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

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604878C / <i>Aegis BMD Test</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	-	89.628	55.148	-	55.148	89.861	131.351	101.903	80.390	Continuing	Continuing
MT09: <i>AEGIS BMD Test</i>	-	-	89.628	52.723	-	52.723	85.613	124.624	96.474	76.035	Continuing	Continuing
MD40: <i>Program Wide Support</i>	-	-	-	2.425	-	2.425	4.248	6.727	5.429	4.355	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Beginning in FY 2015, the MT09 Aegis BMD Test project was transferred to PE 0604878C: Aegis BMD Test from PE 0603892C: Aegis BMD MT09 Aegis BMD Test project in accordance with Public Law 113-235, FY2015 Omnibus; Consolidated and Further Continuing Appropriations Act.

FY 2016 Budget Accomplishments for PE 0603892C Budget Project MT09 is restructured for direct traceability to the Integrated Master Test Plan (IMTP) and efficient management of testing execution efforts. Test funding falls under the following accomplishments: Aegis BMD Ground Test Execution, Aegis BMD Test Resources, and Engineering & Analysis.

The Aegis BMD Test Program is split into multiple functional areas - the initial Aegis BMD capability which includes the Aegis BMD Weapons System (ABMD) 3.x, 4.x, and the SM-3 Block IA and IB guided missiles; the follow-on/upgraded capability that includes baseline 9.B.x, 9.C.x (ABMD 5.0, 5.0 Capability Upgrade), the SM-3 Block IIA Cooperative Development Program and other Aegis BMD Programs with advanced capabilities.

A. Mission Description and Budget Item Justification

The Aegis Ballistic Missile Defense (BMD) mission is to deliver an enduring, operationally effective and supportable BMD capability to defend the nation, deployed forces, friends and allies, and to increase this capability by delivering evolutionary improvements as part of the Ballistic Missile Defense System (BMDS) upgrades. The Aegis BMD element of the BMDS capitalizes upon and evolves from the existing United States 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 Missiles (SRBMs), Medium-Range Ballistic Missiles (MRBMs), and Intermediate-Range Ballistic Missiles (IRBMs) in the midcourse phase of flight and shorter range missiles in the terminal phase of flight. Aegis BMD also provides a Long Range Surveillance and Track (LRS&T) capability to the BMDS. Upgrades to both the Aegis BMD Weapon System and the SM-3 missile configuration enable Aegis BMD to provide effective, supportable defensive capability against longer range, more sophisticated threats and an enduring Aegis Ashore defensive capability.

Proving Missile Defense:

- Working with the Services' Operational Test Agencies (OTA), with the support of the Director of Operational Test and Evaluation (DOT&E), Missile Defense Agency (MDA) has developed a test program to improve confidence in missile defense capabilities under development and ensure the capabilities transferred to the warfighter are operationally effective, suitable, and survivable.

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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604878C / <i>Aegis BMD Test</i>
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- As part of the Agency's rigorous test program, System Pre-Flight predictions provide confidence in test execution by predicting element performance and exercising element interfaces. System Post-Flight Reconstruction replicates the Ballistic Missile Defense System configuration and actual environmental conditions and target dynamics observed in flight to anchor modeling and simulation models and results.
- The Integrated Master Test Plan (IMTP) is event-oriented and extends until the collection of all identified data is completed to ensure adequate test investments.

MD40 Program-Wide Support (PWS) consists of essential non-headquarters management efforts providing integrated and efficient support to the MDA functions and activities across the entire Ballistic Missile Defense System (BMDS).

B. Program Change Summary (\$ in Millions)	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	89.628	55.148	-	55.148
Total Adjustments	-	89.628	55.148	-	55.148
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	89.628			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	55.148	-	55.148

Change Summary Explanation

FY 2015 and 2016 changes reflect Public Law 113-235, FY2015 Omnibus; Consolidated and Further Continuing Appropriations Act.

