Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Missile Defense Agency	Date: March 2019
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)*

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	420.795	51.905	58.125	56.161	-	56.161	57.446	58.574	61.144	62.339	Continuing	Continuing
MD22: *Missile Defense Integration and Operations Center (MDIOC)*	402.305	48.916	51.841	53.103	-	53.103	54.072	55.156	57.420	58.561	Continuing	Continuing
MC22: *Cyber Operations*	2.014	0.598	0.610	0.634	-	0.634	0.646	0.659	0.672	0.685	Continuing	Continuing
MD40: *Program-Wide Support*	16.476	2.391	5.674	2.424	-	2.424	2.728	2.759	3.052	3.093	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

N/A

A. Mission Description and Budget Item Justification

The Missile Defense Integration and Operations Center (MDIOC) is the Missile Defense Agency's (MDA) field operating activity in Colorado Springs, Colorado. It provides necessary infrastructure and support services through a mission execution platform for MDA elements/components and designated Combatant Commanders' Ballistic Missile Defense System (BMDS) operations executing missions at the MDIOC. The Integration Center is the organization 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 mission support module (area) located at Schriever Air Force Base, adjacent to North American Aerospace Defense Command (NORAD) and United States Northern Command (USNORTHCOM). The MDA Integration Center provides mission critical 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/Information Assurance 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 BMDS 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 BMDS fire control; and it provides the physical interface between the developers and the Combatant Command warfighters.

MDIOC mission facilities contribute to the BMDS by directly supporting the concept of Concurrent Test, Training, and Operations (CTTO) for the BMDS by providing engineering integration, resource scheduling, configuration management, and implementation development support for MDA and BMDS-level test, training, and operational mission execution.

MDIOC Major Program Goals:

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Missile Defense Agency	Date: March 2019
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)*

-Provide the capabilities and services necessary to support engineering integration, resource scheduling for ground and flight tests, configuration management, and implementation development support of on-site activities
-Ensure around the clock support and restoral of designated BMDS operational activities
-Improve interface with designated Combatant Command missile defense activities; host/support the headquarters and operations center for the United States Strategic Command Joint Functional Component Command - Integrated Missile Defense
-Maintain and improve the reliability, availability, and maintainability of MDIOC mission critical systems

B. Program Change Summary ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	53.265	54.925	58.498	-	58.498
Current President's Budget	51.905	58.125	56.161	-	56.161
Total Adjustments	-1.360	3.200	-2.337	-	-2.337
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	3.200			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-1.201	0.000			
• Missile Defeat and Defense Enhancement	0.000	0.000	0.000	-	0.000
• Other Adjustment	-0.159	0.000	-2.337	-	-2.337

Change Summary Explanation

Increase in FY 2019 from PB19 to PB20 reflects the enacted congressional adjustments for facilities, sustainment, restoration and modernization to support maintenance of current MDA assets.

Decrease in FY 2020 from PB19 to PB20 reflects the decrease for facilities, sustainment, restoration and modernization projects funded in FY 2019 with FY 2019 congressional increase.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency			Date: March 2019
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)*	

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
MD22: *Missile Defense Integration and Operations Center (MDIOC)*	402.305	48.916	51.841	53.103	-	53.103	54.072	55.156	57.420	58.561	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

