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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Missile Defense Agency **Date:** February 2015

Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 0603904C / Missile Defense Integration and Operations Center (MDIOC)
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	219.045	50.271	58.503	49.211	-	49.211	58.074	53.655	55.194	57.162	Continuing	Continuing
MD22: Missile Defense Integration and Operations Center (MDIOC)	213.178	47.064	54.578	46.575	-	46.575	54.869	50.291	51.632	53.420	Continuing	Continuing
MC22: Cyber Operations	-	0.514	0.537	0.472	-	0.472	0.459	0.616	0.622	0.645	Continuing	Continuing
MD40: Program-Wide Support	5.867	2.693	3.388	2.164	-	2.164	2.746	2.748	2.940	3.097	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Beginning in FY 2014, Modeling and Simulation Systems Engineering and Integration content transferred to Ballistic Missile Defense Midcourse Sector, Program Element 0603882C (Budget Project MD08).

Project MC22 is a new Defensive Cyber Operations Project established in this Program Element (PE) beginning in FY 2014. Funds were previously reported in Project MD22 of this PE.

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 the 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 consists of a highly secure research and development complex and a mission support module (area) located within a military installation (Schriever Air Force Base) that is 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 Missile Defense Integration and Operations Center (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 test and system wide flight tests. The mission and test directors for these key tests control both main and associated test operations using secure voice, test, and mission network hubs at the MDIOC. The MDIOC also functions (within MDA's capabilities-based acquisition strategy) 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.

UNCLASSIFIED

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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>
MDIOC mission facilities contribute to the BMDS by directly supporting the concept of Concurrent Test, Training, and Operations (CTTO) for the BMDS. The MDIOC accomplishes this by providing engineering integration, resource scheduling, configuration management, and implementation development support for MDA and BMDS-level test, training, and operational mission execution. The Integration Center provides engineering and operational integration by: -Implementing the technical event architectures for the models and simulations used to support missile defense planning seminars, wargames, exercises, and analyses -Supporting BMDS Critical Engagement Conditions (CEC) testing and analysis by operating the Test Execution Control (TEC) for distributed BMDS ground tests, and ensuring the integrity of their technical system architecture -Providing network operations and information assurance for all on-site integration activities -Integrating and sustaining the enabling infrastructure, services, and processes that support the operation of designated elements of the BMDS and resident Combatant Command operations and/or support centers -Providing technical support for the BMDS Watch Officers, BMDS Safety Officers, and Information Assurance Officers in their efforts to monitor and assess the health and status of the networks and elements that impact BMDS test and operations -Operating the Joint Early Warning Laboratory for anomaly resolution -Supporting the Intelligence Support Center for critical situational awareness intelligence on worldwide ballistic missile developments that could affect the development and/or operation of the BMDS Missile Defense Integration and Operations Center (MDIOC) Major Program Goals: -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 United States Strategic Command Joint Functional Component Command - Integrated Missile Defense -Continue to achieve cost effectiveness and efficiencies through the leveraging of existing Missile Defense Integration and Operations Center infrastructure, services, processes, and expertise to support assigned missions -Maintain and improve as designated the reliability, availability, and maintainability of mission critical systems MD40 Program-Wide Support (PWS) consists of essential non-headquarters management efforts providing integrated and efficient support to the MDA functions and activities across the entire Ballistic Missile Defense System (BMDS).		

UNCLASSIFIED

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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603904C <i>I Missile Defense Integration and Operations Center (MDIOC)</i>
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B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	52.095	58.530	51.738	-	51.738
Current President's Budget	50.271	58.503	49.211	-	49.211
Total Adjustments	-1.824	-0.027	-2.527	-	-2.527
• Congressional General Reductions	-	-0.027			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-1.005	-			
• SBIR/STTR Transfer	-0.819	-			
• Other Adjustment	-	-	-2.527	-	-2.527

Change Summary Explanation

FY 2015 change reflects Public Law 113-235, FY2015 Omnibus; Consolidated and Further Continuing Appropriations Act.

FY 2016 adjustments reflect realignment to Department of Defense priorities.

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency										Date: February 2015		
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
MD22: Missile Defense Integration and Operations Center (MDIOC)	213.178	47.064	54.578	46.575	-	46.575	54.869	50.291	51.632	53.420	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, 7 days a week, 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) Joint Target Operations Center (JTOC). 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. Support to Missile Defense Agency test events is provided based on the Integrated Master Test Plan (IMTP) schedule. 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 test, 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 those critical 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) Command, Control, Battle Management and Communications (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 requisite infrastructure for modeling and simulation to provide and integrate digital modeling and simulation assets to the Digital Simulation Architecture that form system-level constructive simulations for full-envelope BMDS performance assessment 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 both 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 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 2014	FY 2015	FY 2016
Title: Infrastructure Systems and Support	17.378	20.475	19.198

UNCLASSIFIED

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2014	FY 2015	FY 2016
Articles: Description: N/A FY 2014 Accomplishments: Computing Center (Operating Systems, Print/Storage Services, Audio/Visual, Operations and Maintenance): - Continued to maintain a mission execution platform to provide an enabling infrastructure (to include hardware, software maintenance, licenses, and upgrades) that supported MDA Research, Development, Test and Evaluation (RDT&E) efforts at the Missile Defense Integration and Operations Center (MDIOC) for the MDA elements/components, and Combatant Command and Warfighter operational elements - Provided computer hosting of specified threat models and supported the integration of other threat tools as required - Planned/Initiated, when directed, the installation of any additional data feeds required to support the Operations Support Center (OSC) - Provided file, print, and messaging services - Managed and maintained automated patching software and virus protection servers. - Managed and maintained the MDA Enterprise directory services supporting user access to MDA Enterprise network resources - Performed preventive maintenance and ensured data recovery capability through proper data backup scheduling and execution - Planned/Designed enhancements to the MDIOC Data Center including floor space allocations, equipment staging areas, and streamlined logistics support function - Designed/Implemented upgrades to audio/visual support to the MDIOC supporting the distribution of signals over Internet Protocol MDIOC Communication Services: - Installed communications and networking infrastructure (hardware/software) in support of evolving mission requirements of resident MDA development, testing, training, and operational activities - Implemented Classified and Unclassified Voice Over Internet Protocol (VOIP) expansion - Provided telephony services to include: Telephone/Fax Service: Provided local, long distance, Defense Switch Network and Defense Red Switch telephone systems. Telephone Switch Operations: Operated, maintained, and upgraded telephone switches, nodes, and Private Branch Exchanges to include 911 support			-	-	-

