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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Missile Defense Agency										Date: May 2017		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0604881C I AEGIS SM-3 Block IIA Co-Development							
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	2,049.969	165.456	106.038	9.739	-	9.739	0.000	0.000	0.000	0.000	0	2,331.202
MD09: SM-3 Block IIA Co-Development	1,974.992	132.677	91.071	8.816	-	8.816	0.000	0.000	0.000	0.000	0	2,207.556
MT09: SM-3 Block IIA Co-Development Test	9.365	25.186	12.208	0.000	-	0.000	0.000	0.000	0.000	0.000	0	46.759
MD40: Program-Wide Support	65.612	7.593	2.759	0.923	-	0.923	0.000	0.000	0.000	0.000	0	76.887
Program MDAP/MAIS Code: 362												
Note												
Decrease in funding from FY 2017 to FY 2018 due to finalization of the Aegis SM-3 Block IIA Co-Development Program.												
A. Mission Description and Budget Item Justification												
The Aegis Ballistic Missile Defense (BMD) mission is to deliver an operationally effective and supportable BMD capability to defend the nation, deployed forces, and allies. Aegis BMD aims to increase this capability by delivering evolutionary improvements as part of Ballistic Missile Defense System (BMDS) upgrades. 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 (SRBM), Medium-Range Ballistic Missiles (MRBM), and Intermediate-Range Ballistic Missiles (IRBM) in the midcourse phase of flight. Upgrades to both the Aegis BMD Weapon System and the Standard Missile-3 (SM-3) configuration enable Aegis BMD to provide effective, supportable defensive capability against longer range, more sophisticated threats and an enduring Aegis Ashore defensive capability.												
Beginning in 2006, Aegis BMD and the Japanese Ministry of Defense (JMOD) have undertaken an SM-3 Cooperative Development (SCD) Project. The objective of the SCD project is the development and initial at-sea flight test of the SM-3 Block IIA. The U.S. and Japan will bear equitable burden to complete the project, as documented in the U.S./Japan Memorandum of Understanding (MOU) SCD Annex. Each nation will fund the full extent of its participation in the project. No funds are transferred between the U.S. and Japan under the MOU.												
The SM-3 Block IIA provides important improvements over SM-3 Block IB capability, including increased velocity and range provided by a 21-inch diameter rocket motor propulsion stack, more than doubled seeker sensitivity, and more than tripled divert capability incorporated in an advanced Kinetic Warhead (KW). New component technologies include, but are not limited to: lightweight nosecone, advanced kinetic warhead, 21-inch second stage rocket motor, and 21-inch third stage rocket motor. The effort includes risk reduction for key components and supports EPAA Phase III.												

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Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0604881C / AEGIS SM-3 Block IIA Co-Development			
B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	172.645	106.038	0.000	-	0.000
Current President's Budget	165.456	106.038	9.739	-	9.739
Total Adjustments	-7.189	0.000	9.739	-	9.739
• 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	-4.000	0.000			
• SBIR/STTR Transfer	-3.189	0.000			
• Other Adjustment	0.000	0.000	9.739	-	9.739
<b>Change Summary Explanation</b>					
The increase in FY2018 from PB17 to PB18 provides Kinetic Warhead (KW) and Guidance Section (GS) qualification, required to complete SM-3 Block IIA Co-Development to meet EPAA Phase III time line.					

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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 0604881C / AEGIS SM-3 Block IIA Co-Development				Project (Number/Name) MD09 / SM-3 Block IIA Co-Development			
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
MD09: SM-3 Block IIA Co-Development	1,974.992	132.677	91.071	8.816	-	8.816	0.000	0.000	0.000	0.000	0	2,207.556
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Decrease in funding from FY2017 to FY2018 due to completion of the Kinetic Warhead and Guidance Section qualifications.

**A. Mission Description and Budget Item Justification**

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

Phase I took the program through System Design Review (SDR) in FY 2009. Aegis BMD executed risk reduction efforts for the Propulsion, Nosecone, Seeker, Divert Attitude Control System (DACS) development efforts, and test plans. Phase I Included requirements definition for the SM-3 Block IIA.

Phase II encompassed the work from SDR through the Critical Design Review (CDR) in FY 2014. Aegis BMD refined requirements and defined the performance allocation and component configuration for the development of the SM-3 Block IIA. The U.S. and Japan designed, fabricated, tested, and evaluated the SM-3 Block IIA sections per the agreed work-share agreement.

