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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Missile Defense Agency	Date: May 2017
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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 0604880C / <i>Land Based SM-3 (LBSM3)</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	1,063.459	29.288	43.293	30.486	-	30.486	31.816	33.024	31.707	30.924	Continuing	Continuing
MD68: <i>AEGIS Ashore</i>	1,028.380	27.773	41.548	26.477	-	26.477	29.787	30.990	29.676	28.944	Continuing	Continuing
MC68: <i>Cyber Operations</i>	-	0.000	0.000	2.643	-	2.643	0.500	0.500	0.500	0.500	Continuing	Continuing
MD40: <i>Program-Wide Support</i>	35.079	1.515	1.745	1.366	-	1.366	1.529	1.534	1.531	1.480	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Decrease from FY2017 to FY2018 is due to reduced Poland site activation activities including: Aegis Weapon System transportation, site laydown area, and reduced material handling services.

A. Mission Description and Budget Item Justification

This program supports development of a Land-Based Standard Missile-3 (LBSM3) capability, hereafter referred to as Aegis Ashore. On 17 September 2009, the President announced an overarching plan to provide regional missile defense to U.S. deployed forces, allies and partners in Europe called the European Phased Adaptive Approach (EPAA). The EPAA policy specifically defines a timeline to deploy a mix of afloat and land-based Ballistic Missile Defense (BMD) capabilities. Aegis Ashore represents one of these land-based capabilities. The U.S. can also build on current efforts to pursue Phased Adaptive Approaches (PAAs) in the Asia Pacific and the Middle East regions. The PAA tailors U.S. BMD capabilities to specific theater needs enhancing integrated regional missile defenses to protect defended assets against medium, intermediate, and ultimately intercontinental range ballistic missiles.

Aegis Ashore is a key component of EPAA Phases II (Romania) and III (Poland) and provides Aegis BMD capability against short to intermediate range ballistic missiles in an ashore configuration. Aegis Ashore provides sophisticated engagement strategies and can adapt to threat updates while also being deployed/redeployed worldwide where needed to provide persistent coverage for the Geographic Combatant Commanders. Aegis Ashore re-hosts the required BMD components of a US Navy Destroyer, including: SPY-1 Radio Direction and Ranging (Radar); Vertical Launch System (VLS), Computing Infrastructure; Command Control; Communications; Computers and Intelligence (C4I) Systems; and Operator Consoles.

This program element will continue to modernize, develop, and test Aegis Ashore capability improvements at Aegis Ashore Missile Defense Test Complex (AAMDTC) in Hawaii for implementation at operational sites.

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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 0604880C / <i>Land Based SM-3 (LBSM3)</i>
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B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	34.970	43.293	29.045	-	29.045
Current President's Budget	29.288	43.293	30.486	-	30.486
Total Adjustments	-5.682	0.000	1.441	-	1.441
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-4.920	0.000			
• SBIR/STTR Transfer	-0.762	0.000			
• Other Adjustment	0.000	0.000	1.441	-	1.441

Change Summary Explanation

The increase in FY2018 from PB17 to PB18 is due to AAMDTC site modernizations and cyber security requirements.

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Missile Defense Agency										Date: May 2017		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD68 / AEGIS Ashore			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
MD68: AEGIS Ashore	1,028.380	27.773	41.548	26.477	-	26.477	29.787	30.990	29.676	28.944	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Decrease from FY 2017 to FY 2018 due to site activation activities including: Aegis Weapon System transportation, site laydown area, and reduced material handling services.

A. Mission Description and Budget Item Justification

Deployed sites, referred to as an Aegis Ashore Missile Defense System (AAMDS), will be modified to support future computer program and missile variants in step with the U.S. Navy's Destroyer Modernization Plan. MDA is responsible for maintaining and modernizing the test center at the Pacific Missile Range Facility (PMRF), while the Navy is responsible for maintaining and modernizing all deployed Aegis Ashore sites. The initial AAMDS deployed to Romania in 2015 employing Aegis BMD 5.0 CU (Capabilities Upgrade) and SM-3 Block IB. A second AAMDS deploys to Poland and is scheduled to become operational in 2018. These sites provide an Aegis Ashore exo-atmospheric defense against short to intermediate-range ballistic missile threats in the later stages of flight. If the threat dictates, additional systems can be purchased and deployed globally.