UNCLASSIFIED

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2014	FY 2015	FY 2016
Network Management Transport Services: - Acquired and distributed mission critical unclassified and secure communications capability to ten resident MDA elements/components and BMDS and Warfighter operational elements - Provided management of network capabilities by monitoring and controlling the network infrastructure, available bandwidth, hardware, and distributed software resources - Maintained the technical infrastructure and equipment which includes, routers and switches, Core Cryptographic Devices; Edge Encryption Devices; Global Engagement Manager (GEM); base and long-haul communications Information Assurance Systems - Provided information assurance to MDA elements/components, BMDS elements, and Combatant Command (COCOM) and Warfighter operational elements resident at the Missile Defense Integration and Operations Center (MDIOC) - Maintained DoD Information Assurance Certification and Accreditation Process (DIACAP) accreditation packages; managed the Information Assurance Vulnerability Assessment Program and provide technical assistance to Controls Validation Tests - Provided DoD Information Assurance Certification and Accreditation Process (DIACAP) package management; ensured timely submissions to Information Assurance Manager/Designated Accrediting Authority (IAM/DAA) for MDA Admin/General Services (GENSER) and Event Packages - Performed architecture design, engineering, and configuration management reviews for all assigned projects - Managed the Information Assurance Vulnerability Assessment and Communications Tasking Order remediation and implementation efforts to ensure Defense Information Systems Agency/Joint Task Force - Global Network Operations (DISA/JTF-GNO) directed compliance Infrastructure Implementation Engineering: - Implemented intelligence hardware/software updates as required to support the Operations Support Center - Provided MDIOC centric test event network related detailed designs in support of Test Events and real world operational events, provided implementation plans, updated interface control documents and performed Change Control and Configuration Management services - Planned, designed, tested and operated the IT and communications technical architecture including Internet Protocol addressing schema, routing tables, switching policies, data paths, information assurance controls,					

UNCLASSIFIED

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
fire wall configurations, application configurations, band width allocations for sub networks and eventual post event return to base line - Provided technical health and status monitoring, troubleshooting, and break/fix, IT/Communications support for each of the event architectures including critical asset identification, monitoring, Quality Assurance/Quality Control (QA/QC) seals with configuration management and job control - Implemented final Defense Information Systems Agency - Global Information Grid (DISA GIG) Mission Assurance node configuration Software Licenses, Services and Applications: - Maintained critical software licensing and maintenance agreements to meet critical customer and legal requirements, enabled continued software support necessary to maintain the directed computer network defense posture and ensured continued system operational availability - Planned/Designed/Implemented technical lifecycle, refresh, and standardization of MDIOC print services - Implemented a consolidated Microsoft Project Server and delivered as a web based service. Property/Asset Management and Accountability - Managed government property in accordance with the Federal Acquisition Regulations (FAR)/DoD FAR Supplements (DFARs) to include accountability, reporting, warehouse management, asset transportation and excess asset management - Maintained an inventory of IT hardware and software assets connected or used in the ULAN, CLAN, SIPRNET and TS/SCI networks Cable Plant Cubicle Workstation - Installed facility connectivity cabling; provided trouble-shooting and repair on a critical basis - Installed and reconfigured furniture and workstations on a critical basis FY 2015 Plans: MDIOC Communications and Special Purpose Processing Node: - Continue to maintain a mission execution platform to provide an enabling infrastructure (to include hardware, software maintenance, licenses, and upgrades) that supports MDA Research, Development, Test			

UNCLASSIFIED

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
and Evaluation (RDT&E) efforts at the Missile Defense Integration and Operations Center (MDIOC) for the MDA elements/components, and Combatant Command and Warfighter operational elements - Provide computer hosting of specified threat models and support the integration of other threat tools as required - Plan/Initiate, when directed, the installation of any additional data feeds required to support the Operations Support Center (OSC) - Maintain the technical infrastructure and equipment which includes, routers and switches, Core Cryptographic Devices; Edge Encryption Devices; Global Engagement Manager (GEM); base and long-haul communications Information Assurance Systems - Provide management of network capabilities by monitoring and controlling the network infrastructure, available bandwidth, hardware, and distributed software resources - Acquire and distribute mission critical unclassified and secure communications capability to ten resident MDA elements/components and BMDS and Warfighter operational elements - Install communications and networking infrastructure (hardware/software) in support of evolving mission requirements of resident MDA development, testing, training, and operational activities - Provide information assurance to MDA elements/components, BMDS elements, and Combatant Command (COCOM) and Warfighter operational elements resident at the Missile Defense Integration and Operations Center (MDIOC) - Maintain DoD Information Assurance Certification and Accreditation Process (DIACAP) accreditation packages; manage the Information Assurance Vulnerability Assessment Program and provide technical assistance to Controls Validation Tests - Manage and maintain the MDA Enterprise directory services supporting user access to MDA Enterprise network resources; perform preventive maintenance and ensure data recovery capability through proper data backup scheduling and execution - Implement Classified and Unclassified Voice Over Internet Protocol (VOIP) expansion to include the completion of the MDIOC VOIP implementation - Provide telephony services to include: Telephone/Fax Service: Provide local, long distance, Defense Switch Network and Defense Red Switch telephone systems. Telephone Switch Operations: Operate, maintain, and upgrade telephone switches, nodes, and Private Branch Exchanges to include 911 support - Design/Implement upgrades to audio/visual support to the MDIOC supporting the distribution of signals over Internet Protocol - Develop and coordinate Cross-Domain Solution architectures for high priority Ballistic Missile Defense System (BMDS); testing and contingency deployments - Plan/Design enhancements to the MDIOC Data Center including floor space allocations, equipment staging			

UNCLASSIFIED

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
areas, and streamlined logistics support function - Maintain critical software licensing and maintenance agreements to meet critical customer and legal requirements, enable continued software support necessary to maintain the directed computer network defense posture and ensure continued system operational availability - Plan/Design/Implement technical lifecycle, refresh, and standardization of MDIOC print services - Implement a consolidated Microsoft Project Server and deliver as a web based service 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 and 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 Area Card) -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) Infrastructure Implementation Engineering: - Implement intelligence hardware/software updates as required to support the Operations Support Center - Provide MDIOC centric test event network related detailed designs in support of Test Events and real world operational events, provide implementation plans, update interface control documents and perform Change Control and Configuration Management services - Plan, design, test and operate the IT and communications technical architecture including Internet Protocol addressing schema, routing tables, switching policies, data paths, information assurance controls, fire wall configurations, application configurations, band width allocations for sub networks and eventual post event return to base line			

UNCLASSIFIED

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
- Provide technical health and status monitoring, troubleshooting, and break/fix, IT/Communications support for each of the event architectures including critical asset identification, monitoring, Quality Assurance/Quality Control (QA/QC) seals with configuration management and job control - Implement final Defense Information Systems Agency - Global Information Grid (DISA GIG) Mission Assurance node configuration Hardware and Software Asset Management: - Manage government property 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 Cable Plant Cubicle Workstation - Install facility connectivity cabling; provide trouble-shooting and repair on a critical basis - Install and reconfigure furniture and workstations on a critical basis The FY 2015 increase is a result of planning for projects deferred in FY 2014. FY 2016 Plans: MDIOC Communications and Special Purpose Processing Node: - Continue to maintain a mission execution platform to provide an enabling infrastructure (to include hardware, software maintenance, licenses, and upgrades) that supports MDA Research, Development, Test and Evaluation (RDT&E) efforts at the Missile Defense Integration and Operations Center (MDIOC) for the MDA elements/components, and Combatant Command and Warfighter operational elements - Provide computer hosting of specified threat models and support the integration of other threat tools as required - Plan/Initiate, when directed, the installation of any additional data feeds required to support the Operations Support Center (OSC) - Maintain the technical infrastructure and equipment which includes, routers and switches, Core Cryptographic Devices; Edge Encryption Devices; Global Engagement Manager (GEM); base and long-haul communications			

