	Date
Missile Defense Agency (MDA) Exhibit R-2 RDT&E Budget Item Justification	**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

COST ($ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287
0204 Joint National Integration Center (JNIC)	0	107,241	99,979	102,944	106,958	107,792	109,416	111,062
0602 Program-Wide Support	0	3,388	4,033	4,041	4,584	4,155	4,176	4,225

Note: New Program Element established per Congressional direction. Project 0204 previously funded in PE 0603889C, BMDS Products.

A. Mission Description and Budget Item Justification

A.1 System Element Description

The Joint National Integration Center (JNIC) is MDA's field operating activity in Colorado Springs, CO. It is both a facility and an organization that supports the execution of Agency missions related to the development and test of the BMDS, and that system's operation by designated Combatant Commanders. The JNIC consists of a highly secure research and development complex and a mission support facility located within a military installation (Schriever AFB) that is adjacent to NORTHCOM and NORAD.

As a facility supporting MDA efforts, the JNIC hosts and supports the Ground-based Midcourse Defense (GMD)'s Mission Control Center Facility (MCCF) that is utilized for both flight and distributed ground tests; the C2BMC's Integration and Test Centers (BITCs) and Experimentation Laboratories (X-Labs); the Space Tracking and Surveillance System (STSS)'s Missile Defense Space Experimentation Center (MDSEC); the Targets & Countermeasure's JNIC Target Operations Center (JTOC); and the Enterprise Network Operations and Support Center for the Agency's Chief Information Officer (CIO). For the COCOMs, the JNIC provides infrastructure support for USNORTHCOM's C2BMC Command and Control Center; USSTRATCOM's Joint Functional Component Command-Integrated Missile Defense (JFCC-IMD); and the Missile Defense Element (MDE) manned by the 100th Missile Defense Brigade.

As an organization, the JNIC directly supports the execution of the Joint Warfighter Support Program, the Combined Test Force, and MDA's BMDS modeling and simulation effort to develop applications vital to BMDS wargaming and system testing. The JNIC 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 quickly deliver the capabilities required for Engagement Sequence Group (ESG) execution and homeland defense.

The JNIC also provides assured worldwide secure communications connectivity, network health and status monitoring, mission critical restoral capability, and technical expertise for all MDA directed activities and events performed on-site. Additionally, the JNIC functions (within MDA's

MDA Exhibit R-2 (PE 0603904C)

Missile Defense Agency (MDA) Exhibit R-2 RDT&E Budget Item Justification	Date February 2007

APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603904C BMD Joint National Integration Center (JNIC)

capabilities-based acquisition strategy) as the only system-level integration and interoperability facility for BMDS fire control; and it provides the physical interface between the developers and the Combatant Commanders.

A.2 System Element Budget Justification and Contribution to the Ballistic Missile Defense System (BMDS)

The JNIC contributes to the BMDS by directly supporting the concept of Concurrent Test, Training, and Operations (CTTO) for the BMDS. The JNIC accomplishes this by providing both MDA-level technical/horizontal integration and BMDS-level operational integration.

The JNIC provides MDA-level technical/horizontal integration by: developing and operating the models and simulations used to support missile defense planning seminars, wargames, exercises, tests, and analyses; supporting the planning and execution of the only end-to-end operator-in-the-loop/element-in-the-loop missile defense wargames accomplished under the Joint Warfighter Support Program; supporting BMDS Engagement Sequence Group (ESG) testing and analysis by operating the Test Execution Control (TEC) for distributed BMDS ground tests as part of the Combined Test Force (CTF)-JNIC; and, providing network operations and information assurance for all on-site integration activities.

The JNIC provides BMDS-level operational integration by: integrating and sustaining the enabling infrastructure, services, and processes that support the operation of designated elements of the BMDS and resident COCOM operations and/or support centers; operating the MDA Technical Support Center (MTSC), which provides technical support for the BMDS Watch Officers (BWOs), BMDS Safety Officers (BSOs), 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 (JEWL) for anomaly resolution; and supporting the Intelligence Support Center (ISC) for critical situational awareness intelligence on worldwide ballistic missile developments that could affect the development and/or operation of the BMDS.

A.3 Major System Element Goals

Joint National Integration Center (JNIC) Major Program Goals:
- Provide the capabilities and services necessary to support the horizontal integration of on-site activities
- Ensure around the clock support and restoral of designated on-site operational activities
- Improve integration/interface with designated COCOM missile defense activities; host/support the headquarters and operations center for USSTRATCOM's Joint Functional Component Command - Integrated Missile Defense (JFCC-IMD)
- Continue to achieve cost effectiveness and efficiencies through the leveraging of existing JNIC infrastructure, services, processes, and expertise to support assigned missions
- Maintain the reliability, availability, and maintainability of mission critical systems

MDA Exhibit R-2 (PE 0603904C)

1160

Missile Defense Agency (MDA) Exhibit R-2 RDT&E Budget Item Justification	Date February 2007

APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603904C BMD Joint National Integration Center (JNIC)

B. Program Change Summary	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2007 PB)	0	0	0	0
Current President's Budget (FY 2008 PB)	0	110,629	104,012	106,985
Total Adjustments	0	110,629	104,012	106,985
Congressional Specific Program Adjustments	0	111,099	0	0
Congressional Undistributed Adjustments	0	-470	0	0
Reprogrammings	0	0	0	0
SBIR/STTR Transfer	0	0	0	0
Adjustments to Budget Years	0	0	104,012	106,985

FY07 increase of $110.629 million includes the congressionally directed creation of a new Program Element for the BMD Joint National Integration Center, and a portion of the MDA congressional undistributed reduction.

FY08 increase of $104.012 million and FY09 increase of $106.985 million reflects the congressionally mandated creation of a new Program Element for the BMD Joint National Integration Center.

MDA Exhibit R-2 (PE 0603904C)

1161

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification		Date **February 2007**

APPROPRIATION/BUDGET ACTIVITY **RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)**	R-1 NOMENCLATURE **0603904C BMD Joint National Integration Center (JNIC)**

COST ($ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0204 Joint National Integration Center (JNIC)	0	107,241	99,979	102,944	106,958	107,792	109,416	111,062
RDT&E Articles Qty	0	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification

The mission of the JNIC is to help develop and support the operation of a robust suite of missile defense wargaming, test and evaluation capabilities, which ensures BMDS elements are acquired and integrated into an interoperable, layered system, while simultaneously supporting warfighter operations of designated BMDS elements.

The JNIC accomplishes this mission of providing MDA with Agency-level technical integration and BMDS-level operational integration products and services by:

- Supporting the definition, development, and test & evaluation of integrated missile defense Engagement Sequence Group capabilities;
- Planning and executing the implementation of BMDS-level modeling and simulation;
- Supporting BMDS developers and warfighters by exercising missile defense readiness, and wargaming command and control procedures, operational concepts, and doctrinal requirements; and
- Providing BMDS operational support and technical reachback to designated program elements and Combatant Commands (COCOMs).

The JNIC maintains a secure facility that includes the computers; communications; networks; flight, ground, and simulation test bed environments; wargaming complex; environmental support; and other fixed cost capabilities essential for the execution of MDA programs. It provides the enabling infrastructure to support both acquisition and warfighter communities.