Phase III extends from CDR to the completion of the SCD flight test program as defined in the Agreement. This phase defines developmental cost share agreements between the United States and the Government of Japan, completes component engineering and integration, executes cooperative flight tests, and continues discussions on production and maintenance options. Phase III is planned to complete in FY 2018.

The SCD project will:

- Develop and integrate components for the SM-3 Block IIA into an All Up Round (AUR). Japan's work share includes 21 inch 2nd and 3rd stage components and the 21 inch nosecone. The U.S. work share includes the advanced kinetic warhead, advanced seeker, large diameter divert and attitude control system, and lightweight Vertical Launch System (VLS) canister.
- Integrate the SM-3 Block IIA VLS with Aegis Ship Systems.

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

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> SM-3 Block IIA Cooperative Development (SCD)	132.677	91.071	8.816
<b>Articles:</b>	-	-	-
<b>Description:</b> This activity develops the SM-3 Block IIA which will increase the area that can be defended by Aegis Ballistic Missile Defense (BMD) and increase the probability of kill against a larger threat set. It will leverage enhanced capability provided by Ballistic Missile Defense System (BMDS) sensor upgrades.			
Recurring Accomplishments:			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Missile Defense Agency		<b>Date:</b> May 2017	
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604881C / AEGIS SM-3 Block IIA Co-Development	<b>Project (Number/Name)</b> MD09 / SM-3 Block IIA Co-Development	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2016</b>	<b>FY 2017</b>
<ul style="list-style-type: none"> <li>- Prepare for and support BMDS Flight Test events as reflected in the IMTP and the Exhibit R-4 schedule</li> <li>- Develop and deliver lightweight VLS canisters in support of SCD testing events</li> </ul> <p><b>FY 2016 Accomplishments:</b> SM-3 Block IIA Development:</p> <ul style="list-style-type: none"> <li>- Conducted activities listed in Description section (above)</li> <li>- Continued Software Formal Qualification testing to ensure successful flight test intercepts</li> <li>- Continued Integration &amp; Test Proofing to ensure proper implementation of manufacturing processes of the SM-3 Block IIA missile</li> <li>- Continued qualification and testing of the Throttleable Divert and Attitude Control System (TDACS) in support of pending flight test to ensure missile components meet performance and manufacturing requirements</li> <li>- Continued Kinetic Warhead (KW) Qualification testing to ensure missile components meet performance and manufacturing requirements</li> <li>- Continued Guidance Section (GS) Qualification to ensure missile components meet performance and manufacturing requirements</li> <li>- Continued Kinetic Warhead (KW) and Guidance Section (GS) Post Near Miss Shock Performance Testing that provides data for missile hazard classification</li> <li>- Delivered TDACS and GS in support of BMDS Flight Test event</li> <li>- Prepared for BMDS Flight Test events as reflected in the IMTP and the Exhibit R-4 schedule</li> </ul> <p><b>FY 2017 Plans:</b> Decrease in funding from FY 2016 to FY 2017 is due to SM-3 Block IIA Co-Development completion with exception of Guidance Section (GS) and Kinetic Warhead (KW) qualification</p> <ul style="list-style-type: none"> <li>- Conducted activities listed in Description section (above)</li> <li>- Complete SFTM-01 &amp; SFTM-02 missile software build and qualification</li> <li>- Build and deliver SFTM-01 &amp; SFTM-02 flight test All Up Round (AUR)</li> <li>- Implement SM-3 Block IIA Seeker Guidance Section Evaluation Lab (GSEL) photon injection capability</li> <li>- Initiate SM-3 Block IIA performance verification report</li> <li>- Complete Software Formal Qualification testing to ensure successful flight test intercepts</li> <li>- Complete Integration &amp; Test Proofing to ensure proper implementation of manufacturing processes of the SM-3 Block IIA missile</li> <li>- Complete qualification and testing of the Throttleable Divert and Attitude Control System (TDACS) in support of pending flight test to ensure missile components meet performance and manufacturing requirements</li> <li>- Continue Kinetic Warhead (KW) Qualification testing to ensure missile components meet performance and manufacturing requirements</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Missile Defense Agency										<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 0400 / 4				<b>R-1 Program Element (Number/Name)</b> PE 0604881C / AEGIS SM-3 Block IIA Co-Development				<b>Project (Number/Name)</b> MD09 / SM-3 Block IIA Co-Development				
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>										<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<ul style="list-style-type: none"> <li>- Continue Guidance Section (GS) Qualification to ensure missile components meet performance and manufacturing</li> <li>- Continue Kinetic Warhead (KW) and Guidance Section (GS) Post Near Miss Shock Performance Testing that provides data for missile hazard classification</li> </ul> <p><b>FY 2018 Plans:</b>            Decrease in funding from FY 2017 to FY 2018 due to finalization of the Aegis SM-3 Block IIA Co-Development Program</p> <ul style="list-style-type: none"> <li>- Conducted activities listed in Description section (above)</li> <li>- Complete Kinetic Warhead (KW) and Guidance Section (GS) qualifications as required to complete Aegis SM-3 Block IIA Co-Development</li> <li>- Complete requirements verification of Japanese sections post qualification testing</li> </ul>												
<b>Accomplishments/Planned Programs Subtotals</b>										132.677	91.071	8.816
<b>C. Other Program Funding Summary (\$ in Millions)</b>												
<b>Line Item</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	
• 0603884C: Ballistic Missile Defense Sensors	233.020	230.077	247.345	-	247.345	247.643	362.850	401.267	497.503	Continuing	Continuing	
• 0603890C: BMD Enabling Programs	406.326	408.594	449.442	-	449.442	466.760	540.409	629.864	501.915	Continuing	Continuing	
• 0603892C: AEGIS BMD	804.211	959.066	852.052	-	852.052	805.051	789.217	656.164	695.306	Continuing	Continuing	
• 0603896C: Ballistic Missile Defense Command and Control, Battle Management & Communication	425.996	456.267	430.115	-	430.115	461.275	501.956	496.411	514.139	Continuing	Continuing	
<b>Remarks</b>												
<b>D. Acquisition Strategy</b>												
The SM-3 Cooperative Development program for the SM-3 Block IIA missile utilizes a performance-based approach that ties program decision milestones to the performance of development prototypes, as well as Propulsion Test Vehicle and Controlled Test Vehicle flight test article performance. Acquisition of hardware, software modifications and required services will occur in conjunction with contractual and tasking efforts to U.S. Navy work and events, and as defined by signed agreements between the Governments of the United States and Japan.												
<b>E. Performance Metrics</b>												
SM-3 Block IIA Program Office is utilizing Incentive-based contracts to ensure project completes on time.												