UNCLASSIFIED

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
Information Assurance Systems - Provide management of network capabilities by monitoring and controlling the network infrastructure, available bandwidth, hardware, and distributed software resources - Acquire and distribute mission critical unclassified and secure communications capability to ten resident MDA elements/components and BMDS and Warfighter operational elements - Install communications and networking infrastructure (hardware/software) in support of evolving mission requirements of resident MDA development, testing, training, and operational activities - Provide information assurance to MDA elements/components, BMDS elements, and Combatant Command (COCOM) and Warfighter operational elements resident at the Missile Defense Integration and Operations Center (MDIOC) - Maintain DoD Information Assurance Certification and Accreditation Process (DIACAP) accreditation packages; manage the Information Assurance Vulnerability Assessment Program and provide technical assistance to Controls Validation Tests - Manage and maintain the MDA Enterprise directory services supporting user access to MDA Enterprise network resources; perform preventive maintenance and ensure data recovery capability through proper data backup scheduling and execution - Implement Classified and Unclassified Voice Over Internet Protocol (VOIP) expansion to include the completion of the MDIOC VOIP implementation - Provide telephony services to include: Telephone/Fax Service: Provide local, long distance, Defense Switch Network and Defense Red Switch telephone systems. Telephone Switch Operations: Operate, maintain, and upgrade telephone switches, nodes, and Private Branch Exchanges to include 911 support - Design/Implement upgrades to audio/visual support to the MDIOC supporting the distribution of signals over Internet Protocol - Develop and coordinate Cross-Domain Solution architectures for high priority Ballistic Missile Defense System (BMDS); testing and contingency deployments - Plan/Design enhancements to the MDIOC Data Center including floor space allocations, equipment staging areas, and streamlined logistics support function - Maintain critical software licensing and maintenance agreements to meet critical customer and legal requirements, enable continued software support necessary to maintain the directed computer network defense posture and ensure continued system operational availability - Plan/Design/Implement technical lifecycle, refresh, and standardization of MDIOC print services - Implement a consolidated Microsoft Project Server and deliver as a web based service End User Support:			

UNCLASSIFIED

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
- 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 and 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 Area Card) -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 Cable Plant Cubicle Workstation: - Install facility connectivity cabling; provide trouble-shooting and repair - Install and reconfigure furniture and workstations Infrastructure Implementation Engineering: - Implement intelligence hardware/software updates as required to support the Operations Support Center - Provide MDIOC centric test event network related detailed designs in support of Test Events and real world operational events, provide implementation plans, update interface control documents and perform Change Control and Configuration Management services			

UNCLASSIFIED

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2014	FY 2015	FY 2016
- Plan, design, test and operate the IT and communications technical architecture including Internet Protocol addressing schema, routing tables, switching policies, data paths, information assurance controls, fire wall configurations, application configurations, band width allocations for sub networks and eventual post event return to base line - Provide technical health and status monitoring, troubleshooting, and break/fix, IT/Communications support for each of the event architectures including critical asset identification, monitoring, Quality Assurance/Quality Control (QA/QC) seals with configuration management and job control - Implement final Defense Information Systems Agency - Global Information Grid (DISA GIG) Mission Assurance node configuration The decrease in FY2016 is due to the realignment of funds to other Department of Defense priorities					
Title: Facilities and Maintenance Description: N/A FY 2014 Accomplishments: Host Tenant Support(Electrical, Gas, Sewer, Water, Steam, Chilled Water, Waste Water, Landscaping, and Refuse Removal): - Procured utility services through 50th Air Force Space Wing (Host Base) - Sustained utility infrastructure and delivery systems Environmental, Safety and Occupational Health (ESOH): - Continued maintenance and updating of the program accident prevention plan - Provided required industrial safety training to facility services personnel - Procured and distributed personal protection equipment for contracted activities - Ensured compliance with Hazardous Waste, Hazardous Material Recycling, and National Environmental Policy Act (NEPA) programs - Conducted recurring safety and environmental audits Facilities Operations and Maintenance:			Articles:		
			13.439 -	13.786 -	13.590 -

UNCLASSIFIED

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2014	FY 2015	FY 2016
- Provided 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 - Conducted preventative maintenance inspections (PMIs) for all building systems Facilities Engineering: - Conducted Management Process Facility Installation Standard Audits - Provided risk management analysis and mitigation plans - Maintained infrastructure drawings configuration management databases on a limited basis - Developed and documented facility long range planning and programming - Provided preliminary designs and engineering rough order of magnitude estimates for required infrastructure buildout changes Missile Defense Integration and Operations Center (MDIOC) Operating Expenses: - Leased General Services Administration (GSA) Vehicles and a commercial warehouse - Funded Schriever Air Force Base Support Costs (Defense Red Switch Network (DRSN) Support, Local Dial Tone, Long Distance, Cable TV, and Grounds Maintenance) - Funded calibration of measuring and monitoring equipment - Funded repair of classified network switches - Procured major event transportation services (group movement) Facility Services: - Provided custodial services for over 675,000 square feet of floor space in Buildings 720 and 730 - Provided limited Copy Center and Shuttle Services for over 2,000 personnel - Provided In/Out Processing and Personnel Moves FY 2015 Plans: Host Tenant Support(Electrical, Gas, Sewer, Water, Steam, Chilled Water, Waste Water, Landscaping, and Refuse Removal): - Procure utility services through 50th Air Force Space Wing (Host Base)					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency		Date: February 2015	
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
- Sustain utility infrastructure and delivery systems Environmental, Safety and Occupational Health (ESOH): - Continue maintenance and updating of the program accident prevention plan - Provide required industrial safety training to facility services personnel - Procure and distribute personal protection equipment for contracted activities - Ensure compliance with Hazardous Waste, Hazardous Material Recycling, and National Environmental Policy Act (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 minimum 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 Schriever Air Force Base Support Costs (Defense Red Switch Network (DRSN) Support, Local Dial Tone, Long Distance, Cable TV, and Grounds Maintenance) - Fund calibration of measuring and monitoring equipment - Fund repair of classified network switches			