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency										Date: February 2015		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604878C / Aegis BMD Test				Project (Number/Name) MT09 / AEGIS BMD Test			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
MT09: AEGIS BMD Test	-	-	89.628	52.723	-	52.723	85.613	124.624	96.474	76.035	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Beginning in FY 2015, the MT09 Aegis BMD Test project was transferred to PE 0604878C: Aegis BMD Test from PE 0603892C: Aegis BMD MT09 Aegis BMD Test project in accordance with Public Law 113-235, FY2015 Omnibus; Consolidated and Further Continuing Appropriations Act.

FY 2016 Budget Accomplishments for PE 0603892C Budget Project MT09 is restructured for direct traceability to the Integrated Master Test Plan (IMTP) and efficient management of testing execution efforts. Test funding falls under the following accomplishments: Aegis BMD Ground Test Execution, Aegis BMD Test Resources, and Engineering & Analysis.

Decrease from FY 2015 to FY 2016 is attributed to no Aegis BMD flight test missions scheduled for FY 2016 execution out of PE 0604878C. Flight tests are planned for execution in PE 0604881C in accordance with the Integrated Master Test Plan (IMTP). Associated test funding for planning pre- and post-mission analysis, and test resources is captured in this PE.

A. Mission Description and Budget Item Justification

The Aegis Ballistic Missile Defense (BMD) mission is to deliver an enduring, operationally effective and supportable BMD capability to defend the nation, deployed forces, friends and allies, and to increase this capability by delivering evolutionary improvements as part of the Ballistic Missile Defense System (BMDS) upgrades. The FY2016 Aegis BMD Test Program will concentrate on two capability aspects that will give Aegis BMD an increased regional negation capability and defense of the fleet. Each of these programs have been in development for over 5 years, and address evolving threats as defined by national intelligence agencies. Upgrades to both the Aegis BMD Weapon System and the Standard Missile configurations enable Aegis BMD to provide effective, supportable defensive capability against longer range, more sophisticated threats and an enduring Aegis Ashore defensive capability.

Aegis BMD will concentrate on increased capabilities developmental testing in FY2016 - and within the Aegis BMD budget, these are separate programs from the initial capability (ABMD 3.x, 4.x, and SM-3 Blocks IA and IB). One being the Block IIA Program that is a cooperative development with the Japanese and subject to International Agreements.

Proving Missile Defense:

- Working with the Navy Integrated Warfare System (IWS) Services' Operational Test Agencies (OTA), with the support of the Director of Operational Test and Evaluation (DOT&E), Missile Defense Agency (MDA) has developed a test program to improve missile defense capabilities under development and ensure the capabilities transferred to the warfighter are operationally effective, suitable, and survivable FY 2016 testing is concentrated in these areas.

- As part of the Agency's rigorous test program, System Pre-Flight predictions provide confidence in test execution by predicting element performance and exercising element interfaces. System Post-Flight Reconstruction replicates the Ballistic Missile Defense System configuration and actual environmental conditions and target dynamics observed in flight to anchor modeling and simulation results.

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency			Date: February 2015		
Appropriation/Budget Activity 0400 / 4		R-1 Program Element (Number/Name) PE 0604878C / Aegis BMD Test	Project (Number/Name) MT09 / AEGIS BMD Test		
- The Integrated Master Test Plan (IMTP) is event-oriented and extends until the collection of all identified data is completed to ensure adequate test investments.					
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2014	FY 2015	FY 2016
Title: Aegis Ballistic Missile Defense (BMD) Testing Articles: Description: See description below FY 2014 Accomplishments: N/A FY 2015 Plans: - Continue to conduct Aegis BMD-specific analysis during pre and post-mission analysis phases. - Begin test planning for FY 2016 Aegis flight test missions: prepare target, develop models and simulations, and ready the range for test. - Continue to conduct Post Flight Analysis for test conducted in FY 2015 Aegis flight test missions. - Prepare for and conduct Ballistic Missile Defense System (BMDS) Flight and Ground Test events as reflected in the Integrated Master Test Plan (IMTP) and the Exhibit R-4 schedule. - Participate in BMD special technology experiments. FY 2016 Plans: Decrease from FY 2015 is attributed to no flight test missions scheduled for FY 2016 execution according to the Integrated Master Test Plan (IMTP). All remaining efforts are realigned within new MT09 Budget Accomplishment Structure: Aegis BMD Ground Test Execution and Aegis BMD Test Resources.			-	39.110	-
			-	-	-
Title: BMDS Level Testing Articles: Description: See description below. FY 2014 Accomplishments: N/A FY 2015 Plans: - Perform operational flight testing (FTO-2 Events 1 and 2) of the integrated BMDS as defined in phase II of the European Phased Adaptive Approach (EPAA) to support deployment to Europe by the end of CY 2015. - Perform operational flight test demonstrating a validation of coordinated BMD engagement capabilities between multiple Aegis BMD Ships.			-	38.222	-
			-	-	-

