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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY
 0400: *Research, Development, Test & Evaluation, Defense-Wide*
 BA 4: *Advanced Component Development & Prototypes (ACD&P)*

R-1 ITEM NOMENCLATURE
 PE 0603892C: *BMD AEGIS*

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	1,054.323	1,435.717	1,467.278	0.000	1,467.278	1,021.878	1,112.668	1,076.739	923.316	0	8,091.919
BX09: <i>AEGIS BMD Block 2.0</i>	239.644	53.457	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	293.101
BX18: <i>Sea-Based Terminal BMD Block 2.0</i>	33.070	5.663	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	38.733
EX09: <i>AEGIS BMD Block 5.0</i>	525.587	1,045.727	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	1,571.314
WX09: <i>AB Capability Development</i>	164.532	233.479	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	398.011
WX18: <i>Far Term Sea Based Terminal Capability Development</i>	14.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	14.000
XX09: <i>AEGIS BMD Sustainment</i>	39.495	45.766	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	85.261
MD09: <i>Aegis BMD</i>	0.000	0.000	1,412.560	0.000	1,412.560	971.965	1,063.367	1,030.020	885.993	Continuing	Continuing
ZX40: <i>Program-Wide Support</i>	37.995	51.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	89.620
MD40: <i>Program-Wide Support</i>	0.000	0.000	54.718	0.000	54.718	49.913	49.301	46.719	37.323	Continuing	Continuing

Note

In accordance with the Missile Defense Agency's revised budget structure, the content previously planned in Projects BX09, BX18, EX09, WX09, XX09, and ZX40 for FY 2009/FY 2010 are now captured in Projects MD09 and MD40.

A. Mission Description and Budget Item Justification

The Aegis Ballistic Missile Defense (Aegis BMD) mission is to deliver an enduring, operationally effective and supportable Ballistic Missile Defense capability on Aegis cruisers and destroyers to defend the nation, deployed forces, friends and allies, and to increase this capability by delivering evolutionary improvements as part of Ballistic Missile Defense System (BMDS) upgrades. The Aegis BMD element of the BMDS builds upon the existing U.S. Navy Aegis Weapons System (AWS) and Standard Missile (SM) infrastructures. Aegis BMD provides a forward-deployable, mobile capability to detect and track Ballistic Missiles of all ranges, and the ability to destroy Short-Range Ballistic Missile (SRBM), Medium-Range Ballistic Missile (MRBM), Intermediate-Range Ballistic Missile (IRBM), and selected long-range class threats in the midcourse phase of flight. Upgrades to both the Aegis BMD Weapon System and the SM-3 configurations will enable Aegis BMD to provide effective, supportable defensive capability against more difficult threats in all phases of flight, including Long Range Ballistic Missiles (LRBMs).

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The FY 2011 program is balanced reflecting the four focus areas of the current Missile Defense Program: to develop, rigorously test, and field an integrated BMDS architecture to counter existing regional threats, continue a viable Homeland Defense against rouge threats beyond 2030; demonstrate our proven technologies to show Missile Defense works; and develop technologies to hedge against future missile threat growth.

The best way to dissuade, deter, and defeat ballistic missile threats is through integrated ballistic missile defense capabilities -- weapons, sensors, and Command and Control Battle Management and Communications (C2BMC). A potential or actual attack may cross regions and may fly higher and faster than stand-alone, autonomous capabilities operated by a single Military Service can defend against. Integrated BMD capabilities draw on space-, land-, and sea-based assets operated by multiple Services to provide both the best sensor information on the enemy missile's location and track as well as a more diverse and effective set of weapon options for the Combatant Commander to defeat the attack -- all connected by a unifying C2BMC system. As a result, an effort funded in a program element (PE) may be critical to the success of efforts in the other PE -- we refer to these connections as "interdependencies". Throughout the budget justification materials we have attempted to highlight interdependencies to fully explain the relationship between different parts of the proposed program.

In support of Homeland Defense against limited long-range threats, Aegis BMD provided a Long Range Surveillance and Track (LRS&T) capability to the BMDS against Ballistic Missile threats of all ranges, supporting Ground-based Midcourse Defense (GMD) engagements. This initial capability was fielded in 2004 in compliance with Presidential direction.

In support of the objective to defend allies and deployed forces from short- to medium-range threats in one region or theater, Aegis BMD provides several capabilities:

Aegis BMD provided initial engagement capability against SRBM- to MRBM-class threats with the BMD 3.0 and BMD 3.6 systems. These capabilities were fielded in two spirals: The first spiral provided an initial engagement capability against SRBMs and MRBMs on Aegis BMD cruisers with the BMD 3.0 Weapon System and SM-3 Blk I missile that could be used for emergency activation; the second spiral provided an operationally certified LRS&T and engagement capability on Aegis BMD cruisers and destroyers configured with the BMD 3.6 Weapon System, capable of firing SM-3 Blk I and IA missiles using organic and external sensors.

In response to Real World Events, Aegis BMD has developed and is fielding an integrated Near-Term Sea Based Terminal (NTSBT) capability against a finite set of SRBMs. Also as part of BMDS Block 2.0., BMD 3.6.1 incorporates a fuze-modified SM-2 Block IV missile provided by a separate Navy sponsored effort and builds

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on BMD 3.6 to provide a capability (BMD 3.6.1) against additional threats. The updated BMD 3.6.1 improves Aegis BMD Launch on AN/TPY-2 and bridges the gap between the operational deployment of BMD 3.6 and BMD 4.0.1.

Aegis BMD is providing several capabilities (included in BMDS Integrated Build C and Build D) to enhance defense of allies and deployed forces from short- to intermediate-range threats in two regions or theaters:

BMD 4.0.1 improves engagement performance against an expanded threat set and surveillance and track performance against some IRBMs and long-range threats as well as a Launch on Remote (LoR) capability and engagement coordinator. This will be achieved by modifications to the Weapon System (BMD 4.0.1) for new RF discrimination and tracking capability, and an upgraded SM-3 guided missile. The Aegis BMD 4.0.1 Weapon System includes the Aegis BMD Signal Processor (BSP) IR Kill Assessment, and integrates an updated variant of the SM-3 (SM-3 Blk IB) to improve overall system performance and discrimination capability. The SM-3 Blk IB configuration includes a performance-enhancing two-color IR seeker, and a Throttleable Divert and Attitude Control System (TDACS), which provides performance and manufacturing improvements at a lower per-unit cost. BMD 4.0.1 will be an operationally certified system firing either the SM-3 Blk IA or IB missile.

The BMD 5.0 upgrade will integrate the BMD mission with the Navy-developed Open Architecture (OA) system to preserve the sea-based BMD capability as Navy ship modernization plans are executed. The new configuration of the Aegis BMD Weapon System will transition from older, MIL-standard computers to new Commercial Off The Shelf (COTS) computing plants. This will allow ships` operators to conduct combat missions with a single set of tactical computer programs running on the same computing plant and enhanced displays, enabling Aegis BMD to maintain compatibility with Surface Navy ships while also expanding the number of ships available to serve as potential candidates for the BMD mission.

Future Capabilities:

Aegis BMD and the Japan Ministry of Defense (JMOD) have undertaken an SM-3 Cooperative Development (SCD) program, which consists of a spiral upgrade of the SM-3 Blk IB missile to a 21-inch diameter SM-3 missile (SM-3 Blk IIA). Missile development will be covered under the SCD project prior to the SM-3 Blk IIA incorporation into the BMD 5.1 upgrade to the Aegis BMD system. By Congressional direction, this content transfers to PE 0604881C, SM-3 Block IIA Co-Development, in FY10.

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The BMD 5.1 weapons system will integrate the SM-3 Blk IIA missile into an Open Architecture (OA) environment. The addition of the SM-3 Blk IIA missile will expand available battlespace to include IRBM and selected longer-range threats, and when combined with additional weapon system modifications, will enable an Engage-on-Remote (EoR) capability. That capability will further extend Aegis BMD by capitalizing on globally-deployed BMDS sensor assets.

Additionally, Aegis BMD will provide for a more robust, long-term integrated Sea Based Terminal (SBT) capability. With BMD 5.2, Aegis BMD will incorporate a new missile type (to be determined) and build on the BMD 3.6.1 near-term SBT capability.

The Phased Adaptive Approach (PAA) was developed in response to the rapid proliferation of short and medium range ballistic missiles in Iran and the threat they pose to U.S. allies and partners, as well as to U.S. deployed personnel and their accompanying families in the Middle East and Europe. By leveraging recent advances in sensor and interceptor technologies, the United States will aggressively counter this growing regional threat with a more powerful and agile system. The United States is pursuing a four-phased approach which will provide a more effective missile defense capability for defense of NATO territories and enhance U.S. homeland defense; it will be complementary of and interoperable with those being developed by NATO, be applicable in other theaters around the world, and will be more adaptable and flexible to counter threat advances and provide increased defended areas over time. The initial phase includes the deployment of current and proven missile defense, including the sea-based Aegis Weapons System, the SM-3 missile (Block IA and IB), and sensors such as the AN/TPY-2. Subsequent phases will be implemented based on technical maturity, appropriate testing, and threat driven requirements. The Aegis Ashore program transfers in FY 2011 to PE 0604880C, Land Based SM-3.

Aegis BMD provides a mobile, forward-deployable LRS&T capability to the BMDS against ballistic missile threats of all ranges. BMD 3.6 and the SM-3 Blk IA missile provides an engagement capability against short to medium range threats. The NTSBT capability (BMD 3.6.1) provides engagement capability against limited short range threats in the terminal phase of flight. BMD 4.0.1 with the SM-3 Blk IB missile will expand both LRS&T and engagement capability to include more complex threats including limited IRBM threats. Future capability developments such as the 21-inch diameter missile currently under development in the SCD program with Japan will be integrated with the Aegis BMD Weapon System in OA in BMD 5.1. This will further expand engagement capability against selected long-range threats, to include some ICBM-class threats, and will broaden program application for both U.S. and international ships. Another future capability development will introduce a more robust SBT capability.

Aegis BMD has/will deliver the following:

- Sixteen (16) Aegis Destroyers equipped with the Aegis BMD Weapon System to conduct the LRS&T and engagement missions
- Five (5) Aegis Cruisers equipped with the Aegis BMD Weapon System to conduct the LRS&T and engagement missions

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<p>Six (6) additional ships will be upgraded for BMD operations, configuration TBD. Nine (9) additional Aegis Cruisers Three (3) additional BMD 4.0.1 ships SM-3 Missile Deliveries - To Be Used for Testing and/or Deployment:</p> <p>Eleven (11) SM-3 Blk I missiles. One (1) SM-3 Blk IA Flight Test Round (FTR). Four (4) SM-3 Blk IB Flight Test Rounds (FTR). Fifty-nine (59) SM-3 Blk IA missiles with RDT&E. An additional ;forty one ;(41) SM-3 Blk IA missiles will be procured under a Procurement Defense-Wide appropriation. This procurement was begun under an RDT&E appropriation; the change is authorized by statutory language as part of the FY 2009 Defense Appropriation. Thirty (30) SM-3 Blk IB missiles with RDT&E. An additional 290 SM-3 Blk IB missiles will be procured under a Procurement-Defense Wide appropriation. Aegis Ashore will be delivered in support of the Phased Adaptive Approach (PAA).</p> <p>BMD Systems Engineering:</p> <p>BMD Systems Engineering provides System Description Documents and System Specifications for elements to design, build, integrate and test BMDS components. These products optimize performance at the system level and further ensure that the assessment of the designed BMD System is based on sufficient ground and flight testing. Aegis BMD compliance with BMD System level requirements (integrated Builds C and D) is monitored in a series of requirements and design reviews both at the system and element levels.</p> <p>Unifying Missile Defense Functions:</p> <p>MDA has a set of Unifying Missile Defense Functions (UMDFs), which increase the effectiveness of the BMD System (including probability of engagement success, increase in defended area and raid size capacity, additional redundancy of architecture, unity of command) through the integration of MDA developed capabilities. These UMDF efforts are Sensor Registration (reporting of sensor errors / biases), Correlation (ensuring the information from multiple sensors seeing a threat relates to the same object), System Track (creating a single engageable track of a threat from multiple reports provided by different land, sea, and space based multiple</p>		

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sensors), Discrimination (identifying object details to determine the target from debris or decoys), Battle Management (combining the best sensors and shooters to ensure the highest probability of a kill), Hit / Kill Assessment (determining if the target selected was destroyed after missile impact), and Communications (providing the worldwide connection of sensors and shooters to command authorities). UMDFs are implemented across the BMDS elements to create and utilize system level data and decisions that allow Combatant Commanders the ability to automatically and manually optimize sensor coverage and interceptor inventory to defend against all ranges of ballistic threats.

Common Threat Engineering:

Common threat engineering produces common and consistent adversary trajectory and signature data to enable BMD System and sub-system concept and requirements, design, verification, and assessment. Common Threat data is contained in the Adversary Capability Document (ACD) and Adversary Data Packages (ADP) and drives BMDS ground tests, flight tests, digital simulations, and pre-mission analysis activities. It is also used to develop the BMD System Description Document and BMD System Specification.

Modeling & Simulation:

Modeling and simulation (M&S) activities support all phases of Aegis BMD's development, including development of Aegis Weapon System (AWS) and SM-3 variants, flight test missions, ground tests, wargames, exercises, and performance assessment. Models and simulations are tailored to the specific need of a component in its current phase of development, ranging from low-to-medium fidelity analyses supporting concept definition studies, to high-fidelity models used to support engineering development, or testing and are integrated into the BMD Digital Simulations Architecture. Digital simulations support Performance Assessment (PA) and Technical Assessment (TA) events, which provide critical system level performance data relative to all elements, the system engineer, M&S developers, OTA and Warfighter. Further, the M&S Digital tools are accredited for each application and for specific objectives; tools are put through a rigorous verification and validation process, reviewing coding and specifications, and comparing analyses against actual flight test results. Planning support is required to assist in the V&V plan development, test execution, analysis for V&V reports and PO M&S Certification. The Digital End-to-End simulation of the BMDS requires a PA Integrated V&V Plan and Report (both element and system level), a PA/TA-system level Accreditation Plan and Report, and support to PA/TA Non-MDA Elements.

BMDS Hardware In The Loop (HWIL):

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The BMD Single Stimulation Framework (SSF) utilizes HWIL assets to support primarily BMDS ground testing, pre and post flight test mission construction and reconstruction, portions of the training capability, Wargames, exercises and BMDS contingency studies, as well as various other use cases to enable BMDS performance in a simulated environment. Each BMDS Element supports the M&S Program by providing HWIL representations ready for integration into the BMDS system-level framework to support full-envelope BMDS ground test, flight test, and training events based upon Agency and Warfighter needs.

System Pre and Post Flight Reconstruction:

Aegis BMD will support System Pre Flight predictions for system level flight tests using the test framework set up with the BMDS configuration for a particular flight test. This provides the confidence in Flight Test execution by predicting element performance and exercising element interfaces. This work is also used to proof out the construct of the flight test to ensure if the required data and data management plan will support System Post Flight Reconstruction (SPFR) objectives. System Post Flight Reconstruction will use a HWIL and/or a Digital M&S Environment to replicate the day of flight for the BMDS configuration, modified to represent the actual environmental conditions and target dynamics observed in flight. The results of this testing are used to increase confidence in the models and simulations by anchoring the results with emphasis on the critical engagement conditions (CECs) and empirical measurement events (EMEs) back to the real world event. SPFR is used for validation (anchoring) of models and simulations.

CEC/EME`s are the conditions where data is obtained from flight and ground tests that is required to anchor system models and simulations. Aegis BMD has 9 CECs and 11 EMEs totaling 20 BMD 4.0.1/SM-3 Block IB System. From FY 2010 to FY 2020, there will approximately 369 collection opportunities as outlined in the IMTP. Additionally, four CEC/EME`s were collected in FY 2009 events (Caravan-2, Stellar Avenger (FTM-17), and FTX-06 Event 1).

FY 2009: 4 CEC/EME possible collection opportunities during flight test and ground tests for an aggregate 1.5% of the total in the IMTP.

FY 2010: 31 CEC/EME possible collection opportunities during flight and ground tests for an aggregate 8% of the total in the IMTP.

FY 2011: 33 CEC/EME possible collection opportunities during flight and ground tests for an aggregate 17% of the total in the IMTP.

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<p>FY 2012: 65 CEC/EME possible collection opportunities during flight and ground tests for an aggregate 35% of the total in the IMTP.</p> <p>FY 2013: 81 CEC/EME possible collection opportunities during flight and ground tests for an aggregate 57% of the total in the IMTP.</p> <p>FY 2014: 94 CEC/EME possible collection opportunities during flight and ground tests for an aggregate 82% of the total in the IMTP.</p> <p>FY 2015: 53 CEC/EME possible collection opportunities during flight and ground tests for an aggregate 97% of the total in the IMTP.</p> <p>FY 2016-2020: 12 CEC/EME possible collection opportunities during flight and ground tests for an aggregate 100% of the total in the IMTP.</p> <p>Proving Missile Defense:</p> <p>Working with the Services` Operational Test Agencies (OTA), with the support of the Director of Operational Test and Evaluation (DOT&E), MDA has developed a test program to improve confidence in missile defense capabilities under development and ensure the capabilities transferred to the war fighter are operationally effective, suitable, and survivable.</p> <p>The BMDS performance evaluation strategy is to develop models and simulations of the BMDS and compare their predictions to empirical data collected through comprehensive flight and ground testing to validate their accuracy, rather than physically testing all possible combinations of BMDS configurations, engagement conditions, and target phenomena. The BMDS test review determined how to validate our models and simulations so that our war fighting commanders have confidence in the predicted performance of the BMDS, especially when those commanders consider employing the BMDS in ways other than originally planned or against threats unknown at this time.</p>		

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<p>The test plan review resulted in a Integrated Master Test Plan (IMTP) that is event-oriented and extends until the collection of all identified data is completed to ensure adequate test investments. The bottom line is that MDA is focused on conducting meaningful ballistic missile testing that rigorously demonstrates the capabilities of the BMDS.</p> <p>Homeland Defense:</p> <p>BMD 3.0E/3.0 - Deliver a LRS&T capability against ballistic missile threats of all ranges in support of GMD engagements.</p> <p>Regional / Theater Defense:</p> <p>BMD 3.6 - Deliver an LRS&T capability against ballistic missile threats of all ranges. Deliver an engagement capability against SRBM to MRBM-class threats. SM-3 Blk IA missile.</p> <p>BMD 3.6.1: Introduce a NTSBT capability against SRBMs (with OPNAV-modified SM-2 Blk IV missile).</p> <p>BMD 4.0.1 - Improve the Weapon System capability to identify and classify Ballistic Missile threat objects from debris and introduce the Aegis BMD BSP. Improve BMDS BMC4I performance, to include engagement coordination with Terminal High Altitude Area Defense (THAAD) and PATRIOT, kill assessment; and missile downlink upgrades for improved kill assessment. Increase battlespace through enhanced Launch on Remote, Aegis to Aegis engagement coordination, and automated planning data exchange with the C2BMC Planner and Maritime Integrated Air and Missile Defense Planning System (MIPS).</p> <p>Support for BMDS Build C functionality: In Aegis BMD track forwarding and limited peer to peer weapon system engagement coordination, near-term discrimination and Warfighter situational awareness enhancements.</p> <p>Support for BMDS Build D functionality: In Aegis BMD, this functionality includes the upgraded and improved Aegis BMD System (4.0.1 and SM-3 Blk IB) that provides significant improvements to both the RF and IR discrimination enhancing system effectiveness. Additional improvements to Aegis increase its ability to launch SM-3 interceptors on BMD System sensor data and improve Aegis coordination with other BMD weapon systems in the region. Enhanced capability is provided to test, train, and operate the BMD System resulting in higher levels of defensive readiness. Further Aegis improvements provide increased effectiveness against a wide range of Ballistic Missile threats.</p> <p>SM-3 Blk IB - Improve missile capability to identify and target the threat object through the ARO, ASP, and two-color missile seeker. Improve missile kinetic warhead (KW) kinematic performance via the TDACS.</p> <p>BMD 5.0 - Broaden program application for U.S. and potential international Aegis ship population by implementing OA to improve BMDS interoperability, integrate improved BMC4I capabilities, including Navy Multi Band Terminal (NMT) and Advanced EHF (AEHF) Capability.</p> <p>Supports Integrated BMDS Build D improvements such as Aegis Ashore and consequence management in support of the Phased Adaptive Approach (PAA).</p>		

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Future Capability Developments:

- SCD - Continue U.S./Japan SCD of the SM-3 Blk IIA missile (21-inch diameter SM-3 missile).
- BMD 5.1 - Integrate the SM-3 Blk IIA missile into the Aegis BMD Weapon System to enable Early Intercept (Organic) operations and Engage on Remote (EoR), and improve track correlation and feature data exchange, as well as BMDS sensor data fusion to increase battlespace.
- BMD 5.2 - Introduce a more robust SBT capability. This capability transfers to PE 0603891C, Special Programs.
- Aegis Ashore - Develop the capability to fire an SM-3 missile from a land-base launcher.

MiDAESS:

MDA will transition from the existing legacy, project-oriented Systems Engineering and Technical Assistance (SETA) contractor construct to an enterprise-wide Advisory and Assistance Services (A&AS) approach to support the BMDS mission. The objectives are to implement national engineering and support services for the BMDS mission across the enterprise, enhance the sharing of ballistic missile defense expertise and knowledge across the Agency, centralize the acquisition of support services manpower in a more efficient manner and reduce Agency overhead cost. A&AS support includes engineering and technical services; studies, analyses, and evaluations; and management and professional services.

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B. Program Change Summary (\$ in Millions)

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>
Previous President's Budget	1,113.655	1,690.758	0.000	0.000	0.000
Current President's Budget	1,054.323	1,435.717	1,467.278	0.000	1,467.278
Total Adjustments	-59.332	-255.041	1,467.278	0.000	1,467.278
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		-255.041			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	9.775	0.000			
• SBIR/STTR Transfer	-16.607	0.000			
• Other Adjustment Detail	-52.500	0.000	1,467.278	0.000	1,467.278

Change Summary Explanation

In FY 2009, Aegis BMD delta is related to funds transferred to a Procurement, Defense Wide PE per Congressional direction.

In FY 2010, SM-3 Block IIA co-development moves to a separate PE per Congressional direction.

No FY 2011 data provided in PB10.