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Infrastructure Development and Support	0	68,642	64,218	68,123
RDT&E Articles (Quantity)	0	0	0	0

The JNIC supports the technical development and provides the enabling infrastructure for several critical Agency activities. The JNIC supports the Ground-based Midcourse Missile Defense Mission Control Center Facility, as well as the C2BMC Integration and Test Centers and the C2BMC Experimentation Laboratories. It provides infrastructure support for the Satellite Tracking and Surveillance System's Missile Defense Space Experimentation Center; the Targets and Countermeasures' JNIC Target Operations Center; and the developmental support, as directed, of a common satellite ground station and sensor netting test bed for designated BMDS elements. It also plans, conducts, and supports BMDS Engagement

Project: 0204 Joint National Integration Center (JNIC) MDA Exhibit R-2A (PE 0603904C)

1162

	Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

Sequence Group testing and analysis with the Combined Test Force through the operation of the Test Execution Control node for distributed BMDS ground tests. The JNIC provides the enabling infrastructure that supports operations of the Missile Defense Element, manned by the 100th Missile Defense Brigade, the USNORTHCOM C2BMC Command and Control Center, and USSTRATCOM's Joint Functional Component Command-Integrated Missile Defense. In addition, the JNIC operates the MDA Technical Support Center, which provides situational awareness of the health and status of the end-to-end BMDS; provides network subject matter expertise and technical reachback for the program elements and Combatant Commanders; maintains a technical repository of BMDS Implementation Architectures for real-time Operation & Maintenance 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 execute their assigned duties. The JNIC also operates the Joint Early Warning Laboratory, which provides USSTRATCOM with quick response analyses of real-world launches, and rapid anomaly identification and resolution.

The JNIC designs, implements, verifies, operates, maintains and manages secure Information Technology infrastructure(s) and service interfaces, communication circuit connectivity, and tiered service levels on site. It provides additional labor and diagnostic tools for around the clock information management, and facilities operation and maintenance technical support. This technical support, provided outside normal duty hours, is crucial to warfighter mission critical system outage restoration, coordination, and reporting.

FY07 Planned Program:
- Provide ongoing information management services
- Conduct ongoing environment and facilities O&M
- Initiate environment and facility projects:
  - Install an electrical backup capability in the Computer Center for servers supporting operational missions
  - Correct Facility Installation Standards (FIS) and Safety deficiencies identified in the previous fiscal year
  - Emergency Voice System upgrade (Phase II)
  - Replace Research and Development Complex (Building 720) Roofing system
  - Extend Video Teleconferencing and Classified LAN capabilities into the Consolidated Support Facility (CSF) Tower
  - Replace Steam and Chilled Water Valves, Missing/Damaged Pipe Insulation
  - Freeze prevention of Building 720 Evaporative Cooler (EC) coils (replace steam pre-heat coils)
- Complete buildout of the Digital Modeling and Simulation (M&S) Center of Excellence (COE)
- Reconfigure Consolidated Support Facility (CSF) 2nd Floor to accommodate MDA/DFO Program Office
- Reconfigure 3300 Quadrant of the Research and Development Complex (Building 720) to accommodate mission growth

Project: 0204 Joint National Integration Center (JNIC)   MDA Exhibit R-2A (PE 0603904C)

	Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

- Convert property management system into a Unique Identifier (UID) lifecycle management system
- Execute ongoing systems engineering of mission critical systems
- Provide continuing media support in the areas of graphics, photography, and video production
- Execute continuing public affairs and protocol activities in support of MDA and the JNIC
- Continue to provide an enabling infrastructure that supports MDA RDT&E efforts at the JNIC for the:
  - GMD Mission Control Center Facility
  - C2BMC Integration and Test Centers, and the C2BMC Experimentation Laboratories
  - STSS Missile Defense Space Experimentation Center
  - JNIC Target Operations Center
  - Joint Warfighter Support Program
  - Combined Test Force-JNIC
- Continue to provide an enabling infrastructure that supports BMDS operational capability development for the:
  - MDE and 100th Missile Defense Brigade
  - USNORTHCOM C2BMC Command and Control Center
  - USSTRATCOM Joint Functional Component Command-Integrated Missile Defense (JFCC-IMD) Headquarters and Operations Center
  - Joint Early Warning Laboratory
- Operate and maintain the MDA Technical Support Center (MTSC); and as directed, expand the situational awareness and BMDS monitoring capability of the BWOs, BSOs, and Information Awareness Officers manning the MTSC
- Incorporate and support the MDA Centers of Excellence assigned to the JNIC
- Plan and begin, as directed, the consolidation of existing MDA spaces in Colorado Springs into the JNIC

FY08 Planned Program:
- Provide ongoing information management services
- Conduct ongoing environment and facilities O&M
- Initiate environment and facility projects:
  - Implement Electrical Preventive Maintenance
  - Provide Redundant Electrical Distribution to Equipment
  - Install Parallel Uninterrupted Power Supply Capabilities
  - Elevator modernization (Main Lobby)

Project: 0204 Joint National Integration Center (JNIC)   MDA Exhibit R-2A (PE 0603904C)

1164

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date **February 2007**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)**	R-1 NOMENCLATURE **0603904C BMD Joint National Integration Center (JNIC)**

- o Install Chemical Biological Radiological Nuclear (CBRN) Monitoring
- o Begin installation of blast shield window protection
- Execute ongoing systems engineering of mission critical systems
- Provide continuing media support in the areas of graphics, photography, and video production
- Execute continuing public affairs and protocol activities in support of MDA and the JNIC
- Continue to provide program management/system engineering oversight.
- Continue process mission assurance and process improvement measures in support of BMDS.
- Continue to provide an enabling infrastructure (to include hardware, software maintenance, licenses, and upgrades) that supports MDA RDT&E efforts at the JNIC for the:
  - o GMD Mission Control Center Facility
  - o C2BMC Center of Excellence
  - o STSS Missile Defense Space Experimentation Center
  - o JNIC Target Operations Center
  - o Warfighter Support Center of Excellence
  - o Combined Test Force-JNIC
  - o Models and Simulation Center of Excellence
- Continue Information Technology sustainment and modernization efforts with the following:
  - o JNIC high performance computing refresh (MIPS-IRIX)
  - o JNIC (HPC) (Itanium Linux)
  - o JNIC MDANet technology plan deployment of legacy replacement
  - o HP XP1024 20TB additional storage
  - o Software refreshment (Upgrade to VISTA)
- Continue to provide an enabling infrastructure that supports BMDS operational capability development for the:
  - o MDE and 100th Missile Defense Brigade
  - o USNORTHCOM C2BMC Command and Control Center
  - o USSTRATCOM JFCC-IMD Headquarters and Operations Center
  - o Joint Early Warning Laboratory
- Operate and maintain the MDA Technical Support Center
- Continue, as directed, the consolidation of existing MDA spaces in Colorado Springs into the JNIC

Project: 0204 Joint National Integration Center (JNIC)   MDA Exhibit R-2A (PE 0603904C)
Line Item 89 -   7   *of*   32
UNCLASSIFIED

1165

	Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

FY09 Planned Program:

- Provide ongoing information management services
- Conduct ongoing environment and facilities O&M
- Initiate environment and facility projects:
  - Remove and redistribute critical load to newer uninterruptible power supply (UPS)
  - Provide transient voltage surge suppression (TVSS) protection · Replace UPS System A
  - Modernize chilled water system
  - Repair/Replace elevators (Bldg 730)
  - Complete installation of blast shield window protection
  - Facility densification projects, based on tenant departure
  - 1100 Quad mission build
- Execute ongoing systems engineering of mission critical systems
- Provide continuing media support in the areas of graphics, photography, and video production
- Execute continuing public affairs and protocol activities in support of MDA and the JNIC
- Continue to provide program management/system engineering oversight. Continue process mission assurance and process improvement measures in support of BMDS.
- Continue to provide an enabling infrastructure (to include hardware, software maintenance, licenses, and upgrades) that supports MDA RDT&E efforts at the JNIC for the:
  - GMD Mission Control Center Facility
  - C2BMC Center of Excellence
  - STSS Missile Defense Space Experimentation Center
  - JNIC Target Operations Center
  - Warfighter Support Center of Excellence
  - Combined Test Force-JNIC
  - Models and Simulation Center of Excellence
- Continue to provide an enabling infrastructure that supports BMDS operational capability development for the:
  - MDE and 100th Missile Defense Brigade
  - USNORTHCOM C2BMC Command and Control Center
  - USSTRATCOM JFCC-IMD Headquarters and Operations Center
  - Joint Early Warning Laboratory