Research and Development efforts include: required modifications to adapt the Aegis Weapon System for land based use, modernization in pace with the U.S. Navy's Destroyer Modernization Plan, development and testing of Aegis Ashore capability improvements at the Aegis Ashore Missile Defense Test Complex (AAMDTC) in Hawaii, and modifications, as required, to enhance co-existence with Broadband Wireless Access systems in the European theater.

In support of EPAA Phase III, Aegis Ashore integrates the Aegis BMD 5.1 and Standard Missile (SM-3) Block IIA capabilities into the Aegis Ashore sites. MDA is responsible for any upgrade to BMD capability, BMD specific mission equipment, and integration with existing Ballistic Missile Defense System (BMDS) nodes for all Aegis Ashore sites.

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

	FY 2016	FY 2017	FY 2018
Title: Aegis Weapon System Development	16.568	23.184	17.428
Articles:	-	-	-
Description: This effort maintains and modernizes the AAMDTC at the PMRF in Hawaii. It also develops and tests Aegis Ashore capability improvements prior to implementation at operational sites, and supports SPY-1 Radar and Broadband Wireless Access (BWA) coexistence efforts at Aegis Ashore sites.			
Specific and/or unique accomplishments to a FY are as follows:			
FY 2016 Accomplishments:			

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Appropriation/Budget Activity 0400 / 4		R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>		Project (Number/Name) MD68 / <i>AEGIS Ashore</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2016	FY 2017	FY 2018
Decrease in funding from FY 2015 to FY 2016 is due to the completion of Aegis Ashore fielding in Romania. Future Aegis Ashore sites transition to Procurement as the life cycle of the program continues to evolve.					
<ul style="list-style-type: none"> - Continued to research SPY-1 and BWA system coexistence in the European Theater - Developed and implemented required modifications to enhance coexistence of these systems - Provided developmental support to maintain the Romania AAMDS Weapon Systems - Modernized the AAMDTC Weapons System, C4I, VLS, and other equipment to align with the U.S. Navy's Destroyer Modernization Plan and ensured the test site configuration is ready to support BMDS testing 					
FY 2017 Plans:					
Increase from FY 2016 to FY 2017 is due to alignment with additional U.S. Navy Destroyer Modernization efforts.					
<ul style="list-style-type: none"> - Provide system engineering and evaluation of the U.S. Navy's Technical Instruction-16 (TI-16) technology refresh and follow-on modernization efforts concurrent to the U.S Navy's release of their Technical Data Package - Determine the minimum hardware refresh of element components and spares that are projected to be removed from production to ensure the test capability at PMRF remains current with the U.S Navy's Destroyer Modernization efforts - Provide system engineering, technical, and logistics support for the AAMDS facility and tactical elements to ensure appropriate system adaptation, readiness, availability, and effectiveness - Develop Aegis Ashore tactics, techniques, and procedures - Comply with applicable Core Standards, system requirements, regulations, and specifications 					
FY 2018 Plans:					
Decrease from FY 2017 to FY 2018 is due to alignment with the U.S. Navy's Destroyer Modernization schedule, to include less hardware purchases.					
<ul style="list-style-type: none"> - Determine the minimum hardware refresh of element components and spares that are projected to be removed from the production to ensure the test capability at AAMDTC remains current with the U.S Navy's Destroyer Modernization efforts - Provide system engineering, technical, and logistics support for the AAMDS facility and tactical elements to ensure appropriate system adaptation, readiness, availability, and effectiveness - Modernize the AAMDTC Weapons System, C4I, VLS, and other equipment to align with the U.S. Navy's Destroyer Modernization Plan and ensure the test site configuration is ready to support BMDS testing - Maintain Aegis Ashore Technical Data Package with modernization implementation to include drawings and installation plans for U.S. Navy use in implementation at operational sites 					
Title: Site Activation			11.205	18.364	9.049
Articles:			-	-	-