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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 0604881C / AEGIS SM-3 Block IIA Co-Development				MD09 / SM-3 Block IIA Co-Development					
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
SM-3 Block IIA Cooperative Development (SCD) - SM-3 Block IIA Cooperative Development (SCD) - SM-3 Blk IIA Development - MD09	SS/CPAF	RAYTHEON : AZ	1,723.515	101.920	Nov 2015	80.921	Nov 2016	8.816	Nov 2017	-		8.816	0	1,915.172	0
SM-3 Block IIA Cooperative Development (SCD) - SM-3 Block IIA Cooperative Development (SCD) - SM-3 Blk IIA Development and Canister - MD09. No longer funding in the FYDP	Various	Various : MD, VA, MA, CA, IN	251.477	30.757	Nov 2015	10.150		0.000		-		0.000	0	292.384	0
Subtotal			1,974.992	132.677		91.071		8.816		-		8.816	0.000	2,207.556	0.000
Remarks															
N/A															
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			-	-		-		-		-		-	-	-	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: FY 2018 Missile Defense Agency</b>													<b>Date: May 2017</b>		
<b>Appropriation/Budget Activity</b> 0400 / 4						<b>R-1 Program Element (Number/Name)</b> PE 0604881C / AEGIS SM-3 Block IIA Co-Development						<b>Project (Number/Name)</b> MD09 / SM-3 Block IIA Co-Development			

  

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Remarks</b> N/A															

  

<b>Management Services (\$ in Millions)</b>				<b>FY 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			-	-		-		-		-		-	-	-	-
<b>Remarks</b> N/A															

  

	<b>Prior Years</b>	<b>FY 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	1,974.992	132.677		91.071		8.816		-		8.816	0.000	2,207.556	-
<b>Remarks</b> Funding in the All Prior Years column represents a summary of Prior Years Total Costs for all contracts.													

