li> </ul>		51.398 -	61.902 -	52.409 -

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021		
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<p>- Implement cyber test requirements as directed by the NDAA for Fiscal Year 2018, Pub. L. No. 1159, *164, Director, Operational Test and Evaluation (DOT&amp;E), and Deputy Assistant Secretary of Defense, Developmental Test and Evaluation (DT&amp;E) to include planning, coordination, and execution of Cooperative Vulnerability and Penetration Assessments, Adversarial Assessments, and Cyber Table Top Exercises.</p> <p>- 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.</p> <p>- Execute baseline Ground Tests in accordance with the IMTP.</p> <p>Maintain Ground Test Infrastructure:</p> <p>- Execute ground test planning activities supporting MDA test requirements and priorities to include test design, test integration, and international testing.</p> <p>- Verify all test assets and resources are reserved and operationally available to support each test event.</p> <p>- Coordinate requirements for laboratory facilities.</p> <p>- Coordinate and identify communication requirements (e.g., tactical data, truth data, test data, tactical voice and test voice)</p> <p>- Maintain the hardware-in-the-loop (HWIL) Labs and communication test assets.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p><b>FY 2021 Plans:</b></p> <p>- Execute the following Ground Tests in FY 2021: GTI-08a, GTI-21 Sprint 1, GTI-21 Sprint 2 Formal Testing.</p> <p>- Plan, coordinate, and execute Cybersecurity Activities in Development and Operations Test (DT/OT) environments (Platform (Element) level and Systems of System Level) as identified in the IMTP for Cyber activities.</p> <p>- Plan, coordinate, and execute Element Cybersecurity Experiments (ECEs) to provide an early cyber assessment of the platforms.</p> <p>- Continue to incorporate cybersecurity testing requirements into the BMDS ground tests.</p> <p><b>FY 2022 Plans:</b></p> <p>- Execute the following Ground Tests in FY 2022: GTD-08a NORTHCOM/USINDOPACOM (N/I), GTI-08b Sprint 1 (N/I), GTI-09 Sprint 1 EUCOM/CENTCOM (E/C), GTI-09 Sprint 2 (E/C), GTD-09 (E/C), GTI-ISR (21).</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b></p> <p>Decrease from FY 2021 to FY 2022 reflects amount of funding transferred from Ground Test to Test Infrastructure.</p>				
<b>Title:</b> Test Infrastructure		137.111	100.412	161.335
<b>Articles:</b>		-	-	-