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Appropriation/Budget Activity 0400 / 4		R-1 Program Element (Number/Name) PE 0604878C / <i>Aegis BMD Test</i>		Project (Number/Name) MT09 / <i>AEGIS BMD Test</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2014	FY 2015	FY 2016
<p>- Perform ground testing of all BMDS elements planned for deployment in EPAA Phase II to verify their operation capability on an integrated architecture.</p> <p>FY 2016 Plans: Decrease from FY 2015 is attributed to no flight test missions scheduled for FY 2016 execution according to the Integrated Master Test Plan (IMTP).</p> <p>All remaining efforts are realigned within new MT09 Budget Accomplishment Structure: Aegis BMD Ground Test Execution and Aegis BMD Test Resources</p>					
<p>Title: Aegis BMD Ground Test Execution</p> <p align="right">Articles:</p> <p>Description: Aegis BMD Ground Test Program performs comprehensive testing of Aegis BMD Components and their interoperability with the BMDS using accredited Modeling & Simulation that provides the evidence required for the MDA and Combatant Commanders to transition the capability to the Operational Baseline. More specifically, ground testing is used to collect data for Aegis BMD characterization and assessment, flight test risk reduction, and exploration of scenarios where flight testing is either impracticable or impossible.</p> <p>FY 2014 Accomplishments: N/A</p> <p>FY 2015 Plans: N/A</p> <p>FY 2016 Plans:</p> <ul style="list-style-type: none"> - Participate in Ballistic Missile Defense System (BMDS) Ground Tests in accordance with the Missile Defense Agency's (MDA's) Integrated Master Test Plan (IMTP) to collect data for Aegis BMD characterization and assessment, flight test risk reduction, and exploration of scenarios where flight testing is either impracticable or impossible. - Conduct planning to ensure BMDS Test Site (BTS) capabilities support Aegis Ballistic Missile Defense (BMD) testing, exercise flight test, and demonstration requirements. This includes upgrades to the ground testing labs to ensure compliance with operational and test baselines. - Manage the complex transition and proliferation of Command, Control, Computer, Communications & Intelligence (C4I) systems and Aegis BMD baselines to ensure interoperability with CCMD systems. - Develop BTS upgrade plan to support test execution in order to validate the results of the testing. - Participate in System Level Ground Testing as an element of the layered BMDS to collect data for Aegis BMD characterization and assessment and exploration of scenarios where flight testing is either impracticable or impossible. 			-	-	8.335
			-	-	-

