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Missile Defense Agency (MDA) Exhibit R-2 RDT&E Budget Item Justification	Date February 2007
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APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603898C BMD Joint Warfighter Support
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COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	0	54,935	48,787	50,428	54,086	56,603	58,890	60,206
0803 Joint Warfighter Support Block 2006	0	53,118	0	0	0	0	0	0
0903 Joint Warfighter Support Block 2008	0	0	46,271	47,890	0	0	0	0
0003 Joint Warfighter Support Block 2010	0	0	0	0	51,039	53,980	56,299	57,555
0602 Program-Wide Support	0	1,817	2,516	2,538	3,047	2,623	2,591	2,651

Note: Beginning in FY07 Projects 0803, 0903 and 0003 will be under Program Element 0603898C.

A. Mission Description and Budget Item Justification

A.1 System Element Description

As part of the total Ballistic Missile Defense System (BMDS), Warfighter Support Center (WSC) (Formerly the Joint Warfighter Support Program), enables Warfighters to work with MDA to define, test, deploy and employ new missile defense Block capabilities; maintain proficiency with current Block capabilities; and provide feedback to the MDA BMDS development process. The WSC consists of a core set of consistent processes, tailored to the new BMDS capabilities to be deployed in each Block. The WSC is divided into two-year Blocks to match the evolutionary capability Blocks of the BMDS. The WSC builds COCOM proficiency in fielded missile defense capabilities, and provides critical operational level feedback directly to MDA development efforts. The WSC consists of seven primary processes, tailored in scope to the current BMDS Block capabilities as they transition, or near transition to the user:

- BMDS Exercise and Wargames
- Concepts & Plans required to address evolving, emerging and projected Ballistic Missile technology (both defensive and threat oriented)
- BMDS Logistics support planning and development
- BMDS Training development for the warfighters
- BMDS System Manager
- MDA's Operations Support Center (OSC)
- BMDS Direct support to the Geographic Combatant Commanders (GCCs)

Block 2006 will see numerous BMDS capabilities and or asset quantity increases during the FY06-07 time-frame. These capabilities will be addressed in each WSC activity to ensure the Joint Warfighter is properly trained to employ and integrate these capabilities and that they are logistically supported. Among the planned increase scope of the BMDS Block capabilities that will be addressed by the WSC in Block 2006 are:

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<ul style="list-style-type: none">• Increased numbers of Ground-Base Interceptors at Fort Greely.• Upgraded Early Warning Radar at Thule, Greenland• Additional AN/TPY-2• Additional SM-3 sea-based interceptors and upgraded Aegis cruisers and destroyers• Theater High Altitude Area Defense (THAAD) interceptors• Expanded Link-16 data engagement data sharing between THAAD, PATRIOT, and AEGIS BMDS Elements.• Implications from the expanded Engagement Sequence Group scope, as new elements and capability are added• Expanded upgrades to the BMDS C2BMC planning capabilities. <p>The WSC ensures the warfighter and the developer are working together to establish coordinated warfighter and developer system definition, warfighter input to BMDS development and product improvement, required logistics support, and new capability/sustainment training support. It therefore enables the effective introduction of new BMDS capabilities and sustainment, and improved operations of BMDS capabilities previously fielded.</p> <p><u>A.2 System Element Budget Justification and Contribution to the Ballistic Missile Defense System (BMDS)</u></p> <p>The Warfighter Support Center contributes to the BMDS by providing the means to integrate the Combatant Commands (COCOMs), the Services, and the Joint Chief of Staff inputs into the plans and processes necessary to define, develop, test, field, operate, and sustain operational BMDS Block capabilities. Further, it enhances warfighter efficiency and the overall effectiveness of the BMDS by building COCOM proficiency in fielded missile defense capabilities, by preparing the COCOMs for near-term Block delivery enhancements and by providing the means for operational level feedback to MDA developers. Additionally, the WSC provides the only means for the COCOMs to rehearse for and validate all aspects of their BMD missions with both fielded and emerging capabilities</p> <p><u>A.3 Major System Element Goals</u></p> <p>Warfighter Support Center Major Goals</p> <ul style="list-style-type: none">• Develop and maintain system level BMDS Training and Education activities not currently performed by the Services• Produce Concepts and Plans that examine evolving and predicted BMDS capabilities to ensure the BMDS keeps pace with the evolving technical and strategic environment• Conduct Exercises and Wargames for current and emerging BMDS capabilities that allow user training and feedback to the developer• Create, develop and coordinate BMDS-wide Integrated Logistics Support policies and procedures for each new BMDS Block		

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- Provide direct support to the Geographic Combatant Commanders (GCCs) to ensure warfighter participation in applicable exercises, wargaming and training activities

Provide Ballistic Missile Defense System Manager functions, to ensure proper integration of BMDS capabilities within the Services and Warfighting components. These activities include:

- Prepare BMDS transfer/transition plans
- Prepare and update BMDS Activation Plans and Emergency Activation Plan annexes
- Prepare and update Integrated Service Support Agreements
- Perform BMDS Operations & Support monitoring and reporting through the MDA Operations Center (MOC) and BMDS Watch Officers.

A.4 Major Events Schedule and Description

Major Event	Project	Timeframe
Contract Activity		
BLOCK 2006		
BMDS Overlay 07 - Terminal Fury 07	0803	1Q FY 2007
BMDS Overlay 07 - Vigilant Shield 07	0803	1Q FY 2007
Distributed Exercise 07-1	0803	1Q FY 2007
BMDS Overlay 07 - Juniper Cobra 07	0803	4Q FY 2007
Distributed Exercise 07-2	0803	4Q FY 2007
BLOCK 2008		
BMDS Overlay - Vigilant Shield	0903	1Q FY 2008
Nimble Titan	0903	2Q FY 2008
Distributed Exercise 08-1	0903	2Q FY 2008 - 3Q FY 2008
BMDS Overlay - Ardent Sentry	0903	3Q FY 2008
BMDS Overlay - Eagle Resolve	0903	3Q FY 2008
BMDS Overlay - Vigilant Shield	0903	1Q FY 2009
Nimble Titan	0903	2Q FY 2009
Distributed Exercise 09-1	0903	2Q FY 2009 - 3Q FY 2009
BMDS Overlay - Ardent Sentry	0903	3Q FY 2009
BMDS Overlay - Eagle Resolve	0903	3Q FY 2009

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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	54,935	48,787	50,428
Total Adjustments	0	54,935	48,787	50,428
Congressional Specific Program Adjustments	0	55,167	0	0
Congressional Undistributed Adjustments	0	-232	0	0
Reprogrammings	0	0	0	0
SBIR/STTR Transfer	0	0	0	0
Adjustments to Budget Years	0	0	48,787	50,428

FY07 increase of \$54.935 Million includes congressionally directed creation of a new Program Element for BMD Joint Warfighter Support and a portion of the MDA congressional undistributed reduction.

FY08 increase of \$48.787 million and FY09 increase of \$50.428 million reflects congressionally directed creation of a new Program Element for BMD Joint Warfighter Support.

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COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0803 Joint Warfighter Support Block 2006	0	53,118	0	0	0	0	0	0
RDT&E Articles Qty	0	0	0	0	0	0	0	0

Note: Beginning in FY07 Projects 0803, 0903 and 0003 will be under Program Element 0603898C

A. Mission Description and Budget Item Justification

As part of the total Ballistic Missile Defense System (BMDS), the Warfighter Support Center (WSC) (formerly called the Joint Warfighter Support Program, or JWSP) is the key vehicle which enables MDA to work directly and collaboratively with the Combatant Commanders (COCOMs) and Services to define, test, deploy and employ missile defense Block capabilities. The WSC consists of a core set of consistent, repeatable processes, divided into two-year Blocks tailored to the evolutionary capability Blocks of the BMDS. Block 2006 will see numerous BMDS capabilities and or asset quantity increases during the FY06-07 time-frame. These capabilities will be added to each WSC activity to ensure the Joint Warfighter is properly trained to employ and integrate these capabilities to address the evolving Ballistic Missile threat environments.

The WSC consists of seven primary activities, tailored in scope to the current BMDS Block capabilities as they transition, or near transition, to the user.