Project: 0204 Joint National Integration Center (JNIC)   MDA Exhibit R-2A (PE 0603904C)

1166

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date **February 2007**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)**	R-1 NOMENCLATURE **0603904C BMD Joint National Integration Center (JNIC)**

- Operate and maintain the MDA Technical Support Center
- Continue, as directed, the consolidation of existing MDA spaces in Colorado Springs into the JNIC

	FY 2006	FY 2007	FY 2008	FY 2009
BMDS Test and Analysis	0	19,349	23,867	22,868
RDT&E Articles (Quantity)	0	0	0	0

The JNIC functions as the core integration activity for exercising, evaluating, analyzing and refining advanced missile defense concepts that can then be used to improve follow-on blocks to the BMDS. It does this by planning, providing technical support, and executing Operator-in-the-Loop and Element-in-the-Loop Wargames; Joint Warfighter Exercises and Experiments; Missile Defense Ground Tests; C2BMC integration testing and experiments, and System Level Missile Defense Analyses. These activities allow the developer, tester, and operator to assess capabilities in the same operationally representative environment.

FY07 Planned Program:
- Build out and Upgrade JNIC C2BMC Lab facilities to support integration and testing of C2BMC Spiral 6.2 and Spiral 6.4 functionality and architecture
- Support development, experimentation, integration, and testing of Distributed Track Processing
- Support experimentation, integration, and testing of the Global Integrated Fire Control component of C2BMC
- Support development, verification, and validation of improved automated testing and analysis tools and processes
- Support the integration of missile defense capable deployed USN Aegis ships into the BMDS command and control structure
- Support Block 06 BMDS-level tests, wargames, and exercises
- Support interoperability and integration of the BMDS program elements
- Improve the operational realism of the system test architectures
- Improve the analysis tools, process, and quality of the BMDS system capabilities and performance assessments
- Conduct a thorough system test campaign across the Block 06 architecture
- Support Combined Test Force (CTF) Test Events (previously known as MDIE): GTX-02a, GTI-02, GTD-02, GTI-03 · Distributed Ground Test (DGT): GT04-4a, GT04-4b, GTD-02 · GMD Flight Test: FTG-3 · Aegis Flight Test: FTM-11a, FTM-12, FTM-13 · Patriot Flight Test: ATM-48 · FBX-T Tests: GT-194, GT-195, GT-196 · THAAD Tests: FTT-07, FTT-08, FTT-09 · SBX Tests: FTX-02, FTX-03
- Operate the Distributed Multi-Echelon Distributed Training System (DMETS) in the conduct of BMDS-level wargames, exercises, and training

Project: 0204 Joint National Integration Center (JNIC)

MDA Exhibit R-2A (PE 0603904C)

	Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

- Provide wargame scenarios to enhance the understanding of current missile defense capabilities, and to investigate options for future capabilities
- Participate in COCOM Exercises: Terminal Fury (TF-06), Ardent Sentry (AS-07), and Vigilant Shield 07
- Install a second DMETS C2BMC Server Suite to improve training availability
- Plan, collect data, assess, examine, and report on MDA directed C2BMC spiral integration testing
- Conduct verification tests of the Spiral 6.2 capabilities
- Conduct risk reduction tests of the sensor management and advanced battle management capabilities
- Conduct risk reductions tests of the net-centric architecture
- Continue to conduct MDA critical analysis efforts in support of Block Interim Capability Assessment Reports (ICAR), BMDS Interface Control Specification Verification, and other MDA System Engineering and Integration directed studies/assessments
- Conduct C2BMC-X Events and Experimentation
- Continue integrating C2BMC with other BMDS Elements and Space-based Sensors: STSS, KEI, ESL, ABL, THAAD
- Improve the distribution of BMDS Situational Awareness information by taking advantage of the GCCS infrastructure and early NECC prototyping efforts
- Mature promising BMDS technology including Hit/Kill Assessment, Weapons Typing, Consequence Mitigation, Discrimination, and Sensor Netting
- Investigate improved BMDS communication and functionality architectures including a service oriented architecture and distributed functionality (such as distributed track processing).

FY08 Planned Program:
- Plan and Prepare for Block 08 BMDS tests, wargames, and exercises
- Build out and Upgrade JNIC C2BMC Lab facilities to support integration and testing of C2BMC Spiral 6.4 and Spiral 8.2 functionality and architecture
- Support integration and testing of Distributed Track Processing
- Support integration, and testing of the Global Integrated Fire Control component of C2BMC
- Support integration and testing of the BMDS Network and Parallel Staging Network Tests
- Support experimentation, integration and testing of the C2BMC NetCentric Architecture
- Continue to support the integration of missile defense elements into the BMDS command and control structure
- Support interoperability and integration of the BMDS program elements

Project: 0204 Joint National Integration Center (JNIC)   MDA Exhibit R-2A (PE 0603904C)

1168

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date **February 2007**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)**	R-1 NOMENCLATURE **0603904C BMD Joint National Integration Center (JNIC)**

- Improve the operational realism of the system test architectures
- Conduct a thorough system test campaign across the Block 06 architecture using the following venues: · Combined Test Force (CTF) Test Events, COCOM Exercises, Distributed Ground Tests (DGT), GMD Flight Tests, Aegis Flight Tests, Patriot Flight Tests, FBX-T Tests, THAAD Tests, SBX Tests, ABL Tests
- Operate the Distributed Multi-Echelon Distributed Training System (DMETS) in the conduct of BMDS-level wargames, exercises, and training
- Plan, collect data, assess, examine, and report on MDA directed C2BMC spiral integration testing
- Continue to conduct MDA critical analysis efforts in support of Block Interim Capability Assessment Reports (ICAR), BMDS Interface Control Specification Verification, and other MDA System Engineering and Integration directed studies/assessments
- Conduct C2BMC-X Events and Experimentation
- Refine C2BMC interfaces to BMDS Elements and Space-based Sensors: STSS, KEI, ESL, ABL, THAAD, MDSEC
- Continue maturing needed BMDS technologies and transitioning them to development and operations

FY09 Planned Program:
- Support Block 08 BMDS tests, wargames, and exercises
- Build out and Upgrade JNIC C2BMC Lab facilities to support integration and testing of C2BMC Spiral 8.2 and Spiral 8.4 functionality and architecture
- Support integration and testing of Distributed Track Processing
- Support integration, and testing of the Global Integrated Fire Control component of C2BMC
- Support integration and testing of the BMDS Network and the Parallel Staging Network Tests
- Support integration and testing of the C2BMC NetCentric Architecture
- Continue to support the integration of missile defense elements into the BMDS command and control structure
- Support interoperability and integration of the BMDS program elements
- Improve the operational realism of the system test architectures
- Conduct a thorough system test campaign across the Block 08 architecture using the following venues: Combined Test Force (CTF) Test Events, COCOM Exercises, Distributed Ground Tests (DGT), GMD Flight Tests, Aegis Flight Tests, Patriot Flight Tests, FBX-T Tests, THAAD Tests, SBX Tests, ABL Tests
- Operate the Distributed Multi-Echelon Distributed Training System (DMETS) in the conduct of BMDS-level wargames, exercises, and training
- Plan, collect data, assess, examine, and report on MDA directed C2BMC spiral integration testing

Project: 0204 Joint National Integration Center (JNIC)

MDA Exhibit R-2A (PE 0603904C)

1169

	Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

- Continue to conduct MDA critical analysis efforts in support of Block Interim Capability Assessment Reports (ICAR), BMDS Interface Control Specification Verification, and other MDA System Engineering and Integration directed studies/assessments
- Conduct C2BMC-X Events and Experimentation
- Refine C2BMC interfaces to BMDS Elements and Space-based Sensors: STSS, KEI, ESL, ABL, THAAD, MDSEC
- Continue maturing needed BMDS technologies and transitioning them to development and operations

	FY 2006	FY 2007	FY 2008	FY 2009
BMDS Operational Security	0	514	1,514	1,490
RDT&E Articles (Quantity)	0	0	0	0

Provides increased reliability, availability and maintainability of the JNIC Electronic Security System as well as improved physical security/anti-terrorism provisions.