The Missile Defense Integration and Operations Center (MDIOC) sustains and operates a 24 hours a day, 365 days a year mission complex for critical research, development, testing, training, and operations for BMDS activities. The MDIOC supports the Ground-based Midcourse Missile 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 Satellite Tracking and Surveillance System's (STSS) Missile Defense Space Center (MDSC); and the Targets and Countermeasures' (TC) Mission Control Center - Targets (MCC-T). The MDIOC also provides developmental support to the Enterprise Sensors Laboratory (ESL) composed of a common satellite ground station and sensor netting test bed for designated Ballistic Missile Defense System (BMDS) elements. The MDIOC supports BMDS test events based on the Integrated Master Test Plan (IMTP). It supports BMDS Critical Engagement Conditions testing and analysis through the operation of the Test Execution Control node for distributed BMDS 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 (USNORTHCOM) C2BMC Command and Control Center (CCC), the United States Strategic Command's (USSTRATCOM's) Joint Functional Component Command-Integrated Missile Defense (JFCC-IMD) and the Missile Defense Agency (MDA) Warfighter Support Center. In addition, the MDIOC supports the MDA Operations Support Center, which provides situational awareness of the health and status of the end-to-end BMDS, and provides network subject matter expertise and technical reach back for the program elements and Combatant Commanders. The MDIOC hosts BMDS 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 BMDS performance assessments, with surrogate capability for BMDS ground tests. The MDIOC maintains a technical repository of BMDS Implementation Architectures for real-time operations and configuration control; provides state change management and asset management technical support for the BMDS; and provides the technical environment for BMDS 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 (JEWL), which provides USSTRATCOM 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 2018	FY 2019	FY 2020
Title: Infrastructure Systems and Support	20.587	17.324	18.496
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency		Date: March 2019
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 2018	FY 2019	FY 2020
Description: RECURRING: MDIOC Communications and Special Purpose Processing Node (SPPN): - Establish a DoD compliant SPPN capable of meeting the unique network and data center services required to develop and deploy a layered BMDS 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 BMDS acquisition lifecycle. - Construct the SPPN infrastructure with routers, switches, firewalls, and intrusion detection systems that provide 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 BMDS and Warfighter operational elements. - Provide computer hosting of specified threat models and support the integration of other threat tools as required. End User Support: - Sustain End User core service support 18 hours a day, 6 days a week for administrative and business 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)			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency		Date: March 2019
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 2018	FY 2019	FY 2020
- Maintain current hardware and software licenses for IT operational systems - Maintain an Integrated Service Desk - Maintain IT life-cycle asset management of end user devices (desktops, laptops, monitors, printers, thin clients, and BlackBerrys) Hardware and Software Asset Management: - Manage government property and IT hardware and software in accordance with the Federal Acquisition Regulations (FAR)/DoD FAR Supplements (DFARs) to include accountability, reporting, warehouse management, asset transportation and excess asset management - Maintain an inventory of IT hardware and software assets connected or used in the ULAN, CLAN, SIPRNET and TS/SCI networks Specific and/or unique accomplishments to each FY are as follows: ***FY 2019 Plans:*** - SEE ABOVE. ***FY 2020 Plans:*** - SEE ABOVE ***FY 2019 to FY 2020 Increase/Decrease Statement:*** N/A			
Title: Facilities and Maintenance	12.819	15.685	14.395
Articles:	-	-	-
Description: RECURRING: Host Tenant Support(Electrical, Gas, Sewer, Water, Steam, Chilled Water, Waste Water, Landscaping, Refuse Removal, and Communications Support): - Procure utility services through 50th Air Force Space Wing (Host Base) - Sustain utility infrastructure and delivery systems Environmental, Safety and Occupational Health (ESOH): - 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			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency		Date: March 2019
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 2018	FY 2019	FY 2020
- Ensure compliance with Hazardous Waste, Hazardous Material Recycling, and National Environmental Policy Act (NEPA) programs - Conduct recurring safety and environmental audits 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; Heating, Ventilation, and Air Conditioning; plumbing; locksmith) with a response time of 15 minutes after normal duty hours - Conduct preventative maintenance inspections (PMIs) for all building systems Facilities Engineering: - Conduct Management Process Facility Installation Standard Audits - Provide risk management analysis and mitigation plans - Maintain infrastructure drawings configuration management databases on a limited basis - Develop and document facility long range planning programming - Provide consulting services, preliminary designs and engineering rough order of magnitude estimates for required infrastructure buildout changes Missile Defense Integration and Operations Center (MDIOC) Operating Expenses: - Lease General Services Administration (GSA) vehicles and a commercial warehouse - Fund calibration of measuring and monitoring equipment - Fund repair of classified network switches Facility Services: - Provide custodial services for over 675,000 square feet of floor space in Buildings 720 and 730 - Provide limited Copy Center and Shuttle Services for over 2,000 personnel - Provide in/out processing - Personnel moves to include cubicle and workstation setup, teardown, and reconfiguration Specific and/or unique accomplishments to each FY are as follows: ***FY 2019 Plans:*** - SEE ABOVE. ***FY 2020 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency		Date: March 2019
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 2018	FY 2019	FY 2020
- SEE ABOVE ***FY 2019 to FY 2020 Increase/Decrease Statement:*** N/A			
Title: Engineering and Event Services	7.793	10.180	11.778
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 by developing effective solutions through a structured, repeatable process for MDIOC engineering activities. Provide governance and training to stakeholders, enforce policy, establish and maintain a unified board structure 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 track changes to the IT and MDIOC physical infrastructure. Understand how any change may affect CTTO activities, and determine when any 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.			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency		Date: March 2019
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 2018	FY 2019	FY 2020
- Provide Event Architecture and Engineering Design by coordinating design and implementation of technical architectures for all major MDIOC hosted/supported CTTO activities. Maintain a repository of architectures for real-time configuration management. - Provide cradle to grave event management for MDIOC supported CTTO events. - Provide a Mission Planning Element to oversee the event support life cycle provided by the MDIOC engineering and event support platform. Ensure the fulfillment of technical, personnel, facility, and cybersecurity requirements. - Provide a Mission Execution Element to ensure asset protection and incident response for all MDIOC supported CTTO events. - Ensure Organizational Integration by establishing and enforcing seamless integration across the MDIOC. Provide a repeatable process for information sharing and coordination. - Provide Cybersecurity to ensure the protection of MDIOC networks, computers, programs and data from attack, damage or unauthorized access. - Provide Contract Program Management oversight including business, finance, contract administration and management. Identify and manage cross-project dependencies. Conduct activities within established cost, schedule, and performance parameters. Specific and/or unique accomplishments to each FY are as follows: ***FY 2019 Plans:*** - SEE ABOVE. ***FY 2020 Plans:*** - SEE ABOVE ***FY 2019 to FY 2020 Increase/Decrease Statement:*** N/A			
Title: Operations and Sustainment	5.287	5.152	4.934
Articles:	-	-	-
Description: RECURRING: - Fund Civilian and Contract Service Support positions supporting operations and sustainment of all Missile Defense Integration and Operations Center (MDIOC)activities contributing to the mission execution platform - Provide quality event planning, coordination, logistics, security access and host support for all MDIOC			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency		Date: March 2019
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 2018	FY 2019	FY 2020
events and visitors - Deliver integrated service coordination for all MDIOC event and protocol support. - Fund Training and Travel Specific and/or unique accomplishments to each FY are as follows: ***FY 2019 Plans:*** - SEE ABOVE. ***FY 2020 Plans:*** - SEE ABOVE ***FY 2019 to FY 2020 Increase/Decrease Statement:*** N/A			
Title: Infrastructure Systems Repair, Sustainment, and Critical Upgrades	2.430	3.500	3.500
Articles:	-	-	-
Description: RECURRING: - Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant) - Fire Suppression System Compliance Project (two quadrants) Specific and/or unique accomplishments to each FY are as follows: ***FY 2019 Plans:*** - SEE ABOVE. ***FY 2020 Plans:*** - SEE ABOVE ***FY 2019 to FY 2020 Increase/Decrease Statement:*** N/A			
Accomplishments/Planned Programs Subtotals	48.916	51.841	53.103

Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency		Date: March 2019
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• 0603294C: *Common Kill Vehicle Technology*	55.562	56.753	13.600	-	13.600	13.475	16.187	18.232	22.949	Continuing	Continuing
• 0603881C: *Ballistic Missile Defense Terminal Defense Segment*	454.147	388.273	302.761	-	302.761	234.679	227.921	179.248	197.459	Continuing	Continuing
• 0603882C: *Ballistic Missile Defense Midcourse Defense Segment*	1,153.263	803.359	1,156.506	-	1,156.506	829.451	766.237	834.533	776.671	Continuing	Continuing
• 0603890C: *BMD Enabling Programs*	533.993	620.831	571.507	-	571.507	603.672	541.667	574.553	553.969	Continuing	Continuing
• 0603892C: *AEGIS BMD*	798.395	741.076	727.479	-	727.479	718.949	703.473	505.529	527.720	Continuing	Continuing
• 0603896C: *Ballistic Missile Defense Command and Control, Battle Management & Communication*	449.985	507.817	564.206	-	564.206	534.988	502.581	525.742	535.636	Continuing	Continuing
• 0603898C: *Ballistic Missile Defense Joint Warfighter Support*	48.574	48.767	51.532	-	51.532	51.411	53.932	53.600	54.646	Continuing	Continuing
• 0603907C: *Sea Based X-Band Radar (SBX)*	173.988	136.715	128.156	-	128.156	119.452	132.826	127.504	139.909	Continuing	Continuing
• 0603914C: *Ballistic Missile Defense Test*	406.806	515.897	395.924	-	395.924	417.946	335.481	451.723	405.136	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Integrated Research and Development for Enterprise Solutions Contract is the major performing integrated contract. The acquisition strategy for MDIOC mission execution is to employ a contract to perform designated integration and sustainment tasks to conduct BMDS Research, Development, Test and Evaluation (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.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Missile Defense Agency		Date: March 2019
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)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	N/A

