Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Missile Defense Agency									DATE: February 2012	

APPROPRIATION/BUDGET ACTIVITY
0400: *Research, Development, Test & Evaluation, Defense-Wide*
BA 3: *Advanced Technology Development (ATD)*

R-1 ITEM NOMENCLATURE
PE 0603175C: *Ballistic Missile Defense Technology*

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	92.617	74.920	79.975	-	79.975	81.388	115.427	133.742	136.654	Continuing	Continuing
MD25: *Advanced Technology*	86.979	72.235	76.005	-	76.005	77.367	109.876	127.229	129.805	Continuing	Continuing
MD40: *Program Wide Support*	5.638	2.685	3.970	-	3.970	4.021	5.551	6.513	6.849	Continuing	Continuing

Note
  N/A

A. Mission Description and Budget Item Justification

Ballistic Missile Defense Technology develops cost and operationally effective capabilities; explores and develops technology to counter future threats; leverages technology investments of other Department of Defense (DoD) organizations, industry, other government agencies, and international partners; and creates integrated simulations to enable planning and assessment of the Ballistic Missile Defense System (BMDS) Phased Adaptive Approach (PAA) architectures. The warfighter`s Prioritized Capabilities List is used to prioritize research investments, which address potential gaps in the BMDS.

The Enhanced Command, Control, Battle Management & Communication (EC2BMC) Program develops and demonstrates technologies which improves the ability of BMDS to counter raids and integrates early intercept experiments.

Key enabling tasks include:

-Evaluating infrared sensor data for applicability to the future BMD System
-Integrating and fusing sensor data for greater track accuracy
-Classifying, identifying, characterizing, and discriminating items of interest
-Directing/controlling all battle management, command, and control operations in connection with response to a threat
-Examining shoot-look-shoot battle management schemes

The BMD Technology program also invests in next generation technology by conducting research with universities, University Affiliated Research Centers (UARC), Federally Funded Research and Development Centers (FFRDC), small business and industry at all levels to address threats expected in the future. This Program Element provides administrative support for the Small Business Innovation Research (SBIR) Program Element, 0605502C. FY 2012 SBIR topic areas include the following efforts from small business, universities, and collaborative efforts:

-Modular Hypergolic Leak Detector
-Advanced Techniques for Lossless Compression of Target Vehicle Telemetry
-Antenna design in the Plasma Environment
-RF Material Property Characterization

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2013 Missile Defense Agency	**DATE:** February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603175C: *Ballistic Missile Defense Technology*

-Correlation of Phenomenology viewed in radar and infra-red segments of the spectrum
-Novel Planning Algorithms for Hybrid Land & Sea Platform Sensor Coordination
-Radar Waveforms to Discern Remote Object Attributes
-3G & 4G Communication System Interference Remediation Techniques
-Methodologies for Real-time Correction of Water Vapor Effects on an Infrared Scene As Seen by an Airborne Platform
-Intercept Debris Identification and Characterization Strategies
-Graphical Processing Units (GPUs) for Computational Intensive Algorithms
-Asset Pairing for Battle Management
-RF-IR Data Fusion for Track and Data Correlation
-Resource Optimization
-Techniques for Performing Warhead Characterization
-Innovative Tests and Techniques for Modeling Detonation Probability and Debris Characterization of High Explosive Submunition Warheads
-Modeling Reflection in Electro Optical Infrared (EO/IR) Signature Predictions
-Fast-Running Physic-Based Models for Intercept Debris Aero-heating and Aero-thermal Demise
-Anti-tamper Technology for Missile Defense
-Waste Heat Recovery of Rocket Motors for Reduction of Battery Weight
-Lightweight Communication Equipment for Interceptor Communications
-Powdered Propellant Rocket Motor
-Miniature Extendable Nozzles or actuating nozzles for Improved Specific Impulse of Divert and Attitude Control System thrusters
-Acquisition, Tracking and Pointing Technologies for High Energy Laser Applications
-Development of Line-narrowed Diode Pumps Sources for Diode Pumped Alkali Laser systems
-Optics and Coating for High Energy Laser Applications
-Tier III Candidate Laser Modeling and Simulation Tool
-Atmospheric Characterization for Directed Energy Applications
-Light weight Rubidium-Metal Vapor Circulating System
-Affordable Reinforced Polymer Composite Structures with embedded electrical interfaces
-DNA Marking of Components for Avoidance of Counterfeit Parts
-Thermal Isolation of Nozzle Exit Cone Insulators
-Improve Detection of Counterfeit Parts by Using Electromagnetic Interference/Radio Frequency Emission Signatures System and Thermal Characterization Cycles