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Appropriation/Budget Activity 0400 / 4		R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)	Project (Number/Name) MD68 / AEGIS Ashore		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2016	FY 2017	FY 2018
<p>Description: This effort includes site design; environmental studies; unexploded ordnance clearing; spectrum analysis studies; temporary facilities; utilities; administrative communications equipment and services; infrastructure modifications; generator and commercial power; leased vehicles; material handling equipment; generator fuel; supplies, barriers; guard shacks; temporary lighting; transportation of materials and equipment; translators; and emerging requirements as site activation progresses and until sites are transferred to the Navy.</p> <p>Recurring Accomplishments include:</p> <p>-Provide site activation for Aegis Ashore site in Poland to include temporary site activation facilities, base operation support, utilities, administrative communications, on-site material handling equipment services, and equipment installation</p> <p>FY 2016 Accomplishments:</p> <p>- Conducted activities listed in Description section (above)</p> <p>- Completed Romania Aegis Ashore site activation and demobilized temporary facilities and equipment</p> <p>- Closed out all site activation activities for Romania</p> <p>- Designed, purchased, and installed an integrated electronic security system for Poland Aegis Ashore site security</p> <p>FY 2017 Plans:</p> <p>Increase from FY 2016 to FY 2017 is to transport the Aegis Weapon System to Poland</p> <p>-Conducted activities listed in Description section (above)</p> <p>- Provide fuel for facility commissioning activities</p> <p>- Ship the Aegis Weapon System and associated equipment to Poland as second destination transportation via the military transportation system</p> <p>- Continue to provide Defense Threat Reduction Agency (DTRA) support to ensure High-Altitude Electromagnetic-Pulse (HEMP) validation and verification testing is completed</p> <p>- Provide on-call unexploded ordnance technical support to ensure unexpected items do not affect site work and construction schedule</p> <p>- Provide post-award technical services (structural, mechanical, and electrical) to ensure quality standards and construction schedule are met</p> <p>- Provide technical support to facilitate processing facility change proposals and construction modifications</p> <p>FY 2018 Plans:</p> <p>Decrease from FY 2017 to FY 2018 is due to reduced site activation activities to include: Aegis Weapon System transportation, site laydown area, and reduced material handling services.</p>					

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Missile Defense Agency										Date: May 2017		
Appropriation/Budget Activity 0400 / 4				R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>				Project (Number/Name) MD68 / <i>AEGIS Ashore</i>				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2016	FY 2017	FY 2018
<ul style="list-style-type: none"> - Conducted activities listed in Description section (above) - Continue providing fuel for facility commissioning activities, backup generators, and on-site vehicle support - Provide technical support to facilitate processing facility change proposals and construction modifications - Provide on-call unexploded ordnance technical support to ensure unexpected items do not affect site work and construction schedule - Provide post-award technical services (structural, mechanical, and electrical) to ensure quality standards and construction schedule is met - Provide Defense Threat Reduction Agency (DTRA) support to ensure High-Altitude Electromagnetic Pulse (HEMP) validation and verification testing is completed 												
Accomplishments/Planned Programs Subtotals										27.773	41.548	26.477
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• 0208866C: <i>PROCUREMENT</i>	1,489.203	1,139.503	1,178.364	-	1,178.364	1,576.815	1,535.529	1,522.410	1,555.094	0	9,996.918	
• 0603892C: <i>AEGIS BMD</i>	804.211	959.066	852.052	-	852.052	805.051	789.217	656.164	695.306	Continuing	Continuing	
• 0604878C: <i>Aegis BMD Test</i>	78.468	95.012	134.468	-	134.468	73.059	82.570	113.856	97.660	Continuing	Continuing	
• 0604881C: <i>AEGIS SM-3</i>	165.456	106.038	9.739	-	9.739	0.000	0.000	0.000	0.000	0	281.233	
<i>Block IIA Co-Development</i>												
Remarks												
D. Acquisition Strategy												
<p>Aegis Ashore awarded a contract for an Aegis Ashore Engineering Agent (AAEA). The AAEA is responsible for the design, development, integration and test of the Aegis Weapons System capability into a reconstitutable deckhouse. The AAEA will also support Aegis Ashore deployment to Romania.</p> <p>The Global Deployment (GD) program office is utilizing Naval Facilities Engineering Command (NAVFAC) and U. S. Corps of Engineers Europe District (Core of Engineers North Atlantic Union) CENAU to award and administer contracts for base operating support, commercial power, temporary site activation facilities, and integrated electronic security systems for Romania and Poland sites.</p>												
E. Performance Metrics												
Cost Plus Award Fee Contracts												