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<p><b>Description:</b> The MDS 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:</p> <ol style="list-style-type: none"> <li>1) Flight Test Ranges and Infrastructure Upgrades</li> <li>2) Mobile Instrumentation Systems</li> <li>3) Airborne Sensors</li> <li>4) Test Communications</li> <li>5) Data Management and Labs</li> </ol> <p>The primary function responsibilities are as follows:</p> <p><b>Flight Test Ranges and Infrastructure Upgrades:</b></p> <ul style="list-style-type: none"> <li>- Manage, develop, sustain, and modernize MDA test facilities and infrastructure used to support MDS 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.</li> <li>- 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 (SME) displays.</li> <li>- Facilities Sustainment Restoration/Modernization (FSRM) Funds are required to repair, upgrade, and sustain numerous facilities, test infrastructure, and equipment maintained by MDA world-wide.</li> </ul> <p><b>Mobile Instrumentation Upgrades:</b></p> <ul style="list-style-type: none"> <li>- Provide Sea Based Systems (SBS) continued sustainment of test instrumentation ships, Pacific Collector and Pacific Tracker, and associated telemetry and radar systems.</li> </ul> <p><b>Airborne Sensors:</b></p> <ul style="list-style-type: none"> <li>- Maintain existing Gulfstream Aircraft (HALOs) that collect radiometric and photo-documentary performance data for strategic and tactical defense systems flight and ground tests.</li> <li>- Three replacements are HALO Fleet Renewal Program procured in FY 2019; Modification work ongoing with HALO-IR scheduled to be completed by 1Q FY 2022 and HALO-IIR and HALO-IIIR completed by 1Q FY 2023.</li> </ul> <p><b>Test Communications:</b></p> <ul style="list-style-type: none"> <li>- Provide operations and maintenance support for the Flight Test Communications Network.</li> <li>- Maintain accreditation for the Transportable Telemetry Systems (TTS), Pacific Collector Range Safety System (PCRSS), and the Flight Test Communications Network (FTCN).</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<p>- Manage, develop, maintain, and modernize the Ground Test (GT) communications network to support Missile Defense System (MDS) ground testing.</p> <p>Data Management and Labs:</p> <ul style="list-style-type: none"> <li>- Establish authority and maintain configuration control of the test baseline.</li> <li>- Develop, update, coordinate and deliver the IMTP, coordinated within MDA and External stakeholders (Director, Operational Test and Evaluation (DOT&amp;E); the Deputy Assistant Secretary of Defense for Developmental Test and Evaluation (DASD(DT&amp;E)); the Joint Functional Component Command for Integrated Missile Defense (JFCC IMD); the Service Operational Test Agencies (OTAs)); and the Joint Interoperability Test Command (JITC)); and provides an affordable and executable test plan to meet Warfighter needs and National Security commitments.</li> <li>- Coordinate the IMTP Special Access Programs (SAP) Annex with respect to changes to SAP Program Test Baseline and synchronize with the collateral IMTP.</li> <li>- Manage the approved test baseline by assessing all proposed changes to the MDS Test Schedule and Test Configurations for each MDS test event identified in the IMTP.</li> <li>- Support the Developmental Baseline Reviews and the annual MDS Accountability Reviews to assess baseline execution risk and verify MDS components are consistent with the approved test baseline.</li> <li>- Update and maintain the classified Test Resource Mission Planning-Tool (TRMP-T(C)) database.</li> <li>- Execute Flight Test Design Analysis ensuring test designs are safe and sufficient to meet test objectives.</li> <li>- 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 (IDMPs), Data Handling Plans (DHPs), Cyber documentation, data planning and management, library operations, deployment process; infrastructure requirements process; and test operations support.</li> <li>- 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.</li> <li>- Review MDS component programs' content on a quarterly basis to ensure consistency with the approved IMTP.</li> <li>- Maintain and extend the Directorate of Test Support System (DTSS) classified Computer Network Defense Service Provider (CNDSP) to support network cyber defense for ground test network systems. Continue to define cyber investments, risks and benefits used to reduce vulnerabilities and protect critical administrative and test data.</li> <li>- Maintain accreditation of the Orion Voice Switch Conferencing System (VSCS).</li> <li>- 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 (MDS) ground and flight testing.</li> <li>- Manage the Missile Defense Data Center (MDDC) Program and its library, operations, and infrastructure providing centralized data management, archival, and distribution services.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<p>- Provide Range safety risk analysis through model development of target and interceptor debris assessments to determine mission risk assessment for mission risk decisions.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p><b>FY 2021 Plans:</b></p> <ul style="list-style-type: none"> <li>- Prepare to field the first new, Gulfstream-550 based HALO system, HALO-IR in late FY 2021/early FY 2022.</li> <li>- Complete Airborne Sensors Primary Sensor replacement development and testing HALO replacement.</li> <li>- Integrate into HALO-IIR and HALO-IIIR complete ground testing, and prepare for flight testing and fielding in FY 2022.</li> <li>- Implement a distributed communications hub architecture facilitating near-simultaneous flight test mission operations.</li> <li>- Modernize Mobile Communications Suite - 2 (MCS-2) to meet emerging MDA flight test communications requirements for remote sites.</li> <li>- Continue Wake Island projects include Wake Housing Design, replace MDA Diesel Vehicles Fleet, and Building 1512 repairs.</li> <li>- Support Facilities, Sustainment, Restoration, and Modernization (FSRM) efforts.</li> </ul> <p><b>FY 2022 Plans:</b></p> <ul style="list-style-type: none"> <li>- Complete development of HALO-IR and declare Initial Operational Capability (IOC) in support of the Missile Defense System (MDS) test program in 1QFY22; Add next Gen Sensor to HALO-IR and convert over to HALO-IIR configuration to allow for total redundancy throughout the fleet; Retire HALO-I once HALO-IR reaches Full Operational Capability (FOC) in 3Q FY 2022.</li> <li>- Initiate the phased modernization of the X-band Transportable Radar (XTR) in FY 2022.</li> <li>- Continue Wake Island projects, to include; replace heavy equipment; housing design; kitchen/dining design; expand solid waste accumulation capacity; vehicle wash rack facility design.</li> <li>- Begin Meck Island Pipe Pier replacement; Target Launch stand pad construction.</li> <li>- Begin Kauai Test Facility (KTF) Power plant Upgrades.</li> <li>- Establish a White Sands Missile Range (WSMR) infrastructure footprint.</li> <li>- Begin first phase of Meck Island Electrical Distribution Replacement.</li> <li>- Establish the Mission Execution and Display Distribution System (MEDDS) capability to meet flight and ground test execution requirements.</li> <li>- Support Facilities, Sustainment, Restoration, and Modernization (FSRM) efforts.</li> </ul> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b></p> <ul style="list-style-type: none"> <li>- Increase from FY 2021 to FY 2022 provides the following: \$33.1M Tech Refresh for laboratories and data centers to continue supporting the IMTP; \$18.3M for XTR tech refresh, FSRM projects at test ranges, and O&amp;S to support the last 2 original HALO</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021		
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
aircraft prior to replacement aircraft testing and acceptance; and \$9.5M test component movement from Ground Test to Test Infrastructure.				
<b>Title:</b> Engineering and Test Analysis		26.643	21.291	24.564
		<b>Articles:</b> -	-	-
<p><b>Description:</b> The Engineering and Test Analysis effort provides essential MDS ground and flight test event planning, execution, and evaluation activities for each test event:</p> <ul style="list-style-type: none"> <li>- Design test architecture, define test objectives and evaluation criteria, and define target requirements appropriate to the data collection requirements to assess MDS performance and anchor Models and Simulations.</li> <li>- Produce threat data for MDS ground and flight tests.</li> <li>- Coordinate with MDS OTA to address test issues, disposition them, coordinate them, and recommend action plans to achieve closure.</li> <li>- Deliver HWIL M&amp;S integration test cases.</li> <li>- Integrate, test, and deliver end-to-end MDS simulations supporting ground test missions.</li> <li>- Analyze system-level interoperability.</li> <li>- Conduct modeling and technical analysis for Combatant Command Wargames and Exercises.</li> <li>- Utilize M&amp;S for pre-test assessment and post-test review, and M&amp;S updates.</li> <li>- Provide test configuration management risk assessments and anomaly/deficiency review, assessment and closure.</li> <li>- Analyze test results to identify verification and validation data collection shortfalls and reassign objectives to future test events as required.</li> <li>- Document MDS test observations for system-level test anomalies and coordinate the resulting Discrepancy Reports within the Failure Reporting, Analysis, and Corrective Action System (FRACAS).</li> <li>- Upgrade test analysis tools (e.g., Modular Analysis and Reporting Suite (MARS)) to enhance analysis capability and efficiency.</li> </ul> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p><b>FY 2021 Plans:</b> - SEE ABOVE.</p> <p><b>FY 2022 Plans:</b> - SEE ABOVE</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase from FY 2021 to FY 2022 is in accordance with the IMTP requirements.</p>				
<b>Title:</b> Joint Emerging Operational Need (JEON)		20.985	47.164	0.000