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Appropriation/Budget Activity 0400 / 4		R-1 Program Element (Number/Name) PE 0604878C / <i>Aegis BMD Test</i>		Project (Number/Name) MT09 / <i>AEGIS BMD Test</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2014	FY 2015	FY 2016
New accomplishment developed to align within new MT09 restructure for traceability to the IMTP: - Funding previously captured in Project MT09, BMDS Level Testing and Project MT09, Aegis Ballistic Missile Defense (BMD) Testing					
Title: Aegis BMD Test Resources			-	-	32.028
Articles:			-	-	-
Description: Conducts test and evaluation through ground and flight testing to improve confidence in missile defense capabilities under development and ensure the capabilities transferred to the warfighter are operationally effective, suitable, and survivable. This data is used to recreate, or reconstruct, a test event to validate the results of the flight test.					
FY 2014 Accomplishments: N/A					
FY 2015 Plans: N/A					
FY 2016 Plans: - Provides Test and Evaluation (T&E) infrastructure support for Aegis Ballistic Missile Defense (BMD) Test Missions as reflected in the Missile Defense Agency's (MDA's) Integrated Master Test Plan (IMTP) to collect truth data for post-event analysis. - Execute the Aegis BMD mission as applied to a layered Ballistic Missile Defense System (BMDS) Defense to ensure a technical capability and interoperability. - Collect Aegis BMD data for modeling and simulation (M&S) anchoring used in comprehensive ground testing. - Exercise tactical communications as they support the BMDS Mission to ensure interoperability with the BMDS and CCMD systems. - Participate as part of the overall MDA BMDS mission to ensure a technical capability exists. - Conduct Aegis BMD-specific analysis during pre- and post-mission analysis phases to solidify pre-mission expectations of mission success and validate test results. - Begin test planning for FY 2017 Aegis BMD flight test mission to include preparation of targets, development of M&S, and preparation of the range to ensure all missions are executable and apply to the technical program objectives. - Conduct post-test analysis for all flight testing conducted in FY 2015 for Aegis BMD missions to validate results - Prepare for and conduct BMDS flight events as reflected in the IMTP and the Exhibit R-4 schedule in accordance with Congressional and Presidential guidance. - Participate in BMDS Special Technology experiments and demonstrations to expand the capabilities of the Aegis BMD to use a diverse set of inputs.					
New accomplishment developed to align within new MT09 restructure for traceability to IMTP:					

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604878C / <i>Aegis BMD Test</i>	Project (Number/Name) MT09 / <i>AEGIS BMD Test</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015
- Funding previously captured in Project MT09, BMDS Level Testing and Project MT09, Aegis Ballistic Missile Defense (BMD) Testing			
Title: Engineering & Analysis Description: The Engineering and Analysis effort provides engineering support for planning and execution of BMDS ground and flight test events, including test architectures, objectives, and assessment criteria, and modeling and simulation pre- and post-test analysis support. FY 2014 Accomplishments: N/A FY 2015 Plans: Provide engineering support for planning, execution, and analysis of the test events listed in the Integrated Master Test Plan (IMTP): - Design test architecture, define target requirements, and generate appropriate scenarios for ground and flight tests. - Track Critical Engagement Condition (CEC) and Empirical Measurement Events (EME) data requirements and sufficiency. - Participate in major test reviews. - Utilize models and simulations (M&S) for pre-test assessment and post-test review, as well as M&S updates. - Provide Systems Engineering and Integration (SE&I) test configuration management; risk assessment; and anomaly/deficiency review, assessment and closure to support data gathering for BMDS hardware/software reliability improvements. - Develop and establish hardware-in-the-loop (HWIL) M&S integration test cases for ground and flight tests (pre-post mission). - Provide modeling and technical analysis support during Combatant Command (COCOM) wargames and exercises. FY 2016 Plans: - Design test architectures, and generate appropriate scenarios. - Define test objectives and evaluation criteria for all System level test events to anchor Models and Simulations (M&S) and address data collection requirements. - Participate in major test reviews, analysis team meetings, and mission planning events. - Utilize models and simulations (M&S) to perform pre-test assessments and post-test reviews, and utilize analysis results to refine and update M&S parameters. - Provide Systems Engineering and Integration (SE&I) test configuration management; risk assessment; and anomaly/deficiency review, assessment and closure to support data gathering for BMDS hardware/software reliability improvements. - Analyze test results to identify shortfalls so that objectives can be reassigned to future events to provide required verification and model validation data.		- -	12.296 -
			12.360 -