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Missile Defense Agency												Date: May 2017			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD68 / AEGIS Ashore					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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 Weapon System Development - AWS Development-NAVSEA-MD68	MIPR	NAVSEA-LM/BAE, SPAWAR, NSWC CD : San Diego, CA; Baltimore, MD; Minneapolis, MN	3.934	1.228	Nov 2015	1.500	Nov 2016	5.000	Nov 2017	-		5.000	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-NSWC DD-MD68	MIPR	NSWC Dahlgren : Dahlgren, VA	45.753	0.263	Nov 2015	3.000	Nov 2016	2.400	Nov 2017	-		2.400	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-NSWC PHD-MD68	MIPR	NSWC PHD, NSWC, DOI, Aegis Techrep : CA, NJ, ID, MD, IN	34.800	0.593	Nov 2015	7.480	Nov 2016	1.803	Nov 2017	-		1.803	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-PMRF - MD68	MIPR	PMRF : Hawaii	8.212	3.219	Nov 2015	5.704	Nov 2016	1.225	Nov 2017	-		1.225	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-SPAWAR-MD68	MIPR	SSC PAC : San Diego,CA	40.112	3.595	Nov 2015	5.500	Nov 2016	7.000	Nov 2017	-		7.000	Continuing	Continuing	Continuing
Aegis Weapon System Development - AWS Development-Various-MD68: No longer funding in the FYDP	Various	Various : AL,VA,CA, APO, HI, NJ	834.565	0.486		0.000		0.000		-		0.000	0	835.051	0
Aegis Weapon System Development - Aegis Weapon System Development - MD68-	SS/CPIF	MDA Lockheed Martin : Moorestown, NJ	7.184	7.184		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Aegis Weapon System Development - MD68 - D	MIPR	MDA : Arlington, VA	1.076	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Site Activation - DTRA support to construction in Romania and Poland	MIPR	DTRA : Ft. Belvoir, VA	0.350	0.000		0.315	Oct 2016	0.300	Nov 2017	-		0.300	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Missile Defense Agency												Date: May 2017			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD68 / AEGIS Ashore					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Site Activation - Poland Admin Communication	MIPR	Northrop Grumman : Poland	0.000	1.300		0.778	Nov 2016	0.602	Nov 2017	-		0.602	Continuing	Continuing	Continuing
Site Activation - Poland Base Operating Support and Commercial Power Contract Development	MIPR	NAVFAC : Poland	0.064	1.888		3.321	Dec 2016	2.328	Nov 2017	-		2.328	Continuing	Continuing	Continuing
Site Activation - Poland IESS	MIPR	CENAU : Poland	0.000	2.975		0.000		0.000		-		0.000	0	2.975	0
Site Activation - Poland Temp Facilities Design & Contract Development	MIPR	USACE : Huntsville, AL	0.350	2.404		0.000		0.000		-		0.000	0	2.754	0
Site Activation - Romania Admin Communications	MIPR	DISA, Scott AFB, : IL	0.513	0.013		0.000		0.000		-		0.000	0	0.526	0
Site Activation - Romania Base Support Services	MIPR	NAVFAC : Poland	6.445	0.600		0.000		0.000		-		0.000	0	7.045	0
Site Activation - Romania Integrated Electronic Security System - MD68	MIPR	USACE : Huntsville, AL	3.655	0.900		0.000		0.000		-		0.000	0	4.555	0
Site Activation - Romania Temp Facilities	MIPR	CENAU : Romania	0.049	1.125		0.000		0.000		-		0.000	0	1.174	0
Site Activation - Site Activation - MD68	MIPR	Various : Various	41.318	0.000		0.000		0.000		-		0.000	0	41.318	0
Site Activation - Site Activation – Transportation of Aegis Weapon System	MIPR	SDDC : Scotts AFB, IL	0.000	0.000		4.629	Jan 2017	0.872	Nov 2017	-		0.872	Continuing	Continuing	Continuing
Site Activation - Site Activation- Poland Admin Communications	MIPR	DISA : Scott AFB, IL	0.000	0.000		0.075	Nov 2016	0.160	Nov 2017	-		0.160	Continuing	Continuing	Continuing
Site Activation - Site Activation- Poland Material Handling Services	MIPR	NAVFAC : Naples, Italy	0.000	0.000		6.060	Nov 2016	2.195	Nov 2017	-		2.195	Continuing	Continuing	Continuing
Site Activation - Site Activation- Poland Site Laydown	MIPR	NAVFAC : Naples, Italy	0.000	0.000		0.541	Dec 2016	0.000		-		0.000	0	0.541	0