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<p align="right"><i>Articles:</i></p> <p><b>Description:</b> JEON Testing. - Continue flight and ground testing associated with JEON program per IMTP schedule.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p><b>FY 2021 Plans:</b> - Complete testing for JEON</p> <p><b>FY 2022 Plans:</b> N/A</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Decrease from FY 2021 to FY 2022 reflects the completion of testing associated with JEON.</p>	-	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	372.533	341.475	337.424

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

<b>Line Item</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 0603890C: <i>BMD Enabling Programs</i>	630.196	616.455	595.301	-	595.301	-	-	-	-	-	-

**Remarks**

**D. Acquisition Strategy**

The MDS 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 DoD agencies, Service Organizations, Laboratories and Program Offices, Federally Funded Research and Development Center (FFRDC) and other MDA programs to execute the various diverse efforts within the MDS 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.

The MDA IMTP establishes and documents the test requirements for the MDS with the specific focus on collecting the data needed for the Verification, Validation, and Accreditation (VV&A) of the MDS Models and Simulations. 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 MDS represent real world behavior, thereby enabling simulation-based performance assessment to verify system functionality.

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency												Date: May 2021			
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 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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 - Civilian Salaries	Allot	MDA : AL	0.000	0.000		31.508	Nov 2020	31.326	Nov 2021	-		31.326	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	0.000	0.000		0.000		35.565	Nov 2021	-		35.565	Continuing	Continuing	Continuing
Program Planning and Operations - Operational Test Agency	MIPR	ATEC, COTF, AFOTEC, JITC, CCDC, DAC : AL/CO/MD/TX/VA/AZ	118.227	21.624	Nov 2019	24.860	Nov 2020	25.315	Nov 2021	-		25.315	Continuing	Continuing	Continuing
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 Functional Management Office	C/CPFF	Various : AL/VA/CO/MA	426.303	80.059	Nov 2019	38.940	Nov 2020	2.908	Nov 2021	-		2.908	Continuing	Continuing	Continuing
Flight Test - IMTP Flight Test	C/Various	Various : L3, ASI, Jacobs / OK / CO	0.000	0.000		0.000		1.181	Oct 2021	-		1.181	Continuing	Continuing	Continuing
Flight Test - IMTP Flight Testing	MIPR	Various OGAs : AL/CO/CA/AK/NM/HI	309.683	34.713	Oct 2019	15.398	Oct 2020	2.821	Oct 2021	-		2.821	Continuing	Continuing	Continuing