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency										Date: February 2015		
Appropriation/Budget Activity 0400 / 4				R-1 Program Element (Number/Name) PE 0604878C / <i>Aegis BMD Test</i>				Project (Number/Name) MT09 / <i>AEGIS BMD Test</i>				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> - Develop and provide capability upgrades to test analysis tools (e.g., Modular Analysis and Reporting Suite (MARS)) in concert with the BMDS evolution to enhance analysis capability and efficiency. - Populate the MARS database with data from the most recently completed tests to support as-built analysis and capability assessments. - Develop and provide infrastructure, software, and associated MDA/IA compliance for the RApid Scenario Prototype (RASP) capability. - Develop and establish hardware-in-the-loop (HWIL) M&S integration test cases (pre/post mission). 												
Accomplishments/Planned Programs Subtotals										-	89.628	52.723
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost	
• 0603892C: <i>AEGIS BMD</i>	885.704	764.224	843.355	-	843.355	762.740	748.354	564.827	579.585	Continuing	Continuing	
• 0604880C: <i>Land Based SM-3 (LBSM3)</i>	124.568	123.444	34.970	-	34.970	40.787	30.486	20.193	22.079	Continuing	Continuing	
• 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	297.169	263.695	172.645	-	172.645	66.828	-	-	-	-	800.337	
Remarks												
D. Acquisition Strategy												
N/A												
E. Performance Metrics												
N/A												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Missile Defense Agency												Date: February 2015			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604878C / Aegis BMD Test				Project (Number/Name) MT09 / AEGIS BMD Test					
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis Ballistic Missile Defense (BMD) Testing - Aegis Ballistic Missile Defense (BMD) Testing - MT09 -	MIPR	NSWC Dahlgren : Dahlgren, VA	0.000	-		6.604	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Testing - Aegis Ballistic Missile Defense (BMD) Testing - MT09 - 201112202597076	MIPR	PMRF Barking Sounds : Kauai, HI	0.000	-		2.559	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Testing - Aegis Ballistic Missile Defense (BMD) Testing - MT09 - 201112202597078	MIPR	NAWC/PM : Pt Mugu, CA	0.000	-		2.612	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Testing - Aegis Ballistic Missile Defense (BMD) Testing - MT09 - 201112202630564	SS/CPFF	JHU/APL : Columbia, MD	0.000	-		10.171	Nov 2014	-		-		-	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Testing - Aegis Ballistic Missile Defense (BMD) Testing - MT09 - 201112202630567	MIPR	Aegis BMD : VA	0.000	-		3.283	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Testing - Aegis Ballistic Missile Defense (BMD) Testing - MT09 - 201112202630569	SS/CPIF	Lockheed Martin : Moorestown, NJ	0.000	-		4.849	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Testing - Aegis Ballistic Missile Defense (BMD) Testing - MT09 - 20111220263057	MIPR	SPAWAR : San Diego, CA	0.000	-		3.674	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Aegis Ballistic Missile Defense (BMD) Testing	MIPR	NSWC/PHD : PT. HUENEME, CA	0.000	-		5.358	Oct 2014	-		-		-	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Missile Defense Agency												Date: February 2015			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604878C / <i>Aegis BMD Test</i>						Project (Number/Name) MT09 / <i>AEGIS BMD Test</i>			
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
- Aegis Ballistic Missile Defense (BMD) Testing - MT09 - 20111220266947															
BMDs Level Testing - BMDs Level Testing - MT09	MIPR	NSWC PHD : PT. HUENEME, CA	0.000	-		2.699	Oct 2014	-		-		-	Continuing	Continuing	Continuing
BMDs Level Testing - BMDs Level Testing - MT09 - 201112202535339	MIPR	JHU/APL : COLUMBIA, MD	0.000	-		6.284	Oct 2014	-		-		-	Continuing	Continuing	Continuing
BMDs Level Testing - BMDs Level Testing - MT09 - 20111220253534	MIPR	NAVSEA : VA	0.000	-		8.006	Oct 2014	-		-		-	Continuing	Continuing	Continuing
BMDs Level Testing - BMDs Level Testing - MT09 - 201112202535342	MIPR	SPAWAR : SAN DIEGO CA	0.000	-		1.153	Oct 2014	-		-		-	Continuing	Continuing	Continuing
BMDs Level Testing - BMDs Level Testing - MT09 - 201112202535344	MIPR	CORONA : CA	0.000	-		1.273	Oct 2014	-		-		-	Continuing	Continuing	Continuing
BMDs Level Testing - BMDs Level Testing - MT09 - 201112202535347	MIPR	LOCKHEED MARTIN : MOORESTOWN NJ	0.000	-		3.153	Oct 2014	-		-		-	Continuing	Continuing	Continuing