FY07 Planned Program:
- Maintain and operate/monitor the Electronic Security System.
- Implement required patches for all security hardware/software throughout the JNIC.
- Continue to provide around the clock monitoring/security for designated PL 1 resources/SSL-A areas.

FY08 Planned Program:
- Continue replacement of current system and operate/monitor Electronic Security System.
- Implement required patches for all security hardware/software throughout the JNIC.
- Continue to provide around the clock monitoring/security for designated PL 1 resources/SSL-A areas.

FY09 Planned Program:
- Complete replacement of old system and operate/monitor Electronic Security System.
- Implement required patches for all security hardware/software throughout the JNIC.
- Continue to provide around the clock monitoring/security for designated PL 1 resources/SSL-A areas.

Project: 0204 Joint National Integration Center (JNIC)   MDA Exhibit R-2A (PE 0603904C)

1170

			Date	
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification			**February 2007**	

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

	FY 2006	FY 2007	FY 2008	FY 2009
Special Programs	0	315	354	362
RDT&E Articles (Quantity)	0	0	0	0

The JNIC runs the Intelligence Support Center/Special Programs Center for the MDA Director, Security/Intelligence Operations, USSTRATCOM, and the 100th Missile Defense Brigade.

FY07 Planned Program:
- Provide intelligence support to the BMDS Watch Officers (BWOs), and implement any intelligence hardware/software updates required to support the MTSC.
- Produce credible threat products and engineering trajectories for DoD users
- Operate the threat modeling module within a larger BMDS Simulation tool
- Support the integration of other threat tools as required
- Prepare and provide ongoing daily intelligence briefings and summaries as directed.
- Maintain and support the Intelligence Support Center, and (when directed) plan/initiate the installation of any additional intelligence data feeds required to support the BMDS.

FY08 Planned Program:
- Provide intelligence support to the BWOs, and implement any intelligence hardware/software updates required to support the MTSC.
- Continue to produce credible threat products and engineering trajectories for DoD users
- Operate the threat modeling module within a larger BMDS Simulation tool
- Support the integration of other threat tools as required
- Prepare and provide ongoing daily intelligence briefings and summaries as directed.
- Continue the maintenance and operation support of the Intelligence Support Center, and (when directed) plan/initiate the installation of any additional intelligence data feeds required to support the BMDS.

FY09 Planned Program:
- Provide intelligence support to the BWOs, and implement any intelligence hardware/software updates required to support the MTSC.
- Continue to produce credible threat products and engineering trajectories for DoD users
- Operate the threat modeling module within a larger BMDS Simulation tool

Project: 0204 Joint National Integration Center (JNIC)   MDA Exhibit R-2A (PE 0603904C)

	Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

- Support the integration of other threat tools as required
- Prepare and provide ongoing daily intelligence briefings and summaries as directed.
- Continue the maintenance and operation support of the Intelligence Support Center, and (when directed) plan/initiate the installation of any additional intelligence data feeds required to support the BMDS.

	FY 2006	FY 2007	FY 2008	FY 2009
Congressional Add	0	8,250	0	0
RDT&E Articles (Quantity)	0	0	0	0

The FY07 program contains a Congressional adjustment for High-Fidelity Modeling and Simulation conducted at the JNIC. The JNIC supports consolidated and integrated modeling and simulation development for the Agency. The BMDS Simulation, formerly known as MDWAR, is the only BMD force-on-force simulation with plug & play tactical message interfaces capable of interactive real-time execution. The Missile Defense and Space Warning Tool is the only trusted tool for injecting simulated missile threats into all Combatant Commands over the Integrated Broadcasting System so that theater and strategic early warning systems can be exercised. The Threat Modeling and Simulation System generates integrated, high-fidelity, force level threat scenarios across all threat objects in flight. Together the development and operation of these Modeling & Simulation tools by the JNIC provides MDA and the missile defense community the ability to simulate the current and evolving BMD environment, threat, and systems for wargames, exercises, training, tests, and performance analyses.

FY07 funds will be used to expand Modeling and Simulation technical support for BMDS integration, tailor Modeling and Simulation capabilities to emerging Warfighter missile defense needs, and provide Modeling and Simulation support to missile defense bilateral activities with friends and allies.

	FY 2006	FY 2007	FY 2008	FY 2009
BMD Wargaming, Exercises and Analysis	0	7,206	7,363	7,523
RDT&E Articles (Quantity)	0	0	0	0

The JNIC functions as the core integration activity for exercising, evaluating, analyzing and refining advanced missile defense concepts that can then be used to improve follow-on blocks to the BMDS. It does this by planning, providing technical support, and executing Operator-in-the-Loop and Element-in-the-Loop Wargames; Joint Warfighter Exercises and Experiments; Missile Defense Integration Exercises; C2BMC integration testing and experiments, and System Level Missile Defense Analyses. These activities allow the developer, tester, and operator to assess capabilities in the same operationally representative environment. Additionally, the JNIC facilitates international cooperation and support of the BMDS through the

Project: 0204 Joint National Integration Center (JNIC)   MDA Exhibit R-2A (PE 0603904C)

1172

UNCLASSIFIED

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date **February 2007**

APPROPRIATION/BUDGET ACTIVITY **RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)**	R-1 NOMENCLATURE **0603904C BMD Joint National Integration Center (JNIC)**

development and execution of missile defense seminars, workshops, wargames, and other multinational activities. It builds and retains a corporate knowledge base comprised of leading technical experts to respond quickly to customer requirements and perform technical MDA missions.

FY07 Planned Program:
- Support fleet demonstrations to prove that deployed Aegis ships are capable of integrating into the BMDS command and control structure, can conduct sensor tracking, and possess limited intercept capabilities
- Provide wargame scenarios to enhance understanding of current missile defense capabilities and investigate options for future capabilities
- Support the Combined Test Force (CTF) conduct of Ground Test/Missile Defense Integrated Exercise(s)
- Provide Wargaming Support to the Joint Warfighter Support Program by:
  - Developing and producing documentation to support all directed wargaming events
  - Conducting wargames to develop, test, and refine Concept of Operations, Tactics, Techniques and Procedures, and Command and Control plans
  - Providing post-event data collection and analysis support
  - Providing for the operations and maintenance of the Wargaming Enterprise Support Center
  - Managing, as directed, the BMDS Training Center
- Plan, collect data, assess, examine, and report on MDA Joint Warfighter Support Program directed missile defense exercises
- Conduct MDA critical analysis efforts in support of Block Capability Verification Assessment Reports, and other MDA System Engineering and Integration directed studies/assessments
- Conduct Verification & Validation of BMD models as directed
- Provide direct support to the MDA Director for International Support in the form of unique capabilities, tools and resources to enhance international missile defense cooperation
- Incorporate advanced employment concepts into JNIC planning tools, exercises, test activities, and wargames across multiple security levels.