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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 0604881C / AEGIS SM-3 Block IIA Co-Development				Project (Number/Name) MD09 / SM-3 Block IIA Co-Development									
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	
MD09 SM-3 Block IIA Co-Development				◇◇◇◇		◇◇◇◇		◇◇◇◇									



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Missile Defense Agency			<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604881C / <i>AEGIS SM-3 Block IIA Co-Development</i>	<b>Project (Number/Name)</b> MD09 / <i>SM-3 Block IIA Co-Development</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD09 SM-3 Block IIA Co-Development	1	2016	4	2018

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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 0604881C / AEGIS SM-3 Block IIA Co-Development				Project (Number/Name) MT09 / SM-3 Block IIA Co-Development Test			
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
MT09: SM-3 Block IIA Co-Development Test	9.365	25.186	12.208	0.000	-	0.000	0.000	0.000	0.000	0.000	0	46.759
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

No funding needed.

**A. Mission Description and Budget Item Justification**

Working with the Services' Operational Test Agencies (OTA), with the support of the Director of Operational Test and Evaluation (DOT&E), MDA 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.

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. MDA is focused on conducting meaningful ballistic missile testing that demonstrates the capabilities of the BMDS.

The MDA and the Japanese Ministry of Defense conduct the Standard Missile Cooperative Development (SCD) Project for the development and initial flight test of the SM-3 Block IIA in accordance with the jointly signed SCD Annex. The Joint signed SCD Program Schedule (dated October 2013) includes the following test events:

- \* Restrained Firing - COMPLETE
- \* Propulsion Test Vehicle - 1 (PTV-1) - Completed FY 2014
- \* Controlled Test Vehicle - 1 (CTV-1) - Completed FY 2015
- \* Controlled Test Vehicle - 2 (CTV-2) (Completed FY 2016)
- \* SCD Flight Test Standard Missile (FTM) - 1 (SFTM-01) (Planned for FY2017)
- \* SCD FTM - 2 (SFTM-02) (Planned for FY 2017)

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

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> SM-3 Co-Development Flight Test Execution	25.186	12.208	0.000
<b>Articles:</b>	-	-	-
<b>Description:</b> This activity conducts ground and flight testing using the Aegis BMD 5.1 system to improve confidence in missile defense capabilities under development and ensure the capabilities transferred to the warfighter are operationally effective, suitable, and survivable. Recurring Accomplishments:			

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Appropriation/Budget Activity 0400 / 4				R-1 Program Element (Number/Name) PE 0604881C / AEGIS SM-3 Block IIA Co-Development				Project (Number/Name) MT09 / SM-3 Block IIA Co-Development Test			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2016	FY 2017	FY 2018	
<div>- Prepare for and conduct Ballistic Missile Defense System Flight and Ground Test events as reflected in the Integrated Master Test Plan and the Exhibit R-4 schedule.</div> <div>- Conduct Aegis BMD-specific analyses during pre and post-mission analysis phases.</div> <p><b>FY 2016 Accomplishments:</b></p> <div>The increase from FY 2015 to FY 2016 is due to the first scheduled flight test (SFTM-01) for the SM-3 Block IIA Co-Development program being conducted in first quarter FY 2017 and SFTM-02 being conducted in second quarter FY 2017.</div> <div>- Conducted activities listed in Description section (above).</div> <div>- Begin test planning for FY 2016 Aegis flight test missions: develop models and simulations, and ready the range for test.</div> <p><b>FY 2017 Plans:</b></p> <div>The decrease in funding from FY 2016 to FY 2017 is due to decreased number of tests in FY 2017.</div> <div>- Conducted activities listed in Description section (above).</div> <div>- Conduct flight test program (SFTM-02) to meet the Aegis and SM-3 Block IIA components of the EPAA Phase III architecture.</div> <p><b>FY 2018 Plans:</b></p> <div>No funds required</div>											
Accomplishments/Planned Programs Subtotals								25.186	12.208	0.000	
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
• 0603884C: Ballistic Missile Defense Sensors	233.020	230.077	247.345	-	247.345	247.643	362.850	401.267	497.503	Continuing	Continuing
• 0603890C: BMD Enabling Programs	406.326	408.594	449.442	-	449.442	466.760	540.409	629.864	501.915	Continuing	Continuing
• 0603892C: AEGIS BMD	804.211	959.066	852.052	-	852.052	805.051	789.217	656.164	695.306	Continuing	Continuing
• 0603896C: Ballistic Missile Defense Command and Control, Battle Management & Communication	425.996	456.267	430.115	-	430.115	461.275	501.956	496.411	514.139	Continuing	Continuing
• 0604878C: Aegis BMD Test	78.468	95.012	134.468	-	134.468	73.059	82.570	113.856	97.660	Continuing	Continuing
• 0604880C: Land Based SM-3 (LBSM3)	29.288	43.293	30.486	-	30.486	31.816	33.024	31.707	30.924	Continuing	Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Missile Defense Agency										<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 0400 / 4				<b>R-1 Program Element (Number/Name)</b> PE 0604881C / AEGIS SM-3 Block IIA Co-Development				<b>Project (Number/Name)</b> MT09 / SM-3 Block IIA Co-Development Test				
<b>C. Other Program Funding Summary (\$ in Millions)</b>												
	<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
<b>Remarks</b>												
<b>D. Acquisition Strategy</b> N/A												
<b>E. Performance Metrics</b> N/A												