These seven areas are:

Conducting Exercises and Wargames to enable end-user mission training, qualification, certification and rehearsal of BMDS operations, strengthen user confidence in the current system and shape development of the future BMDS. This activity involves all participating COCOMs in building coherent missile defense plans and tactics, techniques and procedures for the near term BMDS, and then testing cohesive execution of those plans via high fidelity simulations. It also incorporates BMD system engineering and interoperability test activities when possible to leverage MDA material development events by providing 'real-world' training to operators. Finally, exercises and wargames create the conditions for continued, in-depth foreign and/or international participation in BMDS operations and development.

Developing Concepts and Plans that explain emerging and future BMDS material capabilities and technologies to the warfighter. This activity addresses potential impacts to current BMDS operations and results in Joint Warfighter development of new BMDS employment constructs/ Concepts of Operations (CONOPs). It introduces far term, emerging BMD technologies and capabilities to the Combatant Commanders and enables them via low fidelity simulations and tabletop exercises to investigate alternative ways of operating the BMDS. It also serves MDA as a prime vehicle for the Warfighter Involvement Process (WIP) which seeks user feedback and guidance to shape future Block development of the BMDS.

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<p>Creating, developing and coordinating BMDS-wide Integrated Logistics Support policies and procedures to ensure that the requisite Doctrine, Organization, Training, Material, Leadership, Personnel, Facilities (DOTMLPF) and funding will be in place to sustain the deployed BMDS Block capabilities. A pre-condition for effective missile defense is having a solidly supported logistics system. This effort develops transition plans and policy to improve logistics planning and predictability for the Military departments and COCOMs. The plans include not only historical precedent, but also provide a forward look to the Services and COCOMs on what capabilities they may be getting, when they may be getting them, and what their support responsibilities may be.</p> <p>Providing “Above-Element” level Training and Education. This activity develops and maintains programs for the Joint Warfighters, Defense officials and the Services to provide stakeholders with critical knowledge on BMD capabilities and system operation. A key part of this activity includes developing BMDS educational courses, establishing training facilities and capabilities within Service/Joint Schools and conducting education and training of select BMDS stakeholders, staffs and organizations on emerging BMDS Block deployment capabilities. As new BMDS capabilities are transitioned to the field, upgrades and improvements will be incorporated to maintain the requisite level of training service.</p> <p>Supporting the BMD System Manager (BMDSM) function. The Joint Functional Component Command Integrated Missile Defense has been designated by MDA and US Strategic Command as the lead for this function. The MDA funds a portion of this function through the JWSP. The BMDSM monitors and synchronizes all aspects of BMDS development, testing and evaluation, corrective actions, acquisition, materiel release, and fielding, to include direct interaction with the materiel developers, test community, combatant commands and the gaining command. The BMDSM is authorized to integrate Service activities and functions related to the BMDS, and to coordinate directly with the applicable Services, MDA offices, Combatant Commands, and other activities as appropriate. The BMDSM also serves as the Joint User Community's centralized manager and integrator of DOTMLPF considerations and products, and provides a framework for Joint integration and problem resolution as DOD's Lead for Ground-based Missile Defense (GMD).</p> <p>Delivering BMDS Sustainment & Operations through the MDA Missile Defense Operations Center (OSC) and the BMDS Watch Officers. The MOC serves as the MDA's central node for BMDS operations, situational monitoring and information collection in support of the Combatant Commanders' mission to conduct missile defense. This activity facilitates communications between the MDA and operational activities, maintains situational awareness on the status of the BMDS, and coordinates the activities required to return it to a specified status when necessary. It also schedules BMDS asset availability for testing, developmental, and operational/training activities. In sum, the OSC is a key hub in assuring that the operational BMDS is provided with timely and effective logistics support on an ongoing basis.</p>		

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Providing Geographical Combatant Commander (GCC) Support to enable COCOM and Service participation in MDA activities such as wargames, exercises, table tops, flight tests, ground tests, resource planning meetings and other conferences and interchanges where getting user input is critical for an effective outcome. This activity supports the WIP enabling operators, users, and other BMDS stakeholders to travel and participate in missile defense related exercises, tests, activities and other events. User involvement ensures that MDA, the Joint Warfighters and Services will work together to define, field, and operationalize the initial BMDS capability and subsequent new Block capabilities in an efficient and effective manner.

Among the planned increased scope of the BMDS Block capabilities that will be addressed by the WSC are:

- Increased numbers of Ground-Base Interceptors at Fort Greely
- Upgraded Early Warning Radar at Thule, Greenland. Additional Forward Based AN/TPY-2
- Additional SM-3 sea-based interceptors and upgraded Aegis cruisers and destroyers
- Theater High Altitude Area Defense (THAAD) interceptors.
- Expanded Link-16 data engagement data sharing between THAAD, PATRIOT, and AEGIS BMDS Elements
- Implications from the expanded Engagement Sequence Group scope, as new elements and capability is added
- Expanded upgrades to the BMDS C2BMC planning capabilities

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Exercises and Wargames	0	32,590	0	0
RDT&E Articles (Quantity)	0	0	0	0

Every year BMDS overlays are incorporated into Combatant Command Tier 1 Exercises to enable end-user mission rehearsal and sustainment training, qualification and certification of BMDS operations. This strengthens user confidence in the current system and shapes development of the future BMDS. The yearly, or in some cases every other year, exercises are necessary for both familiarization of the user, but also to ensure capability upgrades accomplished in each BMDS Block upgrade are added to the exercise and training scenarios. By involving participating COCOMs in building coherent missile defense plans and Tactics, Techniques and Procedures (TTPs) for the near term BMDS, and then testing cohesive execution of those plans via high fidelity simulations, this effort optimizes BMDS operational effectiveness. It also leverages activities MDA system engineering events and interoperability tests by providing real-world training to operators. Finally, exercises and wargames create the conditions for continued, in-depth foreign and/or international participation in BMDS operations and development. Near-term efforts focus on increased integration of regional exercises into a more global BMDS construct. The BMDS exercise and wargame overlays addresses the full spectrum of the Short-Range, Medium-Range, and Long-Range Ballistic Missile threats, from launch to impact, and involve the integrated planning and execution of all participating COCOMs with the goal of improving performance and validating BMDS capabilities.

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FY07 Planned Program: <ul style="list-style-type: none">• Exercise Juniper Cobra 07 - A bi-annual combined-joint EUCOM missile defense exercise employing live forces and simulation to investigate interoperability and integration procedures/issues/technologies in addressing the ballistic missile threat from SWA. The exercise involves participation of live U.S. and host nation forces, in a multi-layered/Link 16/Joint Requirements Exercise environment. It also permits study of multi- system technical and operational issues for Block 2006/2008 capabilities.• BMDS overlay NORTHCOM Exercise Vigilant Shield 07, and PACOM Exercise Terminal Fury 07. This overlay will enable development of BMDS TTPs, war plans, and CONOPS, allow for testing and certifying warfighters, and permit analysis of the operation and the integration of C2BMC to control Ballistic Missile operations effectiveness. The final exercise report will provide analysis of the integration of C2BMC from the National Capital Region down to the regional fight as a Situation Awareness and Battle Manager; assess warfighters, interactions with the AN/TPY-2 radar, obtain document user “feedback” from the AN/TPY-2 on operator actions, examine C2BMC's Battle Manager effectiveness to control BMDS operations, and will evaluate the integration and effectiveness of the C2BMC to provide effective BMDS Situation Awareness and Battle Management.• BMDS overlay NORTHCOM Exercise Ardent Sentry 07 / Northern Edge 07. This overlay will enable development of BMDS TTPs, war plans, and CONOPS, allow for testing and certifying warfighters, and permit analysis of the operation and the integration of C2BMC to control Ballistic Missile operations effectiveness. The final exercise report will provide analysis of the integration of C2BMC from the National Capital Region down to the regional fight as a Situation Awareness and Battle Manager; assess warfighters, interactions with the FBX-T radar, obtain document user “feedback” from the AN/TPY-2 on operator actions, examine C2BMC's Battle Manager effectiveness to control BMDS operations, and will evaluate the integration and effectiveness of the C2BMC to provide effective BMDS Situation Awareness and Battle Management.• Exercise Keen Edge 07. This is an annual combined-joint PACOM, USFJ and MDA missile defense exercise employing live forces and simulation in addressing the regional ballistic missile threat from NEA. The exercise involves participation of live U.S. and host nation forces, in a multi-layered/Link 16/Joint Requirements Exercise environment. It also permits study of multi- system technical and operational issues for Block 2006/2008 capabilities.• Distributed Exercises - Conduct follow-on exercises to BMDS ground tests allowing the operations community to refine and validate previously developed CONOPS and TTPs using the latest test and developmental system configurations.• Wargames - Conduct various wargames to allow evaluation of future architecture configurations and to allow various groups, such as Congress, Missile Defense Conference attendees and the Russian Federation to participate in the BMDS.		