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>
--	---	---

<b>Test and Evaluation (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Flight Test - Layered Homeland Defense	MIPR	Various OGA : AL / CO / AK / NM / HI	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	0.000
Ground Test - Ground Test Infrastructure	MIPR	Various : CA/CO/AL/ NM	47.576	42.588	Oct 2019	60.270	Oct 2020	26.024	Oct 2021	-		26.024	Continuing	Continuing	Continuing
Ground Test - Ground Test Infrastructure MDA contracts	C/CPFF	TBD : AL	0.000	0.000		0.000		25.130	Oct 2021	-		25.130	Continuing	Continuing	Continuing
Ground Test - IMTP Ground Testing	MIPR	AvMC, COLSA : AL/ CA	64.818	8.810	Oct 2019	1.632	Oct 2020	1.255	Oct 2021	-		1.255	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 - Airborne Optics Mobile Assets	C/CPIF	L3 : OK	271.740	35.424	Feb 2020	8.668	Feb 2021	32.973	Oct 2021	-		32.973	Continuing	Continuing	Continuing
Test Infrastructure - Compliance and Accreditations	MIPR	NAWCAD : AL / CA / CO / MD	0.000	0.000		0.000		1.500	Nov 2021	-		1.500	Continuing	Continuing	Continuing
Test Infrastructure - Core Ground Test Labs and HWILS	C/IDIQ	Colsa/CCDC Aviation & Missile Center : AL/MD/FL/ CA/OH/CO	193.698	0.000		0.000		0.000		-		0.000	0.000	193.698	0.000
Test Infrastructure - Enhanced GT Capability Assets	C/IDIQ	Colsa/Northrop Grumman : 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	MIPR	SMDC/Northrop Grumman/Colsa : AL/CO/NM	47.852	0.000		0.608	Nov 2020	0.695	Nov 2021	-		0.695	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Communications	MIPR	NAWCAD, CCDC, SAIC, NRL, Boeing : WSMR / NSWC / CO / AL / NM / MD	0.000	0.000		0.000		16.645	Nov 2021	-		16.645	Continuing	Continuing	Continuing

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>
--	---	---

<b>Test and Evaluation (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test Infrastructure - Flight Test Non-IMTP	MIPR	CCDC - AvMC : AL / GA	0.000	0.000		0.000		0.574	Nov 2021	-		0.574	Continuing	Continuing	Continuing
Test Infrastructure - Flight Test Ranges and Infrastructure	MIPR	WSMR/SNL/PMRF/ATEC : AL / CA / CO / FL / HI / NM	101.145	22.807	Nov 2019	10.186	Nov 2020	16.706	Nov 2021	-		16.706	Continuing	Continuing	Continuing
Test Infrastructure - Ground Test Communications	MIPR	CCDC, SAIC : AL / CO	0.000	0.000		0.000		4.274	Oct 2021	-		4.274	Continuing	Continuing	Continuing
Test Infrastructure - IMTP Planning & Data Management Tools	C/CPFF	ASI : AL	47.703	33.725	Nov 2019	28.131	Nov 2020	6.268	Nov 2021	-		6.268	Continuing	Continuing	Continuing
Test Infrastructure - Range and Communication Instrumentation	MIPR	WSMR, CCDC, : AL / FL / NM	0.000	0.000		0.000		4.562	Nov 2021	-		4.562	Continuing	Continuing	Continuing
Test Infrastructure - Sea Based Mobile Assets	MIPR	MARAD/NAWCAD : AL / CA / CR / MD / OR / DC	112.318	15.140	Nov 2019	23.385	Nov 2020	14.807	Nov 2021	-		14.807	Continuing	Continuing	Continuing
Test Infrastructure - Support to Test Resources	MIPR	Various : AL	146.104	0.000		0.000		0.000		-		0.000	0.000	146.104	0.000
Test Infrastructure - Tech Refresh	MIPR	Various : AL / VA / CO / MA	0.000	0.000		0.000		33.096	Nov 2021	-		33.096	Continuing	Continuing	Continuing
Test Infrastructure - Test Communications	C/DIQ	ASI/WSMR : Gray Research/NRL/NAWC/CA/MD/DC/NM/AL/MA	145.325	30.015	Nov 2019	29.434	Nov 2020	0.000		-		0.000	0.000	204.774	0.000
Test Infrastructure - Test Communications MDA contracts	C/CPFF	ASI : AL	0.000	0.000		0.000		29.235	Nov 2021	-		29.235	Continuing	Continuing	Continuing
Engineering and Test Analysis - CSS Support	C/CPFF	TEAMS : AL	34.715	6.111	Nov 2019	6.624	Nov 2020	5.657	Nov 2021	-		5.657	Continuing	Continuing	Continuing
Engineering and Test Analysis - FFRDC/UARC	MIPR	MITRE : VA	3.187	0.000		0.000		0.000		-		0.000	0.000	3.187	0.000