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency			Date: February 2015		
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2014	FY 2015	FY 2016
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 and Personnel Moves FY 2016 Plans: Host Tenant Support(Electrical, Gas, Sewer, Water, Steam, Chilled Water, Waste Water, Landscaping, and Refuse Removal): - Procure utility services through 50th Air Force Space Wing (Host Base) - Sustain utility infrastructure and delivery systems Environmental, Safety and Occupational Health (ESOH): - Continue maintenance and updating of the program accident prevention plan - Provide required industrial safety training to facility services personnel - Procure and distribute personal protection equipment for contracted activities - Ensure compliance with Hazardous Waste, Hazardous Material Recycling, and National Environmental Policy Act (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					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016
- Maintain infrastructure drawings configuration management databases on a limited minimum 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 Schriever Air Force Base Support Costs (Defense Red Switch Network (DRSN) Support, Local Dial Tone, Long Distance, Cable TV, and Grounds Maintenance) - 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 and Personnel Moves				
Title: Engineering and Event Services Articles: Description: N/A FY 2014 Accomplishments: Provided Mission Assurance and Event Services to reduce risk of infrastructure failures, prevent over-taxing of shared resources, and ensure the rapid restoration of impacted services through the following: Mission Assurance and Event Execution Support - Implemented baseline technical control for all Missile Defense Integration and Operations Center (MDIOC) mission critical subsystems and services - Executed MDIOC engineering management, quality assurance, configuration management and integration of all mission critical systems including: -- Technical power distribution, Uninterruptable Power Supply Systems, major transformer substations, and		6.501 -	6.837 -	7.778 -