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
BX09: <i>AEGIS BMD Block 2.0</i>	239.644	53.457	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	293.101
Quantity of RDT&E Articles	11	17	0	0	0	0	0	0	0		
Note NA											
A. Mission Description and Budget Item Justification											
Aegis BMD supports the BMDS Block 2.0 with the BMD 3.6 Combat System, comprised of the BMD 3.6 computer systems coupled with the SM-3 Blk IA missile, and with BMD 3.6.1, an upgrade to BMD 3.6 that includes a terminal phase capability. BMD 3.6.1 will be fully discussed in project BX18.											
Aegis BMD 3.6 and 3.6.1 support the BMDS mission of intercepting ballistic missiles in all regions, in all phases, and of all ranges, as follows:											
In all regions: Provide sea-based surveillance, tracking, and engagement capabilities in international waters.											
In all phases of ballistic missile flight:											
LRS&T capability against missile threats in all flight stages (BMD 3.6);											
Engagement capability against missile threats in the midcourse flight stage (BMD 3.6);											
Engagement capability against missile threats in the terminal phase of flight (BMD 3.6.1).											
Against all ranges:											
Against long-range ballistic missiles by providing surveillance and tracking support as part of the Limited Defensive Capability (LDC) (Block 1.0).											
Against short and medium range ballistic missiles by providing engagement support as part of BMD 3.6 and BMD 3.6.1.											
Aegis BMD supported initial BMDS operations by providing LRS&T data to other elements of the BMDS. Aegis BMD will further improve both national and international security with its ability to launch Standard Missile 3 (SM-3) missiles based upon autonomous data and upon remote data (LoR). The BMD 3.6 program:											
Defeats unitary and simple separating threats SRBMs and MRBMs with Aegis BMD configured cruisers and destroyers using SM-3 Blk I or IA guided missiles.											

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT BX09: <i>AEGIS BMD Block 2.0</i>
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Provides LRBM surveillance and track data through the BMDS to the GMD element to cue and initiate fire control Weapons Task Plans.
 Provides Aegis BMD surveillance and track data to the BMDS to support Combatant Commander situational awareness.
 Expands the engagement battle space via Launch on Remote (LoR) with Aegis AN/SPY-1 sensor data.
 Supplies Aegis BMD operational data to the BMDS C2BMC Element to support Combatant Commander situational awareness.
 Provides an operational, engagement-capable system.

The BMD 3.6 computer program has been fielded on a total of eighteen (18) U.S. Navy Aegis Cruisers and Destroyers, along with SM-3 Blk IA missiles.

With BMD 3.6.1, Aegis BMD is providing a follow-on capability to BMD 3.6 in response to recent Real World Events. NTBST (BMD 3.6.1) provides for an integrated SBT capability against a finite set of SRBM. BMD 3.6.1 incorporates a fuze modified SM-2 Block IV missile provided by a separate Navy sponsored effort and builds on BMD 3.6 to provide a terminal phase capability. BMD 3.6.1 continues efforts to refine Aegis Launch on AN/TPY-2 capabilities and bridges the gap between the operational deployment of BMD 3.6 and BMD 4.0.1.

Aegis BMD is fielding a NTSBT capability beginning in FY 2009. In addition to the NTSBT capability, Aegis BMD is performing various upgrades to BMD 3.6 in BMD 3.6.1; updates include early integration efforts for Aegis BMD launch on AN/TPY-2 capability. Aegis BMD 3.6.1 also provides enhanced capabilities within the areas of engagement coordination, system track, and communications to support the BMDS UMDf.

In collaboration with the MDA Systems Engineer, Aegis BMD supports an autonomous engagement against SRBMs and MRBMs without requiring external cueing. BMD 3.6 and BMD 3.6.1 support SM-3 Engage on AN/SPY-1, SM-3 Launch on Remote (AN/SPY-1), GBI Engage on AN/SPY-1, and GBI Launch on AN/SPY-1 capabilities.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
BMD 3.6 Weapon System Development See Description Below	0.731	0.000	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency				DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>		PROJECT BX09: <i>AEGIS BMD Block 2.0</i>				
B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>Began procurement of BMD 4.0.1 suites, to include BSP units.</p> <p><i>FY 2010 Plans:</i> Continue to monitor BMD 3.6 performance.</p> <p>Conduct crew training with the BMD 3.6 capability.</p> <p><i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in project MD09 in FY 2011.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>								
<p>SM-3 Blk IA Fielding - Missiles 45-71</p> <p>See Description Below</p> <p><i>FY 2009 Accomplishments:</i> RDT&E Articles: Ten (10) SM-3 Blk IA Missiles</p> <p>Delivered ten (10) SM-3 Blk IA missiles. Continued procurement of remaining seventeen (17) SM-3 Blk IA missiles.</p> <p><i>FY 2010 Plans:</i> RDT&E Articles: Seventeen (17) SM-3 Blk IA Missiles</p> <p>Deliver remaining seventeen (17) SM-3 Blk IA missiles.</p>				94.953	50.580	0.000	0.000	0.000

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B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in project MD09 in FY 2011.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>											
Accomplishments/Planned Programs Subtotals							239.644	53.457	0.000	0.000	0.000
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0603175C: <i>Ballistic Missile Defense Technology</i>	117.602	189.229	132.220	0.000	132.220	236.875	239.873	197.118	197.852	0	1,310.769
• 0603881C: <i>Ballistic Missile Defense Terminal Defense Segment</i>	951.414	715.732	436.482	0.000	436.482	250.275	336.711	500.983	521.717	0	3,713.314
• 0603882C: <i>Ballistic Missile Defense Mid-Course Segment</i>	1,472.683	1,027.371	1,346.181	0.000	1,346.181	1,112.655	1,291.790	1,099.029	1,033.213	0	8,382.922
• 0603883C: <i>Ballistic Missile Defense Boost Defense Segment</i>	384.365	182.317	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	566.682
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	682.754	621.017	454.859	0.000	454.859	469.589	681.397	650.525	616.342	0	4,176.483
• 0603886C: <i>Ballistic Missile Defense System Interceptor</i>	308.869	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	308.869
• 0603888C: <i>Ballistic Missile Defense Test and Targets</i>	906.952	823.333	1,113.425	0.000	1,113.425	1,105.959	951.371	871.929	829.608	0	6,602.577
• 0603890C: <i>Ballistic Missile Defense Enabling Programs</i>	402.776	358.751	402.769	0.000	402.769	468.673	457.745	473.871	488.799	0	3,053.384

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C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0603891C: <i>SPECIAL PROGRAMS - MDA</i>	182.998	250.185	270.189	0.000	270.189	269.040	450.645	517.486	601.315	0	2,541.858
• 0603893C: <i>SPACE TRACKING & SURVEILLANCE SYSTEM</i>	209.831	161.609	112.678	0.000	112.678	98.500	56.424	52.928	34.661	0	726.631
• 0603894C: <i>MULTIPLE KILL VEHICLE</i>	226.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	226.027
• 0603895C: <i>BMD SYSTEM SPACE PROGRAM</i>	23.250	12.492	10.942	0.000	10.942	11.182	11.347	11.749	12.155	0	93.117
• 0603896C: <i>BMD C2BMC</i>	275.174	334.734	342.625	0.000	342.625	364.085	289.778	323.922	298.936	0	2,229.254
• 0603897C: <i>BMD HERCULES</i>	51.629	47.932	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	99.561
• 0603898C: <i>BMD JOINT WARFIGHTER SUPPORT</i>	66.283	61.098	68.726	0.000	68.726	62.239	63.451	65.158	67.231	0	454.186
• 0603901C: <i>DIRECTED ENERGY RESEARCH</i>	0.000	0.000	98.688	0.000	98.688	101.371	103.449	104.572	104.141	0	512.221
• 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	102.823	86.483	86.198	0.000	86.198	88.181	78.517	80.410	83.087	0	605.699
• 0603906C: <i>REGARDING TRENCH</i>	3.159	6.130	7.529	0.000	7.529	8.295	8.286	8.479	8.675	0	50.553
• 0603907C: <i>SEA BASED X-BAND RADAR (SBX)</i>	143.878	167.153	153.056	0.000	153.056	150.104	159.832	160.163	197.099	0	1,131.285
• 0603908C: <i>BMD EUROPEAN INTERCEPTOR SITE</i>	348.722	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	348.722
• 0603909C: <i>BMD EUROPEAN MIDCOURSE RADAR</i>	73.728	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	73.728
• 0603911C: <i>BMD EUROPEAN CAPABILITY</i>	0.000	50.226	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	50.226
• 0603912C: <i>BMD European Comm Support</i>	26.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	26.016

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

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603913C: <i>ISRAELI COOPERATIVE</i>	0.000	201.323	121.735	0.000	121.735	111.100	113.101	116.114	119.172	0	782.545
• 0604880C: <i>LAND-BASED SM-3</i>	0.000	0.000	281.378	0.000	281.378	345.937	187.062	93.456	139.595	0	1,047.428
• 0604881C: <i>Aegis SM-3 BLOCK IIA CO-DEVELOPMENT</i>	0.000	255.987	318.800	0.000	318.800	405.500	416.300	337.300	227.500	0	1,961.387
• 0604883C: <i>PRECISION TRACKING SPACE SYSTEM</i>	0.000	0.000	66.969	0.000	66.969	123.851	184.800	348.360	482.952	0	1,206.932
• 0604884C: <i>AIRBORNE INFRARED (ABIR)</i>	0.000	0.000	111.671	0.000	111.671	103.636	123.591	103.668	58.773	0	501.339
• 0605502C: <i>Small Business Innovative Research BMDO</i>	124.788	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	124.788
• 0901585C: <i>Pentagon Reservation</i>	20.146	19.709	20.482	0.000	20.482	0.000	0.000	0.000	0.000	0	60.337
• 0901598C: <i>Management Headquarters-MDA</i>	87.151	52.403	29.754	0.000	29.754	29.421	29.974	30.567	31.171	0	290.441

D. Acquisition Strategy

The Aegis BMD element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Aegis BMD program awarded sole source contracts to Raytheon and Lockheed Martin to continue development of the SM-3 missile and the Aegis BMD Weapon System, respectively.

MDA will transition from the existing legacy, project-oriented Systems Engineering and Technical Assistance (SETA) contractor construct to an enterprise-wide Advisory and Assistance Services (A&AS) approach to support the Ballistic Missile Defense System (BMDS) mission. The objectives are to implement national engineering and support services for the BMDS mission across the enterprise and knowledge across the agency, centralize the acquisition of support services manpower in a more efficient manner and reduce agency overhead costs enterprise-wide. A&AS support includes engineering and technical services; studies, analyses, and evaluation; and management and professional services.

Competition will be used for procurement of any products or services in FY 2011, when appropriate.

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E. Performance Metrics

NA

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 3.6 Weapon System Development BMD 3.6 Weapon System Development-1 BX09	SS/CPIF	Lockheed Martin NJ	6.584	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 3.6 Weapon System Development BMD 3.6 Weapon System Development-2 BX09	TBD/TBD	NSWC/DD VA	7.227	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 3.6 Weapon System Development BMD 3.6 Weapon System Development-3 BX09	TBD/TBD	VA Sites VA	0.825	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC3 BMC3-1 BX09	TBD/TBD	JHU/APL MD	5.296	0.142		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC3 BMC3-2 BX09	TBD/TBD	MIT MA	2.690	0.045		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC3 BMC3-3 BX09	TBD/TBD	MITRE -	1.444	0.036		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC3 BMC3-4 BX09	TBD/TBD	NSWC/PHD CA	1.768	0.045		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC3 BMC3-5 BX09	TBD/TBD	SPAWAR CA	13.894	0.380		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC3 BMC3-6 BX09	Various/ Various	Various Various	2.412	0.041		0.000		0.000		0.000	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD Weapon System Fielding BMD Weapon System Fielding-1 BX09	SS/CPIF	Lockheed Martin NJ	67.238	1.261		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD Weapon System Fielding BMD Weapon System Fielding-2 BX09	TBD/TBD	NAVSEA VA	2.559	0.158		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD Weapon System Fielding BMD Weapon System Fielding-3 BX09	TBD/TBD	NSWC/DD VA	4.576	0.155		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD Weapon System Fielding BMD Weapon System Fielding-4 BX09	TBD/TBD	NSWC PHD CA	6.836	0.252		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD Weapon System Fielding BMD Weapon System Fielding-5 BX09	TBD/TBD	SPAWAR CA	1.823	0.067		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD Weapon System Fielding BMD Weapon System Fielding-6 BX09	TBD/TBD	SUPSHIP/BATH ME	1.533	0.077		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD Weapon System Fielding BMD Weapon System Fielding-7 BX09	TBD/TBD	SUPSHIP MS	1.991	0.114		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD Weapon System Fielding BMD Weapon System Fielding-8 BX09	Various/ Various	- -	3.133	0.104		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IA Fielding - Missiles 45-71 SM-3 Blk	SS/CPIF	Raytheon AZ	134.703	39.078		0.000		0.000		0.000	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
IA Fielding - Missiles 45-71 -1 BX09													
SM-3 Blk IA Fielding - Missiles 45-71 SM-3 Blk IA Fielding - Missiles 45-71 -2 BX09	TBD/TBD	JHU/APL MD	14.976	2.909		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IA Fielding - Missiles 45-71 SM-3 Blk IA Fielding - Missiles 45-71 -3 BX09	TBD/TBD	MIT/LL MA	11.850	0.568		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IA Fielding - Missiles 45-71 SM-3 Blk IA Fielding - Missiles 45-71 -4 BX09	TBD/TBD	NSWC/DD VA	10.977	2.916		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IA Fielding - Missiles 45-71 SM-3 Blk IA Fielding - Missiles 45-71 -5 BX09	TBD/TBD	NSWC/PHD CA	4.697	1.419		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IA Fielding - Missiles 45-71 SM-3 Blk IA Fielding - Missiles 45-71 -6 BX09	TBD/TBD	NAWC/CL CA	1.900	0.568		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IA Fielding - Missiles 45-71 SM-3 Blk IA Fielding - Missiles 45-71 -7 BX09	TBD/TBD	NSWC/IH MD	1.900	0.568		0.000		0.000		0.000	Continuing	Continuing	Continuing
		Various	5.400	2.270		0.000		0.000		0.000	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 Blk IA Fielding - Missiles 45-71 SM-3 Blk IA Fielding - Missiles 45-71 -8 BX09	Various/ Various	Various											
SM-3 Blk IA Fielding - Missiles 45-71 SM-3 Blk IA Fielding - Missiles 45-71 -9 BX09	TBD/TBD	NSWC/Corona CA	0.950	0.284		0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			319.182	53.457		0.000		0.000		0.000			

Remarks

NA

Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks

NA

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Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Aegis BMD Testing Aegis BMD Testing-1 BX09	TBD/TBD	PMRF HI	8.825	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-2 BX09	TBD/TBD	SMDC AL	3.000	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-3 BX09	TBD/TBD	NSWC/DD VA	10.465	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-4 BX09	TBD/TBD	JHU/APL MD	17.967	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-5 BX09	SS/CPIF	Lockheed Martin NJ	21.183	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-6 BX09	TBD/TBD	NSWC/PHD CA	8.000	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-7 BX09	TBD/TBD	MIT/LL MA	5.000	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-8 BX09	TBD/TBD	AIRPAC HI	3.000	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-9 BX09	TBD/TBD	SPAWAR CA	5.000	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency										DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>				PROJECT BX09: <i>AEGIS BMD Block 2.0</i>					

Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Aegis BMD Testing Aegis BMD Testing-10 BX09	Various/ Various	Various Various	24.599	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			107.039	0.000		0.000		0.000		0.000			

Remarks

NA

Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Aegis BMD Testing Aegis BMD Testing-1 BX09	C/CPFF	General Dynamics NJ	18.700	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-2 BX09	C/CPFF	Paradigm VA	1.000	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-3 BX09	C/CPFF	Gryphon MD	1.000	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-4 BX09	SS/CPIF	Lockheed Martin NJ	0.750	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT BX09: <i>AEGIS BMD Block 2.0</i>
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Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Aegis BMD Testing Aegis BMD Testing-5 BX09	SS/CPAF	Raytheon AZ	0.750	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-6 BX09	TBD/TBD	NAVSEA DC	4.800	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis BMD Testing Aegis BMD Testing-7 BX09	TBD/TBD	MDA VA	16.300	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			43.300	0.000		0.000		0.000		0.000			

Remarks

NA

	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	469.521	53.457	0.000	0.000	0.000			

Remarks

NA

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Missile Defense Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT BX09: <i>AEGIS BMD Block 2.0</i>

	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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
BMD 3.6 Fielding (DDGs and CGs)	■	■	■	■																								
SM-3 Blk IA Deliveries	■	■	■	■	■	■																						

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT BX09: <i>AEGIS BMD Block 2.0</i>
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
BMD 3.6 Fielding (DDGs and CGs)	1	2009	4	2009
SM-3 Blk IA Deliveries	1	2009	2	2010

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>				PROJECT BX18: <i>Sea-Based Terminal BMD Block 2.0</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
BX18: <i>Sea-Based Terminal BMD Block 2.0</i>	33.070	5.663	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	38.733
Quantity of RDT&E Articles	22	0	0	0	0	0	0	0	0		
Note NA											
A. Mission Description and Budget Item Justification											
The NTSBT project supports the BMDS mission of intercepting ballistic missiles in all regions, in all phases, and of all ranges, as follows:											
In all regions: provide enhanced engagement capability.											
In all phases of ballistic missile flight: engagement capability against missile threats in the terminal flight stage.											
All ranges: NTSBT provides capability against SRBM and limited IRBM targets.											
Aegis BMD supported LDC by providing LRS&T data to other elements of the BMDS. Aegis BMD further improved both national and international security with its ability to launch SM-3 Blk IA missiles based upon remote data in the final configuration, BMD 3.6.											
Aegis BMD is providing a follow-on capability to BMD 3.6, in response to recent Real World Events. NTSBT (BMD 3.6.1) provides for an integrated SBT capability against a finite set of SRBM. BMD 3.6.1 incorporates a fuze modified SM-2 Block IV missile provided by a separate OPNAV sponsored effort and builds on BMD 3.6 to provide a terminal phase capability. The BMD 3.6.1 continues efforts to refine Aegis Launch on Remote (AN/TPY-2) and bridges the gap between the operational deployment of BMD 3.6 and BMD 4.0.1.											
Aegis BMD is fielding the NTSBT capability beginning in FY 2009 on 21 U.S. Navy Cruisers and Destroyers. In addition to the near-term SBT capability, Aegis BMD is performing various upgrades to BMD 3.6 in BMD 3.6.1; updates include early integration efforts for Aegis BMD launch on AN/TPY-2 capability. Aegis BMD 3.6.1 also provides enhanced capabilities within the areas of engagement coordination, system track, and communications to support the BMDS UMDf.											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency			DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT BX18: <i>Sea-Based Terminal BMD Block 2.0</i>				
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Weapon System Development See Description Below <i>FY 2009 Accomplishments:</i> In this project, Weapon System funding will focus on the development of the BMD 3.6.1 computer program, providing a NTSBT capability. RDT&E Articles: BMD 3.6.1 Computer Program (1), installation of BMD 3.6.1 computer program on one (1) U.S. Navy Cruiser Achieved BMD 3.6.1 Certification for installation and operational use on Aegis BMD cruisers and destroyers. Completed Mission Assurance and Safety reviews of operational system. <i>FY 2010 Plans:</i> FY 2010 Plans - N/A <i>FY 2011 Base Plans:</i> FY 2011 Plans - N/A <i>FY 2011 OCO Plans:</i> NA		14.939	0.000	0.000	0.000	0.000
BMD 3.6.1 Deployment See Description Below		9.156	3.183	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT BX18: <i>Sea-Based Terminal BMD Block 2.0</i>				
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2009 Accomplishments:</i> This efforts accounts for the installation of the BMD 3.6.1 computer program on Aegis Cruisers and Destroyers.</p> <p>RDT&E Articles: Installation of BMD 3.6.1 on four (4) Cruisers and sixteen (16) Destroyers.</p> <p>Completed installation of BMD 3.6.1 computer program on four (4) Cruisers and sixteen (16) Destroyers. Began crew training for BMD 3.6.1 upgrade.</p> <p><i>FY 2010 Plans:</i> Complete checkout of BMD 3.6.1 -capable Cruisers and Destroyers. Complete crew training.</p> <p><i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in project MD09 in FY 2011.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>						
<p>BMC4I See Description Below</p> <p><i>FY 2009 Accomplishments:</i> NA</p>		0.000	1.677	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT BX18: <i>Sea-Based Terminal BMD Block 2.0</i>				
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2010 Plans:</i> This task provides funding to support C4I efforts related to the BMD 3.6.1 baseline.</p> <p>Evaluate ESL space cue impacts in Aegis BMD performance. Provide on-going support for contingency operations. Provide subject matter expertise support for the fielded BMD 3.6.1 baseline. Support systems engineering efforts to incorporate interoperability enhancements including:</p> <p>Navy Multi Band Terminal Advanced EHF</p> <p><i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in project MD09 in FY 2011.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>						
<p>SE&I & BMDS Integration See Description Below</p> <p><i>FY 2009 Accomplishments:</i> This effort provides funding to work in collaboration with the BMDS System Engineer to develop requirements flow down for Aegis BMD 3.6.1.</p> <p>Continued support of system integration efforts with other BMDS elements to maximize interoperability within the overall BMDS.</p>		8.975	0.803	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT BX18: <i>Sea-Based Terminal BMD Block 2.0</i>
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B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2010 Plans:</i> This effort provides funding to work in collaboration with the BMDS System Engineer to develop requirements flow down for Aegis BMD 3.6.1.</p> <p>Continue support of system integration efforts with other BMDS elements to maximize interoperability within the overall BMDS.</p> <p><i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in project MD09 in FY 2011.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>					
Accomplishments/Planned Programs Subtotals	33.070	5.663	0.000	0.000	0.000

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

Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0603175C: <i>Ballistic Missile Defense Technology</i>	117.602	189.229	132.220	0.000	132.220	236.875	239.873	197.118	197.852	0	1,310.769
• 0603881C: <i>Ballistic Missile Defense Terminal Defense Segment</i>	951.414	715.732	436.482	0.000	436.482	250.275	336.711	500.983	521.717	0	3,713.314
• 0603882C: <i>Ballistic Missile Defense Mid-Course Segment</i>	1,472.683	1,027.371	1,346.181	0.000	1,346.181	1,112.655	1,291.790	1,099.029	1,033.213	0	8,382.922
• 0603883C: <i>Ballistic Missile Defense Boost Defense Segment</i>	384.365	182.317	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	566.682
	682.754	621.017	454.859	0.000	454.859	469.589	681.397	650.525	616.342	0	4,176.483