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>
--	---	---

<b>Test and Evaluation (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Engineering and Test Analysis - FFRDC/UARC 2	MIPR	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	0.000	2.332	Nov 2019	2.040	Nov 2020	2.081	Nov 2021	-		2.081	Continuing	Continuing	Continuing
Engineering and Test Analysis - OGA Support	MIPR	CCDC Aviation & Missile Center : AL	106.837	18.200	Nov 2019	12.627	Nov 2020	16.826	Nov 2021	-		16.826	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
Joint Emerging Operational Need (JEON) - JEON	SS/IDIQ	Lockheed Martin : Sunnyvale CA/ Huntsville, AL	84.100	20.985	Nov 2019	47.164	Nov 2020	0.000		-		0.000	0.000	152.249	0.000
<b>Subtotal</b>			2,710.891	372.533		341.475		337.424		-		337.424	Continuing	Continuing	N/A

**Remarks**  
Recategorized and streamlined MDS Test cost category content to better align test priorities.

	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	2,710.891	372.533	341.475	337.424	-	337.424	Continuing	Continuing	N/A

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

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2022 Missile Defense Agency** **Date: May 2021**

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</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 2020		FY 2021		FY 2022		FY 2023		FY 2024		FY 2025		FY 2026	
GTI-07c (N/I) (MDS Ground Test)	◆													
FTX-39 (LTPO, DT Target Only Flight Test)	▲													
FTP-16 E2 (I8-1) (OTHER, DT Intercept Flight Test)	▲													
GTI-20 Sprint 1(E/C) (MDS Ground Test)		◆												
FTP-27 E2 (LTPO, DT/OT Flight Test)		▲												
FEX-01 (OTHER, DT Tracking Exercise FT)		▲												
GTI-20 Sprint 2 (JEON) (MDS Ground Test)			◆											
FTP-27 E1 (LTPO, DT/OT Flight Test)				▲										
AST-18a				▲										
Site 4c SICO (MDS Ground Test)				◆										
GTI-08a (N/I) (MDS Ground Test)				◇	◇	◇	◇	◇						
TBG-1 (OTHER, DT Tracking Exercise Flight Test)					▲									
FTM-44 (AEGIS 5.1, DT Intercept Flight Test)					▲									
HAWC-4 (OTHER, DT Tracking Exercise Flight Test)						▲								
GTI-21 Sprint 1 (JEON) TH 4.0 (MDS Ground Test)						◇	◇							
FTX-43 (OTHER, DT Tracking Exercise Flight Test)							△							
HAWC-5 (OTHER, DT Tracking Exercise Flight Test)							△							
FTM-31 E1 (AEGIS SBT, DT/OT Intercept Flight Test)							△							
ASD-1 (MDS Ground Test)							◇							
TBG-2 (OTHER, DT Tracking Exercise Flight Test)							△							
FS-21 E1 (AEGIS 5.1, DT Interceptor Only Flight Test)							△							
FS-21 E2 (AEGIS 5.1, DT Target Only Flight Test)							△							
FS-21 E3 (AEGIS 5.1, DT Target Only Flight Test)							△							
FS-21 E4 (AEGIS 5.1, DT Intercept Flight Test)							△							

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</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 2020			FY 2021			FY 2022			FY 2023			FY 2024			FY 2025			FY 2026		
FS-21 E5 (AEGIS 5.1, DT/OT Intercept Flight Test)						△															
FTT-21 (TH, DT Intercept Flight Test)								△													
ASD-2 (MDS Ground Test)								◇													
TH CTV-01 (LTPO, DT Interceptor Only Flight Test)								△													
SM CTV-04 (AEGIS 5.1, DT Interceptor Only Flight Test)								△													
HAWC-7 (OTHER, DT Tracking Exercise Flight Test)								△													
HAWC-9 (OTHER, DT Tracking Exercise Flight Test)								△													
FTM-33 (AEGIS SBT, DT/OT Intercept Flight Test)								△													
GTI-21 Sprint 2 (MDS Ground Test)								◇													
GM BVT-03 (GM, DT Interceptor Only Flight Test)								△													
FTP-21 E1 (P8.1.1)(LTPO, DT Intercept Flight Test)								△													
FTP-21 E2 (P8.1.1)(LTPO, DT Intercept Flight Test)								△													
TBG-3 (OTHER, DT Tracking Exercise Flight Test)										△											
Israeli Cooperative Intercept Flight Test 1 - FY 2021							◇	◇	◇	◇											
Israeli Cooperative Intercept Flight Test 2 - FY 2021							◇	◇	◇	◇											
Israeli Cooperative Intercept Flight Test - FY 2022										◇	◇	◇	◇								
GTI-09 Sprint 1 (E/C) (MDS Ground Test)										◇											
SICO-1 (MDS Ground Test)										◇											
GTI-ISR (21) (MDS Ground Test)										◇											
FTP-18 (I8-3) (OTHER, OT Intercept Flight Test)												△									
FTP-20 (I8-5) (OTHER, OT Intercept Flight Test)												△									
FTP-19 (I8-4) (OTHER, OT Intercept Flight Test)												△									
FTM-46 (AEGIS 5.0, DT/OT Intercept Flight Test)												△									
GTD-08a (N/I) (MDS Ground Test)												◇									