Remarks

N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Infrastructure Systems and Support - Infrastructure Systems/Support	C/CPIF	MDIOC/Jacobs Technology Inc. : Colorado Springs, CO	0.000	1.000	Jul 2018	0.000		18.496	Nov 2019	-		18.496	Continuing	Continuing	Continuing
Infrastructure Systems and Support - MDIOC JRDC/ IRES	C/CPAF	MDIOC/Northrop Grumman Mission Systems : Colorado Springs, CO	155.189	19.587	Jan 2018	17.324	Oct 2018	0.000		-		0.000	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC Custodial/ Mailroom/Drivers	C/FFP	MDIOC/Ability One/ Venturi : Colorado Springs, CO	3.649	1.888	Dec 2017	1.205	Dec 2018	1.992	Dec 2019	-		1.992	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC GSA / Leases / Calibration	MIPR	Various (GSA, Warehouses) : Colorado Springs, CO	7.481	0.220	Oct 2017	0.643	Nov 2018	0.260	Oct 2019	-		0.260	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC IRES	C/CPIF	MDIOC/Jacobs Technology Inc. : Colorado Springs, CO	0.000	7.880	Jul 2018	0.000		8.347	Jan 2020	-		8.347	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC MIPRs	C/FFP	MDIOC/Misc : Colorado Springs, CO	93.111	0.253	Nov 2017	10.561	Oct 2018	0.424	Nov 2019	-		0.424	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC Utilities	MIPR	50th Space Wing : Schriever AFB, CO	20.742	2.578	Oct 2017	3.276	Oct 2018	3.372	Oct 2019	-		3.372	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Missile Defense Agency		Date: March 2019
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)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering and Event Services - MDIOC IRES	C/CPAF	MDIOC /Jacobs Technology Inc. : Colorado Springs, CO	66.233	7.793	Nov 2017	10.180	Nov 2018	11.778	Nov 2019	-		11.778	Continuing	Continuing	Continuing
Operations and Sustainment - Civilian Salaries	Allot	MDIOC : Colorado Springs, CO	23.617	2.805	Oct 2017	2.836	Oct 2018	2.864	Oct 2019	-		2.864	Continuing	Continuing	Continuing
Operations and Sustainment - Support Services	C/CPFF	MiDAESS/TEAMS Multi : Colorado Springs, CO	18.536	2.422	Nov 2017	2.256	Nov 2018	2.020	Oct 2019	-		2.020	Continuing	Continuing	Continuing
Operations and Sustainment - Travel and Training	Allot	MDIOC : Colorado Springs, CO	0.693	0.060	Nov 2017	0.060	Nov 2018	0.050	Nov 2019	-		0.050	Continuing	Continuing	Continuing
Infrastructure Systems Repair, Sustainment, and Critical Upgrades - MDIOC IRES	C/CPAF	MDIOC/Jacobs Technology Inc. : Colorado Springs, CO	13.054	2.430	Jan 2018	3.500	Jan 2019	3.500	Jan 2020	-		3.500	Continuing	Continuing	Continuing
		Subtotal	402.305	48.916		51.841		53.103		-		53.103	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.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	N/A