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	FY 2006	FY 2007	FY 2008	FY 2009
Concepts and Plans	0	1,805	0	0
RDT&E Articles (Quantity)	0	0	0	0
<p>Concepts, Plans and Integration looks at and reexamines evolving BMDS capabilities and addresses potential impacts on the Joint Warfighter's employment of the BMDS. This is a constant and recurring requirement to keep pace with technology, tactics, techniques and innovative thinking. By understanding these emerging and projected BMDS material capabilities and technologies, Joint Warfighters will be in a position to develop new, more effective employment constructs, CONOPS and tactics. This activity enables them, via low fidelity simulations and tabletop exercises, to efficiently investigate alternative ways of operating the future BMDS. It also serves MDA as a prime vehicle for the Warfighter Involvement Process (WIP) which seeks user feedback and guidance to shape future Block development of the BMDS.</p> <p>FY07 Planned Program:</p> <ul style="list-style-type: none"> • Continue BMDS Exercise Planning throughout FY07 to integrate users, testers and exercise participants. • Continue BMDS Table Top Exercise(s) to intellectually wargame BMDS problems and systematically examine and analyze multiple, alternative, courses of action. Conduct System Capability Reviews ("Rock Drills") to demonstrate BMDS concepts and capabilities in new or evolving environments and situations, or as a Capability Demonstration, by looking at new ways to employ BMDS elements. • Continue Studies and Analyses, as required, to examine emergent BMDS technology impacts on Joint Warfighter requirements for Block development efforts. • Continue to work with STRATCOM to document, validate, and prioritize new Ballistic Missile Defense capabilities desired by the COCOMS, as well as enhancements to the characteristics of fielded capabilities through the WIP. • Update the annual BMDS prioritized capability list reflecting COCOM priorities for needed BMDS enhancements. • Update or generate new BMDS modification requests reflecting COCOM priorities for modifications needed to existing systems or capabilities. • Continue to work with STRATCOM to support the annual BMDS Military Utility Assessment, to include participation in the BMDS Analysis Working Group. • Provide periodic BMDS readiness reviews to MDA Director. 				

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	FY 2006	FY 2007	FY 2008	FY 2009
BMDS Logistics	0	959	0	0
RDT&E Articles (Quantity)	0	0	0	0
<p>A pre-condition for an effective BMDS is having a solidly supported logistics system. The BMDS Logistics activity develops transition plans addressing Doctrine, Organization, Training, Material, Leadership, Personnel, and Facilities (DOTMLPF) and provides funding to improve planning and predictability for Military departments and COCOMs. The plans include not only historical precedent, but also provide a forward look to the Services and COCOMs on what capabilities they may be getting, when they may be getting them, and what their support responsibilities may be. This activity also creates, develops and coordinates BMDS-wide Integrated Logistics Support policies and procedures to ensure that the requisite DOTMLPF and associated funding will be in place to sustain the deployed BMDS Block capabilities.</p> <p>FY07 Planned Program:</p> <ul style="list-style-type: none"> • Update planned BMDS-wide Integrated Logistics Support and Block contingency. • Continue to support BMDS exercises and wargames with the Services and COCOMs through logistics overlays to those exercises in order to evolve BMDS Block sustainment policies, directives and procedures and to keep pace with new BMDS Block capabilities. • Update the BMDS Handbook to document new operational and technical characteristics for combatant commanders, staffs, operators, and other key personnel. 				
	FY 2006	FY 2007	FY 2008	FY 2009
BMDS Training	0	5,153	0	0
RDT&E Articles (Quantity)	0	0	0	0
<p>BMDS Training focuses on maintaining, developing and providing "Above-Element" Training for the Joint Warfighters, Defense officials and the Services to provide stakeholders with critical knowledge on BMD capabilities and system operation. The end result is to provide BMDS operators, staffs and defense officials with a better understanding of the BMDS, enabling them to use that knowledge to achieve a more efficient and effective missile defense. Key activities include System-level educational courses, instructional capabilities within Service/Joint Schools and conducting education and training of select BMDS stakeholders, staffs and organizations on emerging BMDS Block deployment capabilities.</p> <p>FY07 Planned Program:</p> <p>Operate the BMDS Training Center and provide Above Element training for the Joint Warfighters, Defense Officials and Services.</p> <ul style="list-style-type: none"> • Provide Training Transition to the Services 				

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<ul style="list-style-type: none"> • Host a Training Conference 				
	FY 2006	FY 2007	FY 2008	FY 2009
Ballistic Missile Defense System Manager	0	4,967	0	0
RDT&E Articles (Quantity)	0	0	0	0
<p>The BMD System Manager monitors and synchronizes all aspects of vertical/element oriented BMDS development, testing and evaluation, corrective actions, acquisition, materiel release, and fielding, to include direct interaction with the materiel developers, test community, combatant commands and the gaining command to ensure effective and efficient Doctrine, Organization, Training, Material, Leadership, Personnel, and Facilities integration with the Joint Warfighter is achieved.</p> <p>FY07 Planned Program:</p> <ul style="list-style-type: none"> • Provide user laboratory operations to assess, develop and validate BMDS operational procedures and TTPs, and to provide BMDS exercise data analysis. • Update BMDS user technical requirements documentation based on program changes, engineering change packages and design reviews. • Maintain a BMDS Operations and Integration Center to support GMD spiral development and integration into the BMDS through each Block capability upgrade. • Continue to monitor current and emerging threats to the ground based elements of the BMDS. 				
	FY 2006	FY 2007	FY 2008	FY 2009
Sustainment & Operations - OSC	0	4,697	0	0
RDT&E Articles (Quantity)	0	0	0	0
<p>The MDA Operations Support Center (OSC), through the BMDS Watch Officer (BWO) in Colorado Springs, serves as the Agency's central node for monitoring BMDS operational activities by providing the conduit for information flow between MDA and the Combatant Commanders. By facilitating communications between the MDA's developmental, testing and fielding organizations and the Warfighting community, maintaining real time situational awareness on the status of the BMDS, and coordinating the numerous activities required to return it to a specified status when necessary, the OSC assures the BMDS is best configured to support operational and developmental requirements. The OSC also coordinates MDA's Asset Management requirements, ensuring BMDS asset availability for developmental, test, operational, and training activities. The Operations Support Division is also responsible for the operational configuration management and the logistics readiness of the BMDS.</p>				

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FY07 Planned Program:

- Relocate the OSC to the Joint National Integration Center (JNIC) where all other operations and operations support activities are located. This relocation will nearly double the physical size of the OSC and more than double the number of MDA Elements providing support to the OSC - increasing situational awareness capability for MDA leaders and the Warfighting community.
- Continue to improve situational awareness, reach-back and connectivity to MDA developmental, testing, and fielding organizations and planning/decision support tools.
- Plan and execute multiple Capability Demonstrations and assist the JFCC-IMD in planning and executing multiple Readiness Demonstrations that enable emerging BMDS capabilities (e.g., new systems and significant upgrades to existing systems) to reach full mission capability / full operational capability
- Reinforce OSC's recognition as MDA's "one stop shop" for BMDS technical assistance situational awareness and actively engage in bringing MDA's concurrent test, training and operations concept to reality.
- Streamline the BMDS scheduling/asset management process to deconflict operational and developmental BMDS activities by improving tools, process flows, and training for key users.
- Complete development of web-based asset management tools to provide streamlined support to the Warfighter.
- Significantly improve oversight the BMDS operational configuration by increasing fidelity and technical detail in configuration specifications needed to support transition activities.
- Conduct initial and sustainment training, education, and qualification of BMDS Watch Officer personnel.
- Coordinate and align BMDS scheduled maintenance to maximize availability. · Continue to monitor and report BMDS readiness.
- Continue to man the OSC on a 7-day per week/24-hours per day/365 days a year basis.
- Replace or upgrade OSC equipment as required to keep pace with new BMDS Block capabilities.