MD40 consists of Program-Wide Support (PWS) non-headquarters management costs in support of MDA functions and activities across the entire Ballistic Missile Defense System (BMDS).

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Missile Defense Agency				DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*			**R-1 ITEM NOMENCLATURE** PE 0603175C: *Ballistic Missile Defense Technology*		

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	132.220	75.003	103.844	-	103.844
Current President's Budget	92.617	74.920	79.975	-	79.975
Total Adjustments	-39.603	-0.083	-23.869	-	-23.869
• Congressional General Reductions	-0.625	-0.083			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-40.000	-			
• Reprogrammings	1.022	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	-23.869	-	-23.869

Change Summary Explanation

FY 2011 $40.0 million decrease is due to a Congressional directed transfer of the High Performance Interceptor content and funding to the BMD Aegis Program Element, 0603892C, budget project MD09 (Department of Defense and Full Year Continuing Appropriation Act, FY 2011 (Public Law 112-10)).

FY 2012 decrease is due to Congressional general reductions (Consolidated Appropriation Act of FY 2012 (Public Law 112-74)) (-$0.083).

FY 2013 decrease reflects a realignment of Department of Defense priorities.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense Agency									DATE: February 2012	

APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*				R-1 ITEM NOMENCLATURE PE 0603175C: *Ballistic Missile Defense Technology*				PROJECT MD25: *Advanced Technology*		

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
MD25: *Advanced Technology*	86.979	72.235	76.005	-	76.005	77.367	109.876	127.229	129.805	Continuing	Continuing

Note
  N/A

A. Mission Description and Budget Item Justification

The Ballistic Missile Defense Technology portfolio develops cost and operationally effective capabilities; explores and develops technologies to counter future threats; leverages technology investments of other Department of Defense (DoD) organizations, industry, other government agencies and international partners. The Enhanced Command, Control, Battle Management and Communication (EC2BMC) Program develops and demonstrates technologies which improve the ability of BMDS to counter raids and integrates early intercept experiments for the Phased Adaptive Approach Architecture. The Advanced Research Program develops new early intercept capabilities by leveraging industry and university research. This program also manages the selection process and administers the Missile Defense Small Business Innovation Research (SBIR) Program Element, 0605502C. The SBIR Research Areas for FY 2012 include Test Instrumentation, Aegis, Command Control Battle Management Communication (C2BMC), Radar, Infrared, Terminal High Altitude Area Defense (THAAD), Ground-Based Midcourse Defense (GMD), Targets and Countermeasures, Israeli Program, Modeling and Simulation, Anti-Tamper, Standard Missile-3 Block IIB, Directed Energy, and Quality, Safety and Mission Assurance. The Advanced Technology Modeling and Simulation program develops integrated simulations to enable planning and assessment of the BMDS Phased Adaptive Approach architectures and designs methods for assessing integrated hardware and software performance in representative Ballistic Missile Defense System (BMDS) threat scenarios.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: High Performance Interceptor Components	14.972	-	-
Description: See Description Below *FY 2011 Accomplishments:* -The FY 2011 Appropriation transferred $40.0 million of the High Performance Interceptor content and funding to the Ballistic Missile Defense (BMD) Aegis Program Element, 0603892C, budget project MD09. -FY 2011 accomplishments are contained in the SM-3 Block IIB Program Element, 0603902C, budget project MD70, because funds transferred to 0603902C beginning in FY 2012. *FY 2012 Plans:* Plans for FY 2012 are captured in SM-3 Block IIB Program Element 0603902C, budget project MD70. *FY 2013 Plans:* N/A			
Title: Enhanced Command, Control, Battle Management and Communication	40.131	49.453	51.860

Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense Agency		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603175C: *Ballistic Missile Defense Technology*	**PROJECT** MD25: *Advanced Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Description: See Description Below *FY 2011 Accomplishments:* -Developed experimental net-centric, service oriented architectures and investigated Electro-Optical/Infra-Red discrimination, track correlation, and data fusion capability improvements -Demonstrated building blocks to an Aegis Launch on Remote (LoR) capability using fused multi-sensor infrared (IR) data -Verified initial 3-D Infrared (IR) tracking and IR discrimination capability through post-event analysis using Aegis Simulated Intercept Flight Test (JFTM-04) Nov 2010. -Cued an Airborne Infrared (ABIR) ground sensor with Overhead Persistent Infrared (OPIR) in Sensors Flight Test (FTX-16) Mar 2011. -Fused ABIR, Space Tracking and Surveillance System (STSS), and OPIR measurement data to form tracks meeting Aegis LoR quality requirements in post-event analysis of Sensors Flight Test (FTX-16) Mar 2011. -Formed real-time tracks with Space Tracking and Surveillance System (STSS) data meeting Aegis LoR engagement criteria during Aegis Intercept Flight Test (FTM-15) Apr 2011. -Automatically generated an ABIR tasking request and associated cues during Air-Launched Target Returned to Flight (FTX-17) Jul 2011. -Leveraged Enterprise Sensor Lab/BMDS Overhead Non-imaging Infrared (ONIR) Architecture (ESL/BOA) 3-D tracking algorithms and developed new tasking algorithms to integrate ABIR sensor data to support the Aegis LoR engagement concept -Developed Infrared (IR) discrimination algorithms and demonstrated major object identification. Continued developing techniques to build battle management decision logic using IR features and attributes. This work supported a Ballistic Missile Defense System (BMDS) architecture study on Integrated Radio Frequency/Infrared (RF/IR) Discrimination requirements. *FY 2012 Plans:* -Develop upgraded multi-sensor (remote sensors and space sensors) tasking and signal processing capabilities to demonstrate ability to produce three-dimensional tracks with sufficient quality (position, velocity, error volumes, and latency) to complete ballistic missile engage-on-remote in realistic test environments -Conduct integrated experiments with Command, Control, Battle Management and Communication and Space Tracking and Surveillance System (STSS) to prove Aegis Launch-On-Remote with STSS -Develop interfaces with Precision Tracking Space System (PTSS) ground segment and the rest of the BMDS via the Enterprise Sensors Laboratory (ESL) -Investigate advanced algorithms and Command, Control, Communication, Computers, Intelligence, Surveillance and Reconnaissance net-centric modular architectures for increased raid capability -Develop advanced techniques for data fusion, remote sensor cueing, and Hit Assessment for space based sensors			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense Agency		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603175C: *Ballistic Missile Defense Technology*	**PROJECT** MD25: *Advanced Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
-Develop and deliver algorithms to C2BMC that incorporates the improved ballistic cue for mid-course sensors *FY 2013 Plans:* -Complete maturation and testing of new BMDS Overhead Persistent Infrared (BOA) baseline release to support Spiral 8.2 integration and testing -Complete requirements allocation and specification for advanced C2BMC technologies to support European Phased Adaptive Approach (EPAA) Phase 3/4 requirements -Complete remote sensor technologies and STSS integration prototype development and evaluation -Identify, refine, and develop representative models for use in simulation exercises, associated operations in flight tests, experiments, and performance assessments of advanced algorithms and battle management techniques using infrared and radio frequency sensors -Develop advanced algorithms for infrared and radio frequency data fusion, sensor cueing and tasking, discrimination, and hit assessment -Enterprise Sensors Laboratory: Complete new OPIR sensor integration to expand the RF sensor cueing capability of BOA. This capability will improve the raid capacity of the RF sensors -Enterprise Sensors Laboratory: Initiate development for the first application of infrared sensor cueing -Enterprise Sensors Laboratory: Initiate algorithm development for hit assessment and continue mid-course tracking algorithm improvements and boost phase tracking algorithm enhancements -Award a Spiral 8.4 contract to support EPAA Phase 3 requirements and initiate engineering design and development			
Title: Advanced Research *Description:* See Description Below *FY 2011 Accomplishments:* -Demonstrated two color and large format Focal Plane Arrays (FPA) using new substrate materials -Documented improved performance and operability of new substrate large format FPAs over existing Mercury Cadmium Telluride (MCT) -Identified novel approach for modeling multiple countermeasures as one extended target -Investigated innovative concepts for meeting BMDS requirements through university research programs: -Clemson University: Fiber Laser Research -Texas A&M University: Propulsions Systems -Auburn University: Signal & Data Processing, Mathematics -University of Illinois: Probability of Decision Theory -University of Arizona: Electro Optical Systems	17.740	16.465	18.225

Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense Agency		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603175C: *Ballistic Missile Defense Technology*	PROJECT MD25: *Advanced Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
-University of Nebraska in cooperation with University of Rouen: Advanced Material Sciences -University of Nebraska in cooperation with University of Bordeaux: Advanced Material Sciences -North Carolina State University in cooperation with Czech Republic Institute of Physics: Stereoscopic Imagery and Multi-Modality Image Reconstruction *FY 2012 Plans:* -Award Advanced Research contracts to domestic universities for innovative early intercept investigations -Manage and oversee ongoing domestic university research projects -Manage and oversee ongoing international University-to-University research (UUR) projects -Conduct Advanced Technology Innovation Broad Agency Announcement (ATI BAA) solicitation for identifying potentially breakthrough research on missile defense related technology with private industry, qualified accredited educational institutions, and nonprofit organizations -Develop common modeling and simulation infrastructure, tools, and analysis capabilities that integrate with Ballistic Missile Defense System (BMDS) modeling and simulation architectures for advanced technology development. -Conduct System Engineering to identify initiatives to defend against current and future threats *FY 2013 Plans:* -Award Advanced Research contracts to domestic universities for innovative early intercept investigations -Invest in second and third year of ongoing university contracts -Sponsor breakthrough technology and innovative solutions from private industry, qualified accredited domestic educational institutions, and nonprofit organizations, using the Advanced Technology Innovation Broad Agency Announcement (BAA) -Manage the Small Business Innovation Research (SBIR) and Technology Applications programs to assist MDA-funded technology developers in finding and entering technology transfer opportunities to missile defense applications -Conduct System Engineering to identify initiatives and technology to defend against current and future threats			
Title: Advanced Communications Technology *Description:* See Description Below *FY 2011 Accomplishments:* -Conducted activities to enable the integration of advanced Command and Control, Battle Management and Communications (C2BMC) capabilities into BMDS subsystems -Demonstrated and evaluated advanced C2BMC capabilities in live-flight test events: Aegis Simulated Intercept Flight Test (JFTM-04E3), Aegis Simulated Intercept Flight Test (FTM-16E1), Sensors Flight Test (FTX-16), Aegis Intercept Flight Test (FTM-15), Air Launched Target Return to Flight (FTX-17), THAAD Intercept Flight Test (FTT-12), Aegis Flight Test Intercept (FTM-16E2).	12.846	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense Agency		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603175C: *Ballistic Missile Defense Technology*	**PROJECT** MD25: *Advanced Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
-Evolved war fighter concept of operations (CONOPS) to insert new subsystems and capabilities into the BMDS in the areas of boost phase tracking and classification, sensor resource management, weapons resource management addressing countermeasures, post-intercept debris information flow, and communication with allies and friendly nations in support of Phased Adaptive Approach capabilities -Developed and demonstrated next generation sensor netting and sensor resource management techniques -Conducted sensor netting experiments associated with tracking, integrated discrimination, sensor resource tasking, and Communications/bandwidth constraints -Developed and demonstrated advanced battle management (BM) and integrated fire control capabilities -Conducted architecture assessments of BM functions federated within C2BMC and various allied/coalition partners and friendly nations -Integrated the CONOPS information for advanced and emerging BMDS capabilities (such as Early Intercept and Space Tracking and Surveillance System (STSS)) into battle management constructs *FY 2012 Plans:* FY 2012 Plans are captured in BMD C2BMC Program Element 0603896C, budget project MD01. *FY 2013 Plans:* FY 2013 plans are captured in BMD C2BMC Program Element, 0603896C, budget project MD01.			
Title: Advanced Technology Modeling and Simulation *Description:* See Description Below *FY 2011 Accomplishments:* NA *FY 2012 Plans:* The FY 2012 effort for Advanced Technology Modeling and Simulation is contained in Advanced Research and Enhanced Command, Control, Battle Management and Communications within budget project MD25. *FY 2013 Plans:* -Beginning in FY 2013, Advanced Technology Modeling and Simulation is centralized in this accomplishment area for efficiencies and budget clarity. -Develop common modeling and simulation infrastructure, tools, and analysis capabilities that integrate with Ballistic Missile Defense System (BMDS) modeling and simulation architectures for the Standard Missile-3 Block IIB and future variant government reference concepts.	-	-	5.920

Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense Agency		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603175C: *Ballistic Missile Defense Technology*	PROJECT MD25: *Advanced Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
-Create and integrate BMDS Phase III/IV system modeling and simulation products into BMDS modeling and simulation architectures for SM-3 IIB, Directed Energy, and University Research. -Conduct internal benchmarking simulation exercises and yearly internal modeling and simulation reviews to drive analysis and model requirements for future concepts.			
Title: Small Business Innovation Research (SBIR) Program Support *Description:* See Description Below *FY 2011 Accomplishments:* Partial funding for these FY 2011 accomplishments is reported in budget project MD25 Advanced Research ($5.0 million) -Conducted Technology Applications Reviews to assist MDA-funded technology developers find and enter technology transfer opportunities beyond MDA applications -Conducted Business Focus Workshops with MDA SBIR Phase I companies to help develop a successful business model for their technology early in the development cycle -Published the MDA Technology Applications annual report, The Spirit of Innovation, and a report on biomedical and life science technology transfer from MDA technology on the web -Administered, updated, and expanded MDA`s dedicated web site for technology transfer -Managed and continually updated the Technology Applications program`s internal data handling and tracking system to manage all aspects of the Technology Applications program including historical data -Executed MDA Small Business Innovation Research/Small Business Technology transfer (SBIR/STTR) solicitation *FY 2012 Plans:* -Execute the FY 2012 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) MDA requirements-driven investment strategy including eight research areas, approximately forty SBIR topics, five STTR topics, and associated budgets -Award approximately 160 Phase I SBIR and 20 Phase I STTR contracts leading to 90 follow-on prototype development efforts -Award approximately 80 Phase II SBIR and 10 Phase II STTR contracts intended to transition to C2BMC, interceptor and space systems -Augment promising Phase II programs to advance Technology Readiness Levels (TRLs) and aid transition/commercialization -Conduct Phase II Transition invitation and assessments with additional augmentations pending -Generate and receive approval for FY 2013 SBIR/STTR investment strategy including eight Research Areas, SBIR topics, STTR topics, and associated budgets -Conduct outreach activities to mentor small business and foster best practices to increase the likelihood of successful technologies being transitioned into the BMDS	1.290	6.317	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense Agency		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 3: Advanced Technology Development (ATD)	R-1 ITEM NOMENCLATURE PE 0603175C: Ballistic Missile Defense Technology	PROJECT MD25: Advanced Technology