FY 08 Planned Program
- Continue to support fleet demonstrations to prove that deployed Aegis ships are capable of integrating into the BMDS command and control structure, can conduct sensor tracking, and possess limited intercept capabilities
- Provide wargame scenarios to enhance understanding of current missile defense capabilities and investigate options for future capabilities
- Support the Combined Test Force (CTF) conduct of Ground Test/Missile Defense Integrated Exercise(s)
- Provide Wargaming Support to the Joint Warfighter Support Program by:

Project: 0204 Joint National Integration Center (JNIC)   MDA Exhibit R-2A (PE 0603904C)
Line Item 89 -   15 *of* 32
UNCLASSIFIED

1173

	Date
Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

- o Developing and producing documentation to support all directed wargaming events
- o Conducting wargames to develop, test, and refine Concept of Operations, Tactics, Techniques and Procedures, and Command and Control plans
- o Providing post-event data collection and analysis support
- o Providing for the operations and maintenance of the Wargaming Enterprise Support Center
- o Managing, as directed, the BMDS Training Center
- Plan, collect data, assess, examine, and report on MDA Joint Warfighter Support Program directed missile defense exercises
- Conduct MDA critical analysis efforts in support of Block Capability Verification Assessment Reports, and other MDA System Engineering and Integration directed studies/assessments
- Conduct Verification & Validation of BMD models as directed
- Provide direct support to the MDA Director for International Support in the form of unique capabilities, tools and resources to enhance international missile defense cooperation
- Incorporate advanced employment concepts into JNIC planning tools, exercises, test activities, and wargames across multiple security levels.

FY 09 Planned Program
- Continue support to fleet demonstrations to prove that deployed Aegis ships are capable of integrating into the BMDS command and control structure, can conduct sensor tracking, and possess limited intercept capabilities
- Provide wargame scenarios to enhance understanding of current missile defense capabilities and investigate options for future capabilities
- Support the Combined Test Force (CTF) conduct of Ground Test/Missile Defense Integrated Exercise(s)
- Provide Wargaming Support to the Joint Warfighter Support Program by:
  - o Developing and producing documentation to support all directed wargaming events
  - o Conducting wargames to develop, test, and refine Concept of Operations, Tactics, Techniques and Procedures, and Command and Control plans
  - o Providing post-event data collection and analysis support
  - o Providing for the operations and maintenance of the Wargaming Enterprise Support Center
  - o Managing, as directed, the BMDS Training Center
- Plan, collect data, assess, examine, and report on MDA Joint Warfighter Support Program directed missile defense exercises
- Conduct MDA critical analysis efforts in support of Block Capability Verification Assessment Reports, and other MDA System Engineering and Integration directed studies/assessments

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date **February 2007**

APPROPRIATION/BUDGET ACTIVITY **RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)**	R-1 NOMENCLATURE **0603904C BMD Joint National Integration Center (JNIC)**

- Conduct Verification & Validation of BMD models as directed
- Provide direct support to the MDA Director for International Support in the form of unique capabilities, tools and resources to enhance international missile defense cooperation
- Incorporate advanced employment concepts into JNIC planning tools, exercises, test activities, and wargames across multiple security levels.

	FY 2006	FY 2007	FY 2008	FY 2009
JNIC Security	0	2,965	2,663	2,578
RDT&E Articles (Quantity)	0	0	0	0

Provides physical and access control to protect BMDS development capabilities, annual training and education for all assigned personnel, and additional labor and diagnostic tools for around the clock security systems engineering and Security Operations Command Post activities.

FY07 Planned Program:
- Provide program protection, force protection, and an anti-terrorism posture in compliance with MDA and DoD requirements, capable of supporting various events scheduled at the JNIC.
- Provide an integrated security approach for all new mission areas assigned to the JNIC.
- Continue to transition the JNIC Classified Document Control Center from a long-term to short-term storage facility by leveraging the MDA electronic repository for all retained material.
- Provide ongoing industrial and physical security, including foreign disclosure, counterintelligence analysis and threat assessment, and guard/response force management.

FY08 Planned Program:
- Provide program protection, force protection, and an anti-terrorism posture in compliance with MDA and DoD requirements, capable of supporting various events scheduled at the JNIC.
- Provide an integrated security approach for all new mission areas assigned to the JNIC.
- Complete transition of the JNIC Classified Document Control Center from a long-term to short-term storage facility by leveraging the MDA electronic repository for all retained material.
- Provide ongoing industrial and physical security, including foreign disclosure, counterintelligence analysis and threat assessment, and guard/response force management.

Project: 0204 Joint National Integration Center (JNIC)   MDA Exhibit R-2A (PE 0603904C)
Line Item 89 -   17   *of*   32
UNCLASSIFIED

1175

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date **February 2007**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)**	R-1 NOMENCLATURE **0603904C BMD Joint National Integration Center (JNIC)**

FY09 Planned Program:
- Provide program protection, force protection, and an anti-terrorism posture in compliance with MDA and DoD requirements, capable of supporting various events scheduled at the JNIC.
- Provide an integrated security approach for all new mission areas assigned to the JNIC.
- Provide ongoing industrial and physical security, including foreign disclosure, counterintelligence analysis and threat assessment, and guard/response force management.

C. Other Program Funding Summary

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Cost
PE 0603175C Ballistic Missile Defense Technology	147,270	193,307	118,569	109,540	116,014	121,008	127,917	131,291	1,064,916
PE 0603881C Ballistic Missile Defense Terminal Defense Segment	1,120,879	1,092,076	962,585	1,004,282	924,101	851,213	678,694	501,147	7,134,977
PE 0603882C Ballistic Missile Defense Midcourse Defense Segment	2,391,246	3,043,058	2,520,064	2,359,665	2,179,602	1,699,963	1,153,082	1,183,003	16,529,683
PE 0603883C Ballistic Missile Defense Boost Defense Segment	455,572	628,958	548,759	432,432	448,375	678,913	829,683	1,026,239	5,048,931
PE 0603884C Ballistic Missile Defense Sensors	284,297	514,129	778,163	984,963	939,417	791,701	723,843	603,585	5,620,098
PE 0603886C Ballistic Missile Defense System Interceptors	200,446	356,004	227,499	393,317	522,388	730,236	836,029	570,206	3,836,125
PE 0603888C Ballistic Missile Defense Test and Targets	610,619	601,782	586,150	628,364	662,984	681,511	696,037	705,210	5,172,657
PE 0603889C Ballistic Missile Defense Products	387,402	0	0	0	0	0	0	0	387,402
PE 0603890C Ballistic Missile Defense System Core	409,993	429,420	482,016	511,147	558,746	579,571	579,316	588,481	4,138,690
PE 0603891C Special Programs - MDA	271,021	353,031	323,250	305,409	369,073	526,966	789,017	792,271	3,730,038
PE 0603892C Ballistic Missile Defense Aegis	893,040	1,122,669	1,059,103	1,129,425	1,221,650	1,067,587	1,054,753	1,089,078	8,637,305
PE 0603893C Space Tracking & Surveillance System	220,048	322,220	331,525	347,811	412,623	501,197	778,067	981,424	3,894,915
PE 0603894C Multiple Kill Vehicle	48,370	144,362	271,151	352,741	461,179	618,263	673,477	842,905	3,412,448
PE 0603895C BMD System Space Program	0	0	27,666	35,093	46,849	56,183	133,617	157,117	456,525
PE 0603896C BMD C2BMC	0	246,852	258,913	294,627	300,847	282,615	267,275	269,420	1,920,549
PE 0603897C BMD Hercules	0	49,674	53,658	54,264	54,405	55,142	53,355	54,198	374,696
PE 0603898C BMD Joint Warfighter Support	0	54,935	48,787	50,428	54,086	56,603	58,890	60,206	383,935
PE 0603905C BMD Concurrent Test and Operations	0	23,159	0	0	0	0	0	0	23,159
PE 0603906C Regarding Trench	0	0	2,000	3,000	5,000	5,000	9,000	9,000	33,000

Project: 0204 Joint National Integration Center (JNIC)

MDA Exhibit R-2A (PE 0603904C)

1176

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date February 2007

APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603904C BMD Joint National Integration Center (JNIC)

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Cost
PE 0605502C Small Business Innovative Research - MDA	133,105	0	0	0	0	0	0	0	133,105
PE 0901585C Pentagon Reservation	14,874	15,527	6,058	6,376	4,490	4,725	4,801	4,877	61,728
PE 0901598C Management Headquarters - MDA	98,609	87,059	85,906	86,453	70,355	69,855	69,855	69,855	637,947

D. Acquisition Strategy

The strategy for JNIC mission execution is to employ an integration contract to simultaneously perform all of the BMDS RDT&E tasks with integrated operation and sustainment. The JNIC is operated by missile defense subject matter experts composed of Government military and civilian personnel, Federally Funded Research and Development Center, JNIC Technical Advisory and Assistance Services, and major defense contractors.