	FY 2006	FY 2007	FY 2008	FY 2009
Geographic Combatant Commander (GCC) Support	0	2,947	0	0
RDT&E Articles (Quantity)	0	0	0	0

Geographical Combatant Commander (GCC) Support enables COCOM and Service participation in MDA activities such as wargames, exercises, table tops, flight tests, ground tests, resource planning meetings and other conferences and interchanges where securing user input is critical for an effective outcome. This activity also supports the Warfighter Involvement Process (WIP) by enabling operators, users, and other BMDS stakeholders to travel and participate in missile defense related exercises, tests, activities and other fora. User involvement ensures that MDA, the Joint Warfighters and Services will work together to define, field, and operationalize current BMDS capabilities and develop subsequent new Block capabilities in an efficient and effective manner.

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FY07 Planned Program:

- Continue to support COCOM participation in MDA activities, such as wargames, exercises, table tops, and conferences.
- Continue to provide Headquarters staff functions to oversee all Warfighter Support Center functions.

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 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994
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

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APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603898C BMD Joint Warfighter Support	

D. Acquisition Strategy

Warfighter Support Center (Formerly the Joint Warfighter Support Program) will continue to follow the MDA's capability-based acquisition strategy that emphasizes assessment, spiral-development testing and evolutionary acquisition through the definition of two-year capability blocks. The WSC accomplishes this by development and vetting of Operational Concepts through the Joint Theater Air and Missile Defense Office, the Joint National Integration Center, the COCOMS and the Services utilizing seminars, workshops, table top exercises, wargames and simulation exercises that also support Military Utility Assessment updates.

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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 0603898C BMD Joint Warfighter Support					
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
Exercises and Wargames										
Technical Support	CPAF	SPARTA/ Arlington, VA	0	13,135	1/2Q	0	N/A	0	N/A	13,135
BMDs Overlay - JUNIPER COBRA	CPAF	JNIC/BOEING/ ARMYPEO/ Colorado Springs CO/Huntsville AL	0	2,527	2/3Q	0	N/A	0	N/A	2,527
BMDs Overlay - KEEN EDGE	CPAF	JNIC/ Colorado Springs CO	0	1,575	1/2Q	0	N/A	0	N/A	1,575
BMDs Overlay - VIGILANT SHIELD	CPAF	JNIC/GM/ ARMYPEO/ Colorado Springs, CO/Arlington, VA/Huntsville, AL	0	2,783	3/4Q	0	N/A	0	N/A	2,783
BMDs Overlay - TERMINAL FURY	CPAF	JNIC/GM/ ASMDPEO/ Colorado Springs CO/Arlington, VA/Huntsville, AL	0	2,783	3/4Q	0	N/A	0	N/A	2,783
Distributed Exercise 07	CPAF	GM/ Huntsville, AL	0	1,783	2/3Q	0	N/A	0	N/A	1,783
Other Exercises, Wargames and Data Analyses	CPAF	JNIC/GM/ Colorado Spring CO/Huntsville AL	0	2,450	1/4Q	0	N/A	0	N/A	2,450

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APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)					R-1 NOMENCLATURE 0603898C BMD Joint Warfighter Support					
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
Wargame Nimble Titan	CPAF	JNIC/Colorado Springs, CO	0	2,600	3Q	0	N/A	0	N/A	2,600
JNIC BMDS Exercise Planning	CPAF	GM/Huntsville AL	0	2,000	1/2Q	0	N/A	0	N/A	2,000
Studies & Analysis	CPAF	MDA/Arlington, VA	0	954	1/4Q	0	N/A	0	N/A	954
Concepts and Plans										
CONCEPTS & PLANS	MIPR	JNIC/ARMY PEO/NAVSEA/ Colorado Springs, CO/Arlington, VA/Huntsville AL	0	1,805	2/4Q	0	N/A	0	N/A	1,805
BMDS Logistics										
BMDS Logistics	CPAF	JNIC/Colorado Springs CO	0	959	1/4Q	0	4Q	0	N/A	959
BMDS Training										
BMDS Training Center	CPAF	JNIC/Colorado Springs CO	0	3,891	1/3Q	0	N/A	0	N/A	3,891
Studies & Analyses	CPAF	SPARTA/Arlington, VA	0	600	2Q	0	N/A	0	N/A	600
Training Transition to Services	CPAF	MDA/Arlington, VA	0	662	1Q	0	N/A	0	N/A	662
Ballistic Missile Defense System Manager										
Technical Support	CPAF	SMDC/Arlington VA/Huntsville AL	0	4,967	1/4Q	0	N/A	0	N/A	4,967
Sustainment & Operations - OSC										

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APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)					R-1 NOMENCLATURE 0603898C BMD Joint Warfighter Support					
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
MOC Operations	CPAF	JNIC/Colorado Springs, CO	0	781	1/4Q	0	N/A	0	N/A	781
WSC Reconfiguration @ COS	CPAF	SPARTA/Arlington, VA	0	798	2Q	0	N/A	0	N/A	798
Technical Support	CPAF	SPARTA/Arlington, VA	0	3,118	1/2Q	0	N/A	0	N/A	3,118
Geographic Combatant Commander (GCC) Support										
Civilian Staff Support	TM	MDA/Arlington, VA	0	2,052	1/4Q	0	N/A	0	N/A	2,052
USSTRATCOM, USECOM, USP ACECOM&USNORTHCOM	MIPR	San Diego CA/Colorado Springs CO/Huntsville AL	0	895	1/4Q	0	N/A	0	N/A	895
Subtotal Product Development			0	53,118		0		0		53,118
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
Subtotal Support Costs										
Remarks										

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Missile Defense Agency (MDA) Exhibit R-3 RDT&E Project Cost Analysis								Date February 2007		
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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
Subtotal Test and Evaluation										
Remarks										
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			0	53,118		0		0		53,118
Remarks										

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Missile Defense Agency (MDA) Exhibit R-4A Schedule Detail						Date February 2007		
APPROPRIATION/BUDGET ACTIVITY RDTE&E, DW/04 Advanced Component Development and Prototypes (ACD&P)				R-1 NOMENCLATURE 0603898C BMD Joint Warfighter Support				
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
BLOCK 2006								
BMDS Overlay 07 - Terminal Fury 07		1Q						
BMDS Overlay 07 - Vigilant Shield 07		1Q						
Distributed Exercise 07-1		1Q						
BMDS Overlay 07 - Juniper Cobra 07		4Q						
Distributed Exercise 07-2		4Q						

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APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603898C BMD Joint Warfighter Support
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COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0903 Joint Warfighter Support Block 2008	0	0	46,271	47,890	0	0	0	0
RDT&E Articles Qty	0	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification

As part of the total Ballistic Missile Defense System (BMDS), the Warfighter Support Center (WSC) (formerly called the Joint Warfighter Support Program, or JWSP) is the key vehicle which enables MDA to work directly and collaboratively with the Combatant Commanders (COCOMs) and Services to define, test, deploy and employ missile defense Block capabilities. The WSC consists of a core set of consistent, repeatable processes, divided into two-year Blocks tailored to the evolutionary capability Blocks of the BMDS. Block 2008 will see numerous BMDS capabilities and or asset quantity increases during the FY08-09 time-frame. These capabilities will be added to each WSC activity to ensure the Joint Warfighter is properly trained to employ and integrate these capabilities to address the evolving Ballistic Missile threat environments.

The WSC consists of seven primary activities, tailored in scope to the current BMDS Block capabilities as they transition, or near transition, to the user.

These seven areas are:

Conducting Exercises and Wargames to enable end-user mission training, qualification, certification and rehearsal of BMDS operations, strengthen user confidence in the current system and shape development of the future BMDS. This activity involves all participating COCOMs in building coherent missile defense plans and tactics, techniques and procedures for the near term BMDS, and then testing cohesive execution of those plans via high fidelity simulations. It also incorporates BMD system engineering and interoperability test activities when possible to leverage MDA material development events by providing 'real-world' training to operators. Finally, exercises and wargames create the conditions for continued, in-depth foreign and/or international participation in BMDS operations and development.