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
circuit protection -- Heating, Ventilation and Air Conditioning, chilled water and steam systems -- Secure and non-secure voice communications for Ballistic Missile Defense Systems (BMDS); Operations, major tests, and general constituencies -- Local and wide area secure data networking environments and network health and status tools 24 hours a day, 7 days a week, 365 days a year - Ensured high availability of integrated MDIOC systems and BMDS Operations support 24 hours a day, 7 days a week, 365 days a year - Implemented 'last mile' integration for BMDS Operations, BMDS test, War gaming, exercise, training and general admin services - Executed comprehensive configuration baseline integrity periods of non-disruption, periods of interest and work screening for all major tests and real world contingencies - Coordinated process improvement investments across all mission areas - Executed aggressive, proactive and tailored risk management to ensure integrity and persistent connectivity for all MDIOC missions including: -- Command, Control, Battle Management and Communications (C2MBC) incremental development and integration across the Integration Laboratory, Experimentation Laboratory (X-Lab), and the International Point of Presence -- BMDS focused, system and distributed ground testing and Hardware-in-the-Loop (HWIL) execution -- Modeling and Simulation program management; Digital Simulation Architecture Development; Validation, Verification and Accreditation -- BMDS flight tests including Flight Test Ground-Based Midcourse Defense (FTG) execution; Flight Test - Aegis (FTM) and Flight Test - THAAD (FTT) planning, coordination and situational awareness. (For system flight tests directed from the MDIOC, ensured the protection of power, Heating, Ventilation and Air Conditioning, and communications critical to test execution and control). -- Joint Target Operations Center (JTOC) Target of Opportunity (TOO) and target tracking, coordination and visualization -- BMDS Operational Support Center and technical integration and implementation services 24 hours a day, 7 days a week, 365 days a year -- MDA Intelligence Support Cell and Threat Modeling Center services -- BMDS Wargame, exercise and Distributed Multi-Echelon Training System (DMETS) training execution; Warfighter Support Center program integration -- Missile Defense Space Center (MDSC) Satellite Operations, Ground System and experiment support operations, and Space Tracking and Surveillance System (STSS) testing			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
-- Enterprise Sensor Laboratory experimental, networking and facility support and coordination -- Ground-Based Midcourse Defense (GMD) Fire Control component-level operations, integration, testing, and training -- Joint Early Warning Laboratory mission services and connectivity -- Combatant Command (COCOM) operations work centers including the United States Northern Command (USNORTHCOM) Command, Control, Battle Management and Communications (C2BMC) Control Center (CCC), Army 100th Missile Defense Brigade, and United States Strategic Command's Joint Functional Component Command-Integrated Missile Defense -- MDA General Services Network and Operational Support Center and Network Communications Center -- MDA Computer Emergency Response Team Technical Watch Support - Provided on-site technical environment for Ballistic Missile Defense System (BMDS) ;Watch Officers, Safety Officers, and Information Assurance Officers to execute their duties 25 hours a day, 7days a week - Implemented recall procedures to augment subject matter expertise availability during contingencies and major events - Executed tabletop exercises to asses readiness for COCOM Operational contingencies and major BMDS tests - Provided state change management and asset management technical support for the BMDS - Coordinated, reported, and escalated critical information and BMDS test and operational event information to all Missile Defense Integration and Operations Center (MDIOC) technical and management staff to ensure rapid break/fix actions were executed Program Quality Management, Risk Management, and Earned Value Management - Provided overarching contract and financial management support for all JNIC Research and Development Contract (JRDC) integrated programs projects - Provided engineering coordination, resource management, and event integration across all Missile Defense and Integration (MDIOC) mission areas - Conducted continuous process improvement and implementation across all JRDC execution and MDIOC missions - Delivered integrated skill mix planning, coordination and workforce deployment across the dynamic spectrum of MDIOC events - Executed integrated resource forecasting and de-confliction			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
- Performed project management for discrete enterprise enhancements Event Architecture & Engineering Design: - Coordinated design and implementation of technical architectures for all major Missile Defense Integration and Operations Center (MDIOC) hosted Ballistic Missile Defense Systems (BMDS) tests, training and operations - Delivered technical documentation packages for all major BMDS flight tests, ground tests, training and Combatant Command (COCOM) exercise support - Led requirements coordination and technical architecture enhancements for BMDS; wargame, exercise and training networks - Updated BMDS end-to-end COCOM deployed architecture as-built documentation reflecting new incremental content and deployments - Maintained a technical repository of BMDS Implementation Architectures for real-time operations and configuration management FY 2015 Plans: Mission Assurance and Event Execution Support - Implement baseline technical control for all Missile Defense Integration and Operations Center (MDIOC) mission critical subsystems and services - Execute MDIOC engineering management, quality assurance, configuration management and integration of all mission critical systems including: - Technical power distribution, Uninterruptable Power Supply Systems, major transformer substations, and circuit protection - Heating, Ventilation and Air Conditioning, chilled water and steam systems - Secure and non-secure voice communications for Ballistic Missile Defense Systems (BMDS); Operations, major tests, and general constituencies - Local and wide area secure data networking environments and network health and status tools 24 hours a day, 7 days a week, 365 days a year - Ensure high availability of integrated MDIOC systems and BMDS Operations support 24 hours a day, 7 days a week, 365 days a year - Implement 'last mile' integration for BMDS Operations, BMDS test, War gaming, exercise, training and general admin services - Execute comprehensive configuration baseline integrity freezes, periods of interest and work screening for			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2014	FY 2015	FY 2016
all major tests and real world contingencies - Coordinate process improvement investments across all mission areas - Execute aggressive, proactive and tailored risk management to ensure integrity and persistent connectivity for all MDIOC missions including: - Command, Control, Battle Management and Communications (C2MBC) incremental development and integration across the Integration Laboratory, Experimentation Laboratory (X-Lab), and the International Point of Presence - BMDS focused, system and distributed ground testing and Hardware-in-the-Loop (HWIL) execution - Modeling and Simulation program management; Digital Simulation Architecture Development; Validation, Verification and Accreditation - BMDS flight tests including Flight Test Ground-Based Midcourse Defense (FTG) execution; Flight Test - Aegis (FTM) and Flight Test - THAAD (FTT) planning, coordination and situational awareness. (For system flight tests directed from the MDIOC, ensure the protection of power, Heating, Ventilation and Air Conditioning, and communications critical to test execution and control). - Joint Target Operations Center (JTOC) Target of Opportunity (TOO) and target tracking, coordination and visualization - BMDS Operational Support Center and technical integration and implementation services 24 hours a day, 7 days a week, 365 days a year - MDA Intelligence Support Cell and Threat Modeling Center services - BMDS Wargame, exercise and DMETS training execution; Warfighter Support Center program integration - Missile Defense Space Development Center (MDSDC) Satellite Operations, Ground System and experiment support operations, and Airborne Infrared Radar (ABIR); and Space Tracking and Surveillance System (STSS) testing - Enterprise Sensor Laboratory experimental, networking and facility support and coordination - Ground-Based Midcourse Defense (GMD) Fire Control component-level operations, integration, testing, and training - Joint Early Warning Laboratory mission services and connectivity - Combatant Command (COCOM) operations work centers including the United States Northern Command (USNORTHCOM) Command, Control, Battle Management and Communications (C2BMC) Control Center (CCC), Army 100th Missile Defense Brigade, and United States Strategic Command's Joint Functional Component Command-Integrated Missile Defense - MDA General Services Network and Operational Support Center and Network Communications Center - MDA Computer Emergency Response Team					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
Technical Watch Support - Provide on-site technical environment for Ballistic Missile Defense System (BMDS) ;Watch Officers, Safety Officers, and Information Assurance Officers to execute their duties 24 hours a day, 7 days a week, 365 days a year - Implement recall procedures to augment subject matter expertise availability during contingencies and major events - Execute tabletop exercises to asses readiness for COCOM Operational contingencies and major BMDS tests - Provide state change management and asset management technical support for the BMDS - Coordinate, report and escalate critical information and BMDS test and operational event information to all Missile Defense Integration and Operations Center (MDIOC) technical and management staff to ensure rapid break/fix actions are executed Program Quality Management, Risk Management, and Earned Value Management - Provide overarching contract and financial management support for all JNIC JRDC integrated programs projects - Provide engineering coordination, resource management, and event integration across all MDIOC mission areas - Conduct continuous process improvement and implementation across all JRDC execution and MDIOC missions - Deliver integrated skill mix planning, coordination and workforce deployment across the dynamic spectrum of MDIOC events - Execute integrated resource forecasting and de-confliction - Perform project management for discrete enterprise enhancements Event Architecture & Engineering Design: - Coordinate design and implementation of technical architectures for all major MDIOC hosted BMDS tests, training and operations - Deliver technical documentation packages for all major BMDS flight tests, ground tests, training and COCOM exercise support - Lead requirements coordination and technical architecture enhancements for Ballistic Missile Defense System (BMDS); wargame, exercise and training networks - Update BMDS end-to-end Combatant Command (COCOM) deployed architecture as-built documentation reflecting new incremental content and deployments - Maintain a technical repository of BMDS Implementation Architectures for real-time operations and			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2014	FY 2015	FY 2016
configuration management FY 2016 Plans: Mission Assurance and Event Execution Support - Implement baseline technical control for all Missile Defense Integration and Operations Center (MDIOC) mission critical subsystems and services - Execute MDIOC engineering management, quality assurance, configuration management and integration of all mission critical systems including: - Technical power distribution, Uninterruptable Power Supply Systems, major transformer substations, and circuit protection - Heating, Ventilation and Air Conditioning, chilled water and steam systems - Secure and non-secure voice communications for Ballistic Missile Defense Systems (BMDS); Operations, major tests, and general constituencies - Local and wide area secure data networking environments and network health and status tools 24 hours a day, 7 days a week, 365 days a year - Ensure high availability of integrated MDIOC systems and BMDS Operations support 24 hours a day, 7 days a week, 365 days a year - Implement 'last mile' integration for BMDS Operations, BMDS test, War gaming, exercise, training and general admin services - Execute comprehensive configuration baseline integrity freezes, periods of interest and work screening for all major tests and real world contingencies - Coordinate process improvement investments across all mission areas - Execute aggressive, proactive and tailored risk management to ensure integrity and persistent connectivity for all MDIOC missions including: - Command, Control, Battle Management and Communications (C2MBC) incremental development and integration across the Integration Laboratory, Experimentation Laboratory (X-Lab), and the International Point of Presence - BMDS focused, system and distributed ground testing and Hardware-in-the-Loop (HWIL) execution - Modeling and Simulation program management; Digital Simulation Architecture Development; Validation, Verification and Accreditation - BMDS flight tests including Flight Test Ground-Based Midcourse Defense (FTG) execution; Flight Test - Aegis (FTM) and Flight Test - THAAD (FTT) planning, coordination and situational awareness. (For system flight tests directed from the MDIOC, ensure the protection of power, Heating, Ventilation and Air Conditioning,					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2014	FY 2015	FY 2016
and communications critical to test execution and control). - Joint Target Operations Center (JTOC) Target of Opportunity (TOO) and target tracking, coordination and visualization - BMDS Operational Support Center and technical integration and implementation services 24 hours a day, 7 days a week, 365 days a year - MDA Intelligence Support Cell and Threat Modeling Center services - BMDS Wargame, exercise and DMETS training execution; Warfighter Support Center program integration - Missile Defense Space Development Center (MDSDC) Satellite Operations, Ground System and experiment support operations, and Airborne Infrared Radar (ABIR); and Space Tracking and Surveillance System (STSS) testing - Enterprise Sensor Laboratory experimental, networking and facility support and coordination - Ground-Based Midcourse Defense (GMD) Fire Control component-level operations, integration, testing, and training - Joint Early Warning Laboratory mission services and connectivity - Combatant Command (COCOM) operations work centers including the United States Northern Command (USNORTHCOM) Command, Control, Battle Management and Communications (C2BMC) Control Center (CCC), Army 100th Missile Defense Brigade, and United States Strategic Command's Joint Functional Component Command-Integrated Missile Defense - MDA General Services Network and Operational Support Center and Network Communications Center - MDA Computer Emergency Response Team Technical Watch Support - Provide on-site technical environment for Ballistic Missile Defense System (BMDS) ;Watch Officers, Safety Officers, and Information Assurance Officers to execute their duties 24 hours a day, 7 days a week, 365 days a year - Implement recall procedures to augment subject matter expertise availability during contingencies and major events - Execute tabletop exercises to asses readiness for COCOM Operational contingencies and major BMDS tests - Provide state change management and asset management technical support for the BMDS - Coordinate, report and escalate critical information and BMDS test and operational event information to all Missile Defense Integration and Operations Center (MDIOC) technical and management staff to ensure rapid break/fix actions are executed Program Quality Management, Risk Management, and Earned Value Management					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2014	FY 2015	FY 2016
- Provide overarching contract and financial management support for all JNIC Research and Development Contract (JRDC)integrated programs projects - Provide engineering coordination, resource management, and event integration across all MDIOC mission areas - Conduct continuous process improvement and implementation across all JRDC execution and MDIOC missions - Deliver integrated skill mix planning, coordination and workforce deployment across the dynamic spectrum of MDIOC events - Execute integrated resource forecasting and de-confliction - Perform project management for discrete enterprise enhancements Event Architecture and Engineering Design: - Coordinate design and implementation of technical architectures for all major MDIOC hosted Ballistic Missile Defense System (BMDS) tests, training and operations - Deliver technical documentation packages for all major BMDS flight tests, ground tests, training and COCOM exercise support - Lead requirements coordination and technical architecture enhancements for BMDS; wargame, exercise and training networks - Update BMDS end-to-end Combatant Command (COCOM) deployed architecture as-built documentation reflecting new incremental content and deployments - Maintain a technical repository of BMDS Implementation Architectures for real-time operations and configuration management					
Title: Operations and Sustainment			6.245	6.389	6.009
			Articles: -	-	-
Description: N/A					
FY 2014 Accomplishments: Continued Operations and Sustainment for:					
- Government Civilian Salaries - Contract Support Services (CSS) - Training - Travel					