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Missile Defense Agency												Date: May 2017			
Appropriation/Budget Activity						R-1 Program Element (Number/Name)				Project (Number/Name)					
0400 / 4						PE 0604880C / Land Based SM-3 (LBSM3)				MD68 / AEGIS Ashore					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Site Activation - USACE in-house support in Poland	MIPR	CEHNC : Huntsville, AL	0.000	0.000		0.700	Oct 2016	0.800	Oct 2017	-		0.800	Continuing	Continuing	Continuing
Site Activation - USACE support in Poland	MIPR	CENAU : Poland	0.000	0.000		1.945	Oct 2016	1.792	Oct 2017	-		1.792	Continuing	Continuing	Continuing
Subtotal			1,028.380	27.773		41.548		26.477		-		26.477	-	-	-
Remarks															
Increase from FY 2017 to FY 2018 for AWS Development- SSC PAC - MD68 due to C4I upgrade procurements and installations.															
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Subtotal			-	-		-		-		-		-	-	-	-
Remarks															
N/A															
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Subtotal			-	-		-		-		-		-	-	-	-
Remarks															
N/A															
Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Subtotal			-	-		-		-		-		-	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Missile Defense Agency												Date: May 2017			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD68 / AEGIS Ashore					
Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Remarks N/A															
			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			1,028.380	27.773		41.548		26.477		-		26.477	-	-	-
Remarks Funding in the All Prior Years column represents a summary of Prior Years Total Costs for inactive contracts, MIPRs, and civilian salaries on the R-3.															

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Missile Defense Agency

Date: May 2017

Appropriation/Budget Activity

0400 / 4

R-1 Program Element (Number/Name)

PE 0604880C / Land Based SM-3 (LBSM3)

Project (Number/Name)

MD68 / AEGIS Ashore

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 2016			FY 2017			FY 2018			FY 2019			FY 2020			FY 2021			FY 2022		
AAMDTC UpgradesFTO-03	◇	◇	◇	◇	◇	◇	◇	◇	◇												
Facility Support for NAVEUR Exercise								◇	◇												
Facility Support for FTM-29								◇	◇												
Facility Support for FTO-03 E1								◇	◇	◇											
Facility Support for GTI-07b									◇	◇											
Facility Support for GTD-07b										◇	◇										
Facility Support for FEV-02												◇	◇								
Facility Support for FTM-31										◇	◇										
Facility Support for FTM-33									◇	◇											
Facility Support for FTM-32											◇	◇									
Facility Support for FTX-23												◇	◇								
Facility Support for FTM-35																			◇	◇	
Facility Support for FTM-30														◇	◇						
AAMDTC Upgrades									◇	◇	◇	◇	◇	◇	◇	◇	◇	◇			
Facility Support for FTM-37																			◇	◇	
Facility Support for FTM-38																	◇	◇			

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Missile Defense Agency			Date: May 2017
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MD68 / <i>AEGIS Ashore</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
AAMDTC UpgradesFTO-03	2	2016	3	2018
Facility Support for NAVEUR Exercise	1	2018	2	2018
Facility Support for FTM-29	1	2018	2	2018
Facility Support for FTO-03 E1	2	2018	4	2018
Facility Support for GTI-07b	3	2018	4	2018
Facility Support for GTD-07b	4	2018	1	2019
Facility Support for FEV-02	4	2019	1	2020
Facility Support for FTM-31	1	2019	2	2019
Facility Support for FTM-33	3	2018	4	2018
Facility Support for FTM-32	3	2019	4	2019
Facility Support for FTX-23	4	2019	1	2020
Facility Support for FTM-35	3	2022	4	2022
Facility Support for FTM-30	4	2020	1	2021
AAMDTC Upgrades	4	2018	1	2022
Facility Support for FTM-37	3	2022	4	2022
Facility Support for FTM-38	3	2021	4	2021