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</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 2020			FY 2021			FY 2022			FY 2023			FY 2024			FY 2025			FY 2026		
GTI-09 Sprint 2 (E/C) (MDS Ground Test)							◇	◇													
FTX-45							△														
FEM-01							△														
FTP-25 (P8.1.5) (OTHER, OT Intercept Flight Test)							△														
FTX-42 (OTHER, DT Target Only Flight Test)							△														
GTI-08b Sprint 1 (N/I) (MDS Ground Test)							◇														
PACIFIC DRAGON-22 E1 (AEGIS 5.0, DT/OT Intercept Flight Test)									△												
FTP-21 E3 (P8.1.1)(LTPO, DT Intercept Flight Test)									△												
FTP-23 (LTPO, DT/OT Intercept Flight Test)									△												
FTP-24 (LTPO, DT Intercept Flight Test)									△												
FTX-26 (OT) (SN, OT Target Only Flight Test)									△												
PACIFIC DRAGON-22 E2 (AEGIS 5.0, DT/OT Tracking Exercise Flight Test)									△												
SICO-2 (MDS Ground Test)									◇												
SICO-08b (MDS Ground Test)									◇												
PACIFIC DRAGON-22 E3 (AEGIS 5.0, DT/OT Tracking Exercise Flight Test)									△												
GTD-09 (E/C) (MDS Ground Test)									◇												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GTI-07c (N/I) (MDS Ground Test)	1	2020	1	2020
FTX-39 (LTPO, DT Target Only Flight Test)	1	2020	1	2020
FTP-16 E2 (I8-1) (OTHER, DT Intercept Flight Test)	1	2020	1	2020
GTI-20 Sprint 1(E/C) (MDS Ground Test)	2	2020	2	2020
FTP-27 E2 (LTPO, DT/OT Flight Test)	2	2020	2	2020
FEX-01 (OTHER, DT Tracking Exercise FT)	2	2020	2	2020
GTI-20 Sprint 2 (JEON) (MDS Ground Test)	3	2020	3	2020
FTP-27 E1 (LTPO, DT/OT Flight Test)	4	2020	4	2020
AST-18a	4	2020	4	2020
Site 4c SICO (MDS Ground Test)	4	2020	4	2020
GTI-08a (N/I) (MDS Ground Test)	4	2020	4	2021
TBG-1 (OTHER, DT Tracking Exercise Flight Test)	1	2021	1	2021
FTM-44 (AEGIS 5.1, DT Intercept Flight Test)	1	2021	1	2021
HAWC-4 (OTHER, DT Tracking Exercise Flight Test)	3	2021	3	2021
GTI-21 Sprint 1 (JEON) TH 4.0 (MDS Ground Test)	2	2021	3	2021
FTX-43 (OTHER, DT Tracking Exercise Flight Test)	3	2021	3	2021
HAWC-5 (OTHER, DT Tracking Exercise Flight Test)	3	2021	3	2021
FTM-31 E1 (AEGIS SBT, DT/OT Intercept Flight Test)	3	2021	3	2021
ASD-1 (MDS Ground Test)	3	2021	3	2021
TBG-2 (OTHER, DT Tracking Exercise Flight Test)	3	2021	3	2021
FS-21 E1 (AEGIS 5.1, DT Interceptor Only Flight Test)	3	2021	3	2021
FS-21 E2 (AEGIS 5.1, DT Target Only Flight Test)	3	2021	3	2021

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>
--	---	---

<b>Events</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
FS-21 E3 (AEGIS 5.1, DT Target Only Flight Test)	3	2021	3	2021
FS-21 E4 (AEGIS 5.1, DT Intercept Flight Test)	3	2021	3	2021
FS-21 E5 (AEGIS 5.1, DT/OT Intercept Flight Test)	3	2021	3	2021
FTT-21 (TH, DT Intercept Flight Test)	4	2021	4	2021
ASD-2 (MDS Ground Test)	4	2021	4	2021
TH CTV-01 (LTPO, DT Interceptor Only Flight Test)	4	2021	4	2021
SM CTV-04 (AEGIS 5.1, DT Interceptor Only Flight Test)	4	2021	4	2021
HAWC-7 (OTHER, DT Tracking Exercise Flight Test)	4	2021	4	2021
HAWC-9 (OTHER, DT Tracking Exercise Flight Test)	4	2021	4	2021
FTM-33 (AEGIS SBT, DT/OT Intercept Flight Test)	4	2021	4	2021
GTI-21 Sprint 2 (MDS Ground Test)	4	2021	4	2021
GM BVT-03 (GM, DT Interceptor Only Flight Test)	4	2021	4	2021
FTP-21 E1 (P8.1.1)(LTPO, DT Intercept Flight Test)	4	2021	4	2021
FTP-21 E2 (P8.1.1)(LTPO, DT Intercept Flight Test)	4	2021	4	2021
TBG-3 (OTHER, DT Tracking Exercise Flight Test)	1	2022	1	2022
Israeli Cooperative Intercept Flight Test 1 - FY 2021	1	2021	4	2021
Israeli Cooperative Intercept Flight Test 2 - FY 2021	1	2021	4	2021
Israeli Cooperative Intercept Flight Test - FY 2022	1	2022	4	2022
GTI-09 Sprint 1 (E/C) (MDS Ground Test)	1	2022	1	2022
SICO-1 (MDS Ground Test)	1	2022	1	2022
GTI-ISR (21) (MDS Ground Test)	1	2022	1	2022
FTP-18 (I8-3) (OTHER, OT Intercept Flight Test)	2	2022	2	2022
FTP-20 (I8-5) (OTHER, OT Intercept Flight Test)	2	2022	2	2022
FTP-19 (I8-4) (OTHER, OT Intercept Flight Test)	2	2022	2	2022
FTM-46 (AEGIS 5.0, DT/OT Intercept Flight Test)	2	2022	2	2022