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>				PROJECT BX18: <i>Sea-Based Terminal BMD Block 2.0</i>			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0603884C: <i>Ballistic Missile Defense Sensors</i>										0	308.869
• 0603886C: <i>Ballistic Missile Defense System Interceptor</i>	308.869	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	308.869
• 0603888C: <i>Ballistic Missile Defense Test and Targets</i>	906.952	823.333	1,113.425	0.000	1,113.425	1,105.959	951.371	871.929	829.608	0	6,602.577
• 0603890C: <i>Ballistic Missile Defense Enabling Programs</i>	402.776	358.751	402.769	0.000	402.769	468.673	457.745	473.871	488.799	0	3,053.384
• 0603891C: <i>SPECIAL PROGRAMS - MDA</i>	182.998	250.185	270.189	0.000	270.189	269.040	450.645	517.486	601.315	0	2,541.858
• 0603893C: <i>SPACE TRACKING & SURVEILLANCE SYSTEM</i>	209.831	161.609	112.678	0.000	112.678	98.500	56.424	52.928	34.661	0	726.631
• 0603894C: <i>MULTIPLE KILL VEHICLE</i>	226.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	226.027
• 0603895C: <i>BMD SYSTEM SPACE PROGRAM</i>	23.250	12.492	10.942	0.000	10.942	11.182	11.347	11.749	12.155	0	93.117
• 0603896C: <i>BMD C2BMC</i>	275.174	334.734	342.625	0.000	342.625	364.085	289.778	323.922	298.936	0	2,229.254
• 0603897C: <i>BMD HERCULES</i>	51.629	47.932	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	99.561
• 0603898C: <i>BMD JOINT WARFIGHTER SUPPORT</i>	66.283	61.098	68.726	0.000	68.726	62.239	63.451	65.158	67.231	0	454.186
• 0603901C: <i>DIRECTED ENERGY RESEARCH</i>	0.000	0.000	98.688	0.000	98.688	101.371	103.449	104.572	104.141	0	512.221
• 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	102.823	86.483	86.198	0.000	86.198	88.181	78.517	80.410	83.087	0	605.699
• 0603906C: <i>REGARDING TRENCH</i>	3.159	6.130	7.529	0.000	7.529	8.295	8.286	8.479	8.675	0	50.553
• 0603907C: <i>SEA BASED X-BAND RADAR (SBX)</i>	143.878	167.153	153.056	0.000	153.056	150.104	159.832	160.163	197.099	0	1,131.285

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT BX18: <i>Sea-Based Terminal BMD Block 2.0</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603908C: <i>BMD EUROPEAN INTERCEPTOR SITE</i>	348.722	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	348.722
• 0603909C: <i>BMD EUROPEAN MIDCOURSE RADAR</i>	73.728	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	73.728
• 0603911C: <i>BMD EUROPEAN CAPABILITY</i>	0.000	50.226	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	50.226
• 0603912C: <i>BMD European Comm Support</i>	26.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	26.016
• 0603913C: <i>ISRAELI COOPERATIVE</i>	0.000	201.323	121.735	0.000	121.735	111.100	113.101	116.114	119.172	0	782.545
• 0604880C: <i>LAND-BASED SM-3</i>	0.000	0.000	281.378	0.000	281.378	345.937	187.062	93.456	139.595	0	1,047.428
• 0604881C: <i>Aegis SM-3 BLOCK IIA CO-DEVELOPMENT</i>	0.000	255.987	318.800	0.000	318.800	405.500	416.300	337.300	227.500	0	1,961.387
• 0604883C: <i>PRECISION TRACKING SPACE SYSTEM</i>	0.000	0.000	66.969	0.000	66.969	123.851	184.800	348.360	482.952	0	1,206.932
• 0604884C: <i>AIRBORNE INFRARED (ABIR)</i>	0.000	0.000	111.671	0.000	111.671	103.636	123.591	103.668	58.773	0	501.339
• 0605502C: <i>Small Business Innovative Research BMDO</i>	124.788	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	124.788
• 0901585C: <i>Pentagon Reservation</i>	20.146	19.709	20.482	0.000	20.482	0.000	0.000	0.000	0.000	0	60.337
• 0901598C: <i>Management Headquarters-MDA</i>	87.151	52.403	29.754	0.000	29.754	29.421	29.974	30.567	31.171	0	290.441

D. Acquisition Strategy

The Aegis BMD element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Aegis BMD program has awarded a sole source contract to Lockheed Martin to continue development of the Aegis BMD Weapon System. The U.S. Navy is performing modifications to the 100 SM-2 Blk IV missiles.

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	PE 0603892C: <i>BMD AEGIS</i>	BX18: <i>Sea-Based Terminal BMD Block 2.0</i>

MDA will transition from the existing legacy, project-oriented Systems Engineering and Technical Assistance (SETA) contractor construct to an enterprise-wide Advisory and Assistance Services (A&AS) approach to support the Ballistic Missile Defense System (BMDS) mission. The objectives are to implement national engineering and support services for the BMDS mission across the enterprise, enhance the sharing of ballistic missile defense expertise and knowledge across the agency, centralize the acquisition of support services manpower in a more efficient manner and reduce agency overhead costs enterprise-wide. A&AS support includes engineering and technical services; studies, analyses, and evaluation; and management professional services.

Competition will be used for procurement of any products or services in FY 2011, when appropriate.

E. Performance Metrics

NA

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT BX18: <i>Sea-Based Terminal BMD Block 2.0</i>
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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Weapon System Development Weapon System Development-1 BX18	SS/CPIF	Lockheed Martin NJ	37.725	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Weapon System Development Weapon System Development-2 BX18	TBD/TBD	NSWC/DD VA	4.650	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Weapon System Development Weapon System Development-3 BX18	SS/CPFF	JHU/APL MD	2.174	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Weapon System Development Weapon System Development-4 BX18	TBD/TBD	Various Various	1.194	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Weapon System Development Weapon System Development-5 BX18	Various/ Various	MDA VA	1.170	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Weapon System Development Weapon System Development-6 BX18	TBD/TBD	Aegis Techrep NJ	0.700	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 3.6.1 Deployment BMD 3.6.1 Deployment-1 BX18	SS/CPIF	Lockheed Martin NJ	2.015	1.833	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 3.6.1 Deployment BMD 3.6.1 Deployment-2 BX18	TBD/TBD	NAVSEA VA	0.271	0.225	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 3.6.1 Deployment BMD 3.6.1 Deployment-3 BX18	TBD/TBD	NSWC/Dahlgren VA	0.274	0.225	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 3.6.1 Deployment BMD 3.6.1 Deployment-4 BX18	TBD/TBD	NSWC/PHD CA	0.443	0.366	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 3.6.1 Deployment BMD 3.6.1 Deployment-5 BX18	Various/ Various	Various Various	0.647	0.534	Apr 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC4I BMC4I-1 BX18	TBD/TBD	JHU/APL MD	0.000	0.338	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC4I BMC4I-2 BX18	TBD/TBD	MIT MA	0.000	0.109	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC4I BMC4I-3 BX18	TBD/TBD	MITRE -	0.000	0.087	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC4I BMC4I-4 BX18	TBD/TBD	NSWC/PHD CA	0.000	0.112	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC4I BMC4I-5 BX18	TBD/TBD	SPAWAR CA	0.000	0.933	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC4I BMC4I-6 BX18	Various/ Various	Various Various	0.000	0.098	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
SE&I & BMDS Integration SE&I &	TBD/TBD	JHU/APL MD	0.000	0.054	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMDS Integration-1 BX18													
SE&I & BMDS Integration SE&I & BMDS Integration-2 BX18	TBD/TBD	NSWC/Corona CA	0.000	0.064	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
SE&I & BMDS Integration SE&I & BMDS Integration-3 BX18	TBD/TBD	NSWC/Dahlgren VA	0.000	0.474	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
SE&I & BMDS Integration SE&I & BMDS Integration-4 BX18	TBD/TBD	NSWC/PHD CA	0.000	0.112	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
SE&I & BMDS Integration SE&I & BMDS Integration-5 BX18	Various/ Various	Various Various	0.000	0.099	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			51.263	5.663		0.000		0.000		0.000			

Remarks
NA

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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks
NA

Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks
NA

Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

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Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Remarks NA													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			51.263	5.663		0.000		0.000		0.000			

Remarks
NA

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Missile Defense Agency		DATE: February 2010
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	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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
BMD 3.6.1 Certification	■																											
BMD 3.6.1 Ship Installations		■	■	■	■	■																						

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT BX18: <i>Sea-Based Terminal BMD Block 2.0</i>
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
BMD 3.6.1 Certification	1	2009	1	2009
BMD 3.6.1 Ship Installations	2	2009	2	2010

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
EX09: <i>AEGIS BMD Block 5.0</i>	525.587	1,045.727	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	1,571.314
Quantity of RDT&E Articles	1	2	0	0	0	0	0	0	0		

Note

NA

A. Mission Description and Budget Item Justification

Aegis BMD program development in Block 5.0 supports the BMDS mission of intercepting ballistic missiles in all regions, in all phases, and of all ranges as follows:

In all regions: Provide enhanced, sea-based LRS&T and engagement capabilities.

In all phases of ballistic missile flight: LRS&T capability against missile threats in all stages; engagement capability against missile threats in all phases of flight.

Against all ranges:

LRS&T capability against ballistic missile threats of all ranges

Enhanced engagement capability (BMD 4.0.1 and the SM-3 Blk IB missile): battlespace expanded to include IRBM-class threats

Aegis BMD supported LDC by providing LRS&T data to other elements of the BMDS. Aegis BMD will further improve both national and international security with its Launch on Remote (LoR) ability. Through development and fielding of the Aegis BMD Signal Processor and upgrades to the SM-3 Blk IA missile (SM-3 Blk IB), Aegis BMD will improve discrimination capability and performance against more diverse and longer range threats.

The BMD 4.0.1 Combat System will expand Aegis BMD effectiveness against the threat base. It will provide a full upgrade to the Aegis BMD Weapon System (BMD 4.0.1) and an upgraded SM-3 missile, SM-3 Blk IB. BMD 4.0.1 will be capable of Launch-on-Remote operations leveraging the BMDS Sensor network.

Missile upgrades for the SM-3 Blk IB include improvements to the kinetic warhead's seeker and DACS. Seeker improvements will include the introduction of seeker ARO to improve optics performance, and a Kinetic Warhead ASP to mitigate diminished manufacturing source issues in SM-3 Blk IA missiles. Additionally, the increased processing capability of the ASP will support new discrimination algorithms. The optics and processing improvements will enhance the Aegis BMD contribution to the BMDS missions by providing greater sensitivity and seeker discrimination capability. Other missile improvements include the integration of a two-

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<p>color seeker and development of the TDACS. These enhancements will be tested and verified for the SM-3 Block IB configuration and are included in BMDS Integrated Build D.</p> <p>BMD 4.0.1 will deliver in two spirals:</p> <p>Spiral one (BMD 4.0.1 Testbed) will deliver an initial engagement system capability with the SM-3 Blk IA missile. It will build on BSP enhancements to the LRS&T mission by adding mission capability for flight missions. Spiral two (BMD 4.0.1) will continue through the System Engineering Development and Testing in process and culminate as an operationally-certified system capable of firing the SM-3 Blk IA or IB missile.</p> <p>Other capability enhancements include:</p> <p>Improvements in BMDS C2BMC to ensure future BMDS sensor enhancements and the resulting discrimination capabilities are able to be communicated, correlated, and acted upon. Improved engagement coordination capability with THAAD and PATRIOT to conserve upper tier missiles. Analysis for planned upgrades to the SM-3 missile to expand battlespace and improve discrimination, divert, and probability of mission success. Functionalities in support of BMDS Integrated Build C track forwarding and limited peer-to-peer weapon system engagement coordination, near term discrimination, and Warfighter situational awareness enhancements. Functionalities in support of BMDS Integrated Build D Aegis BMD 4.0.1 improve to both BF and IR discrimination and increase ability to launch SM-3 interceptors on BMD System sensor data and improve Aegis coordination with other BMD weapon systems in the region.</p> <p>BMD 5.0 will integrate BMD 4.0.1 and the BMD mission with the Navy-developed OA system. This effort will transition Aegis BMD from older, MIL-standard computers to newer COTS computing plants. This change is necessary for Aegis BMD to remain compatible with Navy assets as Navy ship modernization plans are executed. This change will improve human-systems interface through display enhancements and eliminate the need for a separate computing system specific to the BMD mission. This will also enable more ships to serve as candidates for the BMD mission as the threat projection changes. OA will be included in future fielded BMD system improvements. BMD 5.0 will support the BMDS Integrated Build D.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

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B. Accomplishments/Planned Program (\$ in Millions)	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2009 Accomplishments:</i> Began acquisition of SM-3 common components to support FY 2010 missile purchases.</p> <p><i>FY 2010 Plans:</i> Continue procurement of eighteen (18) SM-3 Blk IB missiles.</p> <p><i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in project MD09 in FY 2011.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>					
Accomplishments/Planned Programs Subtotals	525.587	1,045.727	0.000	0.000	0.000

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0603175C: <i>Ballistic Missile Defense Technology</i>	117.602	189.229	132.220	0.000	132.220	236.875	239.873	197.118	197.852	0	1,310.769
• 0603881C: <i>Ballistic Missile Defense Terminal Defense Segment</i>	951.414	715.732	436.482	0.000	436.482	250.275	336.711	500.983	521.717	0	3,713.314
• 0603882C: <i>Ballistic Missile Defense Mid-Course Segment</i>	1,472.683	1,027.371	1,346.181	0.000	1,346.181	1,112.655	1,291.790	1,099.029	1,033.213	0	8,382.922
• 0603883C: <i>Ballistic Missile Defense Boost Defense Segment</i>	384.365	182.317	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	566.682
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	682.754	621.017	454.859	0.000	454.859	469.589	681.397	650.525	616.342	0	4,176.483
	308.869	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	308.869

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

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 0603886C: <i>Ballistic Missile Defense System Interceptor</i>											
• 0603888C: <i>Ballistic Missile Defense Test and Targets</i>	906.952	823.333	1,113.425	0.000	1,113.425	1,105.959	951.371	871.929	829.608	0	6,602.577
• 0603890C: <i>Ballistic Missile Defense Enabling Programs</i>	402.776	358.751	402.769	0.000	402.769	468.673	457.745	473.871	488.799	0	3,053.384
• 0603891C: <i>SPECIAL PROGRAMS - MDA</i>	182.998	250.185	270.189	0.000	270.189	269.040	450.645	517.486	601.315	0	2,541.858
• 0603893C: <i>SPACE TRACKING & SURVEILLANCE SYSTEM</i>	209.831	161.609	112.678	0.000	112.678	98.500	56.424	52.928	34.661	0	726.631
• 0603894C: <i>MULTIPLE KILL VEHICLE</i>	226.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	226.027
• 0603895C: <i>BMD SYSTEM SPACE PROGRAM</i>	23.250	12.492	10.942	0.000	10.942	11.182	11.347	11.749	12.155	0	93.117
• 0603896C: <i>BMD C2BMC</i>	275.174	334.734	342.625	0.000	342.625	364.085	289.778	323.922	298.936	0	2,229.254
• 0603897C: <i>BMD HERCULES</i>	51.629	47.932	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	99.561
• 0603898C: <i>BMD JOINT WARFIGHTER SUPPORT</i>	66.283	61.098	68.726	0.000	68.726	62.239	63.451	65.158	67.231	0	454.186
• 0603901C: <i>DIRECTED ENERGY RESEARCH</i>	0.000	0.000	98.688	0.000	98.688	101.371	103.449	104.572	104.141	0	512.221
• 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	102.823	86.483	86.198	0.000	86.198	88.181	78.517	80.410	83.087	0	605.699
• 0603906C: <i>REGARDING TRENCH</i>	3.159	6.130	7.529	0.000	7.529	8.295	8.286	8.479	8.675	0	50.553
• 0603907C: <i>SEA BASED X-BAND RADAR (SBX)</i>	143.878	167.153	153.056	0.000	153.056	150.104	159.832	160.163	197.099	0	1,131.285
• 0603908C: <i>BMD EUROPEAN INTERCEPTOR SITE</i>	348.722	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	348.722

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

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603909C: <i>BMD EUROPEAN MIDCOURSE RADAR</i>	73.728	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	73.728
• 0603911C: <i>BMD EUROPEAN CAPABILITY</i>	0.000	50.226	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	50.226
• 0603912C: <i>BMD European Comm Support</i>	26.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	26.016
• 0603913C: <i>ISRAELI COOPERATIVE</i>	0.000	201.323	121.735	0.000	121.735	111.100	113.101	116.114	119.172	0	782.545
• 0604880C: <i>LAND-BASED SM-3</i>	0.000	0.000	281.378	0.000	281.378	345.937	187.062	93.456	139.595	0	1,047.428
• 0604881C: <i>Aegis SM-3 BLOCK IIA CO-DEVELOPMENT</i>	0.000	255.987	318.800	0.000	318.800	405.500	416.300	337.300	227.500	0	1,961.387
• 0604883C: <i>PRECISION TRACKING SPACE SYSTEM</i>	0.000	0.000	66.969	0.000	66.969	123.851	184.800	348.360	482.952	0	1,206.932
• 0604884C: <i>AIRBORNE INFRARED (ABIR)</i>	0.000	0.000	111.671	0.000	111.671	103.636	123.591	103.668	58.773	0	501.339
• 0605502C: <i>Small Business Innovative Research BMDO</i>	124.788	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	124.788
• 0901585C: <i>Pentagon Reservation</i>	20.146	19.709	20.482	0.000	20.482	0.000	0.000	0.000	0.000	0	60.337
• 0901598C: <i>Management Headquarters-MDA</i>	87.151	52.403	29.754	0.000	29.754	29.421	29.974	30.567	31.171	0	290.441

D. Acquisition Strategy

The Aegis BMD element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Aegis BMD program has awarded sole source contracts to Raytheon and Lockheed Martin to continue development of the SM-3 missile and the Aegis BMD Weapon System, respectively.

MDA will transition from the existing legacy, project-oriented Systems Engineering and Technical Assistance (SETA) contractor construct to an enterprise-wide Advisory and Assistance Services (A&AS) approach to support the Ballistic Missile Defense System (BMDS) mission. The objectives are to implement national

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<p>engineering and support services for the BMDS mission across the enterprise, enhance the sharing of ballistic missile defense expertise and knowledge across the agency, centralize the acquisition of support services manpower in a more efficient manner and reduce agency overhead costs enterprise-wide. A&AS support includes engineering and technical services; studies, analyses, and evaluation; and management and professional services.</p> <p>Competition will be used for procurement of any products or services in FY 2011, when appropriate.</p> <p><u>E. Performance Metrics</u> NA</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT EX09: <i>AEGIS BMD Block 5.0</i>
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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-1 EX09	SS/CPIF	Lockheed Martin NJ	342.460	238.947	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-2 EX09	TBD/TBD	NSWC/DD VA	28.136	17.099	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-3 EX09	TBD/TBD	NSWC/PHD CA	6.273	2.656	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-4 EX09	TBD/TBD	JHU/APL MD	10.084	4.817	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-5 EX09	TBD/TBD	SPAWAR CA	3.800	1.594	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon	TBD/TBD	VA Sites VA	7.812	3.719	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT EX09: <i>AEGIS BMD Block 5.0</i>
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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
System Development-6 EX09													
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-7 EX09	Various/ Various	Various Various	7.023	2.793	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-8 EX09	TBD/TBD	Aegis Techrep NJ	2.964	1.183	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-1 EX09	SS/CPAF	Raytheon AZ	303.140	209.837		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-2 EX09	TBD/TBD	NSWC/DD VA	12.685	8.425		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-3 EX09	TBD/TBD	JHU/APL MD	12.886	8.699		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-4 EX09	TBD/TBD	NSWC/CR MD	3.912	2.741		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-5 EX09	TBD/TBD	NSWC/CL CA	3.862	2.741		0.000		0.000		0.000	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency										DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>				PROJECT EX09: <i>AEGIS BMD Block 5.0</i>					

Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 Blk IB Development SM-3 Blk IB Development-6 EX09	TBD/TBD	NSWC/IH MD	5.716	3.972		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-7 EX09	TBD/TBD	NSWC/Corona CA	5.716	3.972		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-8 EX09	TBD/TBD	MIT/LL MA	7.046	4.694		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-9 EX09	TBD/TBD	NSWC/PHD CA	3.862	2.741		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-10 EX09	Various/ Various	Various Various	5.488	4.617		0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-1 EX09	SS/CPIF	Lockheed Martin NJ	103.483	54.995	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-2 EX09	TBD/TBD	NSWC/DD VA	6.250	3.163	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
	TBD/TBD	JHU/APL	6.480	3.412	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT EX09: <i>AEGIS BMD Block 5.0</i>
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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-3 EX09		MD											
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-4 EX09	TBD/TBD	MIT/LL MA	2.850	0.822	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-5 EX09	TBD/TBD	VA Sites VA	2.139	0.739	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-6 EX09	Various/ Various	Various Various	1.067	0.596	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-7 EX09	TBD/TBD	Aegis Techrep NJ	1.894	0.930	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC4I BMC4I-1 EX09	TBD/TBD	JHU/APL MD	0.000	1.190	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC4I BMC4I-2 EX09	TBD/TBD	MIT	0.000	0.337	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT EX09: <i>AEGIS BMD Block 5.0</i>
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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
		MA											
BMC4I BMC4I-3 EX09	SS/TBD	MITRE -	0.000	0.268	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC4I BMC4I-4 EX09	TBD/TBD	NSWC/PHD CA	0.000	0.333	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC4I BMC4I-5 EX09	TBD/TBD	SPAWAR CA	0.000	2.690	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMC4I BMC4I-6 EX09	Various/ Various	Various Various	0.000	0.301	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
SE&I and BMDS Integration SE&I and BMDS Integration-1 EX09	TBD/TBD	JHU/APL MD	0.000	0.236	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SE&I and BMDS Integration SE&I and BMDS Integration-2 EX09	TBD/TBD	NSWC/Corona CA	0.000	0.285	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SE&I and BMDS Integration SE&I and BMDS Integration-3 EX09	TBD/TBD	NSWC/DD VA	0.000	2.035	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SE&I and BMDS Integration SE&I and BMDS Integration-4 EX09	TBD/TBD	NSWC/PHD CA	0.000	0.491	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
		Various	0.000	0.430	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SE&I and BMDs Integration SE&I and BMDs Integration-5 EX09	Various/ Various	Various											
BMD 4.0.1 Fielding BMD 4.0.1 Fielding-1 EX09	SS/CPIF	Lockheed Martin NJ	11.174	78.275	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Fielding BMD 4.0.1 Fielding-2 EX09	TBD/TBD	NAVSEA VA	1.921	13.470	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Fielding BMD 4.0.1 Fielding-3 EX09	TBD/TBD	NSWC/DD VA	1.939	13.056	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Fielding BMD 4.0.1 Fielding-4 EX09	TBD/TBD	NSWC/PHD CA	3.136	22.035	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Fielding BMD 4.0.1 Fielding-5 EX09	TBD/TBD	SPAWAR CA	0.850	5.973	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Fielding BMD 4.0.1 Fielding-6 EX09	TBD/TBD	SUPSHIP/BATH ME	0.965	6.777	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Fielding BMD 4.0.1 Fielding-7 EX09	TBD/TBD	SUPSHIP/PASC MS	1.427	10.023	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Fielding BMD 4.0.1 Fielding-8 EX09	Various/ Various	Various Various	1.388	9.753	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IA Missile Fielding - Missiles 72-94 SM-3 Blk IA Missile Fielding - Missiles 72-94 -1 EX09	SS/CPAF	Raytheon AZ	25.977	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
	TBD/TBD	NSWC/IH	0.335	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT EX09: <i>AEGIS BMD Block 5.0</i>
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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 Blk IA Missile Fielding - Missiles 72-94 SM-3 Blk IA Missile Fielding - Missiles 72-94 -2 EX09		MD											
SM-3 Blk IA Missile Fielding - Missiles 72-94 SM-3 Blk IA Missile Fielding - Missiles 72-94 -3 EX09	TBD/TBD	NSWC/DD VA	0.559	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IA Missile Fielding - Missiles 72-94 SM-3 Blk IA Missile Fielding - Missiles 72-94 -4 EX09	TBD/TBD	NSEC/PHD CA	0.508	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IA Missile Fielding - Missiles 72-94 SM-3 Blk IA Missile Fielding - Missiles 72-94 -5 EX09	TBD/TBD	JHU/APL MD	0.287	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IA Missile Fielding - Missiles 72-94 SM-3 Blk IA Missile Fielding - Missiles 72-94 -6 EX09	TBD/TBD	NSWC/Corona CA	0.047	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IA Missile Fielding - Missiles 72-94 SM-3 Blk IA Missile	TBD/TBD	MDA VA	0.800	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT EX09: <i>AEGIS BMD Block 5.0</i>
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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Fielding - Missiles 72-94 -7 EX09													
SM-3 Blk IA Missile Fielding - Missiles 72-94 SM-3 Blk IA Missile Fielding - Missiles 72-94 -8 EX09	Various/ Various	Various Various	0.287	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Missile Fielding - Missiles 117-134 SM-3 Blk IB Missile Fielding - Missiles 117-134 -1 EX09	SS/CPAF	Raytheon AZ	40.000	54.645	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Missile Fielding - Missiles 117-134 SM-3 Blk IB Missile Fielding - Missiles 117-134 -2 EX09	TBD/TBD	NSWC/IH MD	0.499	0.686	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Missile Fielding - Missiles 117-134 SM-3 Blk IB Missile Fielding - Missiles 117-134 -3 EX09	TBD/TBD	NSWC/DD VA	0.866	1.190	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Missile Fielding - Missiles 117-134 SM-3 Blk	TBD/TBD	NSWC/PHD CA	0.672	0.923	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
IB Missile Fielding - Missiles 117-134 -4 EX09													
SM-3 Blk IB Missile Fielding - Missiles 117-134 SM-3 Blk IB Missile Fielding - Missiles 117-134 -5 EX09	TBD/TBD	JHU/APL MD	0.599	0.823	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Missile Fielding - Missiles 117-134 SM-3 Blk IB Missile Fielding - Missiles 117-134 -6 EX09	TBD/TBD	NSWC/Corona CA	0.100	0.137	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Missile Fielding - Missiles 117-134 SM-3 Blk IB Missile Fielding - Missiles 117-134 -7 EX09	TBD/TBD	MDA VA	1.667	2.291	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Missile Fielding - Missiles 117-134 SM-3 Blk IB Missile Fielding - Missiles 117-134 -8 EX09	Various/ Various	Various Various	0.597	0.821	Apr 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			993.628	819.378		0.000		0.000		0.000			