Project: 0204 Joint National Integration Center (JNIC)

MDA Exhibit R-2A (PE 0603904C)

1177

					Date **February 2007**
Missile Defense Agency (MDA) Exhibit R-3 RDT&E Project Cost Analysis					
APPROPRIATION/BUDGET ACTIVITY **RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)**			R-1 NOMENCLATURE **0603904C BMD Joint National Integration Center (JNIC)**		

I. Product Development   Cost ($ in Thousands)

Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award/ Oblg Date	FY 2008 Cost	FY 2008 Award/ Oblg Date	FY 2009 Cost	FY 2009 Award/ Oblg Date	Total Cost
BMDS Test and Analysis										
JNIC/C2BMC	C/CPAF	Northrop Grumman Mission Systems/ Col Springs, CO	0	19,349	1/2Q	23,867	1/2Q	22,868	1/2Q	66,084
Congressional Add										
JNIC/BMDS Sim	C/CPAF	Northrop Grumman Mission Systems/ Col Springs, CO	0	8,250	3/4Q	0	N/A	0	N/A	8,250
Subtotal Product Development			0	27,599		23,867		22,868		74,334

Remarks

II. Support Costs   Cost ($ in Thousands)

Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award/ Oblg Date	FY 2008 Cost	FY 2008 Award/ Oblg Date	FY 2009 Cost	FY 2009 Award/ Oblg Date	Total Cost
Infrastructure Development and Support										
JNIC	MIPR	JNIC/ 50th Space Wing Schriever AFB, CO	3,082	1,124	1Q	1,149	1Q	1,175	1Q	6,530
JNIC		JNIC/ Colorado Springs, CO	7,810	8,008	1Q	9,455	1Q	9,813	1Q	35,086
Subtotal Support Costs			10,892	9,132		10,604		10,988		41,616

Remarks These funds are for utilities and base communications as specified in the Inter-service Support Agreement with the 50th Space Wing and government salaries.

1178

Missile Defense Agency (MDA) Exhibit R-3 RDT&E Project Cost Analysis							Date **February 2007**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)**					R-1 NOMENCLATURE **0603904C BMD Joint National Integration Center (JNIC)**				

III. Test and Evaluation   Cost ($ in Thousands)

Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award/ Oblg Date	FY 2008 Cost	FY 2008 Award/ Oblg Date	FY 2009 Cost	FY 2009 Award/ Oblg Date	Total Cost
Infrastructure Development and Support										
JNIC	C/CPAF	JNIC/Northrop Grumman Mission Systems/ Col Springs, CO	130,359	52,994	1/2Q	46,956	1/2Q	50,244	1/2Q	280,553
JNIC	C/FFP	JNIC/SRS/ Colorado Springs, CO	9,448	4,922	1Q	5,019	1Q	5,119	1Q	24,508
JNIC	C/FFRDC	JNIC/Mitre Corp/ Colorado Springs, CO	4,580	1,594	1Q	1,639	1Q	1,772	1Q	9,585
BMDS Operational Security										
JNIC	C/CPAF	JNIC/Northrop Grumman Mission Systems/ Col Springs, CO	2,153	514	1/2Q	1,514	1/2Q	1,490	1/2Q	5,671
Special Programs										
JNIC	C/CPAF	Northrop Grumman Mission Systems/ Colorado Springs, CO	916	315	1/2Q	354	1/2Q	362	1/2Q	1,947
BMD Wargaming, Exercises and Analysis										
JNIC/Warfighter Support Center	C/CPAF	Northrop Grumman Mission Sys/ Col Springs, CO	27,538	7,206	1/2Q	7,363	1/2Q	7,523	1/2Q	49,630

Project: 0204 Joint National Integration Center (JNIC)

MDA Exhibit R-3 (PE 0603904C)

1179

					Date
Missile Defense Agency (MDA) Exhibit R-3 RDT&E Project Cost Analysis					**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award/ Oblg Date	FY 2008 Cost	FY 2008 Award/ Oblg Date	FY 2009 Cost	FY 2009 Award/ Oblg Date	Total Cost
JNIC Security										
JNIC	C/CPAF	JNIC/Northrop Grumman Mission Systems/ Col Springs, CO	8,996	2,965	1/2Q	2,663	1/2Q	2,578	1/2Q	17,202
Subtotal Test and Evaluation			183,990	70,510		65,508		69,088		389,096

Remarks These funds are executed by the JNIC and provide FFRDC and Technical Advisory and Assistance Services employees, for JNIC operations and oversight of the JNIC Research and Development Contractor (JRDC), as well as funding for JRDC work as required by the government.

IV. Management Services   Cost ($ in Thousands)

Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award/ Oblg Date	FY 2008 Cost	FY 2008 Award/ Oblg Date	FY 2009 Cost	FY 2009 Award/ Oblg Date	Total Cost
Subtotal Management Services										

Remarks

Project Total Cost			194,882	107,241		99,979		102,944		505,046

Remarks

Project: 0204 Joint National Integration Center (JNIC)

MDA Exhibit R-3 (PE 0603904C)

1180

	Date
Missile Defense Agency (MDA) Exhibit R-4 Schedule Profile	**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	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	1	2	3	4
JNIC																																
Aegis Ballistic Msl Defense Fleet Msl Tests	▲																															
FTM 04-2 (FM-8)	▲																															
FTM 04-3 (FM-9)		▲																														
FTM 06-1			▲																													
Aegis Critical Measurement Program Tests		▲																														
Arrow System Test	▲——————▲																															
Airborne Laser System Integrated Flight Test Spt		▲———▲																														
Nimble Titan Wargame		▲———▲																														
Integrated Missile Defense (IMD) Wargames		▲———▲																														
GT 06-1 (MDIE 06a)				▲																												
FTG 04-5	▲																															
FTG 04-2		▲																														
FTG 06-2					▲																											

Legend

▲	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

Project: 0204 Joint National Integration Center (JNIC)

MDA Exhibit R-4 (PE 0603904C)

1181

Missile Defense Agency (MDA) Exhibit R-4 Schedule Profile	Date February 2007

APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603904C BMD Joint National Integration Center (JNIC)

Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	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	1	2	3	4
JNIC																																
FTG 06-1 a/b (Salvo Mission)				▲																												
FTG 06-4							△																									
FTG 06-3a/b						△																										
FTG 06-5									△																							
FT 06-1			▲																													
FT 04-1 (IFT-16a)		▲																														
FT 04-4 (CMCM-2)			▲																													
FT 06-6 (GMD RCF-4)					▲																											
FT 04-2 (CMCM-1)			▲																													
FT 04-3 (MRT)					▲																											
FT 06-4 (CMCM-4)							△																									
C2BMC (spirals 4.5, 6.0, 6.2)	▲━━━▲				△━━△																											
IMD 05.4 BMDS SE-SIM Exercise/Wargame	▲																															

Legend

▲	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

	Date
Missile Defense Agency (MDA) Exhibit R-4 Schedule Profile	**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	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	1	2	3	4
JNIC																																
Support of Regional BMD Exercises																																
C2BMC (spirals 6.2, 6.4)																																
C2BMC (spirals 6.4, 8.2)																																