Developing Concepts and Plans that explain emerging and future BMDS material capabilities and technologies to the warfighter. This activity addresses potential impacts to current BMDS operations and results in Joint Warfighter development of new BMDS employment constructs/ Concepts of Operations (CONOPs). It introduces far term, emerging BMD technologies and capabilities to the Combatant Commanders and enables them via low fidelity simulations and tabletop exercises to investigate alternative ways of operating the BMDS. It also serves MDA as a prime vehicle for the Warfighter Involvement Process (WIP) which seeks user feedback and guidance to shape future Block development of the BMDS.

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<p>Creating, developing and coordinating BMDS-wide Integrated Logistics Support policies and procedures to ensure that the requisite Doctrine, Organization, Training, Material, Leadership, Personnel, Facilities (DOTMLPF) and funding will be in place to sustain the deployed BMDS Block capabilities. A pre-condition for effective missile defense is having a solidly supported logistics system. This effort develops transition plans and policy to improve logistics planning and predictability for the Military departments and COCOMs. The plans include not only historical precedent, but also provide a forward look to the Services and COCOMs on what capabilities they may be getting, when they may be getting them, and what their support responsibilities may be.</p> <p>Providing “Above-Element” level Training and Education. This activity develops and maintains programs for the Joint Warfighters, Defense officials and the Services to provide stakeholders with critical knowledge on BMD capabilities and system operation. A key part of this activity includes developing BMDS educational courses, establishing training facilities and capabilities within Service/Joint Schools and conducting education and training of select BMDS stakeholders, staffs and organizations on emerging BMDS Block deployment capabilities. As new BMDS capabilities are transitioned to the field, upgrades and improvements will be incorporated to maintain the requisite level of training service.</p> <p>Supporting the BMD System Manager (BMDSM) function. The Joint Functional Component Command Integrated Missile Defense has been designated by MDA and US Strategic Command as the lead for this function. The MDA funds a portion of this function through the JWSP. The BMDSM monitors and synchronizes all aspects of BMDS development, testing and evaluation, corrective actions, acquisition, materiel release, and fielding, to include direct interaction with the materiel developers, test community, combatant commands and the gaining command. The BMDSM is authorized to integrate Service activities and functions related to the BMDS, and to coordinate directly with the applicable Services, MDA offices, Combatant Commands, and other activities as appropriate. The BMDSM also serves as the Joint User Community's centralized manager and integrator of DOTMLPF considerations and products, and provides a framework for Joint integration and problem resolution as DOD's Lead for Ground-based Missile Defense (GMD).</p> <p>Delivering BMDS Sustainment & Operations through the MDA Missile Defense Operations Center (OSC) and the BMDS Watch Officers. The MOC serves as the MDA's central node for BMDS operations, situational monitoring and information collection in support of the Combatant Commanders' mission to conduct missile defense. This activity facilitates communications between the MDA and operational activities, maintains situational awareness on the status of the BMDS, and coordinates the activities required to return it to a specified status when necessary. It also schedules BMDS asset availability for testing, developmental, and operational/training activities. In sum, the MOC is a key hub in assuring that the operational BMDS is provided with timely and effective logistics support on an ongoing basis.</p>		

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Providing Geographical Combatant Commander (GCC) Support to enable COCOM and Service participation in MDA activities such as wargames, exercises, table tops, flight tests, ground tests, resource planning meetings and other conferences and interchanges where getting user input is critical for an effective outcome. This activity supports the WIP enabling operators, users, and other BMDS stakeholders to travel and participate in missile defense related exercises, tests, activities and other events. User involvement ensures that MDA, the Joint Warfighters and Services will work together to define, field, and operationalize the initial BMDS capability and subsequent new Block capabilities in an efficient and effective manner.

Among the planned increased scope of the BMDS Block capabilities that will be addressed by the WSC are:

- Additional BMDS interceptor inventory.
- Additional Forward Based X-Band Radar AN/TPY-2
- Upgrades to X-Band Dish Radars to Augment AN/TPY-2
- Upgrades to existing sensors for asymmetric threat coverage
- Implementing additional sensor netting and improved discrimination via data fusion, with improved threat tracking
- Expanded Engagement Sequence Group scope, as new elements and capability is added. Expanded C2BMC capabilities and scope, including new decision aids and data displays encompassing all of the above

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Exercises & Wargames	0	0	27,166	27,400
RDT&E Articles (Quantity)	0	0	0	0

Every year BMDS overlays are incorporated into Combatant Command Tier 1 Exercises to enable end-user mission rehearsal and sustainment training, qualification and certification of BMDS operations. This strengthens user confidence in the current system and shapes development of the future BMDS. The yearly, or in some cases every other year, exercises are necessary for both familiarization of the user, but also to ensure capability upgrades accomplished in each BMDS Block upgrade are added to the exercise and training scenarios. By involving participating COCOMs in building coherent missile defense plans and Tactics, Techniques and Procedures (TTPs) for the near term BMDS, and then testing cohesive execution of those plans via high fidelity simulations, this effort optimizes BMDS operational effectiveness. It also leverages activities MDA system engineering events and interoperability tests by providing real-world training to operators. Finally, exercises and wargames create the conditions for continued, in-depth foreign and/or international participation in BMDS operations and development. Near-term efforts focus on increased integration of regional exercises into a more global BMDS construct. The BMDS exercise and wargame overlays addresses the full spectrum of the Short-Range, Medium-Range, and Long-Range Ballistic Missile threats, from launch to impact, and involve the integrated planning and execution of all participating COCOMs with the goal of improving performance and validating BMDS capabilities. FY08 Planned Program: Exercise Joint Project

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<p>Optic Window (JPOW) X - A bi-annual combined-joint NATO missile defense exercise/wargame employing live forces and simulation to investigate interoperability and integration procedures/issues/technologies in addressing the ballistic missile threat from SWA. The exercise will involve participation of live U.S. and host nation forces, in a multi-layered/Link 16/Joint Requirements Exercise environment. It is designed to permit study of multi-system technical and operational issues for Block 2006/2008/2010 capabilities.</p> <p>FY08 Planned Program</p> <ul style="list-style-type: none"> • Exercise Joint Project Optic Window (JPOW) X - A bi-annual combined-joint NATO missile defense exercise/wargame employing live forces and simulation to investigate interoperability and integration procedures/issues/technologies in addressing the ballistic missile threat from SWA. The exercise will involve participation of live U.S. and host nation forces, in a multi-layered/Link 16/Joint Requirements Exercise environment. It is designed to permit study of multi-system technical and operational issues for Block 2006/2008/2010 capabilities • BMDS overlay NORTHCOM Exercise Vigilant Shield 08 - This overlay will enable development of BMDS TTPs, war plans, and CONOPS, allow for testing and certifying warfighters, and permit analysis of the operation and the integration of C2BMC to control Ballistic Missile operations effectiveness. Once again, the final exercise report will provide analysis of the integration of C2BMC from the National Capital Region down to the regional fight as a Situation Awareness and Battle Manager; assess warfighters, interactions with the AN/TPY-2 radar, obtain document user “feedback” from the AN/TPY-2 on operator actions, examine C2BMC's Battle Manager effectiveness to control BMDS operations, and will evaluate the integration and effectiveness of the C2BMC to provide effective BMDS Situation Awareness and Battle Management • BMDS overlay PACOM Exercise Terminal Fury 08. -This overlay will enabled development of BMDS TTPs, war plans, and CONOPS, allow for testing and certifying warfighters, and permit analysis of the operation and the integration of C2BMC to control Ballistic Missile operations effectiveness. Again, the final exercise report will provide analysis of the integration of C2BMC from the National Capital Region down to the regional fight as a Situation Awareness and Battle Manager; assess warfighters, interactions with the AN/TPY-2 radar, obtain document user “feedback” from the AN/TPY-2 on operator actions, examine C2BMC's Battle Manager effectiveness to control BMDS operations, and will evaluate the integration and effectiveness of the C2BMC to provide effective BMDS Situation Awareness and Battle Management. • BMDS overlay NORTHCOM Exercise Ardent Sentry 08 - This overlay will enable development or update of BMDS TTPs, war plans, and CONOPS, allow for testing and certifying warfighters, and permit analysis of the operation and the integration of C2BMC to control Ballistic Missile operations effectiveness. The final exercise report will provide analysis of the integration of C2BMC from the National Capital Region down to the regional fight as a Situation Awareness and Battle Manager; assess warfighters, interactions with the AN/TPY-2 radar, obtain document user “feedback” from the AN/TPY-2 on operator actions, examine C2BMC's Battle Manager effectiveness to control BMDS operations, and will evaluate the integration and effectiveness of the C2BMC to provide effective BMDS Situation Awareness and Battle Management. 		