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MT04 / <i>BMDS Test Program</i>
--	---	---

Events	Start		End	
	Quarter	Year	Quarter	Year
GTD-08a (N/I) (MDS Ground Test)	2	2022	2	2022
GTI-09 Sprint 2 (E/C) (MDS Ground Test)	2	2022	3	2022
FTX-45	3	2022	3	2022
FEM-01	3	2022	3	2022
FTP-25 (P8.1.5) (OTHER, OT Intercept Flight Test)	3	2022	3	2022
FTX-42 (OTHER, DT Target Only Flight Test)	3	2022	3	2022
GTI-08b Sprint 1 (N/I) (MDS Ground Test)	3	2022	3	2022
PACIFIC DRAGON-22 E1 (AEGIS 5.0, DT/OT Intercept Flight Test)	4	2022	4	2022
FTP-21 E3 (P8.1.1)(LTPO, DT Intercept Flight Test)	4	2022	4	2022
FTP-23 (LTPO, DT/OT Intercept Flight Test)	4	2022	4	2022
FTP-24 (LTPO, DT Intercept Flight Test)	4	2022	4	2022
FTX-26 (OT) (SN, OT Target Only Flight Test)	4	2022	4	2022
PACIFIC DRAGON-22 E2 (AEGIS 5.0, DT/OT Tracking Exercise Flight Test)	4	2022	4	2022
SICO-2 (MDS Ground Test)	4	2022	4	2022
SICO-08b (MDS Ground Test)	4	2022	4	2022
PACIFIC DRAGON-22 E3 (AEGIS 5.0, DT/OT Tracking Exercise Flight Test)	4	2022	4	2022
GTD-09 (E/C) (MDS Ground Test)	4	2022	4	2022

**Note**

Based on the OUSD(C) FY 2022 President's Budget Submission Guidance, fiscal years covered in the justification material will include FY 2020 through FY 2022. Planned entries in the R4 may continue past FY 2022, out-years will be addressed in future budget submissions.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MC04 / <i>Cyber Operations</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
MC04: <i>Cyber Operations</i>	52.670	10.902	8.706	8.254	-	8.254	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**

N/A

**A. Mission Description and Budget Item Justification**

Ballistic Missile Defense (BMD) Test Cyber Operations sustain 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 (PM/ISSM) Plans of Action and Milestones (POA&Ms) for MDA Ballistic 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 (SCA) and AO. Independent Verification and Validation (IV&V) 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 (FISMA) 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 MDS. The MDA Test Directorate Network Operations Security Center (DNOSC) is the Local Control Center (LCC) (Tier 3) that protects, detects, characterizes, reports, and mitigates cyber threats through real-time continuous monitoring for flight and ground test assets.

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

	FY 2020	FY 2021	FY 2022
<b>Title:</b> Network / System Certification and Accreditation (C&A)	10.902	8.706	8.254
<b>Articles:</b>	-	-	-
<b>Description:</b> The MDS Test Network/System Certification and Accreditation program will:			
<ul style="list-style-type: none"> <li>- 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.</li> <li>- Fund Ballistic Missile Defense Test Program Information Systems Security Manager (ISSM) civilian salaries.</li> <li>- Conduct cyber/information assurance engineering and architecture planning for the MDS Test Program information technology systems.</li> <li>- Plan and test the Cyber controls for MDS.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency	<b>Date:</b> May 2021
--	-----------------------