Legend

▲	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

Project: 0204 Joint National Integration Center (JNIC) MDA Exhibit R-4 (PE 0603904C)

1183

Missile Defense Agency (MDA) Exhibit R-4A Schedule Detail		Date February 2007

APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603904C BMD Joint National Integration Center (JNIC)

Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
JNIC								
Aegis Ballistic Msl Defense Fleet Msl Tests	1Q							
FTM 04-2 (FM-8)	1Q							
FTM 04-3 (FM-9)	2Q							
FTM 06-1	3Q							
Aegis Critical Measurement Program Tests	2Q							
Arrow System Test	1Q-4Q							
Airborne Laser System Integrated Flight Test Spt	2Q-4Q							
Nimble Titan Wargame	2Q-4Q							
Integrated Missile Defense (IMD) Wargames	2Q-4Q							
GT 06-1 (MDIE 06a)	4Q							
FTG 04-5	1Q							
FTG 04-2	2Q							
FTG 06-2		1Q						
FTG 06-1 a/b (Salvo Mission)	4Q							
FTG 06-4		3Q						
FTG 06-3a/b		2Q						
FTG 06-5			1Q					
FT 06-1	3Q							
FT 04-1 (IFT-16a)	2Q							
FT 04-4 (CMCM-2)	3Q							
FT 06-6 (GMD RCF-4)		1Q						
FT 04-2 (CMCM-1)	3Q							
FT 04-3 (MRT)		1Q						
FT 06-4 (CMCM-4)		3Q						
C2BMC (spirals 4.5, 6.0, 6.2)	1Q-4Q	1Q-4Q						
IMD 05.4 BMDS SE-SIM Exercise/Wargame	1Q							
International Events (Taiwan)	1Q		3Q		1Q			
International Events (Turkey)	1Q,3Q	4Q	4Q			2Q		
International Events (Ukraine)	1Q,3Q	1Q,3Q		1Q		2Q		
JDEP Defense of Israel Evaluation	1Q							

Project: 0204 Joint National Integration Center (JNIC)

MDA Exhibit R-4A (PE 0603904C)

1184

	Date
Missile Defense Agency (MDA) Exhibit R-4A Schedule Detail	**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
NFIRE Experiment	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q					
Receptions Staging Onward Movement & Integration	1Q	1Q	1Q	1Q	1Q	1Q		
STSS Block 06	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q					
STSS Block 10 RR	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q					
STSS Surrogate Test Bed	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q				
Support of Regional BMD Exercises	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q		
Weekly Theater Event System Support	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q		
GTX-01a	2Q							
GTX-01b	2Q							
IMD 10.4 BMDS SE-SIM Exercise/Wargame	2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q		
International Events (India)	2Q,4Q	1Q,2Q	2Q,4Q	2Q,4Q	2Q,4Q	2Q,4Q		
International Events (Japan)	2Q		1Q	1Q	1Q			
International Events (UK)	2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q		
International Wargame/Demo/Seminar Events	2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q		
Joint Expeditionary Force Experiment	2Q	2Q	2Q	2Q	2Q	2Q		
Keen Edge	2Q	2Q		2Q		2Q		
MDA National Missile Defense Conference Wargame	2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q				
Marine Aviation Weapons and Tactics Squadron	2Q,4Q	2Q,4Q	2Q,4Q	2Q,4Q	2Q,4Q	2Q,4Q		
Multinational Conference Wargame	2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q			
National Missile Defense Conference 06 Wargame	2Q							
Optic Bar 05	2Q,4Q	2Q,4Q	2Q,4Q	2Q,4Q	2Q,4Q	2Q,4Q		
Carrier Strike Group Composite Training Unit Ex	3Q,4Q	3Q,4Q	3Q,4Q	3Q,4Q	3Q,4Q	3Q,4Q		
IMD 06.1 COCOM Exercise	3Q							
IMD 06.2 BMDS SE-SIM Exercise/Wargame	3Q							
International Events (Australia)	3Q	1Q	3Q		3Q			
International Events (Russia)	3Q	1Q	3Q	3Q	2Q	3Q		
NT Workshop	3Q	3Q	3Q	3Q	3Q			
Federation Testing	4Q	4Q	4Q	4Q	4Q	4Q		
GTD-01	4Q		4Q					
GTI-01	4Q							

Project: 0204 Joint National Integration Center (JNIC)

MDA Exhibit R-4A (PE 0603904C)

1185

	Date
Missile Defense Agency (MDA) Exhibit R-4A Schedule Detail	**February 2007**

APPROPRIATION/BUDGET ACTIVITY	R-1 NOMENCLATURE
RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	**0603904C BMD Joint National Integration Center (JNIC)**

Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
International Events (Trilateral MD Forum)	4Q	3Q	2Q	1Q				
Joint Project Windmill (JPOW)	4Q		3Q,4Q		3Q,4Q			
Multinational Conference Wargame 06	4Q							
Patriot Interoperability Demonstration	4Q							
Terminal Fury	4Q	4Q	4Q	4Q	4Q	4Q		
Virtual Flag	4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q,4Q	1Q,2Q,3Q		
BMDS Overlay 07 - Terminal Fury 07		1Q						
BMDS Overlay 07 - Vigilant Shield 07		1Q						
Distributed Exercise 07-1		1Q						
IMD 06.3 Battle Planning Exercise		1Q						
IMD 06.4 BMDS SE-SIM Exercise/Wargame		1Q						
International Events (NATO-Russia Council)		1Q,3Q	3Q	3Q	3Q			
Multinational Wargame 07		1Q,2Q,3Q,4Q						
GTX-2A		2Q						
IMD 07.1 COCOM Exercise		2Q						
International Events (NATO)		2Q	1Q	4Q	3Q	2Q		
GTI-02		3Q						
GTX-02b		3Q						
IMD 07.3 Battle Planning Exercise		3Q						
International Events (DTRA)		3Q	3Q	3Q	3Q	3Q		
International Events (Italy)		3Q	4Q		1Q			
International Events (Korea)		3Q		3Q				
International Events (Poland)		3Q		2Q		2Q		
Juniper Cobra		3Q,4Q		3Q,4Q		3Q,4Q		
National Missile Defense Conference 07 Wargame		3Q						
BMDS Overlay 07 - Juniper Cobra 07		4Q						
Concurrent Test & Operations Demonstration		4Q						
Distributed Exercise 07-2		4Q						
GTD-02		4Q						
International Events (Czech Republic)		4Q		1Q		2Q		
C2BMC (spirals 6.2, 6.4)			1Q-4Q					

Project: 0204 Joint National Integration Center (JNIC)   MDA Exhibit R-4A (PE 0603904C)

1186

Missile Defense Agency (MDA) Exhibit R-4A Schedule Detail		Date February 2007

APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603904C BMD Joint National Integration Center (JNIC)

Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
CENTCOM US/UK 08 Exercise Set			1Q,2Q,3Q,4Q					
GTX-03a			1Q					
IMD 07.4 BMDS SE-SIM Exercise/Wargame			1Q					
International Events (Spain)			1Q		2Q			
Multinational Conference Wargame 08			1Q,2Q,3Q,4Q					
BMDS Overlay 08 - System Engineering Simulation			2Q					
BMDS Overlay 08 - Joint Project Optic Windmill			2Q					
Distributed Exercise 08-1			2Q					
GTX-03b			2Q					
IMD 08.1 COCOM Exercise			2Q					
IMD 08.2 BMDS SE-SIM Exercise/Wargame			2Q					
BMDA Overlay 08 - Blue Flag Exercise			3Q,4Q					
BMDS Overlay 08 - Eagle Resolve 2008			3Q,4Q					
BMDS Overlay 08 - PACOM Exercise Set			3Q,4Q					
Distributed Exercise 08-2			3Q					
GTI-03			3Q					
IMD 08.3 Battle Planning Exercise			3Q					
Integrated Support Plan Update			3Q	3Q				
National Missile Defense Conference 08 Wargame			3Q					
BMDS Overlay 08 - Senior Leader Seminar			4Q					
BMDS Overlay 08 - BMDS Exercise			4Q					
BMDS Overlay 08 - Internal Look Exercise			4Q	4Q				
Distributed Exercise 08-2C			4Q					
GTX-03c			4Q					
IBMDS Overlay 08 - Planning Exercise			4Q					
C2BMC (spirals 6.4, 8.2)				1Q-4Q				
CENTCOM US/UK 09 Exercise Set				1Q,2Q,3Q,4Q				
GTX-04a				1Q				
IMD 08.4 BMDS SE-SIM Exercise/Wargame				1Q				
Multinational Conference Wargame 09				1Q,2Q,3Q,4Q				
BMDS Overlay 09 - Juniper Cobra				2Q				

Project: 0204 Joint National Integration Center (JNIC)   MDA Exhibit R-4A (PE 0603904C)

1187

Missile Defense Agency (MDA) Exhibit R-4A Schedule Detail	Date February 2007

APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603904C BMD Joint National Integration Center (JNIC)

Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
BMDS Overlay 09 - System Engineering Simulation				2Q				
Distributed Exercise 09-1				2Q,4Q				
IMD 09 BMDS SE-SIM Exercise/Wargame				2Q				
IMD 09.1 COCOM Exercise				2Q				
BMDS Overlay 09 - Blue Flag Exercise				3Q,4Q				
BMDS Overlay 09 - Eagle Resolve 2009				3Q,4Q				
Distributed Exercise 09-2				3Q				
IMD 09.3 Battle Planning Exercise				3Q				
National Missile Defense Conference 09 Wargame				3Q				
PACOM Exercise Set 2009				3Q,4Q				
BMDS Overlay 09 - Planning Exercise				4Q				
BMDS Overlay 09 - BMDS Exercise				4Q				
BMDS Overlay 09 - Senior Leader Seminar				4Q				
IMD 09.4 BMDS SE-SIM Exercise/Wargame					1Q			
Multinational Conference Wargame 10					1Q,2Q,3Q,4Q			
IMD 10.1 COCOM Exercise					2Q			
IMD 10.2 BMDS SE-SIM Exercise/Wargame					2Q			
IMD 10.3 Battle Planning Exercise					3Q			
National Missile Defense Conference 10 Wargame					3Q			
International Events (France)						1Q		

Project: 0204 Joint National Integration Center (JNIC)

MDA Exhibit R-4A (PE 0603904C)

1188

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date February 2007

APPROPRIATION/BUDGET ACTIVITY **RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)**	R-1 NOMENCLATURE **0603904C BMD Joint National Integration Center (JNIC)**

COST ($ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0602 Program-Wide Support	0	3,388	4,033	4,041	4,584	4,155	4,176	4,225
RDT&E Articles Qty	0	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification

Program-Wide Support provides funding for common non-headquarters support functions across the entire program such as strategic planning, program integration, business management, cost estimating, contracting, and financial management, to include preparation of financial statements, reimbursement of financial services provided by DFAS, internal review and audit, earned-value management, and program assessment. Includes costs for both government civilians performing these functions, as well as outside services and support contractors that augment government staff in these areas. Many of these costs reside within the Missile Defense Agency Executing Agents in the Services: Army Space and Missile Defense Command, Army PEO Space and Missile Defense, Office of Naval Research, and various Air Force laboratory and acquisition activities, although some functions and costs within this program element are performed by MDA employees assigned within the National Capital Region (NCR). Other costs included herein provide facility capabilities for MDA Executing Agent locations, such as physical and technical security, legal services, travel and training, office and equipment leases, utilities and communications, supplies and maintenance, and similar operating expenses. Also includes funding for charges on canceled appropriations in accordance with Public Law 101-510, legal settlements, and foreign currency fluctuation on a limited number of foreign contracts.

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Civilian Salaries and Support	0	3,388	4,033	4,041
RDT&E Articles (Quantity)	0	0	0	0

See Section A: Mission Description and Budget Item Justification

Project: 0602 Program-Wide Support

MDA Exhibit R-2A (PE 0603904C)

1189

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date February 2007

APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603904C BMD Joint National Integration Center (JNIC)

C. Other Program Funding Summary

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Cost
PE 0603175C Ballistic Missile Defense Technology	147,270	193,307	118,569	109,540	116,014	121,008	127,917	131,291	1,064,916
PE 0603881C Ballistic Missile Defense Terminal Defense Segment	1,120,879	1,092,076	962,585	1,004,282	924,101	851,213	678,694	501,147	7,134,977
PE 0603882C Ballistic Missile Defense Midcourse Defense Segment	2,391,246	3,043,058	2,520,064	2,359,665	2,179,602	1,699,963	1,153,082	1,183,003	16,529,683
PE 0603883C Ballistic Missile Defense Boost Defense Segment	455,572	628,958	548,759	432,432	448,375	678,913	829,683	1,026,239	5,048,931
PE 0603884C Ballistic Missile Defense Sensors	284,297	514,129	778,163	984,963	939,417	791,701	723,843	603,585	5,620,098
PE 0603886C Ballistic Missile Defense System Interceptors	200,446	356,004	227,499	393,317	522,388	730,236	836,029	570,206	3,836,125
PE 0603888C Ballistic Missile Defense Test and Targets	610,619	601,782	586,150	628,364	662,984	681,511	696,037	705,210	5,172,657
PE 0603889C Ballistic Missile Defense Products	387,402	0	0	0	0	0	0	0	387,402
PE 0603890C Ballistic Missile Defense System Core	409,993	429,420	482,016	511,147	558,746	579,571	579,316	588,481	4,138,690
PE 0603891C Special Programs - MDA	271,021	353,031	323,250	305,409	369,073	526,966	789,017	792,271	3,730,038
PE 0603892C Ballistic Missile Defense Aegis	893,040	1,122,669	1,059,103	1,129,425	1,221,650	1,067,587	1,054,753	1,089,078	8,637,305
PE 0603893C Space Tracking & Surveillance System	220,048	322,220	331,525	347,811	412,623	501,197	778,067	981,424	3,894,915
PE 0603894C Multiple Kill Vehicle	48,370	144,362	271,151	352,741	461,179	618,263	673,477	842,905	3,412,448
PE 0603895C BMD System Space Program	0	0	27,666	35,093	46,849	56,183	133,617	157,117	456,525
PE 0603896C BMD C2BMC	0	246,852	258,913	294,627	300,847	282,615	267,275	269,420	1,920,549
PE 0603897C BMD Hercules	0	49,674	53,658	54,264	54,405	55,142	53,355	54,198	374,696
PE 0603898C BMD Joint Warfighter Support	0	54,935	48,787	50,428	54,086	56,603	58,890	60,206	383,935
PE 0603905C BMD Concurrent Test and Operations	0	23,159	0	0	0	0	0	0	23,159
PE 0603906C Regarding Trench	0	0	2,000	3,000	5,000	5,000	9,000	9,000	33,000
PE 0605502C Small Business Innovative Research - MDA	133,105	0	0	0	0	0	0	0	133,105
PE 0901585C Pentagon Reservation	14,874	15,527	6,058	6,376	4,490	4,725	4,801	4,877	61,728
PE 0901598C Management Headquarters - MDA	98,609	87,059	85,906	86,453	70,355	69,855	69,855	69,855	637,947

Project: 0602 Program-Wide Support

MDA Exhibit R-2A (PE 0603904C)

1190