Remarks

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Missile Defense Agency		**Date:** March 2019
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)*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	N/A

Remarks

N/A

	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	402.305	48.916		51.841		53.103		-		53.103	Continuing	Continuing	N/A

Remarks

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

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Missile Defense Agency		**Date:** March 2019
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 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2018)	✧	✧	✧	✧																								
Re-purpose basement space to accommodate IT and Infrastructure support personnel (Phase III)	✧	✧	✧	✧																								
Electrical power distribution in two mission quadrants to replace- End-of-Life systems, increase reliability, improve power distribution efficiency, and redundancy to mission critical areas		✧	✧																									
Fire Suppression System Compliance Project (two quadrants)(FY 2018)		✧	✧	✧																								
Replace end-of-life Emergency Lighting Module (Building 730)			✧	✧																								
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2019)					✧	✧	✧	✧																				
Re-purpose basement space to accommodate IT and Infrastructure support personnel (Phase IV)					✧	✧	✧	✧																				
Replace/repair drainage/sewer system (Phase III -Building 720)					✧	✧	✧	✧																				
Fire Suppression System Compliance Project (two quadrants)(FY 2019)						✧	✧	✧																				
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2020)									✧	✧	✧	✧																
Install Ambient Air Economizer (greening initiative)									✧	✧	✧	✧																
Replace Heating, Ventilation, and Air Conditioning (HVAC) Chilled Water Pumps (North and South Loops)									✧	✧	✧	✧																
Fire Suppression System Compliance Project (two quadrants)(FY 2020)										✧	✧	✧																
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2021)													✧	✧	✧	✧												
Fire Suppression System Compliance Project (two quadrants)(FY 2021)														✧	✧	✧												
Availability/Arc Flash/Short Circuit Coordination Study															✧													
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant) (FY2022)																	✧	✧	✧	✧								

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Missile Defense Agency		**Date:** March 2019
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 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Fire Suppression System Compliance Project (two quadrants) (FY2022)					✧ ✧ ✧ ✧		
Fire Suppression System Compliance Project (two quadrants) (FY2023)						✧ ✧ ✧ ✧	
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant) (FY2023)						✧ ✧ ✧ ✧	

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Missile Defense Agency		**Date:** March 2019
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)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2018)	1	2018	4	2018
Re-purpose basement space to accommodate IT and Infrastructure support personnel (Phase III)	1	2018	4	2018
Electrical power distribution in two mission quadrants to replace- End-of-Life systems, increase reliability, improve power distribution efficiency, and redundancy to mission critical areas	2	2018	3	2018
Fire Suppression System Compliance Project (two quadrants)(FY 2018)	2	2018	4	2018
Replace end-of-life Emergency Lighting Module (Building 730)	3	2018	4	2018
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2019)	1	2019	4	2019
Re-purpose basement space to accommodate IT and Infrastructure support personnel (Phase IV)	1	2019	4	2019
Replace/repair drainage/sewer system (Phase III -Building 720)	1	2019	4	2019
Fire Suppression System Compliance Project (two quadrants)(FY 2019)	2	2019	4	2019
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2020)	1	2020	4	2020
Install Ambient Air Economizer (greening initiative)	1	2020	4	2020
Replace Heating, Ventilation, and Air Conditioning (HVAC) Chilled Water Pumps (North and South Loops)	1	2020	4	2020
Fire Suppression System Compliance Project (two quadrants)(FY 2020)	2	2020	4	2020

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Missile Defense Agency		**Date:** March 2019
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**
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2021)	1	2021	4	2021
Fire Suppression System Compliance Project (two quadrants)(FY 2021)	2	2021	4	2021
Availability/Arc Flash/Short Circuit Coordination Study	3	2021	3	2021
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant) (FY2022)	1	2022	4	2022
Fire Suppression System Compliance Project (two quadrants) (FY2022)	1	2022	4	2022
Fire Suppression System Compliance Project (two quadrants) (FY2023)	1	2023	4	2023
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant) (FY2023)	1	2023	4	2023

Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency		Date: March 2019
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
MC22: *Cyber Operations*	2.014	0.598	0.610	0.634	-	0.634	0.646	0.659	0.672	0.685	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

N/A

A. Mission Description and Budget Item Justification

The Missile Defense Integration and Operations Center (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 2018	FY 2019	FY 2020
Title: Cyber Defensive Operations	0.598	0.610	0.634
Articles:	-	-	-

Description: RECURRING:
The Missile Defense Integration and Operations Center (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 DoD Directive 8570

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

FY 2019 Plans:
- SEE ABOVE.

FY 2020 Plans:
- SEE ABOVE

FY 2019 to FY 2020 Increase/Decrease Statement:

Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency		Date: March 2019
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 2018	FY 2019	FY 2020
N/A			
Accomplishments/Planned Programs Subtotals	0.598	0.610	0.634

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Missile Defense Agency		Date: March 2019
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*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Cyber Defensive Operations - Cyber Defensive Operations	C/CPAF	MDIOC/IRES : Jacobs Technology Inc.	2.014	0.598	Jan 2018	0.610	Jan 2019	0.634	Jan 2020	-		0.634	Continuing	Continuing	Continuing
		Subtotal	2.014	0.598		0.610		0.634		-		0.634	Continuing	Continuing	N/A

Remarks
N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	N/A

Remarks
N/A

	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2.014	0.598		0.610		0.634		-		0.634	Continuing	Continuing	N/A

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

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Missile Defense Agency		**Date:** March 2019
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*

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 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
MC22 Cyber Operations	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧				

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Missile Defense Agency		**Date:** March 2019
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

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
MC22 Cyber Operations	1	2018	4	2023

Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency			Date: March 2019
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
MD40: *Program-Wide Support*	16.476	2.391	5.674	2.424	-	2.424	2.728	2.759	3.052	3.093	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 BMDS. It Includes Government Civilians and Contract Support Services. This provides integrity and oversight of the BMDS 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. 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; data and unified communications support; supplies and maintenance; materiel and readiness and central property management of equipment; 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 2018	FY 2019	FY 2020
Title: Program Wide Support	2.391	5.674	2.424
Articles:	-	-	-

Description: PWS contains non-headquarters management costs in support of MDA functions and activities across the entire BMDS. It Includes Government Civilians and Contract Support Services. This provides integrity and oversight of the BMDS 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. 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; data and unified communications support; supplies and maintenance; materiel and readiness and central property management of equipment; 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.

FY 2019 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency		Date: March 2019
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*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020
- SEE ABOVE. ***FY 2020 Plans:*** - SEE ABOVE. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** Decrease from FY 2019 to FY 2020 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.			
Accomplishments/Planned Programs Subtotals	2.391	5.674	2.424

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Missile Defense Agency		**Date:** March 2019
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*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities, Operations, and Maintenance	MIPR	Various : Multi: AK, AL, CA, CO, VA	5.311	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations Management	Allot	Various : Multi: AL, CA, CO, VA	0.492	0.035	Jul 2018	0.037	Jul 2019	0.036	Jul 2020	-		0.036	0.241	0.841	0.000
Program Wide Support - Agency Operations and Support Services	Reqn	Various : Multi: AK, AL, CA, CO, VA	10.475	2.356	Nov 2017	2.437	Aug 2019	2.388	Oct 2019	-		2.388	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services.	C/CPFF	Various : Alatec INC, AL, CO, VA	0.198	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Facilities and Maintenance SRM	MIPR	Various : Multi: CO	0.000	0.000		3.200	Dec 2018	0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	16.476	2.391		5.674		2.424		-		2.424	Continuing	Continuing	N/A

Remarks

N/A

	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	16.476	2.391		5.674		2.424		-		2.424	Continuing	Continuing	N/A

Remarks

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

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Missile Defense Agency		**Date:** March 2019
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 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
MD40 Program-Wide Support	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Missile Defense Agency		**Date:** March 2019
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

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
MD40 Program-Wide Support	1	2018	4	2024