BMDs Level Testing - BMDs Level Testing - MT09 - 201112202535348	MIPR	MDA : Arlington VA	0.000	-		15.654	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Aegis BMD Ground Test Execution - Aegis BMD Ground Test Execution - MT09 - CORONA	MIPR	CORONA : CA	0.000	-		-		0.477	Nov 2015	-		0.477	Continuing	Continuing	Continuing
Aegis BMD Ground Test Execution - Aegis BMD Ground Test Execution - MT09 - LM	MIPR	Lockheed Martin : Moorestown, NJ	0.000	-		-		2.265	Nov 2015	-		2.265	Continuing	Continuing	Continuing
Aegis BMD Ground Test Execution - Aegis BMD Ground Test Execution - MT09 - MDA	MIPR	MDA : Arlington, VA	0.000	-		-		3.685	Nov 2015	-		3.685	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Missile Defense Agency												Date: February 2015			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604878C / Aegis BMD Test				Project (Number/Name) MT09 / AEGIS BMD Test					
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis BMD Ground Test Execution - Aegis BMD Ground Test Execution - MT09 - PHD	MIPR	NSWC PHD : Pt. Hueneme, CA	0.000	-		-		0.191	Nov 2015	-		0.191	Continuing	Continuing	Continuing
Aegis BMD Ground Test Execution - Aegis BMD Ground Test Execution - MT09 - SSCPAC	MIPR	SPAWAR : San Diego, CA	0.000	-		-		1.717	Nov 2015	-		1.717	Continuing	Continuing	Continuing
Aegis BMD Test Resources - Aegis BMD Test Resources - MT09 - APL	SS/CPFF	JHU/APL : Columbia MD	0.000	-		-		10.866	Nov 2015	-		10.866	Continuing	Continuing	Continuing
Aegis BMD Test Resources - Aegis BMD Test Resources - MT09 - Aegis	MIPR	Aegis BMD : VA	0.000	-		-		1.250	Nov 2015	-		1.250	Continuing	Continuing	Continuing
Aegis BMD Test Resources - Aegis BMD Test Resources - MT09 - CORONA	MIPR	NSWC Corona : CA	0.000	-		-		3.000	Nov 2015	-		3.000	Continuing	Continuing	Continuing
Aegis BMD Test Resources - Aegis BMD Test Resources - MT09 - NAVSEA	MIPR	NAVSEA : VA	0.000	-		-		0.200	Nov 2015	-		0.200	Continuing	Continuing	Continuing
Aegis BMD Test Resources - Aegis BMD Test Resources - MT09 - NAWC/PM	MIPR	NAWC/PM : Pt. Mugu, CA	0.000	-		-		0.700	Nov 2015	-		0.700	Continuing	Continuing	Continuing
Aegis BMD Test Resources - Aegis BMD Test Resources - MT09 - NSWCDD	MIPR	NSWC Dahlgren : Dahlgren, VA	0.000	-		-		3.830	Nov 2015	-		3.830	Continuing	Continuing	Continuing
Aegis BMD Test Resources - Aegis BMD Test Resources - MT09 - PHD	MIPR	NSWC PHD : Pt. Hueneme, CA	0.000	-		-		6.100	Nov 2015	-		6.100	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Missile Defense Agency												Date: February 2015			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604878C / Aegis BMD Test				Project (Number/Name) MT09 / AEGIS BMD Test					
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aegis BMD Test Resources - Aegis BMD Test Resources - MT09 - PMRF	MIPR	PMRF Barking Sands : Kauai, HI	0.000	-		-		1.000	Nov 2015	-		1.000	Continuing	Continuing	Continuing
Aegis BMD Test Resources - Aegis BMD Test Resources - MT09 - SSCPAC	MIPR	SPAWAR : San Diego, CA	0.000	-		-		1.700	Nov 2015	-		1.700	Continuing	Continuing	Continuing
Aegis BMD Test Resources - Aegis BMD Test Resources - MT09 - Various	MIPR	Various : HI, VA, CA, MA	0.000	-		-		3.382	Nov 2015	-		3.382	Continuing	Continuing	Continuing
Engineering & Analysis - Engineering & Analysis - Engineering & Analysis - Engineering Support	C/CPAF	Northrop Grumman : AL, CO	0.000	-		1.360	Nov 2014	1.561	Nov 2015	-		1.561	Continuing	Continuing	Continuing
Engineering & Analysis - Engineering & Analysis - Engineering & Analysis - FFRDC/UARC	MIPR	Various : AL, CO, VA	0.000	-		6.257	Nov 2014	4.266	Nov 2015	-		4.266	Continuing	Continuing	Continuing
Engineering & Analysis - Engineering & Analysis - Engineering & Analysis - Industry	C/CPAF	Boeing : AL	0.000	-		1.079	Nov 2014	0.702	Nov 2015	-		0.702	Continuing	Continuing	Continuing
Engineering & Analysis - Engineering & Analysis - Engineering & Analysis - OGA	MIPR	AMRDEC : AL	0.000	-		3.600	Nov 2014	5.831	Nov 2015	-		5.831	Continuing	Continuing	Continuing
Subtotal			0.000	-		89.628		52.723		-		52.723	-	-	-
Remarks N/A															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Missile Defense Agency										Date: February 2015			
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604878C / <i>Aegis BMD Test</i>				Project (Number/Name) MT09 / <i>AEGIS BMD Test</i>				
	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		89.628		52.723		-		52.723	-	-	-
Remarks N/A													