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<ul style="list-style-type: none"> • BMDS overlay CENTCOM Exercise Eagle Resolve 08 - This overlay will enable development or update of BMDS TTPs, war plans, and CONOPS, allow for testing and certifying warfighters, and permit analysis of the operation and the integration of C2BMC to control Ballistic Missile operations effectiveness. The final exercise report provides analysis of the integration of C2BMC from the National Capital Region down to the regional fight as a Situation Awareness and Battle Manager; assess warfighters, interactions with the AN/TPY-2 radar, obtain document user “feedback” from the AN/TPY-2 on operator actions, examine C2BMC's Battle Manager effectiveness to control BMDS operations, and will evaluate the integration and effectiveness of the C2BMC to provide effective BMDS Situation Awareness and Battle Management • Distributed Exercises - MDA will conduct follow-on exercises to BMDS ground tests allowing the operations community to refine and validate previously developed CONOPS and TTPs using the latest test and developmental system configurations • Wargames - MDA will participate in Nimble Titan 08 Wargame to look at what the BMDS may look like in 2017. MDA will also conduct various other wargames to allow evaluation of future Architecture configurations and to allow various groups, such as Congress, Missile Defense Conference Attendees and Russian Federation to participate in the BMDS <p>FY09 Planned Program</p> <ul style="list-style-type: none"> • Exercise Juniper Cobra 09 - A bi-annual combined-joint EUCOM missile defense exercise employing live forces and simulation to investigate interoperability and integration procedures/issues/technologies in addressing the ballistic missile threat from SWA. The exercise involves participation of live U.S. and host nation forces, in a multi-layered/Link 16/Joint Requirements Exercise environment. It also permits study of multi- system technical and operational issues for Block 2008/2010 capabilities • BMDS overlay NORTHCOM Exercise Vigilant Shield 09 - This overlay will enable development or update of BMDS TTPs, war plans, and CONOPS, allow for testing and certifying warfighters, and permit analysis of the operation and the integration of C2BMC to control Ballistic Missile operations effectiveness. The final exercise report will provide analysis of the integration of C2BMC from the National Capital Region down to the regional fight as a Situation Awareness and Battle Manager; assess warfighters, interactions with the FBX-T radar, obtain document user “feedback” from the AN/TPY-2 on operator actions, examine C2BMC's Battle Manager effectiveness to control BMDS operations, and will evaluate the integration and effectiveness of the C2BMC to provide effective BMDS Situation Awareness and Battle Management • BMDS overlay PACOM Exercise Terminal Fury 09 - This overlay will enable development or update of BMDS TTPs, war plans, and CONOPS, allow for testing and certifying warfighters, and permit analysis of the operation and the integration of C2BMC to control Ballistic Missile operations effectiveness. This Final exercise report analyzed the integration of C2BMC from the National Capital Region down to the regional fight as a Situation Awareness and Battle Manager; assess warfighters, interactions with the AN/TPY-2 on operator actions, examine C2BMC's Battle Manager effectiveness to control BMDS operations, and will evaluate the integration and effectiveness of the C2BMC to provide effective BMDS Situation Awareness and Battle Management 		

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- BMDS overlay NORTHCOM Exercise Ardent Sentry 09 - This overlay will enable development or update of BMDS TTPs, war plans, and CONOPS, allow for testing and certifying warfighters, and permit analysis of the operation and the integration of C2BMC to control Ballistic Missile operations effectiveness. The final exercise report will provide analysis of the integration of C2BMC from the National Capital Region down to the regional fight as a Situation Awareness and Battle Manager; assess warfighters, interactions with the AN/TPY-2 radar, obtain document user “feedback” from the AN/TPY-2 on operator actions, examine C2BMC's Battle Manager effectiveness to control BMDS operations, and will evaluate the integration and effectiveness of the C2BMC to provide effective BMDS Situation Awareness and Battle Management
- Exercise Keen Edge 09. This is an annual combined-joint PACOM, USFJ and MDA missile defense exercise employing live forces and simulation in addressing the regional ballistic missile threat from NEA. The exercise will involve participation of live U.S. and host nation forces, in a multi-layered/Link 16/Joint Requirements Exercise environment. It also permits study of multi- system technical and operational issues for Block 2006/2008 capabilities
- Distributed Exercises - MDA will conduct follow-on exercises to BMDS ground tests allowing the operations community to refine and validate previously developed CONOPS and TTPs using the latest test and developmental system configurations
- Wargames - MDA will participate in Nimble Titan 09 Wargame to look at what the BMDS may look like in 2018. MDA will also conduct various other wargames to allow evaluation of future Architecture configurations and to allow various groups, such as Congress, Missile Defense Conference Attendees and Russian Federation to participate in the BMDS

	FY 2006	FY 2007	FY 2008	FY 2009
Concepts and Plans	0	0	2,523	2,740
RDT&E Articles (Quantity)	0	0	0	0

Concepts and Plans looks at and reexamines evolving BMDS capabilities and addresses potential impacts on the Joint Warfighter’s employment of the BMDS. This is a constant and recurring requirement to keep pace with technology, tactics, techniques and innovative thinking. By understanding these emerging and projected BMDS material capabilities and technologies, Joint Warfighters will be in a position to develop new, more effective employment constructs, CONOPS and tactics. This activity enables them, via low fidelity simulations and tabletop exercises, to efficiently investigate alternative ways of operating the future BMDS. It also serves MDA as a prime vehicle for the Warfighter Involvement Process (WIP) which seeks user feedback and guidance to shape future Block development of the BMDS.

FY08 Planned Program:

- Continue JNIC BMDS Exercise Planning throughout FY08 to integrate users, testers and exercise participants.

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- Continue BMDS Table Top Exercise(s) to intellectually wargame BMDS problems and systematically examine and analyze multiple, alternative, courses of action. Conduct System Capability Reviews (“Rock Drills”) to demonstrate BMDS concepts and capabilities in new or evolving environments and situations, or as a Capability Demonstration, by looking at new ways to employ BMDS elements.
- Continue Studies and Analyses, as required, to examine emergent BMDS technology impacts on Joint Warfighter requirements for Block development efforts.
- Continue to work with STRATCOM to document, validate, and prioritize new Ballistic Missile Defense capabilities desired by the COCOMS, as well as enhancements to the characteristics of fielded capabilities through the WIP.
- Update the annual BMDS prioritized capability list reflecting COCOM priorities for needed BMDS enhancements.
- Update or generate new BMDS modification requests reflecting COCOM priorities for modifications needed to existing systems or capabilities.
- Continue to work with STRATCOM to support the annual BMDS Military Utility Assessment, to include participation in the BMDS Analysis Working Group.
- Provide periodic BMDS readiness reviews to MDA Director.
- Conduct Studies and Analyses each year to support Joint Staff and Service BMDS Integration efforts required to ensure all aspects of the BMDS successfully transition from development to field use.

FY09 Planned Program:

- Continue all activities outlined in the FY08 Program, incorporating any BMDS Block upgrades delivered and addressing any evolving tactics, techniques or procedural changes dictated by changing world threats.
- Assess emerging technologies, studies, and theories, and ensure incorporation into future BMDS Block development.
- Conduct Studies and Analyses, as required, to examine emergent Single Integrated Air Picture issues from a BMDS and Cruise Missile Defense perspective.
- Continue to conduct Studies and Analyses each year to support Joint Staff and Service BMDS Integration efforts required to ensure all aspects of the BMDS successfully transition from development to field use.