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

Remarks
NA

Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-1 EX09	C/CPFF	General Dynamics NJ	41.619	25.141	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-2 EX09	C/CPFF	Paradigm VA	10.095	6.027	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-3 EX09	C/CPFF	Gryphon MD	2.235	1.294	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon	SS/CPIF	Lockheed Martin NJ	1.118	0.647	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
System Development-4 EX09													
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-5 EX09	SS/CPAF	Raytheon AZ	1.118	0.647	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-6 EX09	TBD/TBD	NAVSEA DC	10.056	5.820	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 4.0.1 Weapon System Development BMD 4.0.1 Weapon System Development-7 EX09	TBD/TBD	MDA VA	22.803	11.788	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-1 EX09	C/CPFF	General Dynamics NJ	32.324	28.636	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-2 EX09	C/CPFF	Paradigm VA	8.162	6.864	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-3 EX09	C/CPFF	Gryphon MD	1.762	1.473	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
	SS/CPIF	Lockheed Martin	0.881	0.736	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 Blk IB Development SM-3 Blk IB Development-4 EX09		NJ											
SM-3 Blk IB Development SM-3 Blk IB Development-5 EX09	SS/CPAF	Raytheon AZ	0.881	0.736	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-6 EX09	TBD/TBD	NAVSEA DC	7.932	6.630	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 Blk IB Development-7 EX09	TBD/TBD	MDA VA	18.330	13.425	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-1 EX09	SS/CPIF	Lockheed Martin NJ	13.117	5.962	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-2 EX09	C/CPFF	Paradigm VA	2.898	1.429	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-3 EX09	C/CPFF	Gryphon MD	0.686	0.307	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT EX09: <i>AEGIS BMD Block 5.0</i>
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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-4 EX09	SS/CPIF	Lockheed Martin NJ	0.342	0.153	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-5 EX09	SS/CPAF	Raytheon AZ	0.342	0.153	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-6 EX09	TBD/TBD	NAVSEA DC	3.084	1.380	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-7 EX09	TBD/TBD	MDA VA	6.818	2.796	Apr 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Weapon System Development BMD 5.0 Weapon System Development-8 EX09	Various/ Various	Various Various	9.963	6.937	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-1 EX09	C/CPFF	General Dynamics NJ	0.000	6.598	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT EX09: <i>AEGIS BMD Block 5.0</i>
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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Flight Testing Flight Testing-2 EX09	C/CPAF	Paradigm VA	0.000	1.582	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-3 EX09	C/CPFF	Gryphon MD	0.000	0.340	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-4 EX09	SS/CPIF	Lockheed Martin NJ	0.000	0.170	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-5 EX09	SS/CPAF	Raytheon AZ	0.000	0.170	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-6 EX09	TBD/TBD	NAVSEA DC	0.000	1.528	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-7 EX09	TBD/TBD	MDA VA	0.000	2.581	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			196.566	141.950		0.000		0.000		0.000			

Remarks
NA

Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Flight Testing Flight Testing-1 EX09	TBD/TBD	PMRF HI	0.000	6.442	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT EX09: <i>AEGIS BMD Block 5.0</i>
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Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Flight Testing Flight Testing-2 EX09	TBD/TBD	SMDC AL	0.000	2.418	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-3 EX09	TBD/TBD	NWSC/DD VA	0.000	16.497	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-4 EX09	TBD/TBD	JHU/APL MD	0.000	13.696	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-5 EX09	SS/CPIF	Lockheed Martin NJ	0.000	16.115	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-6 EX09	TBD/TBD	NWSC/PHD CA	0.000	5.639	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-7 EX09	TBD/TBD	MIT/LL MA	0.000	4.033	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-8 EX09	TBD/TBD	AIRPAC HI	0.000	2.418	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-9 EX09	TBD/TBD	SPAWAR CA	0.000	4.033	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Flight Testing Flight Testing-10 EX09	Various/ Various	- -	0.000	13.108	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			0.000	84.399		0.000		0.000		0.000			

Remarks

NA

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT EX09: <i>AEGIS BMD Block 5.0</i>
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Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks

NA

	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
		Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Project Cost Totals		1,190.194	1,045.727			0.000		0.000			

Remarks

NA

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Missile Defense Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT EX09: <i>AEGIS BMD Block 5.0</i>

	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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
BMD 4.0.1 Development	■	■	■	■	■	■	■	■																				
BMD 4.0.1 Critical Design Review (CDR)	■																											
BMD 4.0.1 Engineering Assessment			■																									
BMD 4.0.1 Demo								■																				
BMD 5.0 Development	■	■	■	■	■	■	■	■																				
BMD 5.0 Preliminary Design Review	■																											
BMD 5.0 Critical Design Review						■																						
BMD 4.0.1 Ship Installations		■	■	■	■	■	■	■																				
TDACS CDR			■																									
SM-3 Blk IB Missile CDR			■																									
SM-3 Blk IIA System Design Review (SDR)						■																						
SM-3 Blk IIA (SCD) Requirements Finalization Review (RFR)						■																						
SM-3 Blk IB Software Final Qualification Test (FQT)								■																				
SM-3 Blk IB System Integration Test (SIT)								■																				

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT EX09: <i>AEGIS BMD Block 5.0</i>
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
BMD 4.0.1 Development	1	2009	4	2010
BMD 4.0.1 Critical Design Review (CDR)	1	2009	1	2009
BMD 4.0.1 Engineering Assessment	3	2009	3	2009
BMD 4.0.1 Demo	3	2010	3	2010
BMD 5.0 Development	1	2009	4	2010
BMD 5.0 Preliminary Design Review	1	2009	1	2009
BMD 5.0 Critical Design Review	1	2010	1	2010
BMD 4.0.1 Ship Installations	2	2009	4	2010
TDACS CDR	3	2009	3	2009
SM-3 Blk IB Missile CDR	3	2009	3	2009
SM-3 Blk IIA System Design Review (SDR)	1	2010	1	2010
SM-3 Blk IIA (SCD) Requirements Finalization Review (RFR)	1	2010	1	2010
SM-3 Blk IB Software Final Qualification Test (FQT)	3	2010	3	2010
SM-3 Blk IB System Integration Test (SIT)	4	2010	4	2010

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX09: <i>AB Capability Development</i>
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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
WX09: <i>AB Capability Development</i>	164.532	233.479	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	398.011
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

NA

A. Mission Description and Budget Item Justification

The U.S./Japan Joint Cooperative Research (JCR) program conducted cooperative research in Ballistic Missile Defense. The research focused on the development of advanced missile technologies in four components of the SM-3 guided missile: sensor, advanced kinetic warhead, second stage propulsion and lightweight nosecone. In FY 2006, the JCR project concluded with the flight testing of the lightweight nosecone in Joint Control Test Vehicle-1 (JCTV-1).

In addition, the U.S. and Japan have a mutual interest in the evolutionary development of improvements to the SM-3. In FY 2006, the two countries signed a MOU for the co-development of an upgraded, 21-inch diameter SM-3 missile (SM-3 Blk IIA). The objective of the SCD project is the development and initial at-sea flight test of the SM-3 Blk IIA missile. The SM-3 Blk IIA missile development will build upon established joint research investments by both the U.S. and Japan. The system analysis, system trade studies, and BMD system performance goals established in the U.S./Japan BMD Joint Analysis (JAWS) completed in March 2005 are the foundation for developing the SM-3 Blk IIA missile. Key technology improvements over the current SM-3 Blk IA missile planned for the SM-3 Blk IIA missile include a significant increase in velocity and range provided by a 21-inch diameter rocket motor propulsion stack, and increased seeker sensitivity and divert capability incorporated in an advanced kinetic warhead. Key component technologies to be developed under this Annex include, but are not limited to: Lightweight nosecone, advanced kinetic warhead, 21-inch second stage rocket motor, and 21-inch third stage rocket motor.

The U.S. and Japan will equitably share both work and cost.

The Scope of Work of the SCD project can be defined in three phases:

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX09: <i>AB Capability Development</i>
<p>Phase I implements the SCD scope of work as it was defined in the original annex, taking the program through completion of the SDR. Aegis BMD will execute risk reduction efforts for the propulsion, nosecone, seeker and DACS development efforts and test plans, and conduct requirements definition for the SM-3 Blk IIA missile configuration. Phase I will also initiate information exchange related to production and maintenance of the SM-3 Blk IIA missile and introduce the phased engineering approach. Upon completion of requirements definition, a schedule for development and testing, and work share and cost share for development and testing will be refined.</p> <p>Phase II will capture program changes as set out in the first planned amendment, and refine the scope of work from SDR to completion of the CDR. Aegis BMD will refine requirements and define the performance allocation and component configuration for the development and testing of the SM-3 Blk IIA missile, and both parties will design, fabricate, test, and evaluate the SM-3 Block IIA missile. Both parties will continue the information exchanges related to production and maintenance in Phase II.</p> <p>Phase III will capture program changes as set out in the second planned amendment, and refine the scope of work from CDR to the completion of the SCD flight test program as defined in the Agreement. This phase defines developmental cost share agreements between the United States and the Government of Japan, completes component engineering and integration, executes cooperative flight tests, and continues discussions on production and maintenance options.</p> <p>The SM-3 Blk IIA missile will increase the area that can be defended by Aegis BMD and increase the probability of kill against a larger threat set. It will leverage enhanced capability provided by BMDS sensor upgrades.</p> <p>The SCD project will:</p> <ul style="list-style-type: none">Develop components for the SM-3 Blk IIA missile and integrate them into an All Up Round (AUR).21`` 2nd and 3rd stage components21`` noseconeAdvanced kinetic warheadAdvanced SeekerImproved Large Diameter Divert and Attitude Control SystemBegin engineering of the Aegis Weapon System to exploit the capability of the SM-3 Blk IIA missile and use of threat track data from BMDS sensors.		

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX09: <i>AB Capability Development</i>
<p>Integrate the SM-3 Blk IIA missile and VLS with Aegis ship systems</p> <p>Includes development of a light weight VLS canister Conduct test and evaluation using ground and flight tests</p> <p>SM-3 Blk IIA missile Aegis BMD ship systems Aegis BMD weapon system</p> <p>BMD 5.1 will integrate the SM-3 Blk IIA missile with the Aegis BMD Weapon System in Open Architecture, incorporating other Weapon System improvements:</p> <p>Defeat a wide variety of ballistic missiles in the presence of countermeasures SRBMs, MRBMs, IRBMs, LRBMs, including limited ICBMs. Feature Aided Track Correlation (FATC) Forcenet/GIG Compliance Improvements to BMDS Multi-Element Sensor Data Fusion. Engage on Remote (EoR)</p> <p>Aegis Ashore:</p> <p>The Phased Adaptive Approach (PAA) was developed in response to the rapid proliferation of short and medium range ballistic missiles in Iran and the threat they pose to U.S. allies and partners, as well as to U.S. deployed personnel and their accompanying families in the Middle East and Europe. By leveraging recent advances in sensor and interceptor technologies, the United States will aggressively counter this growing regional threat with a more powerful and agile system. The United States is pursuing a four-phased approach which will provide a more effective missile defense capability for defense of NATO territories and enhance U.S. homeland defense; it will be complementary to and interoperable with those being developed by NATO, be applicable in other theaters around the world, and will be more adaptable and flexible to counter threat advances and provide increased defended areas over time. The initial phase includes the deployment of current and proven missile defense technologies, including the sea-based Aegis Weapons System, the SM-3 missile (Block IA and IB), and sensors such as the AN/TPY-2. Subsequent phases will be implemented based on technical maturity, appropriate testing, and threat driven requirements.</p> <p>Aegis Ashore will reinforce and support the existing Host Nation's upper-tier system and defend deployed forces, allies, and friends against theater threats. Furthermore, Aegis Ashore will allow for more sophisticated engagement strategies and reduce vulnerability to countermeasures, forcing an enemy to alter or abandon tactics to penetrate the defensive system.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>		PROJECT WX09: <i>AB Capability Development</i>		
<p>MDA plans to complete a concept study effort to flesh out the system's technical and operational feasibility leading to a near-term demonstration. To support this effort, MDA tasked Aegis BMD to oversee the execution of this study and analysis. MDA anticipates an Aegis Ashore acquisition strategy to be approved during FY 2010</p> <p>In collaboration with the MDA systems engineer, Aegis BMD 5.1 will support an autonomous engagement against SRBMs, MRBMs, IRBMs, LRBMs and some ICBMs without requiring external cueing. It will also support an engagement against SRBMs, MRBMs, IRBMs and LRBMs using data from other BMDS elements and external sensors. Aegis BMD will also provide target track data to support Ground Based Interceptor Launch and Engagement against IRBMs and ICBMs via input for GMD.</p>						
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
SCD Missile Development See Description Below <i>FY 2009 Accomplishments:</i> Continued risk reduction efforts for SM-3 Blk IIA components: Advanced kinetic warhead Improved Large Diameter DACS Continued development of SM-3 Blk IIA including the following components: 21-inch diameter missile 2nd and 3rd stage components: 21-inch diameter nosecone Advanced kinetic warhead Advanced Seeker Improved Large Diameter DACS Lightweight Composite Canister Completed missile system requirements. Continued system performance analysis,		104.301	0.000	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency				DATE: February 2010																			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>		PROJECT WX09: <i>AB Capability Development</i>																			
B. Accomplishments/Planned Program (\$ in Millions)																							
<table border="1"> <thead> <tr> <th></th> <th>FY 2009</th> <th>FY 2010</th> <th>FY 2011 Base</th> <th>FY 2011 OCO</th> <th>FY 2011 Total</th> </tr> </thead> <tbody> <tr> <td>Continued requirements definition and analysis for the lightweight canister and vertical launch system integration. Developed system specifications to support flight testing of the SM-3 Blk IIA missile. <i>FY 2010 Plans:</i> Per Congressional direction, program content for the SM-3 Blk IIA missile transitions in FY10 to PE 0604881C, SM-3 Block IIA Co-Development. <i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in PE 0604881C, Project MD09 in FY 2011. <i>FY 2011 OCO Plans:</i> NA</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>SCD Weapon System Development See Description Below <i>FY 2009 Accomplishments:</i> Weapon System efforts within this project are centered on AWS modifications necessary to test the SM-3 Blk IIA missile (BMD 4.0.1 Engineering Release (ENG REL)). Participated in the SDR for the SCD effort. Support performance requirements analysis. Continued requirements definition for BMD 4.0.1 ENG REL. <i>FY 2010 Plans:</i> Planned program efforts for this effort are captured in PE 0604881C in FY 2010. <i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in ;PE 0604881C ;in FY 2011.</td> <td align="right">16.824</td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">0.000</td> </tr> </tbody> </table>							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Continued requirements definition and analysis for the lightweight canister and vertical launch system integration. Developed system specifications to support flight testing of the SM-3 Blk IIA missile. <i>FY 2010 Plans:</i> Per Congressional direction, program content for the SM-3 Blk IIA missile transitions in FY10 to PE 0604881C, SM-3 Block IIA Co-Development. <i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in PE 0604881C, Project MD09 in FY 2011. <i>FY 2011 OCO Plans:</i> NA						SCD Weapon System Development See Description Below <i>FY 2009 Accomplishments:</i> Weapon System efforts within this project are centered on AWS modifications necessary to test the SM-3 Blk IIA missile (BMD 4.0.1 Engineering Release (ENG REL)). Participated in the SDR for the SCD effort. Support performance requirements analysis. Continued requirements definition for BMD 4.0.1 ENG REL. <i>FY 2010 Plans:</i> Planned program efforts for this effort are captured in PE 0604881C in FY 2010. <i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in ;PE 0604881C ;in FY 2011.	16.824	0.000	0.000	0.000	0.000
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total																		
Continued requirements definition and analysis for the lightweight canister and vertical launch system integration. Developed system specifications to support flight testing of the SM-3 Blk IIA missile. <i>FY 2010 Plans:</i> Per Congressional direction, program content for the SM-3 Blk IIA missile transitions in FY10 to PE 0604881C, SM-3 Block IIA Co-Development. <i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in PE 0604881C, Project MD09 in FY 2011. <i>FY 2011 OCO Plans:</i> NA																							
SCD Weapon System Development See Description Below <i>FY 2009 Accomplishments:</i> Weapon System efforts within this project are centered on AWS modifications necessary to test the SM-3 Blk IIA missile (BMD 4.0.1 Engineering Release (ENG REL)). Participated in the SDR for the SCD effort. Support performance requirements analysis. Continued requirements definition for BMD 4.0.1 ENG REL. <i>FY 2010 Plans:</i> Planned program efforts for this effort are captured in PE 0604881C in FY 2010. <i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in ;PE 0604881C ;in FY 2011.	16.824	0.000	0.000	0.000	0.000																		

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX09: <i>AB Capability Development</i>				
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>Continue early systems engineering and performance analysis of BMD 5.1 to support the SCD PDR level of maturity.</p> <p><i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in project MD09 in FY 2011.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>						
<p>BMD 5.0 Development See Description Below</p> <p><i>FY 2009 Accomplishments:</i> NA</p> <p><i>FY 2010 Plans:</i> This task funds the BMD 5.0 development effort, importing BMD capability into the Navy's Open Architecture system. Additional funding for this task is provided in project EX09.</p> <p>Update technical specifications (some in Unified Modeling Language), update A-Spec & B-1 from PDR, Baseline Master Test and Evaluation Program Plan (MTEPP). Conduct BMD 5.0 Critical Design Review to review and gain approval for the contractor's approach and progress towards meeting the BMD 5.0 requirements. Conduct BMD 5.0 Test Planning Review to review contractor's plan (MTEPP) and assess program readiness to commence computer program testing at the development and test sites (CSEDS). Conduct BMD 5.0 Near-Term SBT / EoR PDR to review and approve the contractor's approach and initial design to meet requirements.</p>		0.000	128.834	0.000	0.000	0.000

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX09: <i>AB Capability Development</i>				
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<i>FY 2011 OCO Plans:</i> NA						
BMD 5.1 BMC4I See Description Below <i>FY 2009 Accomplishments:</i> NA <i>FY 2010 Plans:</i> This task provides funding for Command, Control, Battle Management and Communications tasks related to the development of the BMD 5.1 weapon system. Support generation of ONIR requirements to incorporate advanced algorithm and new sensor capabilities. Continue systems engineering efforts to develop advanced track discrimination, correlation, and data fusion improvements. Support system integration efforts with other BMDS elements to maximize interoperability with the overall BMDS. <i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in project MD09 in FY 2011. <i>FY 2011 OCO Plans:</i> NA		0.000	5.279	0.000	0.000	0.000
BMD 3.6.2		0.000	0.000	0.000	0.000	0.000

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B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Conduct system safety design trade studies. <i>FY 2011 Base Plans:</i> FY 2011 planned program is captured in PE 0604880C, Aegis Ashore. <i>FY 2011 OCO Plans:</i> NA					
Accomplishments/Planned Programs Subtotals	164.532	233.479	0.000	0.000	0.000

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

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 0603175C: <i>Ballistic Missile Defense Technology</i>	117.602	189.229	132.220	0.000	132.220	236.875	239.873	197.118	197.852	0	1,310.769
• 0603881C: <i>Ballistic Missile Defense Terminal Defense Segment</i>	951.414	715.732	436.482	0.000	436.482	250.275	336.711	500.983	521.717	0	3,713.314
• 0603882C: <i>Ballistic Missile Defense Mid-Course Segment</i>	1,472.683	1,027.371	1,346.181	0.000	1,346.181	1,112.655	1,291.790	1,099.029	1,033.213	0	8,382.922
• 0603883C: <i>Ballistic Missile Defense Boost Defense Segment</i>	384.365	182.317	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	566.682
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	682.754	621.017	454.859	0.000	454.859	469.589	681.397	650.525	616.342	0	4,176.483
• 0603886C: <i>Ballistic Missile Defense System Interceptor</i>	308.869	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	308.869
• 0603888C: <i>Ballistic Missile Defense Test and Targets</i>	906.952	823.333	1,113.425	0.000	1,113.425	1,105.959	951.371	871.929	829.608	0	6,602.577
	402.776	358.751	402.769	0.000	402.769	468.673	457.745	473.871	488.799	0	3,053.384