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

Date: February 2015

Appropriation/Budget Activity



0400 / 4

R-1 Program Element (Number/Name)

PE 0604878C / Aegis BMD Test



Project (Number/Name)



MT09 / AEGIS BMD Test

Significant Event Complete 
Significant Event Planned 

Milestone Decision Complete 
Milestone Decision Planned 

Element Test Complete 
Element Test Planned 

System Level Test Complete 
System Level Test Planned 

Complete Activity 
Planned Activity 

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
GTD-04e Part 2 (BMDS Ground Test)					✦	✦																						
FTX-19 (AEGIS 4.0.2 Target Only Flight Test)					△																							
SCD CTV-01 (AEGIS SCD Intercept Only Flight Test)						△																						
FTO-02 E1 (OTA Intercept Flight Test)						△																						
GM CTV-02+ (GM Flight Test)								△																				
SCD CTV-02 (AEGIS SCD Intercept Only Flight Test)								△																				
SFTM-01 E2 (AEGIS 5.1 Intercept Flight Test)										✦																		
Warfighter TP 06 (BMDS Ground Test)										✦																		
SFTM-02 (AEGIS 5.1 Intercept Flight Test)												△																
FTM-DST 1 (DST FT) (Flight Test)												✦																
Warfighter TP 07a (BMDS Ground Test)													✦															
FTM-29 (AEGIS 5.1 Intercept Flight Test)														△														
FTM-DST 2 (DST FT) (Flight Test)																✦												
Warfighter TP 07b (BMDS Ground Test)																			✦	✦								
FTX-23 (AEGIS 5.1 Target Only Flight Test)																							△					
FTM-37 (FTM-34) (Rev 1) (Flight Test)																							△					
FTM-30 (AEGIS 5.1 Intercept Flight Test)																											△	