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Missile Defense Agency										Date: May 2017		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MC68 / Cyber Operations			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
MC68: Cyber Operations	-	0.000	0.000	2.643	-	2.643	0.500	0.500	0.500	0.500	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Increase due to DoD mandated cyber requirements. Funding supports the upgrade and modernization of existing systems.

A. Mission Description and Budget Item Justification

The funds in this project sustain Missile Defense Agency (MDA) DoD Information Assurance Certification and Accreditation Program (DIACAP) and Controls Validation Testing (CVT) activities, analysis of validation results, risk assessments and reviews of proposed Program Manager/Information Assurance Manager (PM/IAM) Plans of Action and Milestones (POA&Ms) for MDA Aegis Ballistic Missile Defense (BMD) mission systems. It maintains the Certification and Accreditation (C&A) data repository, capturing the DIACAP documentation (artifacts, validation results, and Information Assurance Risk Assessment results, and Designated Approving Authority (DAA) accreditation decisions) on all MDA Information Systems.

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

	FY 2016	FY 2017	FY 2018
Title: Network/System Certification and Accreditation (C&A)	0.000	0.000	2.643
Articles:	-	-	-
<p>Description: Monitor and track cybersecurity mitigation detailed in Information Technology Security Guidance. Activities include preparation of C&A documentation and accreditation recommendations to the MDA Senior Information Assurance Officer (SIAO)/ Certification Authority (CA) and DAA. Independent Verification and Validation (IV&V) team actions ensure the availability, integrity, authentication, confidentiality and non-repudiation of the MDA mission, test and administrative systems. Activities in the Project are necessary to comply with the Federal Information Security Management Act (FISMA).</p>			
<p>FY 2016 Accomplishments: N/A</p>			
<p>FY 2017 Plans: N/A</p>			
<p>FY 2018 Plans: Increase from FY 2017 to FY 2018 due to DoD mandated cyber requirements. Funding supports the upgrade and modernization of existing systems to support the requirements.</p>			
<p>- Conduct Fidelis Cybersecurity at PMRF: Surface hardening and protection for the Aegis Weapons System at Automated Digital Network System (ADNS)</p>			
<p>- Provide Cybersecurity engineering and architecture requirements planning for Aegis BMD systems</p>			

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Missile Defense Agency		Date: May 2017	
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MC68 / <i>Cyber Operations</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017
<ul style="list-style-type: none"> - Coordinate the development and implementation of Aegis BMD Risk Management Framework (RMF) accreditation packages - Conduct regular Controls Validation Testing (CVT) of Aegis BMD systems and provide a Risk Assessment Report (RAR) to mitigate cybersecurity deficiencies - Conduct annual cybersecurity reviews on the Aegis BMD systems to assess compliance in implementing and maintaining RMF controls - Implement HW/SW to conduct continuous daily monitoring - Conduct monthly reviews of systems in eMass - Provide daily management of eMass 			
Accomplishments/Planned Programs Subtotals		0.000	0.000
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
Full and Open contract support through Missile Defense Agency Program Management Office.			
E. Performance Metrics			
N/A			

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Missile Defense Agency												Date: May 2017			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MC68 / Cyber Operations					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Network/System Certification and Accreditation (C&A) - Cyber Operations	MIPR	PMRF : HI	0.000	0.000		0.000		2.643	Nov 2017	-		2.643	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		2.643		-		2.643	-	-	-
Remarks N/A															
			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	0.000		0.000		2.643		-		2.643	-	-	-
Remarks N/A															