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C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0603890C: <i>Ballistic Missile Defense Enabling Programs</i>											
• 0603891C: <i>SPECIAL PROGRAMS - MDA</i>	182.998	250.185	270.189	0.000	270.189	269.040	450.645	517.486	601.315	0	2,541.858
• 0603893C: <i>SPACE TRACKING & SURVEILLANCE SYSTEM</i>	209.831	161.609	112.678	0.000	112.678	98.500	56.424	52.928	34.661	0	726.631
• 0603894C: <i>MULTIPLE KILL VEHICLE</i>	226.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	226.027
• 0603895C: <i>BMD SYSTEM SPACE PROGRAM</i>	23.250	12.492	10.942	0.000	10.942	11.182	11.347	11.749	12.155	0	93.117
• 0603896C: <i>BMD C2BMC</i>	275.174	334.734	342.625	0.000	342.625	364.085	289.778	323.922	298.936	0	2,229.254
• 0603897C: <i>BMD HERCULES</i>	51.629	47.932	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	99.561
• 0603898C: <i>BMD JOINT WARFIGHTER SUPPORT</i>	66.283	61.098	68.726	0.000	68.726	62.239	63.451	65.158	67.231	0	454.186
• 0603901C: <i>DIRECTED ENERGY RESEARCH</i>	0.000	0.000	98.688	0.000	98.688	101.371	103.449	104.572	104.141	0	512.221
• 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	102.823	86.483	86.198	0.000	86.198	88.181	78.517	80.410	83.087	0	605.699
• 0603906C: <i>REGARDING TRENCH</i>	3.159	6.130	7.529	0.000	7.529	8.295	8.286	8.479	8.675	0	50.553
• 0603907C: <i>SEA BASED X-BAND RADAR (SBX)</i>	143.878	167.153	153.056	0.000	153.056	150.104	159.832	160.163	197.099	0	1,131.285
• 0603908C: <i>BMD EUROPEAN INTERCEPTOR SITE</i>	348.722	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	348.722
• 0603909C: <i>BMD EUROPEAN MIDCOURSE RADAR</i>	73.728	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	73.728
• 0603911C: <i>BMD EUROPEAN CAPABILITY</i>	0.000	50.226	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	50.226

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

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603912C: <i>BMD European Comm Support</i>	26.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	26.016
• 0603913C: <i>ISRAELI COOPERATIVE</i>	0.000	201.323	121.735	0.000	121.735	111.100	113.101	116.114	119.172	0	782.545
• 0604880C: <i>LAND-BASED SM-3</i>	0.000	0.000	281.378	0.000	281.378	345.937	187.062	93.456	139.595	0	1,047.428
• 0604881C: <i>Aegis SM-3 BLOCK IIA CO-DEVELOPMENT</i>	0.000	255.987	318.800	0.000	318.800	405.500	416.300	337.300	227.500	0	1,961.387
• 0604883C: <i>PRECISION TRACKING SPACE SYSTEM</i>	0.000	0.000	66.969	0.000	66.969	123.851	184.800	348.360	482.952	0	1,206.932
• 0604884C: <i>AIRBORNE INFRARED (ABIR)</i>	0.000	0.000	111.671	0.000	111.671	103.636	123.591	103.668	58.773	0	501.339
• 0605502C: <i>Small Business Innovative Research BMDO</i>	124.788	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	124.788
• 0901585C: <i>Pentagon Reservation</i>	20.146	19.709	20.482	0.000	20.482	0.000	0.000	0.000	0.000	0	60.337
• 0901598C: <i>Management Headquarters-MDA</i>	87.151	52.403	29.754	0.000	29.754	29.421	29.974	30.567	31.171	0	290.441

D. Acquisition Strategy

The SM-3 Cooperative Development program for the SM-3 Blk IIA missile will utilize a performance-based approach that ties program decision milestones to the performance of development prototypes, as well as Control Test Vehicle and Guidance Test Vehicle flight test article performance. Acquisition of hardware, software modifications and required services will occur in conjunction with contractual and tasking efforts to U.S. Navy work and events, and as defined by signed agreements between the Governments of the United States and Japan.

If a decision is made to do so, the Land-Based SM-3 project will follow MDA's capability-based acquisition strategy that emphasizes testing, spiral development and evolutionary acquisition. The details of this plan will be approved in FY 2010.

MDA will transition from the existing legacy, project-oriented Systems Engineering and Technical Assistance (SETA) contractor construct to an enterprise-wide Advisory and Assistance Services (A&AS) approach to support the Ballistic Missile Defense System (BMDS) mission. The objectives are to implement national

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<p>engineering and support services for the BMDS mission across the enterprise, enhance the sharing of ballistic missile defense expertise and knowledge across the agency, centralize the acquisition of support services manpower in a more efficient manner and reduce agency overhead costs enterprise-wide. A&AS support includes engineering and technical services; studies, analyses, and evaluation; and management and professional services.</p> <p>Competition will be used for procurement of any products or services in FY 2011, when appropriate.</p> <p><u>E. Performance Metrics</u> NA</p>		

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SCD Weapon System Development SCD Weapon System Development-1 WX09	SS/CPIF	Lockheed Martin NJ	44.107	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
SCD Weapon System Development SCD Weapon System Development-2 WX09	TBD/TBD	JHU/APL MD	3.147	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
SCD Weapon System Development SCD Weapon System Development-3 WX09	TBD/TBD	NSCW/DD VA	2.076	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
SCD Weapon System Development SCD Weapon System Development-4 WX09	TBD/TBD	MIT/LL MA	3.743	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
SCD Weapon System Development SCD Weapon System Development-5 WX09	Various/ Various	MDA -	2.552	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
SCD Weapon System Development SCD Weapon System Development-6 WX09	Various/ Various	Various Various	0.714	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
SCD Weapon System Development SCD Weapon System Development-7 WX09	TBD/TBD	Techrep NJ	0.935	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 5.1 Weapon System Development BMD 5.1 Weapon System Development-1 WX09	SS/CPIF	Lockheed Martin NJ	42.988	3.960	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.1 Weapon System Development BMD 5.1 Weapon System Development-2 WX09	TBD/TBD	JHU/APL MD	3.056	0.289	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.1 Weapon System Development BMD 5.1 Weapon System Development-3 WX09	TBD/TBD	NSWC/DD VA	2.697	0.255	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.1 Weapon System Development BMD 5.1 Weapon System Development-4 WX09	TBD/TBD	SPAWAR CA	0.719	0.068	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.1 Weapon System Development BMD 5.1 Weapon System Development-5 WX09	TBD/TBD	VA Sites VA	1.348	0.128	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.1 Weapon System Development BMD 5.1 Weapon	Various/ Various	MDA -	3.353	0.317	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
System Development-6 WX09													
BMD 5.1 Weapon System Development BMD 5.1 Weapon System Development-7 WX09	Various/ Various	Various Various	0.269	0.025	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.1 Weapon System Development BMD 5.1 Weapon System Development-8 WX09	TBD/TBD	Aegis Techrep NJ	0.504	0.048	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 Development-1 WX09	SS/CPIF	Lockheed Martin NJ	0.000	109.298	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 Development-2 WX09	TBD/TBD	NSWC/DD VA	0.000	6.395	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 Development-3 WX09	TBD/TBD	JHU/APL MD	0.000	6.898	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 Development-4 WX09	TBD/TBD	MIT/LL MA	0.000	1.661	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 Development-5 WX09	TBD/TBD	VA Sites VA	0.000	1.495	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 5.0 Development BMD 5.0 Development-6 WX09	TBD/TBD	Various Various	0.000	1.206	Apr 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 Development-7 WX09	TBD/TBD	Aegis Techrep NJ	0.000	1.881	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
System Engineering & Integration System Engineering & Integration-1 WX09	TBD/TBD	JHU/APL MD	2.290	6.582	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
System Engineering & Integration System Engineering & Integration-2 WX09	Various/ Various	MDA -	9.542	24.927	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
System Engineering & Integration System Engineering & Integration-3 WX09	TBD/TBD	NSWC/DD VA	3.640	10.462	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
System Engineering & Integration System Engineering & Integration-4 WX09	TBD/TBD	NSWC/PHD CA	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
System Engineering & Integration System Engineering & Integration-5 WX09	Various/ Various	Various Various	1.170	3.363	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
	TBD/TBD	JHU/APL	0.000	1.106	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 5.1 BMC4I BMD 5.1 BMC4I-1 WX09		MD											
BMD 5.1 BMC4I BMD 5.1 BMC4I-2 WX09	TBD/TBD	MIT/LL MA	0.000	0.353	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.1 BMC4I BMD 5.1 BMC4I-3 WX09	TBD/TBD	MITR -	0.000	0.281	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.1 BMC4I BMD 5.1 BMC4I-4 WX09	TBD/TBD	NSWC/PHD CA	0.000	0.349	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.1 BMC4I BMD 5.1 BMC4I-5 WX09	TBD/TBD	SPAWAR CA	0.000	2.875	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 5.1 BMC4I BMD 5.1 BMC4I-6 WX09	Various/ Various	Various Various	0.000	0.315	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 3.6.2 BMD 3.6.2-1 WX09	SS/CPIF	Lockheed Martin NJ	0.000	0.000	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 3.6.2 BMD 3.6.2-2 WX09	TBD/TBD	NSWC/DD VA	0.000	0.000	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 3.6.2 BMD 3.6.2-3 WX09	TBD/TBD	JHU/APL MD	0.000	0.000	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 3.6.2 BMD 3.6.2-4 WX09	TBD/TBD	Various Various	0.000	0.000	Apr 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 3.6.2 BMD 3.6.2-5 WX09	Various/ Various	MDA VA	0.000	0.000	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
BMD 3.6.2 BMD 3.6.2-6 WX09	TBD/TBD	Aegis Techrep NJ	0.000	0.000	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
	SS/CPIF	Lockheed Martin	0.000	28.942	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX09: <i>AB Capability Development</i>
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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Aegis Ashore Aegis Ashore WX09		NJ											
Aegis Ashore Aegis Ashore - 200912144350069 WX09	TBD/TBD	JHU/APL MD	0.000	3.500	Apr 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis Ashore Aegis Ashore - 200912144350073 WX09	TBD/TBD	NSWC/PHD CA	0.000	2.500	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis Ashore Aegis Ashore - 200912144350078 WX09	TBD/TBD	NSWC/DD VA	0.000	7.000	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis Ashore Aegis Ashore - 200912144350083 WX09	TBD/TBD	MIT MA	0.000	1.500	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis Ashore Aegis Ashore - 200912144350089 WX09	SS/CPAF	Raytheon AZ	0.000	3.000	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Aegis Ashore Aegis Ashore - 200912144350095 WX09	TBD/TBD	Various Various	0.000	2.500	Apr 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			128.850	233.479		0.000		0.000		0.000			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX09: <i>AB Capability Development</i>
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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

Remarks
NA

Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks
NA

Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks
NA

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX09: <i>AB Capability Development</i>
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Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks
NA

Project Cost Totals	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract	
	128.850	233.479		0.000		0.000		0.000				

Remarks
NA

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Missile Defense Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX09: <i>AB Capability Development</i>

	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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
BMD 4.0.1 ENG REL Development	■	■	■	■	■	■	■	■																				
SM-3 Blk IIA System Design Review (SDR)	■																											
SM-3 Blk IIA Preliminary Design Review								■																				
BMD 5.1 / 5.X Development	■	■	■	■	■	■	■	■																				

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Missile Defense Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX09: <i>AB Capability Development</i>

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
BMD 4.0.1 ENG REL Development	1	2009	4	2010
SM-3 Blk IIA System Design Review (SDR)	1	2009	1	2009
SM-3 Blk IIA Preliminary Design Review	3	2010	3	2010
BMD 5.1 / 5.X Development	1	2009	4	2010

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX18: <i>Far Term Sea Based Terminal Capability Development</i>
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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
<i>WX18: Far Term Sea Based Terminal Capability Development</i>	14.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	14.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

NA

A. Mission Description and Budget Item Justification

The Far-Term Sea Based Terminal (FTSBT) project (BMD 5.2), is an Aegis BMD future capability development. FTSBT will expand the NTSBT capability developed and delivered as baseline BMD 3.6.1 in Block 2.0, providing a more capable and robust SBT capability and expanding the battlespace to enable the system against a greater range of targets. BMD 5.2 will be built with the Aegis BMD Weapon System in Open Architecture.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Far-Term Sea Based Terminal See Description Below <i>FY 2009 Accomplishments:</i> Specific details are provided via separate channel. ; Funding transitions to PE 0603891C, Special Programs. <i>FY 2010 Plans:</i> NA <i>FY 2011 Base Plans:</i> NA	14.000	0.000	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>			R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>				PROJECT WX18: <i>Far Term Sea Based Terminal Capability Development</i>				
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
<i>FY 2011 OCO Plans:</i> NA											
Accomplishments/Planned Programs Subtotals						14.000	0.000	0.000	0.000	0.000	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0603175C: <i>Ballistic Missile Defense Technology</i>	117.602	189.229	132.220	0.000	132.220	236.875	239.873	197.118	197.852	0	1,310.769
• 0603881C: <i>Ballistic Missile Defense Terminal Defense Segment</i>	951.414	715.732	436.482	0.000	436.482	250.275	336.711	500.983	521.717	0	3,713.314
• 0603882C: <i>Ballistic Missile Defense Mid-Course Segment</i>	1,472.683	1,027.371	1,346.181	0.000	1,346.181	1,112.655	1,291.790	1,099.029	1,033.213	0	8,382.922
• 0603883C: <i>Ballistic Missile Defense Boost Defense Segment</i>	384.365	182.317	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	566.682
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	682.754	621.017	454.859	0.000	454.859	469.589	681.397	650.525	616.342	0	4,176.483
• 0603886C: <i>Ballistic Missile Defense System Interceptor</i>	308.869	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	308.869
• 0603888C: <i>Ballistic Missile Defense Test and Targets</i>	906.952	823.333	1,113.425	0.000	1,113.425	1,105.959	951.371	871.929	829.608	0	6,602.577
• 0603890C: <i>Ballistic Missile Defense Enabling Programs</i>	402.776	358.751	402.769	0.000	402.769	468.673	457.745	473.871	488.799	0	3,053.384
• 0603891C: <i>SPECIAL PROGRAMS - MDA</i>	182.998	250.185	270.189	0.000	270.189	269.040	450.645	517.486	601.315	0	2,541.858
	209.831	161.609	112.678	0.000	112.678	98.500	56.424	52.928	34.661	0	726.631

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX18: <i>Far Term Sea Based Terminal Capability Development</i>

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

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 0603893C: <i>SPACE TRACKING & SURVEILLANCE SYSTEM</i>											
• 0603894C: <i>MULTIPLE KILL VEHICLE</i>	226.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	226.027
• 0603895C: <i>BMD SYSTEM SPACE PROGRAM</i>	23.250	12.492	10.942	0.000	10.942	11.182	11.347	11.749	12.155	0	93.117
• 0603896C: <i>BMD C2BMC</i>	275.174	334.734	342.625	0.000	342.625	364.085	289.778	323.922	298.936	0	2,229.254
• 0603897C: <i>BMD HERCULES</i>	51.629	47.932	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	99.561
• 0603898C: <i>BMD JOINT WARFIGHTER SUPPORT</i>	66.283	61.098	68.726	0.000	68.726	62.239	63.451	65.158	67.231	0	454.186
• 0603901C: <i>DIRECTED ENERGY RESEARCH</i>	0.000	0.000	98.688	0.000	98.688	101.371	103.449	104.572	104.141	0	512.221
• 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	102.823	86.483	86.198	0.000	86.198	88.181	78.517	80.410	83.087	0	605.699
• 0603906C: <i>REGARDING TRENCH</i>	3.159	6.130	7.529	0.000	7.529	8.295	8.286	8.479	8.675	0	50.553
• 0603907C: <i>SEA BASED X-BAND RADAR (SBX)</i>	143.878	167.153	153.056	0.000	153.056	150.104	159.832	160.163	197.099	0	1,131.285
• 0603908C: <i>BMD EUROPEAN INTERCEPTOR SITE</i>	348.722	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	348.722
• 0603909C: <i>BMD EUROPEAN MIDCOURSE RADAR</i>	73.728	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	73.728
• 0603911C: <i>BMD EUROPEAN CAPABILITY</i>	0.000	50.226	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	50.226
• 0603912C: <i>BMD European Comm Support</i>	26.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	26.016
• 0603913C: <i>ISRAELI COOPERATIVE</i>	0.000	201.323	121.735	0.000	121.735	111.100	113.101	116.114	119.172	0	782.545

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX18: <i>Far Term Sea Based Terminal Capability Development</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0604880C: <i>LAND-BASED SM-3</i>	0.000	0.000	281.378	0.000	281.378	345.937	187.062	93.456	139.595	0	1,047.428
• 0604881C: <i>Aegis SM-3 BLOCK IIA CO-DEVELOPMENT</i>	0.000	255.987	318.800	0.000	318.800	405.500	416.300	337.300	227.500	0	1,961.387
• 0604883C: <i>PRECISION TRACKING SPACE SYSTEM</i>	0.000	0.000	66.969	0.000	66.969	123.851	184.800	348.360	482.952	0	1,206.932
• 0604884C: <i>AIRBORNE INFRARED (ABIR)</i>	0.000	0.000	111.671	0.000	111.671	103.636	123.591	103.668	58.773	0	501.339
• 0605502C: <i>Small Business Innovative Research BMDO</i>	124.788	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	124.788
• 0901585C: <i>Pentagon Reservation</i>	20.146	19.709	20.482	0.000	20.482	0.000	0.000	0.000	0.000	0	60.337
• 0901598C: <i>Management Headquarters-MDA</i>	87.151	52.403	29.754	0.000	29.754	29.421	29.974	30.567	31.171	0	290.441

D. Acquisition Strategy

Specific details of this project are provided via separate channel.

E. Performance Metrics

NA

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX18: <i>Far Term Sea Based Terminal Capability Development</i>
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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks
Specific details of this project are provided via separate channel.

Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks
NA

Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX18: <i>Far Term Sea Based Terminal Capability Development</i>
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Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

Remarks
NA

Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks
NA

Project Cost Totals	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
		Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Project Cost Totals	0.000	0.000		0.000		0.000		0.000			

Remarks
NA

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX18: <i>Far Term Sea Based Terminal Capability Development</i>
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	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015							
	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				
FTSBT Efforts	■	■	■	■																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT WX18: <i>Far Term Sea Based Terminal Capability Development</i>
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
FTSBT Efforts	1	2009	4	2009

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency								DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>				PROJECT XX09: <i>AEGIS BMD Sustainment</i>				
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost	
XX09: <i>AEGIS BMD Sustainment</i>	39.495	45.766	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	85.261	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0			
Note NA												
A. Mission Description and Budget Item Justification Aegis BMD has negotiated agreements with the U.S. Navy for the operations and maintenance of BMD systems on-board U.S. Navy ships. Support efforts are leveraged off of already-existing contracts and infrastructure, maintained by the Navy.												
B. Accomplishments/Planned Program (\$ in Millions)												
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total		
Weapon System-7 See Description Below <i>FY 2009 Accomplishments:</i> Provided In-service Engineering support to Aegis BMD: Weapon System and Vertical Launching System. Provided operational and maintenance training for Aegis BMD ship crews. Provided logistics support (including technical manuals, spares, and Reliability, Maintainability, and Availability analysis and products) for Aegis BMD: Weapon System and Vertical Launching System. Provided leadership and engineering/technical support to conduct Aegis Combat Systems Assessments. Responded to Fleet issues related to Aegis BMD installations, BMD operations and BMD events.						17.405	22.793	0.000	0.000	0.000		

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency				DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>		PROJECT XX09: <i>AEGIS BMD Sustainment</i>				
B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2010 Plans:</i> Provide In-service Engineering support to Aegis BMD: Weapon System and Vertical Launching System. Provide operational and maintenance training for Aegis BMD ship crews. Provide logistics support (including technical manuals, spares, and Reliability, Maintainability, and Availability analysis and products) for Aegis BMD: Weapon System and Vertical Launching System. Provide leadership and engineering/technical support to conduct Aegis Combat Systems Assessments. Respond to Fleet issues related to Aegis BMD installations, BMD operations and BMD events.</p> <p><i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in project MD09 in FY 2011.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>								
SM-3 Missile Maintenance See Description Below <p><i>FY 2009 Accomplishments:</i> This effort provides funding for operator and maintenance training, engineering support, and logistics support and maintenance of Aegis BMD fielded assets.</p> <p>Provided In-service Engineering support to Aegis BMD: SM-3 missile. Provided operational and maintenance training for Aegis BMD ship crews. Provided logistics support (including technical manuals, and spares) for Aegis BMD: SM-3 missile. Responded to Fleet issues related to Aegis BMD operations and BMD events.</p>				22.090	22.973	0.000	0.000	0.000

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT XX09: <i>AEGIS BMD Sustainment</i>
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B. Accomplishments/Planned Program (\$ in Millions)	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2010 Plans:</i> Provide In-service Engineering support to Aegis BMD: SM-3 missile. Provide operational and maintenance training for Aegis BMD ship crews. Provide logistics support (including technical manuals, and spares) for Aegis BMD: SM-3 missile. Respond to Fleet issues related to Aegis BMD operations and BMD events.</p> <p><i>FY 2011 Base Plans:</i> Planned program efforts for this effort are captured in project MD09 in FY 2011.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>					
Accomplishments/Planned Programs Subtotals	39.495	45.766	0.000	0.000	0.000

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0603175C: <i>Ballistic Missile Defense Technology</i>	117.602	189.229	132.220	0.000	132.220	236.875	239.873	197.118	197.852	0	1,310.769
• 0603881C: <i>Ballistic Missile Defense Terminal Defense Segment</i>	951.414	715.732	436.482	0.000	436.482	250.275	336.711	500.983	521.717	0	3,713.314
• 0603882C: <i>Ballistic Missile Defense Mid-Course Segment</i>	1,472.683	1,027.371	1,346.181	0.000	1,346.181	1,112.655	1,291.790	1,099.029	1,033.213	0	8,382.922
• 0603883C: <i>Ballistic Missile Defense Boost Defense Segment</i>	384.365	182.317	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	566.682
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	682.754	621.017	454.859	0.000	454.859	469.589	681.397	650.525	616.342	0	4,176.483