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Missile Defense Agency			Date: February 2015
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604878C / <i>Aegis BMD Test</i>	Project (Number/Name) MT09 / <i>AEGIS BMD Test</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GTD-04e Part 2 (BMDS Ground Test)	1	2015	2	2015
FTX-19 (AEGIS 4.0.2 Target Only Flight Test)	2	2015	2	2015
SCD CTV-01 (AEGIS SCD Intercept Only Flight Test)	3	2015	3	2015
FTO-02 E1 (OTA Intercept Flight Test)	3	2015	3	2015
GM CTV-02+ (GM Flight Test)	1	2016	1	2016
SCD CTV-02 (AEGIS SCD Intercept Only Flight Test)	1	2016	1	2016
SFTM-01 E2 (AEGIS 5.1 Intercept Flight Test)	3	2016	3	2016
Warfighter TP 06 (BMDS Ground Test)	3	2016	3	2016
SFTM-02 (AEGIS 5.1 Intercept Flight Test)	1	2017	1	2017
FTM-DST 1 (DST FT) (Flight Test)	1	2017	1	2017
Warfighter TP 07a (BMDS Ground Test)	3	2017	3	2017
FTM-29 (AEGIS 5.1 Intercept Flight Test)	1	2018	1	2018
FTM-DST 2 (DST FT) (Flight Test)	3	2018	3	2018
Warfighter TP 07b (BMDS Ground Test)	1	2019	2	2019
FTX-23 (AEGIS 5.1 Target Only Flight Test)	4	2019	4	2019
FTM-37 (FTM-34) (Rev 1) (Flight Test)	4	2019	4	2019
FTM-30 (AEGIS 5.1 Intercept Flight Test)	4	2020	4	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency										Date: February 2015		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604878C / Aegis BMD Test				Project (Number/Name) MD40 / Program Wide Support			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
MD40: Program Wide Support	-	-	-	2.425	-	2.425	4.248	6.727	5.429	4.355	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Beginning in FY 2016, Program Wide Support was proportionately allocated to Aegis BMD Test

A. Mission Description and Budget Item Justification

Program-Wide Support (PWS) contains non-headquarters management costs in support of Missile Defense Agency (MDA) functions and activities across the entire Ballistic Missile Defense System (BMDS). It includes Government Civilians, Contract Support Services, and Federally Funded Research and Development Center (FFRDC) support. This provides integrity and oversight of the BMDS as well as supports MDA in the development and evaluation of technologies that will respond to the changing threat. Additionally, PWS includes Global Deployment personnel and support performing deployment site preparation and activation and, provides facility capabilities for MDA Executing Agent locations. Other MDA wide costs includes: physical and technical security; civilian drug testing; audit readiness; the Science, Technology, Engineering, and Mathematics (STEM) program; legal services and settlements; travel and agency training; office and equipment leases; utilities; data and unified communications support; supplies and maintenance; materiel and readiness and central property management of equipment; and similar operating expenses. Program Wide Support is allocated on a pro-rata basis and therefore, fluctuates by year based on the total adjusted RDT&E profile (which excludes: 0305103C Cyber Security Initiative, 0603274C Special Program, 0603913C Israeli Cooperative Program and 0901598C Management Headquarters).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2014	FY 2015	FY 2016
Title: Program Wide Support	-	-	2.425
Articles:	-	-	-
Description: N/A			
FY 2014 Accomplishments: - FY 2014 Accomplishments were captured in multiple RDT&E Program Elements under MD40 Budget Project			
FY 2015 Plans: - FY 2015 Accomplishments are captured in multiple RDT&E Program Elements under MD40 Budget Project			
FY 2016 Plans: - Beginning in FY 2016, Program Wide Support was redistributed across RDT&E Program Elements with a proportional allocation to Aegis BMD Test - See paragraph A: Mission Description and Budget Item Justification			
Accomplishments/Planned Programs Subtotals	-	-	2.425

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Missile Defense Agency		Date: February 2015
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604878C / <i>Aegis BMD Test</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Missile Defense Agency												Date: February 2015			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604878C / <i>Aegis BMD Test</i>				Project (Number/Name) MD40 / <i>Program Wide Support</i>					
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Allot	Various : MDA Multi: AL, CO, CA, VA,	0.000	-		-		2.425		-		2.425	Continuing	Continuing	Continuing
Subtotal			0.000	-		-		2.425		-		2.425	-	-	-
Remarks N/A															
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	-		-		2.425		-		2.425	-	-	-
Remarks N/A															

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



Date: February 2015



Appropriation/Budget Activity
0400 / 4



R-1 Program Element (Number/Name)
PE 0604878C / Aegis BMD Test



Project (Number/Name)
MD40 / Program Wide Support

Significant Event Complete  Significant Event Planned 

Milestone Decision Complete  Milestone Decision Planned 

Element Test Complete  Element Test Planned 

System Level Test Complete  System Level Test Planned 

Complete Activity  Planned Activity 

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

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Missile Defense Agency			Date: February 2015
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604878C / Aegis BMD Test	Project (Number/Name) MD40 / Program Wide Support	

Schedule Details

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