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MC04 / <i>Cyber Operations</i>
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	FY 2020	FY 2021	FY 2022
<ul style="list-style-type: none"> <li>- Develop DT National Institute of Standards and Technology (NIST) certification and accreditation packages.</li> <li>- Leverage Cross Domain Solution (CDS) as single authority implementing standard security policies for test and across the MDS.</li> <li>- Maintain and extend the DT Support System (DTSS) classified Computer Network Defense Service Provider (CNDSP) to support network cyber defense for ground test network systems.</li> <li>- Continue to define cyber investments, risks and benefits used to reduce vulnerabilities and protect critical administrative and test data.</li> </ul> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p><b>FY 2021 Plans:</b> - SEE ABOVE.</p> <p><b>FY 2022 Plans:</b> - SEE ABOVE.</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> N/A</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	10.902	8.706	8.254

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

**Remarks**

**D. Acquisition Strategy**  
N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MC04 / <i>Cyber Operations</i>
--	---	--

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Network / System Certification and Accreditation (C&A) - Cybersecurity Civ	Allot	MDA : Various	2.151	0.494	Oct 2019	0.520	Oct 2020	0.156	Nov 2021	-		0.156	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - Cybersecurity Operations	MIPR	CCDC-AvMC, Colsa, GSA, SAIC : AL	16.329	7.603	Nov 2019	4.319	Nov 2020	5.055	Nov 2021	-		5.055	Continuing	Continuing	Continuing
Network / System Certification and Accreditation (C&A) - MC Contractor Support	C/CPFF	Various : AL, COS, Belvior, CA, HAFB, KAFB, DAHL, RSA, VAFB	34.190	2.805	Nov 2019	3.867	Nov 2020	3.043	Nov 2021	-		3.043	Continuing	Continuing	Continuing
<b>Subtotal</b>			52.670	10.902		8.706		8.254		-		8.254	Continuing	Continuing	N/A

**Remarks**  
N/A

	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	52.670	10.902	8.706	8.254	-	8.254	Continuing	Continuing	N/A

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

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MC04 / <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 2020		FY 2021		FY 2022		FY 2023		FY 2024		FY 2025		FY 2026	
MC04 Cyber Operations					◆	◆	◆	◆										
MC04 Cyber Operations Planned									◇	◇	◇	◇	◇	◇	◇			

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MC04 / <i>Cyber Operations</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MC04 Cyber Operations	1	2020	4	2020
MC04 Cyber Operations Planned	1	2021	4	2022

**Note**

Based on the OUSD(C) FY 2022 President's Budget Submission Guidance, fiscal years covered in the justification material will include FY 2020 through FY 2022. Planned entries in the R4 may continue past FY 2022, out-years will be addressed in future budget submissions.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
MD40: <i>Program Wide Support</i>	117.729	15.504	15.027	17.228	-	17.228	-	-	-	-	-	-
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 MDS. These functions include Government Civilians and Contract Support Services. This effort provides integrity and oversight of the MDS 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 2020	FY 2021	FY 2022
<b>Title:</b> Program Wide Support	15.504	15.027	17.228
<b>Articles:</b>	-	-	-
<b>Description:</b> PWS contains non-headquarters management costs in support of MDA functions and activities across the entire MDS. These functions include Government Civilians and Contract Support Services. This effort provides integrity and oversight of the MDS 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,			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
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><i>FY 2021 Plans:</i></b> - SEE ABOVE.			
<b><i>FY 2022 Plans:</i></b> - SEE ABOVE.			
<b><i>FY 2021 to FY 2022 Increase/Decrease Statement:</i></b> Increase from FY 2021 to FY 2022 provides 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			
<b>Accomplishments/Planned Programs Subtotals</b>	15.504	15.027	17.228

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>
--	---	--

<b>Support (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Wide Support - Agency Operations Management	Various	Various : Multi: AL, CA, CO, VA	5.344	0.232	Jul 2020	0.883	Jul 2021	0.000		-		0.000	0.000	6.459	0.000
Program Wide Support - Agency Operations and Support Other Agency Services	MIPR	Various : Multi: AL, CA, CO, VA	0.245	0.000		5.786	Nov 2020	5.905	Nov 2021	-		5.905	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	Various : Multi: AL, CA, CO, VA	100.299	15.272	May 2020	8.358	May 2021	11.323	Jun 2022	-		11.323	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
<b>Subtotal</b>			117.729	15.504		15.027		17.228		-		17.228	Continuing	Continuing	N/A

**Remarks**  
N/A

	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	117.729	15.504	15.027	17.228	-	17.228	Continuing	Continuing	N/A

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

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</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 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
MD40 Program-Wide Support					◇	◇	◇	◇	◇	◇	◇

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603914C / <i>Ballistic Missile Defense Test</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD40 Program-Wide Support	1	2020	4	2022

**Note**

Based on the OUSD(C) FY 2022 President's Budget Submission Guidance, fiscal years covered in the justification material will include FY 2020 through FY 2022. Planned entries in the R4 may continue past FY 2022, out-years will be addressed in future budget submissions.