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

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603886C: <i>Ballistic Missile Defense System Interceptor</i>	308.869	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	308.869
• 0603888C: <i>Ballistic Missile Defense Test and Targets</i>	906.952	823.333	1,113.425	0.000	1,113.425	1,105.959	951.371	871.929	829.608	0	6,602.577
• 0603890C: <i>Ballistic Missile Defense Enabling Programs</i>	402.776	358.751	402.769	0.000	402.769	468.673	457.745	473.871	488.799	0	3,053.384
• 0603891C: <i>SPECIAL PROGRAMS - MDA</i>	182.998	250.185	270.189	0.000	270.189	269.040	450.645	517.486	601.315	0	2,541.858
• 0603893C: <i>SPACE TRACKING & SURVEILLANCE SYSTEM</i>	209.831	161.609	112.678	0.000	112.678	98.500	56.424	52.928	34.661	0	726.631
• 0603894C: <i>MULTIPLE KILL VEHICLE</i>	226.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	226.027
• 0603895C: <i>BMD SYSTEM SPACE PROGRAM</i>	23.250	12.492	10.942	0.000	10.942	11.182	11.347	11.749	12.155	0	93.117
• 0603896C: <i>BMD C2BMC</i>	275.174	334.734	342.625	0.000	342.625	364.085	289.778	323.922	298.936	0	2,229.254
• 0603897C: <i>BMD HERCULES</i>	51.629	47.932	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	99.561
• 0603898C: <i>BMD JOINT WARFIGHTER SUPPORT</i>	66.283	61.098	68.726	0.000	68.726	62.239	63.451	65.158	67.231	0	454.186
• 0603901C: <i>DIRECTED ENERGY RESEARCH</i>	0.000	0.000	98.688	0.000	98.688	101.371	103.449	104.572	104.141	0	512.221
• 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	102.823	86.483	86.198	0.000	86.198	88.181	78.517	80.410	83.087	0	605.699
• 0603906C: <i>REGARDING TRENCH</i>	3.159	6.130	7.529	0.000	7.529	8.295	8.286	8.479	8.675	0	50.553
• 0603907C: <i>SEA BASED X-BAND RADAR (SBX)</i>	143.878	167.153	153.056	0.000	153.056	150.104	159.832	160.163	197.099	0	1,131.285
• 0603908C: <i>BMD EUROPEAN INTERCEPTOR SITE</i>	348.722	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	348.722

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

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603909C: <i>BMD EUROPEAN MIDCOURSE RADAR</i>	73.728	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	73.728
• 0603911C: <i>BMD EUROPEAN CAPABILITY</i>	0.000	50.226	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	50.226
• 0603912C: <i>BMD European Comm Support</i>	26.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	26.016
• 0603913C: <i>ISRAELI COOPERATIVE</i>	0.000	201.323	121.735	0.000	121.735	111.100	113.101	116.114	119.172	0	782.545
• 0604880C: <i>LAND-BASED SM-3</i>	0.000	0.000	281.378	0.000	281.378	345.937	187.062	93.456	139.595	0	1,047.428
• 0604881C: <i>Aegis SM-3 BLOCK IIA CO-DEVELOPMENT</i>	0.000	255.987	318.800	0.000	318.800	405.500	416.300	337.300	227.500	0	1,961.387
• 0604883C: <i>PRECISION TRACKING SPACE SYSTEM</i>	0.000	0.000	66.969	0.000	66.969	123.851	184.800	348.360	482.952	0	1,206.932
• 0604884C: <i>AIRBORNE INFRARED (ABIR)</i>	0.000	0.000	111.671	0.000	111.671	103.636	123.591	103.668	58.773	0	501.339
• 0605502C: <i>Small Business Innovative Research BMDO</i>	124.788	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	124.788
• 0901585C: <i>Pentagon Reservation</i>	20.146	19.709	20.482	0.000	20.482	0.000	0.000	0.000	0.000	0	60.337
• 0901598C: <i>Management Headquarters-MDA</i>	87.151	52.403	29.754	0.000	29.754	29.421	29.974	30.567	31.171	0	290.441

D. Acquisition Strategy

Support contracts for U.S. Navy ships, including those designated as BMD-ships, are designated and maintained by the U.S. Navy. This includes support for assets being deployed on U.S. Navy ships, such as the SM-3 missile.

MDA will transition from the existing legacy, project-oriented Systems Engineering and Technical Assistance (SETA) contractor construct to an enterprise-wide Advisory and Assistance Services (A&AS) approach to support the Ballistic Missile Defense System (BMDS) mission. The objectives are to implement national engineering and support services for the BMDS mission across the enterprise, enhance the sharing of ballistic missile defense expertise and knowledge across the

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<p>agency, centralize the acquisition of support services manpower in a more efficient manner and reduce agency overhead costs enterprise-wide. A&AS support includes engineering and technical services; studies, analyses, and evaluation; and management and professional services.</p> <p>Competition will be used for procurement of any products or services in FY 2011, when appropriate.</p> <p><u>E. Performance Metrics</u> NA</p>		

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks

NA

Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Weapon System-7 Weapon System-1 XX09	TBD/TBD	JHU/APL MD	0.804	0.425	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Weapon System-7 Weapon System-2 XX09	TBD/TBD	CSCS(ATRC) VA	3.739	2.094	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Weapon System-7 Weapon System-3 XX09	TBD/TBD	NSWC Corona CA	1.929	1.045	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Weapon System-7 Weapon System-4 XX09	TBD/TBD	NSWC/DD VA	1.498	0.844	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Weapon System-7 Weapon System-5 XX09	TBD/TBD	NSWC/PHD CA	7.465	4.364	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
Weapon System-7 Weapon System-6 XX09	Various/ Various	Various Various	1.485	0.776	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
Weapon System-7 Weapon System-7 XX09	SS/CPIF	Lockheed Martin NJ	21.020	13.245	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing

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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 Missile Maintenance Missile-1 XX09	SS/CPAF	Raytheon AZ	26.682	13.526	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Missile Maintenance Missile-2 XX09	TBD/TBD	NSWC/PHD CA	4.861	2.363	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Missile Maintenance Missile-3 XX09	TBD/TBD	NSWC/DD VA	4.921	2.363	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Missile Maintenance Missile-4 XX09	TBD/TBD	NSWC/Corona CA	3.869	1.941	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Missile Maintenance Missile-5 XX09	TBD/TBD	NSWC/IH MD	1.984	1.033	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
SM-3 Missile Maintenance Missile-6 XX09	Various/ Various	Various Various	3.573	1.747	Jan 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			83.830	45.766		0.000		0.000		0.000			

Remarks

NA

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Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks
NA

Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks
NA

Project Cost Totals	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
		Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
	83.830	45.766		0.000		0.000		0.000			

Remarks
NA

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
MD09: <i>Aegis BMD</i>	0.000	0.000	1,412.560	0.000	1,412.560	971.965	1,063.367	1,030.020	885.993	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

NA

A. Mission Description and Budget Item Justification

Aegis BMD continues development of a sea-based BMD capability in project MD09, in support of the Missile Defense Agency's mission to protect the homeland, deployed forces, friends and allies from ballistic missile threats of all ranges and in all stages of flight. Aegis BMD efforts will primarily fall into two categories of BMD initiatives:

Enhance Missile Defense to Defend Deployed Forces, Allies and Friends Against Theater Threats:

- BMD 3.6.1 NTSBT defense.
- BMD 4.0.1 enhanced capability with the Aegis BSP.
- SM-3 Blk IB missile upgrades, to include ARO, an advanced signal processor, and a TDACS.
- BMD 5.0 implementation of BMD capability with the Navy's Aegis Modernization Program.
- SM-3 Blk IIA Cooperative Development with Japan, including the BMD 4.0.1 Engineering Release test configuration.
- BMD 5.1 tactical weapon system supporting deployment of the SM-3 Blk IIA missile.
- Initial manufacturing of SM-3 Blk IB missiles.
- BMD shipset installations aboard US Navy Cruisers and Destroyers.
- Initial Operations and Sustainment of the fielded Aegis BMD system.

Prove Missile Defense Works:

- Aegis BMD element-level testing.
- Participation in BMD System flight missions.
- Participation in BMD System ground tests.

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<p>Element Modeling & Simulation.</p> <p>NTSBT (BMD 3.6.1) provides for an integrated SBT capability against a finite set of SRBM. BMD 3.6.1 incorporates a fuze modified SM-2 Block IV missile provided by a separate OPNAV sponsored effort and builds on BMD 3.6 to provide a terminal phase capability. The BMD 3.6.1 continues efforts to refine Aegis Launch on AN/TPY-2 and bridges the gap between the operational deployment of BMD 3.6 and BMD 4.0.1.</p> <p>Aegis BMD is fielding the NTSBT capability FY 2009 on 20 U.S. Navy Cruisers and Destroyers. In addition to the near-term SBT capability, Aegis BMD performed various upgrades to BMD 3.6 in BMD 3.6.1; updates include early integration efforts for Aegis BMD launch on AN/TPY-2 capability. Aegis BMD 3.6.1 also provides enhanced capabilities within the areas of engagement coordination, system track, and communications to support the BMDS UMDf.</p> <p>The BMD 4.0.1 Combat System will expand Aegis BMD effectiveness against the threat base. It will provide a full upgrade to the Aegis BMD Weapon System (BMD 4.0.1) to include the Aegis BSP, and an upgraded SM-3 missile, SM-3 Blk IB. BMD 4.0.1 will be capable of Launch-on-Remote operations leveraging the BMDS Sensor network.</p> <p>BMD 4.0.1 will deliver in two spirals:</p> <p>Spiral one (BMD 4.0.1 Test Bed) will deliver an initial engagement system capability with the SM-3 Blk IA missile. It will build on BSP enhancements to the LRS&T mission by adding mission capability for flight missions.</p> <p>Spiral two (BMD 4.0.1) will continue through the System Engineering Development and Testing process and culminate as an operationally-certified system capable of BMD engagements using either the SM-3 Blk IA or IB missile.</p> <p>Other capability enhancements include functionality to support BMDS integrated Builds C and D:</p> <p>Improvements in BMDS Command and C2BMC to ensure future BMDS sensor enhancements and the resulting discrimination capabilities are able to be communicated, correlated, and acted upon.</p> <p>Improved engagement coordination capability with THAAD and PATRIOT to conserve upper tier missiles.</p> <p>Analysis for planned upgrades to the SM-3 missile to expand battlespace and improve discrimination, divert, and probability of mission success.</p> <p>Supports BMDS Integrated Build C functionality: In Aegis BMD, this functionality includes deliberate and crisis Ballistic Missile Defense planning, Warfighter situational awareness, and the initial capability to control Regional BMD engagement between local assets and near-term improvements to threat discrimination.</p> <p>Supports Integrated BMDS Build D functionality: In Aegis BMD, this functionality includes the upgraded and improved Aegis BMD System (4.0.1 and Standard Missile (SM-3 Blk IB)) that provides significant improvements to both RF and IR discrimination enhancing system effectiveness. Additional improvements to Aegis increase its</p>		

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<p>ability to launch SM-3 interceptors on BMD System sensor data and improve Aegis coordination with other BMD weapon systems in the region. Enhanced capability is provided to simultaneously test, train and operate the BMD System resulting in higher levels of defensive readiness. Further Aegis improvements provide increased effectiveness against a wider range of Ballistic Missile threats. Approved additions to integrated Build D support initial Aegis BMD Ashore with control of engagement debris and refinements to BMD engagement coordination.</p> <p>BMD 5.0 will integrate BMD 4.0.1 and the BMD mission with the Navy-developed OA system. This effort will transition Aegis BMD from older, MIL-STD computers to newer COTS computing plants. This change is necessary for Aegis BMD to remain compatible with Navy assets as Navy ship modernization plans are executed. This change will improve human-systems interface through display enhancements and eliminate the need for a separate computing system specific to the BMD mission. This will also enable more ships to serve as candidates for the BMD mission, delivered in the OA configuration. BMD 5.0 will support the BMDS Integrated Build D and provide the basis for Aegis Ashore.</p> <p>Aegis BMD will also continue the cooperative development of the SM-3 Blk IIA missile with the Government of Japan. In FY06 the two countries signed a MOU for the co-development of an upgraded, 21-inch diameter SM-3 missile (SM-3 Blk IIA). The objective of the SCD project is the development and initial at-sea flight test of the SM-3 Blk IIA missile. The SM-3 Blk IIA missile development will build upon established joint research investments by both the U.S. and Japan. The system analysis, system trade studies, and BMD system performance goals established in the U.S./Japan BMD Joint Analysis (JAWS) completed in March 2005 are the foundation for developing the SM-3 Blk IIA missile. Key technology improvements over the current SM-3 Blk IA missile planned for the SM-3 Blk IIA missile include a significant increase in velocity and range provided by a 21-inch diameter rocket motor propulsion stack, and increased seeker sensitivity and divert capability incorporated in an advanced kinetic warhead. The SM-3 Blk IIA missile will increase the area that can be defended by Aegis BMD and increase the probability of kill against a larger threat set. It will leverage enhanced capability provided by BMDS sensor upgrades. Per Congressional direction, this effort has been transferred to PE 0604881C, SM-3 Block IIA Co-Development, beginning in FY 2010.</p> <p>BMD 5.1 will integrate the SM-3 Blk IIA missile with the OA Aegis BMD Weapon System, incorporating other Weapon System improvements:</p> <ul style="list-style-type: none">Defeat a wide variety of ballistic missiles in the presence of countermeasures SRBMs, MRBMs, IRBMs, and limited LRBMs, including some ICBMs.Feature Aided Track Correlation (FATC).Forcenet/GIG Compliance.Improvements to BMDS Multi-Element Sensor Data Fusion.Engage on Remote (EoR). <p>Operations & Support: Aegis BMD has negotiated agreements with the U.S. Navy for the operations and maintenance of BMD systems on-board U.S. Navy ships. Support efforts are leveraged off of already-existing contracts and infrastructure and processes, maintained by the Navy.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency				DATE: February 2010		
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<p>In collaboration with the MDA Systems Engineer, Aegis BMD supports an autonomous engagement against SRBMs and MRBMs without requiring external cueing. It supports an engagement against SRBMs and MRBMs using data from other BMDS elements and external sensors. Aegis BMD will also provide target track data to support Ground Based Interceptor Launch and Engagement against LRBMs and IRBMs via input for the GMD STP and WTP.</p>						
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
BMD 3.6.1 Development See Description Below <i>FY 2009 Accomplishments:</i> Accomplishments for this effort were captured in project BX18 in FY 2009. <i>FY 2010 Plans:</i> Planned Program efforts for this effort were captured in project BX18 in FY 2010. <i>FY 2011 Base Plans:</i> Prepare for FTM-18 (2/12). Complete pre-flight analysis to verify mission scenarios and to predict flight performance. Continue evaluation and support for BMD data path enhancements aboard ship and at land-based communications sites. Continue evaluation of ESL space cue impacts on Aegis BMD performance. Provide ongoing support for contingency operations. Provide subject matter expert support for the fielded BMD 3.6.1 baseline. <i>FY 2011 OCO Plans:</i> NA		0.000	0.000	2.385	0.000	2.385
BMD 4.0.1 Development See Description Below		0.000	0.000	142.723	0.000	142.723

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2011 Base Plans:</i> Prepare for and Support WC Critical Design Review (CDR). Complete SM-3 Blk IB Missile DVTs. Complete SM-3 Blk IB TDACS Qualification tests. Complete SM-3 Blk IB Hazard Assessment Tests (HAT). Conduct SM-3 Manufacturing Readiness Review (Gate 10). Complete delivery of flight test rounds. Participate in FTM-19.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>						
<p>BMDs Level Testing See Description Below</p> <p><i>FY 2009 Accomplishments:</i> Accomplishments for this effort were captured in projects BX09 and EX09 in FY 2009.</p> <p><i>FY 2010 Plans:</i> Planned Program efforts for this effort were captured in Project EX09 in FY 2010.</p> <p><i>FY 2011 Base Plans:</i> Conduct FTM-15 flight test mission:</p> <p>Exercise of Phase 1 capability of the Phased Adaptive Approach. Conduct a BMD 3.6.1 engagement and intercept with an SM-3 Blk IA missile against an MRBM target BMDs connectivity with AN/TPY-2 (version 2.4) via C2BMC version 6.4 Conduct FTX-16 flight test mission:</p>		0.000	0.000	110.161	0.000	110.161

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2011 Base Plans:</i> Procure one (1) BMD 4.0.1 shipset (including BMD Signal Processor (BSP)). Procure two (2) shipsets of BMD 5.0 equipment to support U.S. Navy Aegis Modernization (AMOD) schedule. Support USS LAKE ERIE Engineering Development Model (EDM) upgrades to achieve BMD 4.0.1 tactical configuration. Begin development efforts to add BMD capability to USN Baseline 4 Cruisers entering AMOD in 2014.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>						
<p>SM-3 Blk IB Manufacturing See Description Below</p> <p><i>FY 2009 Accomplishments:</i> Accomplishments for this effort were captured in project EX09 in FY 2009.</p> <p><i>FY 2010 Plans:</i> Planned Program efforts for this effort were captured in project EX09 in FY 2010.</p> <p><i>FY 2011 Base Plans:</i> Continue manufacturing of eighteen (18) SM-3 Blk IB missiles begun in FY 2010. Begin manufacturing of twelve (12) SM-3 Blk IB missiles.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>		0.000	0.000	164.897	0.000	164.897
SM-3 Production Support		0.000	0.000	44.902	0.000	44.902

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD09: <i>Aegis BMD</i>				
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>Provide leadership and engineering/technical support to conduct Aegis Combat Systems Assessments. Respond to Fleet issues related to Aegis BMD installations, BMD operations and BMD events. Respond to emergent events.</p> <p><i>FY 2011 OCO Plans:</i> NA</p>						
<p>BMDS Models & Simulations See Description Below</p> <p><i>FY 2009 Accomplishments:</i> The program content in this project was previously reported under Project YX31 in PB10.</p> <p><i>FY 2010 Plans:</i> The program content in this project was previously reported under Project YX31 in PB10.</p> <p><i>FY 2011 Base Plans:</i> Modeling and simulation (M&S) activities support all phases of Aegis BMD development, including development of modifications to the Aegis Weapons System, SM-3 missile development, flight test missions, ground tests, wargames, exercises, and performance assessment. Models and simulations are tailored to the specific need of a component in its current phase of development, ranging from low-to-medium fidelity analyses supporting concept definition studies, to high-fidelity models used to support engineering development or testing. M&S tools are accredited for each application and for specific objectives: tools are put through a rigorous verification and validation process, reviewing coding and specifications, and comparing analyses against actual flight test results.</p> <p>Conduct BMD System Post Flight Reconstructions</p>		0.000	0.000	104.009	0.000	104.009

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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 OCO Plans: NA					
Accomplishments/Planned Programs Subtotals	0.000	0.000	1,412.560	0.000	1,412.560

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 0603175C: <i>Ballistic Missile Defense Technology</i>	117.602	189.229	132.220	0.000	132.220	236.875	239.873	197.118	197.852	0	1,310.769
• 0603881C: <i>Ballistic Missile Defense Terminal Defense Segment</i>	951.414	715.732	436.482	0.000	436.482	250.275	336.711	500.983	521.717	0	3,713.314
• 0603882C: <i>Ballistic Missile Defense Mid-Course Segment</i>	1,472.683	1,027.371	1,346.181	0.000	1,346.181	1,112.655	1,291.790	1,099.029	1,033.213	0	8,382.922
• 0603883C: <i>Ballistic Missile Defense Boost Defense Segment</i>	384.365	182.317	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	566.682
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	682.754	621.017	454.859	0.000	454.859	469.589	681.397	650.525	616.342	0	4,176.483
• 0603886C: <i>Ballistic Missile Defense System Interceptor</i>	308.869	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	308.869
• 0603888C: <i>Ballistic Missile Defense Test and Targets</i>	906.952	823.333	1,113.425	0.000	1,113.425	1,105.959	951.371	871.929	829.608	0	6,602.577
• 0603890C: <i>Ballistic Missile Defense Enabling Programs</i>	402.776	358.751	402.769	0.000	402.769	468.673	457.745	473.871	488.799	0	3,053.384
• 0603891C: <i>SPECIAL PROGRAMS - MDA</i>	182.998	250.185	270.189	0.000	270.189	269.040	450.645	517.486	601.315	0	2,541.858
	209.831	161.609	112.678	0.000	112.678	98.500	56.424	52.928	34.661	0	726.631

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

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603893C: <i>SPACE TRACKING & SURVEILLANCE SYSTEM</i>											
• 0603894C: <i>MULTIPLE KILL VEHICLE</i>	226.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	226.027
• 0603895C: <i>BMD SYSTEM SPACE PROGRAM</i>	23.250	12.492	10.942	0.000	10.942	11.182	11.347	11.749	12.155	0	93.117
• 0603896C: <i>BMD C2BMC</i>	275.174	334.734	342.625	0.000	342.625	364.085	289.778	323.922	298.936	0	2,229.254
• 0603897C: <i>BMD HERCULES</i>	51.629	47.932	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	99.561
• 0603898C: <i>BMD JOINT WARFIGHTER SUPPORT</i>	66.283	61.098	68.726	0.000	68.726	62.239	63.451	65.158	67.231	0	454.186
• 0603901C: <i>DIRECTED ENERGY RESEARCH</i>	0.000	0.000	98.688	0.000	98.688	101.371	103.449	104.572	104.141	0	512.221
• 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	102.823	86.483	86.198	0.000	86.198	88.181	78.517	80.410	83.087	0	605.699
• 0603906C: <i>REGARDING TRENCH</i>	3.159	6.130	7.529	0.000	7.529	8.295	8.286	8.479	8.675	0	50.553
• 0603907C: <i>SEA BASED X-BAND RADAR (SBX)</i>	143.878	167.153	153.056	0.000	153.056	150.104	159.832	160.163	197.099	0	1,131.285
• 0603908C: <i>BMD EUROPEAN INTERCEPTOR SITE</i>	348.722	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	348.722
• 0603909C: <i>BMD EUROPEAN MIDCOURSE RADAR</i>	73.728	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	73.728
• 0603911C: <i>BMD EUROPEAN CAPABILITY</i>	0.000	50.226	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	50.226
• 0603912C: <i>BMD European Comm Support</i>	26.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	26.016
• 0603913C: <i>ISRAELI COOPERATIVE</i>	0.000	201.323	121.735	0.000	121.735	111.100	113.101	116.114	119.172	0	782.545

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

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0604880C: <i>LAND-BASED SM-3</i>	0.000	0.000	281.378	0.000	281.378	345.937	187.062	93.456	139.595	0	1,047.428
• 0604881C: <i>Aegis SM-3 BLOCK IIA CO-DEVELOPMENT</i>	0.000	255.987	318.800	0.000	318.800	405.500	416.300	337.300	227.500	0	1,961.387
• 0604883C: <i>PRECISION TRACKING SPACE SYSTEM</i>	0.000	0.000	66.969	0.000	66.969	123.851	184.800	348.360	482.952	0	1,206.932
• 0604884C: <i>AIRBORNE INFRARED (ABIR)</i>	0.000	0.000	111.671	0.000	111.671	103.636	123.591	103.668	58.773	0	501.339
• 0605502C: <i>Small Business Innovative Research BMDO</i>	124.788	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	124.788
• 0901585C: <i>Pentagon Reservation</i>	20.146	19.709	20.482	0.000	20.482	0.000	0.000	0.000	0.000	0	60.337
• 0901598C: <i>Management Headquarters-MDA</i>	87.151	52.403	29.754	0.000	29.754	29.421	29.974	30.567	31.171	0	290.441

D. Acquisition Strategy

The Aegis BMD element acquisition approach supports evolutionary development, continuously building upon demonstrated capabilities to advance overall BMDS capability. After considering all the technical and management aspects of the program and to meet the requirements presented by an evolving ballistic missile threat, the Aegis BMD program awarded sole source contracts to Raytheon and Lockheed Martin to continue development of the SM-3 missile and the Aegis BMD Weapon System, respectively.