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Missile Defense Agency											Date: May 2017								
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)									
0400 / 4					PE 0604880C / Land Based SM-3 (LBSM3)					MC68 / Cyber Operations									
Significant Event Complete ▲		Milestone Decision Complete ★		Element Test Complete ◆		System Level Test Complete ●				Complete Activity ◆									
Significant Event Planned △		Milestone Decision Planned ☆		Element Test Planned ◇		System Level Test Planned ○				Planned Activity ◇									
					FY 2016		FY 2017		FY 2018		FY 2019		FY 2020		FY 2021		FY 2022		
Cyber Operations										◇	◇	◇	◇	◇	◇	◇	◇	◇	◇

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Missile Defense Agency	Date: May 2017
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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MC68 / <i>Cyber Operations</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Cyber Operations	1	2018	4	2022

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Missile Defense Agency										Date: May 2017		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD40 / Program-Wide Support			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
MD40: Program-Wide Support	35.079	1.515	1.745	1.366	-	1.366	1.529	1.534	1.531	1.480	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2016, FY 2017, and FY 2018 Program Wide Support (PWS) reflects proportional changes as a result of budget changes to LBSM3. Funding in the All Prior Years column represents a summary of Prior Years Total Costs for active contracts, Military Interdepartmental Purchase Requests on the R-3.

A. Mission Description and Budget Item Justification

PWS contains non-headquarters management costs in support of MDA functions and activities across the entire BMDS. It Includes Government Civilians, and Contract Support Services. 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 Deployement 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, equipment, vehicle, and warehouse leases; utilities and base operations; data and unified communications support; supplies and maintenance; materiel and readiness and central property management of equipment; and similar operating expenses. PWS is allocated on a pro-rata basis and therefore, fluctuates by year based on the adjusted RDT&E profile (which excludes: 0305103C Cyber Security Initiative, 0603274C Special Programs, 0603913C Israeli Cooperative Program and 0901598C Management Headquarters).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2016	FY 2017	FY 2018
Title: Program Wide Support				1.515	1.745	1.366
Articles:				-	-	-
Description: N/A						
FY 2016 Accomplishments: N/A						
FY 2017 Plans: N/A						
FY 2018 Plans: N/A						
Accomplishments/Planned Programs Subtotals				1.515	1.745	1.366

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

N/A

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Missile Defense Agency		Date: May 2017
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>
C. Other Program Funding Summary (\$ in Millions)		
Remarks		
D. Acquisition Strategy N/A		
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Missile Defense Agency												Date: May 2017			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)				Project (Number/Name) MD40 / Program-Wide Support					
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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 Facilities and Maintenance (MIPR)	MIPR	Various; Multi : AL, CA, CO, VA	11.024	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Agency Facilities and Maintenance (Reqn)	Reqn	Various; Multi : AL, CA, CO, VA	4.383	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations Management	Allot	Various: Multi : AL, CA, CO, VA	1.938	0.000		0.035	Jul 2017	0.027	Jul 2018	-		0.027	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	Various : Multi: AL, CA, CO, VA	17.213	1.515		1.710	Aug 2017	1.339	Aug 2018	-		1.339	9.005	30.782	0
Program Wide Support - Agency Operations and Support, International, and Materiel and Readiness	MIPR	Department of State; : Washington, DC, Japan, Australia	0.181	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - FFRDC/UARC	C/CPAF	Various : Multi:AL,VA	0.340	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			35.079	1.515		1.745		1.366		-		1.366	-	-	-
Remarks N/A															
			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			35.079	1.515		1.745		1.366		-		1.366	-	-	-
Remarks N/A															

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Missile Defense Agency														Date: May 2017																														
Appropriation/Budget Activity 0400 / 4														R-1 Program Element (Number/Name) PE 0604880C / Land Based SM-3 (LBSM3)										Project (Number/Name) MD40 / Program-Wide Support																				
Significant Event Complete ▲				Milestone Decision Complete ★				Element Test Complete ◆				System Level Test Complete ●				Complete Activity ◆				Significant Event Planned △				Milestone Decision Planned ☆				Element Test Planned ◇				System Level Test Planned ○				Planned Activity ◇								
														FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022						
MD40 Program-Wide Support														◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Missile Defense Agency	Date: May 2017
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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604880C / <i>Land Based SM-3 (LBSM3)</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD40 Program-Wide Support	1	2016	4	2022