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
-Conduct Technology Applications Reviews and Business Focus Workshops to assist MDA-funded technology developers find and enter technology transfer opportunities beyond MDA applications *FY 2013 Plans:* Small Business Innovation Research Program Support effort transfers to the Advanced Research accomplishment within this budget project MD25 beginning in FY 2013 to achieve efficiencies			
Accomplishments/Planned Programs Subtotals	86.979	72.235	76.005

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• 0603884C: *Ballistic Missile Defense Sensors*	389.259	222.075	347.012		347.012	327.342	362.520	341.780	326.095	Continuing	Continuing
• 0603893C: *Space Tracking & Surveillance System*	105.580	96.232	51.313		51.313	45.355	32.423	34.195	35.087	Continuing	Continuing
• 0603896C: *Ballistic Missile Defense Command and Control, Battle Management & Communication*	454.440	363.640	366.552		366.552	376.116	383.055	358.431	364.725	Continuing	Continuing
• 0603901C: *Directed Energy Research*	126.096	49.943	46.944		46.944	47.865	47.357	52.519	54.513	Continuing	Continuing
• 0603902C: *Next Generation Aegis Missile (Standard Missile-3 Block IIB (SM-3 IIB))*	0.000	13.443	224.077		224.077	295.248	455.373	508.356	430.239	Continuing	Continuing

D. Acquisition Strategy

The acquisition strategy to conduct this technology development effort consists of partnering with Federally Funded Research and Development Centers and University Affiliated Research Centers. MDA will also award contracts to industry and universities via the Advanced Technology Innovation Broad Agency Announcement and competitive procurements.

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense Agency		DATE: February 2012	

APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603175C: *Ballistic Missile Defense Technology*	PROJECT MD40: *Program Wide Support*

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
MD40: *Program Wide Support*	5.638	2.685	3.970	-	3.970	4.021	5.551	6.513	6.849	Continuing	Continuing

Note

In FY 2012, Program Wide Support reflects a proportional decrease as a result of decreases to BMD Technology.

In FY 2013, Program Wide Support reflects a proportional increase as a result of adjustments to BMD Technology.

A. Mission Description and Budget Item Justification

Program-Wide Support (PWS) contains non-headquarters management costs in support of MDA functions and activities across the entire Ballistic Missile Defense System (BMDS). Includes Government Civilians, Advisory and Assistance Services, and Federally Funded Research and Development contracts (FFRDC) providing integrity and oversight of the BMDS as well as, supporting MDA in enabling the development and evaluation of technologies that will respond to the changing threat. In addition, includes Global Deployment personnel and support performing deployment site preparation and activation. Other costs included provide facility capabilities for MDA Executing Agent locations (with the exception of Federal Office Building 2 after FY 2011), such as physical and technical security, legal services, travel and agency training, office and equipment leases, rents and utilities, data and unified communications support, supplies and maintenance, logistics and central property management of equipment, and similar operating expenses. Also includes legal settlements, and foreign currency fluctuations on a limited number of foreign contracts. In keeping with congressional intent, PWS is allocated on a pro-rata basis and therefore, fluctuates by year based on the total MDA budget.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: Civilian Salaries and Support	5.638	2.685	3.970
Description: See Description Below			
FY 2011 Accomplishments: See Paragraph A, Mission Description and budget item justification			
FY 2012 Plans: See Paragraph A, Mission Description and budget item justification			
FY 2013 Plans: See paragraph A, Mission Description and budget item justification.			
Accomplishments/Planned Programs Subtotals	5.638	2.685	3.970

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, **RDT&E Project Justification:** PB 2013 Missile Defense Agency		**DATE:** February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603175C: *Ballistic Missile Defense Technology*	**PROJECT** MD40: *Program Wide Support*

D. Acquisition Strategy
  N/A

E. Performance Metrics
  N/A