MDA will transition from the existing legacy, project-oriented Systems Engineering and Technical Assistance (SETA) contractor construct to an enterprise-wide Advisory and Assistance Services (A&AS) approach to support the Ballistic Missile Defense System (BMDS) mission. The objectives are to implement national engineering and support services for BMDS mission across the enterprise, enhance the sharing of ballistic missile defense expertise and knowledge across the agency, centralize the acquisition of support services manpower in a more efficient manner and reduce agency overhead costs enterprise-wide. A&AS support includes engineering and technical services; studies, analyses, and evaluation; and management and professional services.

Competition will be used for procurement of any products or services in FY 2011, when appropriate.

E. Performance Metrics

NA

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 3.6.1 Development BMD 3.6.1 DEVELOPMENT MD09	TBD/TBD	NSWC/DD DAHLGREN, VA	0.000	0.000		0.631	Jan 2011	0.000		0.631	Continuing	Continuing	Continuing
BMD 3.6.1 Development BMD 3.6.1 DEVELOPMENT - 2009818481987 MD09	TBD/TBD	NSWC/PHD PT. HUENEME, CA	0.000	0.000		0.283	Jan 2011	0.000		0.283	Continuing	Continuing	Continuing
BMD 3.6.1 Development BMD 3.6.1 DEVELOPMENT - 2009818481988 MD09	TBD/TBD	JHU/APL/MD COLUMBIA, MD	0.000	0.000		0.330	Jan 2011	0.000		0.330	Continuing	Continuing	Continuing
BMD 3.6.1 Development BMD 3.6.1 DEVELOPMENT MD09	TBD/TBD	VARIOUS NJ, VA, CA	0.000	0.000		1.141	Jan 2011	0.000		1.141	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT MD09	TBD/TBD	NSWC/DD DAHLGREN, VA	0.000	0.000		14.444	Jan 2011	0.000		14.444	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 20098184870177 MD09	TBD/TBD	NSWC/PHD PT. HUENEME, CA	0.000	0.000		0.883	Jan 2011	0.000		0.883	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 20098184870181 MD09	TBD/TBD	JHU/APL/MD COLUMBIA, MD	0.000	0.000		3.005	Jul 2011	0.000		3.005	Continuing	Continuing	Continuing
	TBD/TBD	VARIOUS NJ, VA, CA	0.000	0.000		10.818	Jan 2011	0.000		10.818	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT MD09													
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 2009818529913 MD09	SS/CPIF	LOCKHEED MARTIN MOORESTOWN, NJ	0.000	0.000		52.025	Jan 2011	0.000		52.025	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 20098185299139 MD09	SS/CPAF	RAYTHEON/AZ TUCSON, AZ	0.000	0.000		1.900	Jan 2011	0.000		1.900	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 20098185299144 MD09	TBD/TBD	AEGIS BMD DAHLGREN, VA	0.000	0.000		22.999	Jan 2011	0.000		22.999	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 DEVELOPMENT MD09	TBD/TBD	NSWC/DD DAHLGREN, VA	0.000	0.000		7.254	Jan 2011	0.000		7.254	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098184914206 MD09	TBD/TBD	NSWC/PHD PT. HUENEME, CA	0.000	0.000		1.084	Jan 2011	0.000		1.084	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098184914216 MD09	TBD/TBD	JHU/APL/MD COLUMBIA, MD	0.000	0.000		5.230	Jan 2011	0.000		5.230	Continuing	Continuing	Continuing
	C/CPAF	RAYTHEON/AZ	0.000	0.000		0.030	Jul 2011	0.000		0.030	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098184914223 MD09		TUCSON, AZ											
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098184914228 MD09	SS/CPPIF	LOCKHEED MARTIN MOORESTOWN, NJ	0.000	0.000		135.125	Jan 2011	0.000		135.125	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 DEVELOPMENT MD09	TBD/TBD	VARIOUS NJ, VA, CA	0.000	0.000		27.314	Jan 2011	0.000		27.314	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098185353275 MD09	SS/CPAF	RAYTHEON/AZ TUCSON, AZ	0.000	0.000		4.000	Jan 2011	0.000		4.000	Continuing	Continuing	Continuing
BMD 5.1 Development BMD 5.1 DEVELOPMENT MD09	TBD/TBD	NSWC/DD DAHLGREN, VA	0.000	0.000		7.895	Jan 2011	0.000		7.895	Continuing	Continuing	Continuing
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 20098185276634 MD09	TBD/TBD	NSWC/PHD PT. HUENEME, CA	0.000	0.000		0.700	Jan 2011	0.000		0.700	Continuing	Continuing	Continuing
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 20098185276644 MD09	TBD/TBD	JHU/APL/MD COLUMBIA, MD	0.000	0.000		7.380	Jan 2011	0.000		7.380	Continuing	Continuing	Continuing
	SS/CPPIF		0.000	0.000		63.430	Jan 2011	0.000		63.430	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 20098185276648 MD09		LOCKHEED MARTIN MOORESTOWN, NJ											
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 20098185276658 MD09	SS/CPAF	RAYTHEON/AZ TUCSON, AZ	0.000	0.000		0.210	Jan 2011	0.000		0.210	Continuing	Continuing	Continuing
BMD 5.1 Development VARIOUS MD09	TBD/TBD	VARIOUS NJ, VA, CA	0.000	0.000		4.541	Jan 2011	0.000		4.541	Continuing	Continuing	Continuing
SM-3 BIK IB Development SM-3 BLK IB DEVELOPMENT MD09	SS/CPAF	Raytheon Tucson, AZ	0.000	0.000		158.595	Jan 2011	0.000		158.595	Continuing	Continuing	Continuing
SM-3 BIK IB Development SM-3 BLK IB DEVELOPMENT - 20098184846516 MD09	TBD/TBD	NSWC/DD Dahlgren, VA	0.000	0.000		4.122	Jan 2011	0.000		4.122	Continuing	Continuing	Continuing
SM-3 BIK IB Development SM-3 BLK IB DEVELOPMENT - 2009818484652 MD09	TBD/TBD	JHU/APL/MD Columbia, MD	0.000	0.000		12.262	Jan 2011	0.000		12.262	Continuing	Continuing	Continuing
SM-3 BIK IB Development SM-3 BLK IB DEVELOPMENT - 20098184846525 MD09	TBD/TBD	NSWC/PHD Port Huneme, CA	0.000	0.000		1.754	Apr 2011	0.000		1.754	Continuing	Continuing	Continuing
	TBD/TBD	VARIOUS	0.000	0.000		4.915	Jan 2011	0.000		4.915	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 Blk IB Development SM-3 BLK IB DEVELOPMENT - 20098184846531 MD09		VA, AZ, CA											
SM-3 Blk IB Development SM-3 BLK IB DEVELOPMENT - 20098184846536 MD09	TBD/TBD	Aegis BMD VA, AZ, CA	0.000	0.000		22.000	Apr 2011	0.000		22.000	Continuing	Continuing	Continuing
BMDS Level Testing BMDS LEVEL TESTING MD09	TBD/TBD	NSWC/DD DAHLGREN, VA	0.000	0.000		10.021	Jan 2011	0.000		10.021	Continuing	Continuing	Continuing
BMDS Level Testing BMDS LEVEL TESTING - 20098237473958 MD09	TBD/TBD	NSWC/PHD Port Hueneme, CA	0.000	0.000		10.502	Jan 2011	0.000		10.502	Continuing	Continuing	Continuing
BMDS Level Testing BMDS LEVEL TESTING - 20098237473961 MD09	TBD/TBD	JHU/APL COLUMBIA, MD	0.000	0.000		16.809	Jan 2011	0.000		16.809	Continuing	Continuing	Continuing
BMDS Level Testing BMDS LEVEL TESTING - 20098237473966 MD09	TBD/TBD	VARIOUS NJ, VA, CA, HI	0.000	0.000		31.567	Apr 2011	0.000		31.567	Continuing	Continuing	Continuing
BMDS Level Testing BMDS LEVEL TESTING - 2009823747397 MD09	SS/CPIF	LOCKHEED MARTIN MOORESTOWN, NJ	0.000	0.000		22.200	Jan 2011	0.000		22.200	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMDS Level Testing BMDS LEVEL TESTING - 20098237473975 MD09	TBD/TBD	SPAWAR SAN DIEGO, CA	0.000	0.000		1.372	Jan 2011	0.000		1.372	Continuing	Continuing	Continuing
BMDS Level Testing BMDS LEVEL TESTING - 2009823747398 MD09	SS/CPAF	RAYTHEON TUCSON, AZ	0.000	0.000		4.500	Jan 2011	0.000		4.500	Continuing	Continuing	Continuing
BMDS Level Testing BMDS LEVEL TESTING - 20098237473984 MD09	TBD/TBD	PMRF BARKING SANDS, KAUAI, HI	0.000	0.000		7.000	Jan 2011	0.000		7.000	Continuing	Continuing	Continuing
BMDS Level Testing BMDS LEVEL TESTING - 20098237473988 MD09	TBD/TBD	NAWC/PM POINT MUGU, CA	0.000	0.000		2.700	Jan 2011	0.000		2.700	Continuing	Continuing	Continuing
BMDS Level Testing BMDS LEVEL TESTING - 20098237473992 MD09	TBD/TBD	MDA/DTR HUNTSVILLE, AL	0.000	0.000		3.490	Apr 2011	0.000		3.490	Continuing	Continuing	Continuing
Aegis BMD Testing AEGIS BMD TESTING MD09	TBD/TBD	NSWC/DD DAHLGREN, VA	0.000	0.000		3.621	Jan 2011	0.000		3.621	Continuing	Continuing	Continuing
Aegis BMD Testing AEGIS BMD TESTING - 2009818533723 MD09	TBD/TBD	NSWC/PHD PT. HUENEME, CA	0.000	0.000		2.853	Jan 2011	0.000		2.853	Continuing	Continuing	Continuing
	TBD/TBD	JHU/APL/MD COLUMBIA, MD	0.000	0.000		7.971	Jan 2011	0.000		7.971	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Aegis BMD Testing AEGIS BMD TESTING - 20098185337242 MD09													
Aegis BMD Testing AEGIS BMD TESTING - 2009818533725 MD09	TBD/TBD	VARIOUS NJ, VA, CA	0.000	0.000		4.181	Jan 2011	0.000		4.181	Continuing	Continuing	Continuing
Aegis BMD Testing AEGIS BMD TESTING MD09	TBD/TBD	SPAWAR SAN DIEGO, CA	0.000	0.000		1.016	Jan 2011	0.000		1.016	Continuing	Continuing	Continuing
Aegis BMD Testing AEGIS BMD TESTING - 20098237413873 MD09	TBD/TBD	CORONA CORONA, CA	0.000	0.000		1.383	Jan 2011	0.000		1.383	Continuing	Continuing	Continuing
Fielding - AWS AWS FIELDING MD09	SS/CPIF	Lockheed Martin Moorestown, NJ	0.000	0.000		56.400	Jan 2011	0.000		56.400	Continuing	Continuing	Continuing
Fielding - AWS AWS FIELDING - 20098184698109 MD09	TBD/TBD	NSWC/PHD Port Hueneme, CA	0.000	0.000		5.000	Oct 2010	0.000		5.000	Continuing	Continuing	Continuing
Fielding - AWS AWS FIELDING - 20098184698114 MD09	TBD/TBD	NSWC/DD Dahlgren, VA	0.000	0.000		10.000	Jan 2011	0.000		10.000	Continuing	Continuing	Continuing
Fielding - AWS AWS FIELDING - 20098184698117 MD09	C/CPAF	Raytheon Washington, DC	0.000	0.000		3.800	Jan 2011	0.000		3.800	Continuing	Continuing	Continuing
Fielding - AWS AWS FIELDING - 20098184698123 MD09	TBD/TBD	PEO IWS Minneapolis, MN	0.000	0.000		2.300	Oct 2010	0.000		2.300	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Fielding - AWS AWS FIELDING - 20098184698133 MD09	TBD/TBD	AEGIS TECHREP Moorestown, NJ	0.000	0.000		1.700	Jan 2011	0.000		1.700	Continuing	Continuing	Continuing
Fielding - AWS AWS FIELDING - 20098184698138 MD09	TBD/TBD	Various NJ, VA, CA	0.000	0.000		19.830	Apr 2011	0.000		19.830	Continuing	Continuing	Continuing
SM-3 Blk IB Manufacturing SM-3 BLK IB MANUFACTURING MD09	SS/CPAF	Raytheon Tucson, AZ	0.000	0.000		161.007	Jan 2011	0.000		161.007	Continuing	Continuing	Continuing
SM-3 Blk IB Manufacturing SM-3 BLK IB MANUFACTURING - 20098184912603 MD09	TBD/TBD	NSWC/DD Port Hueneme, CA	0.000	0.000		1.945	Jan 2011	0.000		1.945	Continuing	Continuing	Continuing
SM-3 Blk IB Manufacturing SM-3 BLK IB MANUFACTURING - 20098184912608 MD09	TBD/TBD	Various MD, AZ	0.000	0.000		1.945	Apr 2011	0.000		1.945	Continuing	Continuing	Continuing
SM-3 Production Support PRODUCTION SUPPORT - CANISTERS MD09	TBD/TBD	PEO IWS Minneapolis, MN	0.000	0.000		15.800	Jan 2011	0.000		15.800	Continuing	Continuing	Continuing
SM-3 Production Support PRODUCTION SUPPORT -	SS/CPAF	Raytheon Tucson, AZ	0.000	0.000		29.102	Jan 2011	0.000		29.102	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PRODUCTION ENGINEERING MD09													
Fleet Integration AWS O&S MD09	SS/CPIF	Lockheed Martin Moorestown, NJ	0.000	0.000		10.500	Jan 2011	0.000		10.500	Continuing	Continuing	Continuing
Fleet Integration AWS O&S - 20098185191909 MD09	TBD/TBD	NSWC/DD Dahlgren, VA	0.000	0.000		2.602	Jan 2011	0.000		2.602	Continuing	Continuing	Continuing
Fleet Integration FLEET INTEGRATION MD09	TBD/TBD	JHU/APL/MD Columbia, MD	0.000	0.000		2.070	Jan 2011	0.000		2.070	Continuing	Continuing	Continuing
Fleet Integration FLEET INTEGRATION - 20098185191927 MD09	TBD/TBD	CSCS Dahlgren, VA	0.000	0.000		2.837	Jan 2011	0.000		2.837	Continuing	Continuing	Continuing
Fleet Integration FLEET INTEGRATION - 20098185191938 MD09	TBD/TBD	NSWC/DD Dahlgren, VA	0.000	0.000		3.535	Jan 2011	0.000		3.535	Continuing	Continuing	Continuing
Fleet Integration FLEET INTEGRATION - 20098185191945 MD09	TBD/TBD	NSWC/PHD Port Hueneme, CA	0.000	0.000		3.198	Oct 2010	0.000		3.198	Continuing	Continuing	Continuing
Fleet Integration FLEET INTEGRATION - 20098185191952 MD09	TBD/TBD	Various VA, MD, CA, HI	0.000	0.000		3.160	Apr 2011	0.000		3.160	Continuing	Continuing	Continuing
SM-3 Operations & Support SM-3 O&S - MAINTENANCE MD09	SS/CPAF	Raytheon Tucson, AZ	0.000	0.000		6.400	Jan 2011	0.000		6.400	Continuing	Continuing	Continuing
	SS/CPAF	Raytheon Tucson, AZ	0.000	0.000		30.000	Jan 2011	0.000		30.000	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 Operations & Support SM-3 O&S - SPARES MD09													
BMDS Models & Simulations Missile Defense Space Warning Tool (MDST) MD09	C/CPAF	Northrop Grumman CO	0.000	0.000		2.694	Oct 2010	0.000		2.694	Continuing	Continuing	Continuing
BMDS Models & Simulations Performance Assessment PLanning MD09	C/CPAF	Northrop Grumman CO	0.000	0.000		0.629		0.000		0.629	Continuing	Continuing	Continuing
BMDS Models & Simulations BMDS Models & Simulations MD09	C/CPAF	Boeing AL	0.000	0.000		39.009		0.000		39.009	Continuing	Continuing	Continuing
Systems Engineering & Integration Industry MD09	C/CPAF	Boeing VA	0.000	0.000		15.750		0.000		15.750	Continuing	Continuing	Continuing
Systems Engineering & Integration CSS MD09	C/CPFF	CSC VA	0.000	0.000		10.250		0.000		10.250	Continuing	Continuing	Continuing
Systems Engineering & Integration CSS - 200912165600225 MD09	C/CPFF	Cobham CA	0.000	0.000		9.000		0.000		9.000	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		1,157.949		0.000		1,157.949			

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

Remarks
NA

Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT MD09	TBD/TBD	MDA Arlington, VA	0.000	0.000		1.653	Jan 2011	0.000		1.653	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 20098184410791 MD09	TBD/TBD	NAVSEA Washington, DC	0.000	0.000		2.086	Jan 2011	0.000		2.086	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 20098184410797 MD09	C/CPFF	GDIT Dahlgren, VA	0.000	0.000		6.058	Jan 2011	0.000		6.058	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 20098184410803 MD09	C/CPFF	Paradigm Dahlgren, VA	0.000	0.000		1.699	Jan 2011	0.000		1.699	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD	C/CPFF	Gryphon Dahlgren, VA	0.000	0.000		0.272	Jan 2011	0.000		0.272	Continuing	Continuing	Continuing

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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
4.0.1 DEVELOPMENT - 20098184410811 MD09													
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 20098184410817 MD09	TBD/TBD	Various Dahlgren, VA	0.000	0.000		4.817	Jan 2011	0.000		4.817	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 20098184410825 MD09	C/CPIF	Lockheed Martin Arlington, VA	0.000	0.000		0.241	Jan 2011	0.000		0.241	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 20098184410834 MD09	C/CPAF	Raytheon Arlington, VA	0.000	0.000		0.195	Jan 2011	0.000		0.195	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 20098184410842 MD09	TBD/TBD	Aegis BMD Dahlgren, VA	0.000	0.000		2.628	Apr 2011	0.000		2.628	Continuing	Continuing	Continuing
BMD 4.0.1 Development BMD 4.0.1 DEVELOPMENT - 20098184410848 MD09	TBD/TBD	MDA Various Arlington, VA	0.000	0.000		17.000	Apr 2011	0.000		17.000	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 DEVELOPMENT MD09	TBD/TBD	MDA Arlington, VA	0.000	0.000		2.436	Jan 2011	0.000		2.436	Continuing	Continuing	Continuing
BMD 5.0 Development BMD	TBD/TBD	NAVSEA Washington, DC	0.000	0.000		3.071	Jan 2011	0.000		3.071	Continuing	Continuing	Continuing

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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
5.0 DEVELOPMENT - 20098184413988 MD09													
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098184413994 MD09	C/CPFF	GDIT Dahlgren, VA	0.000	0.000		8.921	Jan 2011	0.000		8.921	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098184414005 MD09	C/CPFF	Paradigm Dahlgren, VA	0.000	0.000		2.502	Jan 2011	0.000		2.502	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098184414009 MD09	C/CPFF	Gryphon Dahlgren, VA	0.000	0.000		0.401	Jan 2011	0.000		0.401	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098184414017 MD09	TBD/TBD	Various Dahlgren, VA	0.000	0.000		9.022	Apr 2011	0.000		9.022	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098184414022 MD09	C/CPIF	Lockheed Martin Arlington, VA	0.000	0.000		0.354	Jan 2011	0.000		0.354	Continuing	Continuing	Continuing
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098184414028 MD09	C/CPAF	Raytheon Arlington, VA	0.000	0.000		0.287	Jan 2011	0.000		0.287	Continuing	Continuing	Continuing
	TBD/TBD	Aegis BMD	0.000	0.000		3.695	Apr 2011	0.000		3.695	Continuing	Continuing	Continuing

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>				PROJECT MD09: <i>Aegis BMD</i>					

Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098184414033 MD09		Dahlgren, VA											
BMD 5.0 Development BMD 5.0 DEVELOPMENT - 20098184414048 MD09	TBD/TBD	MDA Various Arlington, VA	0.000	0.000		17.000	Apr 2011	0.000		17.000	Continuing	Continuing	Continuing
BMD 5.1 Development BMD 5.1 DEVELOPMENT MD09	TBD/TBD	MDA Arlington, VA	0.000	0.000		1.547	Jan 2011	0.000		1.547	Continuing	Continuing	Continuing
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 20098184460966 MD09	TBD/TBD	NAVSEA Washington, DC	0.000	0.000		1.949	Apr 2011	0.000		1.949	Continuing	Continuing	Continuing
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 20098184460972 MD09	C/CPFF	GDIT Dahlgren, VA	0.000	0.000		5.661	Jan 2011	0.000		5.661	Continuing	Continuing	Continuing
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 20098184460977 MD09	C/CPFF	Paradigm Dahlgren, VA	0.000	0.000		1.587	Jan 2011	0.000		1.587	Continuing	Continuing	Continuing
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 2009818446098 MD09	C/CPFF	Gryphon Dahlgren, VA	0.000	0.000		0.255	Jan 2011	0.000		0.255	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD09: <i>Aegis BMD</i>
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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 20098184460984 MD09	TBD/TBD	Various Dahlgren, VA	0.000	0.000		4.545	Apr 2011	0.000		4.545	Continuing	Continuing	Continuing
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 20098184460989 MD09	C/CPIF	Lockheed Martin Arlington, VA	0.000	0.000		0.225	Jan 2011	0.000		0.225	Continuing	Continuing	Continuing
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 20098184460995 MD09	C/CPAF	Raytheon Arlington, VA	0.000	0.000		0.182	Jan 2011	0.000		0.182	Continuing	Continuing	Continuing
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 200981844610 MD09	TBD/TBD	Aegis BMD Dahlgren, VA	0.000	0.000		2.478	Apr 2011	0.000		2.478	Continuing	Continuing	Continuing
BMD 5.1 Development BMD 5.1 DEVELOPMENT - 20098184461008 MD09	TBD/TBD	MDA Various Arlington, VA	0.000	0.000		17.000	Apr 2011	0.000		17.000	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 BLK IB DEVELOPMENT MD09	TBD/TBD	MDA Arlington, VA	0.000	0.000		2.698	Jan 2011	0.000		2.698	Continuing	Continuing	Continuing
SM-3 Blk IB Development SM-3 BLK IB DEVELOPMENT - 20098184490094 MD09	TBD/TBD	NAVSEA Washington, DC	0.000	0.000		3.404	Jan 2011	0.000		3.404	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD09: <i>Aegis BMD</i>
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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 BIK IB Development SM-3 BLK IB DEVELOPMENT - 20098184490097 MD09	C/CPFF	GDIT Dahlgren, VA	0.000	0.000		9.886	Jan 2011	0.000		9.886	Continuing	Continuing	Continuing
SM-3 BIK IB Development SM-3 BLK IB DEVELOPMENT - 20098184490102 MD09	C/CPFF	Paradigm Dahlgren, VA	0.000	0.000		2.772	Jan 2011	0.000		2.772	Continuing	Continuing	Continuing
SM-3 BIK IB Development SM-3 BLK IB DEVELOPMENT - 20098184490106 MD09	C/CPFF	Gryphon Dahlgren, VA	0.000	0.000		0.445	Jan 2011	0.000		0.445	Continuing	Continuing	Continuing
SM-3 BIK IB Development SM-3 BLK IB DEVELOPMENT - 20098184490111 MD09	TBD/TBD	Various Dahlgren, VA	0.000	0.000		7.436	Apr 2011	0.000		7.436	Continuing	Continuing	Continuing
SM-3 BIK IB Development SM-3 BLK IB DEVELOPMENT - 20098184490116 MD09	C/CPIF	Lockheed Martin Arlington, VA	0.000	0.000		0.392	Jan 2011	0.000		0.392	Continuing	Continuing	Continuing
SM-3 BIK IB Development SM-3 BLK IB DEVELOPMENT - 20098184490122 MD09	C/CPAF	Raytheon Arlington, VA	0.000	0.000		0.318	Jan 2011	0.000		0.318	Continuing	Continuing	Continuing
SM-3 BIK IB Development SM-3 BLK IB DEVELOPMENT - 20098184490127 MD09	TBD/TBD	Aegis BMD Dahlgren, VA	0.000	0.000		5.300	Apr 2011	0.000		5.300	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD09: <i>Aegis BMD</i>
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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 Blk IB Development SM-3 BLK IB DEVELOPMENT - 20098184490131 MD09	TBD/TBD	MDA Various Arlington, VA	0.000	0.000		18.869	Apr 2011	0.000		18.869	Continuing	Continuing	Continuing
Aegis BMD Testing TESTING MD09	TBD/TBD	MDA Arlington, VA	0.000	0.000		1.984	Jan 2011	0.000		1.984	Continuing	Continuing	Continuing
Aegis BMD Testing TESTING - 20098184514422 MD09	TBD/TBD	NAVSEA Washington, DC	0.000	0.000		2.504	Jan 2011	0.000		2.504	Continuing	Continuing	Continuing
Aegis BMD Testing TESTING - 20098184514427 MD09	C/CPFF	GDIT Dahlgren, VA	0.000	0.000		7.270	Jan 2011	0.000		7.270	Continuing	Continuing	Continuing
Aegis BMD Testing TESTING - 20098184514434 MD09	C/CPFF	Paradigm Dahlgren, VA	0.000	0.000		2.039	Jan 2011	0.000		2.039	Continuing	Continuing	Continuing
Aegis BMD Testing TESTING - 20098184514442 MD09	C/CPFF	Gryphon Dahlgren, VA	0.000	0.000		0.327	Jan 2011	0.000		0.327	Continuing	Continuing	Continuing
Aegis BMD Testing TESTING - 20098184514461 MD09	C/CPFI	Lockheed Martin Arlington, VA	0.000	0.000		0.289	Jan 2011	0.000		0.289	Continuing	Continuing	Continuing
Aegis BMD Testing TESTING - 20098184514466 MD09	C/CPAF	Raytheon Arlington, VA	0.000	0.000		0.234	Jan 2011	0.000		0.234	Continuing	Continuing	Continuing
Aegis BMD Testing TESTING - 20098184514481 MD09	TBD/TBD	MDA Various Arlington, VA	0.000	0.000		7.000	Apr 2011	0.000		7.000	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD09: <i>Aegis BMD</i>
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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		192.934		0.000		192.934			

Remarks
NA

Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMDS Models & Simulations IMTP Modifications M&S Scorecard Update MD09	C/CPFF	Northrop Grumman CO	0.000	0.000		1.798		0.000		1.798	Continuing	Continuing	Continuing
BMDS Models & Simulations Establish Comprehensive Validation Plan MD09	C/CPFF	Northrop Grumman CO	0.000	0.000		3.867		0.000		3.867	Continuing	Continuing	Continuing
BMDS Models & Simulations Data Repository MD09	C/CPFF	Northrop Grumman CO	0.000	0.000		1.619		0.000		1.619	Continuing	Continuing	Continuing
BMDS Models & Simulations Assured Response MD09	C/CPFF	Northrop Grumman CO	0.000	0.000		1.910		0.000		1.910	Continuing	Continuing	Continuing
	TBD/TBD	LTPO	0.000	0.000		1.517		0.000		1.517	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD09: <i>Aegis BMD</i>
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Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMDS Models & Simulations Lower Tier Program Office MD09		AL											
BMDS Models & Simulations SPAWAR - Pacific, Tactical Comm Emulation (TCES) MD09	TBD/TBD	AMRDEC CO	0.000	0.000		2.602		0.000		2.602	Continuing	Continuing	Continuing
BMDS Models & Simulations GTX (PATRIOT, SBIRS, JTAGS, ARROW) MD09	TBD/TBD	AMRDEC CO	0.000	0.000		9.244		0.000		9.244	Continuing	Continuing	Continuing
BMDS Models & Simulations GTI MD09	TBD/TBD	AMRDEC CO	0.000	0.000		3.778		0.000		3.778	Continuing	Continuing	Continuing
BMDS Models & Simulations Performance Assessment Events Spt & Hosting MD09	C/CPAF	Northrop Grumman CO	0.000	0.000		5.152		0.000		5.152	Continuing	Continuing	Continuing
BMDS Models & Simulations DSAP Persistent Operation MD09	C/CPAF	Northrop Gruman CO	0.000	0.000		5.530		0.000		5.530	Continuing	Continuing	Continuing
BMDS Models & Simulations Performance Assessment VV&A MD09	C/CPAF	Northrop Grumman CO	0.000	0.000		3.876		0.000		3.876	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD09: <i>Aegis BMD</i>
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Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMDS Models & Simulations FTM System-Level Post Flight Recon (SPFR) MD09	C/CPAF	Northrop Grumman CO	0.000	0.000		2.706		0.000		2.706	Continuing	Continuing	Continuing
BMDS Models & Simulations FTG Pre-Mission Design & SPFR MD09	C/CPAF	Northrop Grumman CO	0.000	0.000		3.780		0.000		3.780	Continuing	Continuing	Continuing
BMDS Models & Simulations FTX SPFR MD09	C/CPAF	Northrop Grumman CO	0.000	0.000		2.706		0.000		2.706	Continuing	Continuing	Continuing
BMDS Models & Simulations FTT SPFR MD09	C/CPAF	Northrop Grumman CO	0.000	0.000		2.706		0.000		2.706	Continuing	Continuing	Continuing
BMDS Models & Simulations FTG, FTM, FFT, FTX, SPFR to Elements MD09	C/CPAF	Northrop Grumman CO	0.000	0.000		5.191		0.000		5.191	Continuing	Continuing	Continuing
BMDS Models & Simulations PLET-C Engineering Test Design MD09	C/CPAF	Northrop Grumman CO	0.000	0.000		2.372		0.000		2.372	Continuing	Continuing	Continuing
BMDS Models & Simulations International M&S Support to DI MD09	C/FFP	Mantech CO	0.000	0.000		0.606		0.000		0.606	Continuing	Continuing	Continuing
	C/FFP	Mantech	0.000	0.000		0.447		0.000		0.447	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD09: <i>Aegis BMD</i>
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Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BMDS Models & Simulations International Agreement (US, GE Annex, US, UK lethality) MD09		CO											
BMDS Models & Simulations International Agreements BASIL MD09	C/FFP	Mantech CO	0.000	0.000		0.270		0.000		0.270	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		61.677		0.000		61.677			

Remarks

NA

Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000			

Remarks

NA

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD09: <i>Aegis BMD</i>
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	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000	1,412.560	0.000	1,412.560			

Remarks
NA

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD09: <i>Aegis BMD</i>
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	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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
BMD 3.6.1 Ship Installations									■	■	■	■	■	■	■	■	■											
BMD 4.0.1 Ship Installations									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
BMD 5.0 Ship Installations															■	■	■	■	■	■	■	■	■	■	■	■	■	■
BMD 4.0.1 Development									■	■																		
BMD 4.0.1 Certification										■																		
BMD 4.0.1 ENG REL Development									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
BMD 4.0.1 ENG REL System Design Review (SDR)										■																		
BMD 4.0.1 ENG REL Preliminary Design Review (PDR)													■															
BMD 4.0.1 ENG REL Critical Design Review (CDR)																	■											
BMD 4.0.1 ENG REL: Engineering Assessment (EA) #1																						■						
BMD 4.0.1 ENG REL: Engineering Assessment (EA) #2																										■		
BMD 5.0 Development									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
BMD 5.0 Demo #1												■																
BMD 5.0 Demo #2																■												
BMD 5.0 Certification																						■						
BMD 5.1 System Readiness Review (SRR)										■																		
BMD 5.1 Development									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Missile Defense Agency

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

0400: *Research, Development, Test & Evaluation, Defense-Wide*
 BA 4: *Advanced Component Development & Prototypes (ACD&P)*

R-1 ITEM NOMENCLATURE

PE 0603892C: *BMD AEGIS*

PROJECT

MD09: *Aegis BMD*

	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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
BMD 5.1 System Design Review (SDR)													■															
BMD 5.1 Preliminary Design Review (PDR)																	■											
BMD 5.1 Critical Design Review (CDR)																					■							
BMD 5.1 Demo																												
SM-3 Blk IB Missile Deliveries									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
SM-3 Blk IIA Preliminary Design Review (PDR)													■															
SM-3 Blk IIA Critical Design Review (CDR)																	■											
SM-3 Blk IB Hazard Assessment Testing									■	■																		
SM-3 Blk IB Manufacturing Readiness Review (MRR)									■																			

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD09: <i>Aegis BMD</i>
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
BMD 3.6.1 Ship Installations	1	2011	4	2013
BMD 4.0.1 Ship Installations	1	2011	4	2015
BMD 5.0 Ship Installations	3	2012	4	2015
BMD 4.0.1 Development	1	2011	2	2011
BMD 4.0.1 Certification	2	2011	2	2011
BMD 4.0.1 ENG REL Development	1	2011	4	2015
BMD 4.0.1 ENG REL System Design Review (SDR)	2	2011	2	2011
BMD 4.0.1 ENG REL Preliminary Design Review (PDR)	2	2012	2	2012
BMD 4.0.1 ENG REL Critical Design Review (CDR)	2	2013	2	2013
BMD 4.0.1 ENG REL: Engineering Assessment (EA) #1	4	2014	4	2014
BMD 4.0.1 ENG REL: Engineering Assessment (EA) #2	2	2015	2	2015
BMD 5.0 Development	1	2011	1	2014
BMD 5.0 Demo #1	4	2011	4	2011
BMD 5.0 Demo #2	1	2013	1	2013
BMD 5.0 Certification	1	2014	1	2014
BMD 5.1 System Readiness Review (SRR)	1	2011	1	2011
BMD 5.1 Development	1	2011	4	2015
BMD 5.1 System Design Review (SDR)	1	2012	1	2012

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Missile Defense Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD09: <i>Aegis BMD</i>

Event	Start		End	
	Quarter	Year	Quarter	Year
BMD 5.1 Preliminary Design Review (PDR)	1	2013	1	2013
BMD 5.1 Critical Design Review (CDR)	1	2014	1	2014
BMD 5.1 Demo	4	2015	4	2015
SM-3 Blk IB Missile Deliveries	1	2011	4	2015
SM-3 Blk IIA Preliminary Design Review (PDR)	1	2012	1	2012
SM-3 Blk IIA Critical Design Review (CDR)	1	2013	1	2013
SM-3 Blk IB Hazard Assessment Testing	1	2011	2	2011
SM-3 Blk IB Manufacturing Readiness Review (MRR)	1	2011	1	2011

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT ZX40: <i>Program-Wide Support</i>
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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
ZX40: <i>Program-Wide Support</i>	37.995	51.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	89.620
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

In accordance with the Missile Defense Agency revised budget structure, the content previously planned in Project ZX40 is now captured in Project MD40 beginning in FY11

A. Mission Description and Budget Item Justification

Program-Wide Support provides funding for common non-headquarters support functions across the entire program. Includes costs for both government civilians performing these functions, as well as outside services and support contractors that augment government staff in these areas. Other costs included provide facility capabilities for MDA Executing Agent locations (with the exception of Federal Office Building 2), 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 fluctuations on a limited number of foreign contracts.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Civilian Salaries and Support See Description Below <i>FY 2009 Accomplishments:</i> See Section A: Mission Description and Budget Item Justification ; <i>FY 2010 Plans:</i> NA	37.995	51.625	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>			R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>				PROJECT ZX40: <i>Program-Wide Support</i>				
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
<i>FY 2011 Base Plans:</i> NA											
<i>FY 2011 OCO Plans:</i> NA											
Accomplishments/Planned Programs Subtotals						37.995	51.625	0.000	0.000	0.000	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0603175C: <i>Ballistic Missile Defense Technology</i>	117.602	189.229	132.220	0.000	132.220	236.875	239.873	197.118	197.852	0	1,310.769
• 0603881C: <i>Ballistic Missile Defense Terminal Defense Segment</i>	951.414	715.732	436.482	0.000	436.482	250.275	336.711	500.983	521.717	0	3,713.314
• 0603882C: <i>Ballistic Missile Defense Mid-Course Segment</i>	1,472.683	1,027.371	1,346.181	0.000	1,346.181	1,112.655	1,291.790	1,099.029	1,033.213	0	8,382.922
• 0603883C: <i>Ballistic Missile Defense Boost Defense Segment</i>	384.365	182.317	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	566.682
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	682.754	621.017	454.859	0.000	454.859	469.589	681.397	650.525	616.342	0	4,176.483
• 0603886C: <i>Ballistic Missile Defense System Interceptor</i>	308.869	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	308.869
• 0603888C: <i>Ballistic Missile Defense Test and Targets</i>	906.952	823.333	1,113.425	0.000	1,113.425	1,105.959	951.371	871.929	829.608	0	6,602.577
• 0603890C: <i>Ballistic Missile Defense Enabling Programs</i>	402.776	358.751	402.769	0.000	402.769	468.673	457.745	473.871	488.799	0	3,053.384

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>			R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>				PROJECT ZX40: <i>Program-Wide Support</i>				
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0603891C: <i>SPECIAL PROGRAMS - MDA</i>	182.998	250.185	270.189	0.000	270.189	269.040	450.645	517.486	601.315	0	2,541.858
• 0603893C: <i>SPACE TRACKING & SURVEILLANCE SYSTEM</i>	209.831	161.609	112.678	0.000	112.678	98.500	56.424	52.928	34.661	0	726.631
• 0603894C: <i>MULTIPLE KILL VEHICLE</i>	226.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	226.027
• 0603895C: <i>BMD SYSTEM SPACE PROGRAM</i>	23.250	12.492	10.942	0.000	10.942	11.182	11.347	11.749	12.155	0	93.117
• 0603896C: <i>BMD C2BMC</i>	275.174	334.734	342.625	0.000	342.625	364.085	289.778	323.922	298.936	0	2,229.254
• 0603897C: <i>BMD HERCULES</i>	51.629	47.932	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	99.561
• 0603898C: <i>BMD JOINT WARFIGHTER SUPPORT</i>	66.283	61.098	68.726	0.000	68.726	62.239	63.451	65.158	67.231	0	454.186
• 0603901C: <i>DIRECTED ENERGY RESEARCH</i>	0.000	0.000	98.688	0.000	98.688	101.371	103.449	104.572	104.141	0	512.221
• 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	102.823	86.483	86.198	0.000	86.198	88.181	78.517	80.410	83.087	0	605.699
• 0603906C: <i>REGARDING TRENCH</i>	3.159	6.130	7.529	0.000	7.529	8.295	8.286	8.479	8.675	0	50.553
• 0603907C: <i>SEA BASED X-BAND RADAR (SBX)</i>	143.878	167.153	153.056	0.000	153.056	150.104	159.832	160.163	197.099	0	1,131.285
• 0603908C: <i>BMD EUROPEAN INTERCEPTOR SITE</i>	348.722	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	348.722
• 0603909C: <i>BMD EUROPEAN MIDCOURSE RADAR</i>	73.728	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	73.728
• 0603911C: <i>BMD EUROPEAN CAPABILITY</i>	0.000	50.226	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	50.226
• 0603912C: <i>BMD European Comm Support</i>	26.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	26.016

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT ZX40: <i>Program-Wide Support</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603913C: <i>ISRAELI COOPERATIVE</i>	0.000	201.323	121.735	0.000	121.735	111.100	113.101	116.114	119.172	0	782.545
• 0604880C: <i>LAND-BASED SM-3</i>	0.000	0.000	281.378	0.000	281.378	345.937	187.062	93.456	139.595	0	1,047.428
• 0604881C: <i>Aegis SM-3 BLOCK IIA CO-DEVELOPMENT</i>	0.000	255.987	318.800	0.000	318.800	405.500	416.300	337.300	227.500	0	1,961.387
• 0604883C: <i>PRECISION TRACKING SPACE SYSTEM</i>	0.000	0.000	66.969	0.000	66.969	123.851	184.800	348.360	482.952	0	1,206.932
• 0604884C: <i>AIRBORNE INFRARED (ABIR)</i>	0.000	0.000	111.671	0.000	111.671	103.636	123.591	103.668	58.773	0	501.339
• 0605502C: <i>Small Business Innovative Research BMDO</i>	124.788	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	124.788
• 0901585C: <i>Pentagon Reservation</i>	20.146	19.709	20.482	0.000	20.482	0.000	0.000	0.000	0.000	0	60.337
• 0901598C: <i>Management Headquarters-MDA</i>	87.151	52.403	29.754	0.000	29.754	29.421	29.974	30.567	31.171	0	290.441

D. Acquisition Strategy

NA

E. Performance Metrics

NA

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD40: <i>Program-Wide Support</i>
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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
MD40: <i>Program-Wide Support</i>	0.000	0.000	54.718	0.000	54.718	49.913	49.301	46.719	37.323	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

In accordance with the Missile Defense Agency revised budget structure, the content previously planned in Project ZX40 is now captured in Project MD40 beginning in FY11

A. Mission Description and Budget Item Justification

Program-Wide Support provides funding for common non-headquarters support functions across the entire program. Includes costs for both government civilians performing these functions, as well as outside services and support contractors that augment government staff in these areas. Other costs included provide facility capabilities for MDA Executing Agent locations (with the exception of Federal Office Building 2), 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 fluctuations on a limited number of foreign contracts.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Civilian Salaries and Support See Description Below <i>FY 2009 Accomplishments:</i> NA <i>FY 2010 Plans:</i> NA	0.000	0.000	54.718	0.000	54.718

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>			R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>				PROJECT MD40: <i>Program-Wide Support</i>				
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
<i>FY 2011 Base Plans:</i> NA											
<i>FY 2011 OCO Plans:</i> NA											
Accomplishments/Planned Programs Subtotals						0.000	0.000	54.718	0.000	54.718	
C. Other Program Funding Summary (\$ in Millions)											
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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>			R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>				PROJECT MD40: <i>Program-Wide Support</i>				
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• 0603893C: <i>SPACE TRACKING & SURVEILLANCE SYSTEM</i>	209.831	161.609	112.678	0.000	112.678	98.500	56.424	52.928	34.661	0	726.631
• 0603894C: <i>MULTIPLE KILL VEHICLE</i>	226.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	226.027
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• 0603897C: <i>BMD HERCULES</i>	51.629	47.932	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	99.561
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• 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	102.823	86.483	86.198	0.000	86.198	88.181	78.517	80.410	83.087	0	605.699
• 0603906C: <i>REGARDING TRENCH</i>	3.159	6.130	7.529	0.000	7.529	8.295	8.286	8.479	8.675	0	50.553
• 0603907C: <i>SEA BASED X-BAND RADAR (SBX)</i>	143.878	167.153	153.056	0.000	153.056	150.104	159.832	160.163	197.099	0	1,131.285
• 0603908C: <i>BMD EUROPEAN INTERCEPTOR SITE</i>	348.722	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	348.722
• 0603909C: <i>BMD EUROPEAN MIDCOURSE RADAR</i>	73.728	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	73.728
• 0603911C: <i>BMD EUROPEAN CAPABILITY</i>	0.000	50.226	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	50.226
• 0603912C: <i>BMD European Comm Support</i>	26.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	26.016

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Missile Defense Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603892C: <i>BMD AEGIS</i>	PROJECT MD40: <i>Program-Wide Support</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603913C: <i>ISRAELI COOPERATIVE</i>	0.000	201.323	121.735	0.000	121.735	111.100	113.101	116.114	119.172	0	782.545
• 0604880C: <i>LAND-BASED SM-3</i>	0.000	0.000	281.378	0.000	281.378	345.937	187.062	93.456	139.595	0	1,047.428
• 0604881C: <i>Aegis SM-3 BLOCK IIA CO-DEVELOPMENT</i>	0.000	255.987	318.800	0.000	318.800	405.500	416.300	337.300	227.500	0	1,961.387
• 0604883C: <i>PRECISION TRACKING SPACE SYSTEM</i>	0.000	0.000	66.969	0.000	66.969	123.851	184.800	348.360	482.952	0	1,206.932
• 0604884C: <i>AIRBORNE INFRARED (ABIR)</i>	0.000	0.000	111.671	0.000	111.671	103.636	123.591	103.668	58.773	0	501.339
• 0605502C: <i>Small Business Innovative Research BMDO</i>	124.788	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	124.788
• 0901585C: <i>Pentagon Reservation</i>	20.146	19.709	20.482	0.000	20.482	0.000	0.000	0.000	0.000	0	60.337
• 0901598C: <i>Management Headquarters-MDA</i>	87.151	52.403	29.754	0.000	29.754	29.421	29.974	30.567	31.171	0	290.441

D. Acquisition Strategy

MDA will transition from the existing legacy, project-oriented Systems Engineering and Technical Assistance (SETA) contractor construct to an enterprise-wide Advisory and Assistance Services (A&AS) approach to support the Ballistic Missile Defense System (BMDS) mission. The objectives are to implement national engineering and support services for the BMDS mission across the enterprise, enhance the sharing of ballistic missile defense expertise and knowledge across the agency, centralize the acquisition of support services manpower in a more efficient manner and reduce agency overhead costs enterprise-wide. A&AS support includes engineering and technical services; studies, analyses, and evaluation; and management and professional services.

E. Performance Metrics

NA

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