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
- Federally Funded Research and Development FY 2015 Plans: - Fund Government Civilian, CSS, Training, and Travel - Fund Civilian and CSS 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 events and visitors - Deliver integrated service coordination for all MDIOC event and protocol support including: - Event Registration Web site - Offsite event registration - Security processing, including clearance verification and badging - Coordination of group lodging - Arrangement/Coordination/Scheduling of bus transportation - Reserve, setup, and coordinate access for all primary shared MDIOC conference rooms - Operate Audio Visual equipment during events - Prepare and conduct official ceremonies; coordinate and host Distinguished Visitor itineraries; obtain information disclosure approval; coordinate offsite dinners and socials - Fund Training and Travel FY 2016 Plans: - Fund Government Civilian, Contract Support Services (CSS), Training, and Travel - Fund Civilian and CSS 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 events and visitors - Deliver integrated service coordination for all MDIOC event and protocol support including management of the: - Event Registration Web site - Offsite event registration - Security processing, including clearance verification and badging - Arrangement/Coordination/Scheduling of bus transportation - Reserve, setup, and coordinate access for all primary shared MDIOC conference rooms			

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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 2014	FY 2015	FY 2016
- Operate Audio Visual equipment during events - Prepare and conduct official ceremonies; coordinate and host Distinguished Visitor itineraries; obtain information disclosure approval - Fund Training and Travel				
Title: Infrastructure Systems Repair, Sustainment, and Critical Upgrades Articles: Description: N/A FY 2014 Accomplishments: Beginning in FY 2014, the repair, sustainment, and critical upgrade projects were realigned under this accomplishment from Infrastructure Systems and Support Accomplishments and Operations and Maintenance Accomplishments - Completed 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 within the facility (multi-year project) - Completed Electrical distribution non-technical power switchgear scheduled maintenance (first phase) - Completed Heating, Ventilation, and Air Conditioning capacity upgrades to Missile Defense Integration and Operations Center (MDIOC) Computing Hub Data Center - Completed Heating, Ventilation, and Air Conditioning end-of-life replacement components (phased project) FY 2015 Plans: - Electrical power distribution in four mission quadrants to replace - End-of-life systems, increase reliability, improve power distribution efficiency, and redundancy to mission critical areas (multi-year project) - Electrical Distribution non-technical power switchgear scheduled maintenance (second and third phases) - Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within the facility (second phase) - Compliance project (first of multiple phases) to modify fire suppression system to meet building code requirements FY 2016 Plans: The decrease in FY2016 is due to the realignment of funds to other Department of Defense priorities		3.501 -	7.091 -	- -
Accomplishments/Planned Programs Subtotals		47.064	54.578	46.575

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Appropriation/Budget Activity 0400 / 4				R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>				Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• 0603176C: <i>Advanced Concepts and Performance Assessment</i>	6.919	8.470	12.139	-	12.139	13.227	12.932	13.249	13.219	Continuing	Continuing
• 0603177C: <i>Discrimination Sensor Technology</i>	29.642	36.610	28.200	-	28.200	-	-	-	-	Continuing	Continuing
• 0603178C: <i>Weapons Technology</i>	45.268	54.068	45.389	-	45.389	48.912	70.115	54.595	66.797	Continuing	Continuing
• 0603179C: <i>Advanced C4ISR</i>	35.421	13.284	9.876	-	9.876	3.723	-	-	-	-	62.304
• 0603180C: <i>Advanced Research</i>	23.025	16.584	17.364	-	17.364	18.919	20.380	21.069	21.457	Continuing	Continuing
• 0603294C: <i>Common Kill Vehicle Technology</i>	67.796	25.639	46.753	-	46.753	75.262	71.476	86.814	99.701	Continuing	Continuing
• 0603881C: <i>Ballistic Missile Defense Terminal Defense Segment</i>	251.899	163.892	228.021	-	228.021	230.306	257.014	218.533	247.707	Continuing	Continuing
• 0603882C: <i>Ballistic Missile Defense Midcourse Defense Segment</i>	1,064.445	873.923	1,284.891	-	1,284.891	936.425	803.392	903.539	912.890	Continuing	Continuing
• 0603890C: <i>BMD Enabling Programs</i>	368.965	401.971	409.088	-	409.088	423.092	417.831	420.104	433.604	Continuing	Continuing
• 0603892C: <i>AEGIS BMD</i>	885.704	764.224	843.355	-	843.355	762.740	748.354	564.827	579.585	Continuing	Continuing
• 0603893C: <i>Space Tracking and Surveillance System</i>	41.618	31.331	31.632	-	31.632	17.917	23.937	28.789	30.344	Continuing	Continuing
• 0603895C: <i>Ballistic Missile Defense System Space Programs</i>	6.412	6.389	23.289	-	23.289	21.433	16.108	11.933	11.952	Continuing	Continuing
• 0603896C: <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	390.207	428.277	450.085	-	450.085	461.759	423.843	442.926	460.112	Continuing	Continuing
• 0603898C: <i>Ballistic Missile Defense Joint Warfighter Support</i>	41.051	46.387	49.570	-	49.570	50.533	51.363	52.217	54.247	Continuing	Continuing
• 0603907C: <i>Sea Based X-Band Radar (SBX)</i>	70.336	64.409	72.866	-	72.866	71.267	75.760	72.319	87.058	Continuing	Continuing
• 0603913C: <i>Israeli Cooperative Programs</i>	283.782	268.842	102.795	-	102.795	104.923	106.913	109.599	111.370	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency										Date: February 2015	
Appropriation/Budget Activity 0400 / 4				R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>				Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>			
C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2016</u>	<u>FY 2016</u>	<u>FY 2016</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Complete</u>	<u>Total Cost</u>
• 0603914C: <i>Ballistic Missile Defense Test</i>	342.695	366.302	274.323	-	274.323	298.390	345.333	330.404	350.747	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
The Joint National Integration Center Research and Development Contract is the major performing integrated contract and is scheduled to be recompeted in FY 2016. The acquisition strategy for Missile Defense Integration and Operation Center (MDIOC) mission execution is to employ a contract to perform designated integration and sustainment tasks to conduct Ballistic Missile Defense System (BMDS) Research, Development, Test and Evaluation (RDT&E). The MDIOC is operated by missile defense subject matter experts (SME) composed of Government military and civilian personnel, Federally Funded Research and Development Center (FFRDC), MDIOC Contract Support Services, and major defense contractors.											
E. Performance Metrics											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Missile Defense Agency												Date: February 2015			
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)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-
Remarks N/A															
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Infrastructure Systems and Support - MDIOC NG	C/CPAF	MDIOC/Northrup Grumman Mission Systems : Colorado Springs, CO	80.363	17.378		20.475	Nov 2014	19.198	Nov 2015	-		19.198	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC GSA / Leases / Calibration	MIPR	Various (GSA, 50th Space Wing, Warehouses) : Colorado Springs, CO	4.414	1.240		0.636		0.667		-		0.667	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC NG	C/CPAF	MDIOC/Northrop Grumman Mission Systems : Colorado Springs, CO	57.296	9.780		9.947	Nov 2014	10.358	Nov 2015	-		10.358	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC Utilities	MIPR	50th Space Wing : Shriever AFB, CO	9.020	2.419		3.203		2.565		-		2.565	Continuing	Continuing	Continuing
Engineering and Event Services - MDIOC NG	C/CPAF	MDIOC/Northrop Grumman Mission Systems : Colorado Springs, CO	38.458	6.501		6.837	Oct 2014	7.778	Oct 2015	-		7.778	Continuing	Continuing	Continuing
Operations and Sustainment - FFRDC	FFRDC	MDIOC : Colorado Springs, CO	1.807	0.360		0.407	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Operations and Sustainment - Operations & Sustainment	Allot	MDIOC : Colorado Springs, CO	12.035	3.263		3.330	Oct 2014	3.281	Oct 2015	-		3.281	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Missile Defense Agency													Date: February 2015		
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>				Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>					

Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Operations and Sustainment - Support Services	C/FFP	SRS/ManTech/ MiDAESS Multi : Colorado Springs, CO	9.388	2.481		2.564	Oct 2014	2.640	Nov 2015	-		2.640	Continuing	Continuing	Continuing
Operations and Sustainment - Travel and Training	Allot	MDIOC : Colorado Springs, CO	0.397	0.141		0.088	Oct 2014	0.088	Oct 2015	-		0.088	Continuing	Continuing	Continuing
Infrastructure Systems Repair, Sustainment, and Critical Upgrades - MDIOC NG	C/CPAF	MDIOC/Northrop Grumman Mission Systems : Colorado Springs, CO	0.000	3.501		7.091	Nov 2014	-		-		-	Continuing	Continuing	Continuing
Subtotal			213.178	47.064		54.578		46.575		-		46.575	-	-	-

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 Federally Funded Research and Development Center (FFRDC) and Technical Contract Support Services employees, for MDIOC operations and oversight of the Joint Research and Development Contractor (JRDC), as well as funding for JRDC work as required by the government.

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-

Remarks
 FY 2012 Plans captured in Project MD01, PE 0603896C

Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Missile Defense Agency												Date: February 2015				
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>					Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>						
Management Services (\$ in Millions)					FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Remarks N/A																
			Prior Years	FY 2014	FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract		
Project Cost Totals			213.178	47.064	54.578		46.575		-		46.575	-	-	-		
Remarks N/A																

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Missile Defense Agency

Date: February 2015

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 
Significant Event Planned 

Milestone Decision Complete 
Milestone Decision Planned 

Element Test Complete 
Element Test Planned 

System Level Test Complete 
System Level Test Planned 

Complete Activity 
Planned Activity 

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
HVAC repair and sustainment and capacity upgrade (Data Center)	+	+	+	+																								
Environmental Protection/Greening (end-of-life replacement of evaporative cooler - 1 unit)			+	+																								
Non-Tech Electric Power Switchgear repair and sustainment (First Phase)			+	+																								
HVAC End-of-Life Component Replacement		+	+	+																								
Power distribution in two mission quadrants	+	+	+	+																								
HVAC repair and sustainment (Data Center)	+	+	+	+																								
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within the Research and Development Building													+	+	+	+												
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													+	+														
Reconfigure the Data Center hot and cold air containment to improve information technology equipment performance and protect against adverse and rapid environmental changes													+	+	+													
Install second direct current electrical power source for controlling the main electrical power (12,470KVA) switchgear													+	+														
Architectural restoration for aging equipment and furnishings													+	+														
Replace End-of-Life cafeteria kitchen equipment													+															
Fire Detection/Suppression System Compliance Phase 1														+	+	+												
Implement external ambient air economizer														+	+	+	+											
Power distribution in one quadrant														+	+													

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Missile Defense Agency

Date: February 2015

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 
Significant Event Planned 

Milestone Decision Complete 
Milestone Decision Planned 

Element Test Complete 
Element Test Planned 

System Level Test Complete 
System Level Test Planned 

Complete Activity 
Planned Activity 

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Increase quadrant communication rooms Power and HVAC capacity																												
Replace Emergency Lighting Fluorescent Lamps with Light Emitting Diode Lighting																												
Refurbish Electrical Distribution Technical Utility System Switchgear																												
Replace sanitary sewer drains																												
HVAC repair and sustainment (replace chilled water pumps)																												
Fire Detection/Suppression System Compliance Phase 2																												
HVAC and mechanical replacement of End-of-Life components in two quadrants																												
Restroom architectural upgrades																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Missile Defense Agency			Date: February 2015
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	Project (Number/Name) MD22 / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
HVAC repair and sustainment and capacity upgrade (Data Center)	1	2014	4	2014
Environmental Protection/Greening (end-of-life replacement of evaporative cooler - 1 unit)	3	2014	4	2014
Non-Tech Electric Power Switchgear repair and sustainment (First Phase)	3	2014	4	2014
HVAC End-of-Life Component Replacement	2	2014	4	2014
Power distribution in two mission quadrants	1	2014	4	2014
HVAC repair and sustainment (Data Center)	1	2014	4	2014
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within the Research and Development Building	1	2016	4	2016
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	2016	3	2016
Reconfigure the Data Center hot and cold air containment to improve information technology equipment performance and protect against adverse and rapid environmental changes	2	2016	4	2016
Install second direct current electrical power source for controlling the main electrical power (12,470KVA) switchgear	3	2016	4	2016
Architectural restoration for aging equipment and furnishings	3	2016	4	2016
Replace End-of-Life cafeteria kitchen equipment	4	2016	4	2016
Fire Detection/Suppression System Compliance Phase 1	1	2017	3	2017
Implement external ambient air economizer	1	2017	4	2017
Power distribution in one quadrant	2	2017	3	2017
Increase quadrant communication rooms Power and HVAC capacity	2	2017	3	2017