	FY 2006	FY 2007	FY 2008	FY 2009
BMDS Logistics	0	0	896	974
RDT&E Articles (Quantity)	0	0	0	0

A pre-condition for an effective BMDS is having a solidly supported logistics system. The BMDS Logistics activity develops transition plans addressing Doctrine, Organization, Training, Material, Leadership, Personnel, and Facilities (DOTMLPF) and provides funding to improve planning and predictability for Military departments and COCOMs. The plans include not only historical precedent, but also provide a forward look to the

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Services and COCOMs on what capabilities they may be getting, when they may be getting them, and what their support responsibilities may be. This activity also creates, develops and coordinates BMDS-wide Integrated Logistics Support policies and procedures to ensure that the requisite DOTMLPF and associated funding will be in place to sustain the deployed BMDS Block capabilities. All of these activities must be constantly reassessed and updated due to the continuous capability upgrade and fielding concept enabled in the BMDS spiral development and Block Capability upgrade concept of operations.

FY08 Planned Program:

- Update planned BMDS-wide Integrated Logistics Support and Block contingency.
- Continue to support BMDS exercises and wargames with the Services and COCOMs through logistics overlays to those exercises in order to evolve BMDS Block sustainment policies, directives and procedures and to keep pace with new BMDS Block capabilities.
- Update the BMDS Handbook to document new operational and technical characteristics for combatant commanders, staffs, operators, and other key personnel.

FY09 Planned Program:

- Update planned BMDS-wide Integrated Logistics Support and Block contingency logistics support requirements.
- Continue to support BMDS exercises and wargames with the Services and COCOMs through logistics overlays to those exercises in order to evolve BMDS Block sustainment policies, directives and procedures and to keep pace with new BMDS Block capabilities.
- Update the BMDS Handbook to document new operational and technical characteristics for combatant commanders, staffs, operators, and other key personnel.

	FY 2006	FY 2007	FY 2008	FY 2009
BMDS Training	0	0	4,765	5,133
RDT&E Articles (Quantity)	0	0	0	0

BMDS Training focuses on maintaining, developing and providing "Above-Element" Training for the Joint Warfighters, Defense officials and the Services to provide stakeholders with critical knowledge on BMD capabilities and system operation. The end result is to provide BMDS operators, staffs and defense officials with a better understanding of the BMDS, enabling them to use that knowledge to achieve a more efficient and effective missile defense. Key activities include System-level educational courses, instructional capabilities within Service/Joint Schools and conducting education and training of select BMDS stakeholders, staffs and organizations on emerging BMDS Block deployment capabilities.

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FY08 Planned Program:

- Operate the BMDS Training and Education Center (BTEC) and provide “Above Element” training for the Joint Warfighters, Defense Officials and Services.
- Provide Training Transition support to the Services.
- Host a Ballistic Missile Defense Training Conference.

FY09 Planned Program:

- Operate the BMDS Training and Education Center (BTEC) and provide “Above Element” training for the Joint Warfighters, Defense Officials and Services.
- Provide Training Transition support to the Services.
- Host a Ballistic Missile Defense Training Conference.

	FY 2006	FY 2007	FY 2008	FY 2009
Ballistic Missile Defense System Manager	0	0	4,834	5,250
RDT&E Articles (Quantity)	0	0	0	0

The BMD System Manager monitors and synchronizes all aspects of vertical/element oriented BMDS development, testing and evaluation, corrective actions, acquisition, materiel release, and fielding, to include direct interaction with the materiel developers, test community, combatant commands and the gaining command to ensure effective and efficient Doctrine, Organization, Training, Material, Leadership, Personnel, and Facilities integration with the Joint Warfighter is achieved.

FY08 Planned Program:

- Provide user laboratory operations to assess, develop and validate BMDS operational procedures and TTPs, and to provide BMDS exercise data analysis.
- Update BMDS user technical requirements documentation based on program changes, engineering change packages and design reviews.
- Maintain a BMDS Operations and Integration Center to support GMD spiral development and integration into the BMDS through each Block capability upgrade.
- Continue to monitor current and emerging threats to the ground based elements of the BMDS.

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FY09 Planned Program:

- Provide user laboratory operations to assess, develop and validate BMDS operational procedures and TTPs, and to provide BMDS exercise data analysis.
- Update BMDS user technical requirements documentation based on program changes, engineering change packages and design reviews.
- Maintain a BMDS Operations and Integration Center to support GMD spiral development and integration into the BMDS through each Block capability upgrade.
- Continue to monitor current and emerging threats to the ground based elements of the BMDS.

	FY 2006	FY 2007	FY 2008	FY 2009
Sustainment & Operations - OSC	0	0	5,147	5,407
RDT&E Articles (Quantity)	0	0	0	0

The MDA Operations Support Center (OSC), through the BMDS Watch Officer (BWO) in Colorado Springs, serves as the Agency's central node for monitoring BMDS operational activities by providing the conduit for information flow between MDA and the Combatant Commanders. By facilitating communications between the MDA's developmental, testing and fielding organizations and the Warfighting community, maintaining real time situational awareness on the status of the BMDS, and coordinating the numerous activities required to return it to a specified status when necessary, the OSC assures the BMDS is best configured to support operational and developmental requirements. The OSC also coordinates MDA's Asset Management requirements, ensuring BMDS asset availability for developmental, test, operational, and training activities. The Operations Support Division is also responsible for the operational configuration management and the logistics readiness of the BMDS.

FY08 Planned Program:

- Continue OSC growth as BMDS Elements under development entire the operational baseline.
- Continue to improve the level of situational awareness, reach-back and connectivity to MDA developmental, testing, and fielding organizations as the BMDS continues to mature.
- Plan and execute multiple Capability Demonstrations and assist JFCC-IMD in planning and executing multiple Readiness Demonstrations to enable emerging BMDS capabilities (e.g., new systems and significant upgrades to existing systems) to reach full mission capability / full operational capability.
- Continually reinforce OSC's role as MDA's "one stop shop" for BMDS technical assistance situational awareness and continue to improve MDA's concurrent test, training and operations capabilities.

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<ul style="list-style-type: none"> • Continue efforts to streamline the BMDS scheduling/asset management process to deconflict operational and developmental BMDS activities by improving tools, process flows, and training for key users and development of new or upgraded web-based asset management tools to provide streamlined support to the Warfighter. • Continue to improve the oversight of the BDMS operational configuration, to provide increased fidelity and technical detail in configuration specifications needed to support transition activities. • Increase scope of initial and sustainment training to all OSC positions. • Mature BMDS logistics readiness across MDA by coordinating and aligning BMDS scheduled maintenance to maximize availability. • Monitor BMDS readiness (OPSCAP/PROCAP, RAM, BOCA, Maintenance Data) and recommend proactive measures to increase Element and System readiness posture. • Continue to man the OSC on a 7-day per week/24-hours per day/365 days a year basis. • Replace or upgrade OSC equipment as required to keep pace with new BMDS Block capabilities. <p>FY09 Planned Program:</p> <ul style="list-style-type: none"> • Continue to evolve OSC capabilities based on BMDS capabilities joining the operational baseline. • Continue to improve situational awareness, technical reach-back and connectivity to MDA developmental, testing, and fielding organizations through multiple Capability Demonstrations and assist the JFCC-IMD in planning and executing multiple Readiness Demonstrations to enabled emerging BMDS capabilities (e.g., new systems and significant upgrades to existing systems) to reach full mission capability / full operational capability. • Continually reinforce OSC's role as MDA's "one stop shop" for BMDS technical assistance situational awareness and continue to improve MDA's concurrent test, training and operations capabilities. • Continue to streamline the BMDS scheduling/asset management process to deconflict operational and developmental BMDS activities by improving tools, process flows, and training for key users; Develop new web-based asset management tools to provide streamline support to the Warfighter. • Continue improvements in overseeing the BDMS operational configuration and increase fidelity and technical detail in configuration specifications needed to support transition activities. • Refine/update initial and sustainment training, education, and qualifications required for all OSC positions. • Continue to coordinate and align BMDS scheduled maintenance to maximize availability. • Monitor BMDS readiness (OPSCAP/PROCAP, RAM, BOCA, Maintenance Data) and recommend new proactive measures to increase element and system readiness posture. 		

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- Continue to man the OSC on a 7-day per week/24-hours per day/365 days a year basis.
- Replace or upgrade OSC equipment as required to keep pace with new BMDS Block capabilities.

	FY 2006	FY 2007	FY 2008	FY 2009
Geographic Combatant Commander (GCC) Support	0	0	940	986
RDT&E Articles (Quantity)	0	0	0	0

Geographical Combatant Commander (GCC) Support enables (provides funding for) COCOM and Service participation in MDA activities such as wargames, exercises, table tops, flight tests, ground tests, resource planning meetings and other conferences and interchanges where securing user input is critical for an effective outcome. This activity also supports the Warfighter Involvement Process (WIP) by enabling operators, users, and other BMDS stakeholders to travel and participate in missile defense related exercises, tests, activities and other fora. User involvement ensures that MDA, the Joint Warfighters and Services will work together to define, field, and operationalize current BMDS capabilities and develop subsequent new Block capabilities in an efficient and effective manner.

FY08 Planned Program:

- Continue to support COCOM participation in MDA activities, such as wargames, exercises, table tops, and conferences.
- Continue to provide Headquarters staff functions to oversee all JWSP functions.

FY09 Planned Program:

- Continue to support COCOM participation in MDA activities, such as wargames, exercises, table tops, and conferences
- Continue to provide Headquarters staff functions to oversee all JWSP functions.

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

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APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)					R-1 NOMENCLATURE 0603898C BMD Joint Warfighter Support				
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	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Cost
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 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994
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

D. Acquisition Strategy

Warfighter Support Program (Formerly the Joint Warfighter Support) will continue to follow the MDA's capability-based acquisition strategy that emphasizes assessment, spiral-development testing and evolutionary acquisition through the definition of two-year capability blocks. The WSC accomplishes this by development and vetting of Operational Concepts through the Joint Theater Air and Missile Defense Office, the Joint National Integration Center, the COCOMS and the Services utilizing seminars, workshops, table top exercises, wargames and simulation exercises that also support Military Utility Assessment updates.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)					R-1 NOMENCLATURE 0603898C BMD Joint Warfighter Support					
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
Exercises & Wargames										
Technical Support	CPAF	SPARTA/ Arlington, VA	0	0	N/A	11,667	1/2Q	12,245	1/2Q	23,912
Joint Project Optic Window - JPOW X	CPAF	JNIC/BOEING/ ARMYPEO/ Colorado Springs CO/Arlington, VA/Huntsville AL	0	0	N/A	2,060	4Q	0	N/A	2,060
BMDS Overlay - Vigilant Shield 08	CPAF	JNIC/GM/ ARMYPEO/ Colorado Springs, CO/ Arlington, VA/ Huntsville, AL	0	0	N/A	2,060	1Q	2,100	1Q	4,160
BMDS Overlay - Terminal Fury	CPAF	JNIC/Colorado Springs, CO	0	0	N/A	2,060	2Q	2,100	2Q	4,160
BMDS Overlay - Ardent Sentry	CPAF	JNIC/Colorado Springs, CO	0	0	N/A	1,000	3Q	1,200	3Q	2,200
BMDS Overlay - Eagle Resolve	CPAF	JNIC/Colorado, Springs CO	0	0	N/A	1,000	3Q	1,200	3Q	2,200
Distributed Exercise 08	CPAF	GM/ Huntsville, AL	0	0	N/A	1,782	2/3Q	1,783	2/3Q	3,565
Nimble Titan	CPAF	JNIC/Colorado Springs, CO	0	0	N/A	2,735	2Q	2,813	2Q	5,548
Other Exercises, Wargames and Data Analyses	CPAF	JNIC/GM/ ARYMPEO/ Colorado Springs, CO/ Huntsville,AL	0	0	N/A	2,802	1/4Q	1,922	1/4Q	4,724

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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
Juniper Cobra	CPAF	JNIC/Colorado Springs, CO	0	0	N/A	0	N/A	2,037	2/3Q	2,037
Concepts and Plans										
Studies & Analysis	MIPR	JNIC/ NAVSEA/ ARMYPEO/ Colorado Springs, CO	0	0	N/A	2,523	1/3Q	2,740	1/3Q	5,263
BMDS Logistics										
BMDS Logistics Development	CPAF	JNIC/Colorado Springs, CO	0	0	N/A	896	1/3Q	974	1/3Q	1,870
BMDS Training										
BMDS Training Center	CPAF	JNIC/Colorado Springs, CO	0	0	N/A	4,265	1Q	4,586	1Q	8,851
Studies & Analysis	CPAF	JNIC/Colorado Springs, CO	0	0	N/A	200	2/3Q	200	2/3Q	400
Training Transition to Services	CPAF	MDA/ Arlington, VA	0	0	N/A	300	1/4Q	347	1Q	647
Ballistic Missile Defense System Manager										
Technical Support	CPAF	SMDC/ Huntsville, AL	0	0	1/3Q	4,834	1/4Q	5,250	1/4Q	10,084
Sustainment & Operations - OSC										
MOC Operations	CPAF	JNIC/Colorado Springs, CO	0	0	N/A	1,879	1/3Q	1,982	1/3Q	3,861
Technical Support	CPAF	SPARTA/ Arlington, VA	0	0	N/A	3,268	1/2Q	3,425	1/2Q	6,693
Geographic Combatant Commander (GCC) Support										

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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 0603898C BMD Joint Warfighter Support					
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
USSTRATCOM, USECOM, USPACOM & NORTHCOM	MIPR	San Diego CA, Colorado Springs, CO & Huntsville AL	0	0	N/A	940	1/4Q	986	1/4Q	1,926
Subtotal Product Development			0	0		46,271		47,890		94,161
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
Subtotal Support Costs										
Remarks										
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
Subtotal Test and Evaluation										
Remarks										

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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			0	0		46,271		47,890		94,161
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Remarks

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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 0603898C BMD Joint Warfighter Support				
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
BLOCK 2008								
BMDS Overlay - Vigilant Shield			1Q	1Q				
BMDS Overlay - Terminal Fury			2Q	2Q				
Nimble Titan			2Q	2Q				
Distributed Exercise 08-1			2Q-3Q					
Distributed Exercise 09-1				2Q-3Q				
BMDS Overlay - Ardent Sentry			3Q	3Q				
BMDS Overlay - Eagle Resolve			3Q	3Q				
JPOW X			4Q					

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COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0003 Joint Warfighter Support Block 2010	0	0	0	0	51,039	53,980	56,299	57,555
RDT&E Articles Qty	0	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification

As part of the total Ballistic Missile Defense System (BMDS), the Warfighter Support Center (WSC) (formerly called the Joint Warfighter Support Program, or JWSP) is the key vehicle which enables MDA to work directly and collaboratively with the Combatant Commanders (COCOMs) and Services to define, test, deploy and employ missile defense Block capabilities. The WSC consists of a core set of consistent, repeatable processes, divided into two-year Blocks tailored to the evolutionary capability Blocks of the BMDS. Block 2010 will see numerous BMDS capabilities and or asset quantity increases during the FY10-11 time-frame. These capabilities will be added to each WSC activity to ensure the Joint Warfighter is properly trained to employ and integrate these capabilities to address the evolving Ballistic Missile threat environments.

B. Accomplishments/Planned Program

Funding not provided until FY10.

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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
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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
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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 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994
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

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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 0603898C BMD Joint Warfighter Support					
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
Subtotal Product Development										
Remarks - Funding not provided until FY10.										
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
Subtotal Support Costs										
Remarks										
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
Subtotal Test and Evaluation										
Remarks										
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										
Remarks										

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Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date February 2007
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APPROPRIATION/BUDGET ACTIVITY RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE 0603898C BMD Joint Warfighter Support
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COST (\$ in Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0602 Program-Wide Support	0	1,817	2,516	2,538	3,047	2,623	2,591	2,651
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	1,817	2,516	2,538
RDT&E Articles (Quantity)	0	0	0	0

See Section A: Mission Description and Budget Item Justification

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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 0603898C BMD Joint Warfighter Support				
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
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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 0603904C BMD Joint National Integration Center (JNIC)	0	110,629	104,012	106,985	111,542	111,947	113,592	115,287	773,994
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