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Missile Defense Agency			Date: February 2015	
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C / Missile Defense Integration and Operations Center (MDIOC)		Project (Number/Name) MD22 / Missile Defense Integration and Operations Center (MDIOC)	
	Start		End	
Events	Quarter	Year	Quarter	Year
Replace Emergency Lighting Fluorescent Lamps with Light Emitting Diode Lighting	2	2017	3	2017
Refurbish Electrical Distribution Technical Utility System Switchgear	2	2017	4	2017
Replace sanitary sewer drains	2	2017	4	2017
HVAC repair and sustainment (replace chilled water pumps)	3	2017	4	2017
Fire Detection/Suppression System Compliance Phase 2	1	2018	3	2018
HVAC and mechanical replacement of End-of-Life components in two quadrants	1	2018	4	2018
Restroom architectural upgrades	1	2018	4	2018

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency										Date: February 2015		
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
MC22: Cyber Operations	-	0.514	0.537	0.472	-	0.472	0.459	0.616	0.622	0.645	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
Project MC22 is a new Defensive Cyber Operations Project established in this Program Element (PE) for PB 2014. Funds were previously reported in Project MD22 of this PE.												
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 2014	FY 2015	FY 2016	
Title: Cyber Defensive Operations									0.514	0.537	0.472	
									Articles: -	-	-	
Description: The Missile Defense Integration and Operations Center (MDIOC) conducts Defensive Cyber Operations in the following categories:												
FY 2014 Accomplishments: Key Management Infrastructure												
- The MDIOC interfaces 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												
- The MDIOC maintains an Information Assurance (IA) certified workforce through continuous IA training as required by DoD Directive 8570.												
FY 2015 Plans: Key Management Infrastructure												

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency		Date: February 2015	
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	Project (Number/Name) MC22 / <i>Cyber Operations</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
- The MDIOC interfaces 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 - The MDIOC maintains an Information Assurance (IA) certified workforce through continuous IA training as required by DoD Directive 8570 <i>FY 2016 Plans:</i> Key Management Infrastructure - The MDIOC interfaces 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 - The MDIOC maintains an Information Assurance (IA) certified workforce through continuous IA training as required by DoD Directive 8570			
Accomplishments/Planned Programs Subtotals		0.514	0.537
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			
E. Performance Metrics N/A			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Missile Defense Agency												Date: February 2015			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>						Project (Number/Name) MC22 / <i>Cyber Operations</i>			

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Cyber Defensive Operations - Cyber Defensive Operations	C/CPAF	MDIOC/Northrop : Grumman Mission Systems Colorado Springs, CO	0.000	0.514		0.537	Nov 2014	0.472	Nov 2015	-		0.472	Continuing	Continuing	Continuing
Subtotal			0.000	0.514		0.537		0.472		-		0.472	-	-	-

Remarks N/A															
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	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.514	0.537	0.472	-	0.472	-	-	-

Remarks N/A									
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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Missile Defense Agency		Date: February 2015
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▲
Significant Event Planned△

Milestone Decision Complete★
Milestone Decision Planned☆

Element Test Complete◆
Element Test Planned◇

System Level Test Complete●
System Level Test Planned○

Complete Activity✦
Planned Activity✧

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MC22 Cyber Operations									✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Missile Defense Agency			Date: February 2015
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	Project (Number/Name) MC22 / <i>Cyber Operations</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MC22 Cyber Operations	1	2016	4	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency										Date: February 2015		
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
MD40: Program-Wide Support	5.867	2.693	3.388	2.164	-	2.164	2.746	2.748	2.940	3.097	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
In FY 2015, Program Wide Support reflects a proportional change as a result of increases in the Missile Defense Integration and Operations Center and in FY 2016, reflects a proportional change as a result of decreases in the Missile Defense Integration and Operations Center. Funding in the All Prior Years column represents a summary of Prior Years Total Costs for active contracts, Military Interdepartmental Purchase Requests, and civilian salaries on the R-3.												
A. Mission Description and Budget Item Justification												
Program-Wide Support (PWS) contains non-headquarters management costs in support of Missile Defense Agency (MDA) functions and activities across the entire Ballistic Missile Defense System (BMDS). It Includes Government Civilians, Contract Support Services, and Federally Funded Research and Development Center (FFRDC) support. 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 Global Deployment personnel and support performing deployment site preparation and activation and, provides facility capabilities for MDA Executing Agent locations. Other MDA wide costs includes: 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 and equipment leases; utilities; data and unified communications support; supplies and maintenance; materiel and readiness and central property management of equipment; and similar operating expenses. Program Wide Support is allocated on a pro-rata basis and therefore, fluctuates by year based on the total adjusted RDT&E profile (which excludes:0305103C Cyber Security Initiative, 0603274C Special Program, 0603913C Israeli Cooperative Program and 0901598C Management Headquarters).												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2014	FY 2015	FY 2016	
Title: Program Wide Support									2.693	3.388	2.164	
									Articles: -	-	-	
Description: N/A												
FY 2014 Accomplishments: See paragraph A: Mission Description and Budget Item Justification												
FY 2015 Plans: See paragraph A: Mission Description and Budget Item Justification												
FY 2016 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency		Date: February 2015	
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
See paragraph A: Mission Description and Budget Item Justification			
Accomplishments/Planned Programs Subtotals		2.693	3.388
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			
E. Performance Metrics N/A			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Missile Defense Agency												Date: February 2015			
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)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities, Operations, and Maintenance	MIPR	Various : Multi: AK, AL, CA, CO, VA	5.301	-		-		-		-		-	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations Management	Allot	Various : Multi: AL, CA, CO, VA	0.241	-		0.230		-		-		-	0.241	0.712	-
Program Wide Support - Agency Operations and Support Services	Reqn	Various : Multi: AK, AL, CA, CO, VA	0.325	2.693		3.158	Nov 2014	2.164	Dec 2015	-		2.164	Continuing	Continuing	Continuing
Subtotal			5.867	2.693		3.388		2.164		-		2.164	-	-	-
Remarks N/A															
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			5.867	2.693		3.388		2.164		-		2.164	-	-	-
Remarks N/A															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Missile Defense Agency		Date: February 2015
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▲

Significant Event Planned△

Milestone Decision Complete★

Milestone Decision Planned☆

Element Test Complete◆

Element Test Planned◇

System Level Test Complete●

System Level Test Planned○

Complete Activity✦

Planned Activity✧

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MD40 Program-Wide Support									✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Missile Defense Agency			Date: February 2015
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C / <i>Missile Defense Integration and Operations Center (MDIOC)</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD40 Program-Wide Support	1	2016	4	2020