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> FY 2018 Missile Defense Agency													<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 0400 / 4						<b>R-1 Program Element (Number/Name)</b> PE 0604881C / AEGIS SM-3 Block IIA Co-Development				<b>Project (Number/Name)</b> MT09 / SM-3 Block IIA Co-Development Test					

  

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
<b>Subtotal</b>			-	-		-		-		-		-	-	-	-

**Remarks**  
N/A

  

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
<b>Subtotal</b>			-	-		-		-		-		-	-	-	-

**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
SM-3 Co-Development Flight Test Execution - SM-3 Block IIA Cooperative Development (SCD) - SM-3 Blk IIA Development - MT09. No longer funding in the FYDP	Various	Various : AZ, CA, VA, MD, HI, MA, TX	9.365	25.186	Nov 2015	12.208	Oct 2016	0.000		-		0.000	0	46.759	0
<b>Subtotal</b>			9.365	25.186		12.208		0.000		-		0.000	0.000	46.759	0.000

**Remarks**  
N/A

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: FY 2018 Missile Defense Agency</b>												<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 0400 / 4						<b>R-1 Program Element (Number/Name)</b> PE 0604881C / AEGIS SM-3 Block IIA Co-Development				<b>Project (Number/Name)</b> MT09 / SM-3 Block IIA Co-Development Test				

  

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
<b>Subtotal</b>			-	-		-		-		-		-	-	-	-

  

<b>Remarks</b> N/A															
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	Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	9.365	25.186		12.208		0.000		-		0.000	0.000	46.759	-

  

<b>Remarks</b> N/A													
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<b>Exhibit R-4, RDT&amp;E Schedule Profile: FY 2018 Missile Defense Agency</b>										<b>Date: May 2017</b>																			
<b>Appropriation/Budget Activity</b> 0400 / 4										<b>R-1 Program Element (Number/Name)</b> PE 0604881C / AEGIS SM-3 Block IIA Co-Development										<b>Project (Number/Name)</b> MT09 / SM-3 Block IIA Co-Development 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 2016		FY 2017		FY 2018		FY 2019		FY 2020		FY 2021		FY 2022							
SCD CTV-02 (AEGIS SCD, Intercept Only Flight Test)										▲																			
SFTM-01 (AEGIS 5.1, Intercept Flight Test)															△														
SFTM-02 (AEGIS 5.1, Intercept Flight Test)															△														

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Missile Defense Agency			<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604881C / AEGIS SM-3 Block IIA Co-Development	<b>Project (Number/Name)</b> MT09 / SM-3 Block IIA Co-Development Test	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
SCD CTV-02 (AEGIS SCD, Intercept Only Flight Test)	1	2016	1	2016
SFTM-01 (AEGIS 5.1, Intercept Flight Test)	1	2017	1	2017
SFTM-02 (AEGIS 5.1, Intercept Flight Test)	2	2017	2	2017



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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 0604881C / AEGIS SM-3 Block IIA Co-Development				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	65.612	7.593	2.759	0.923	-	0.923	0.000	0.000	0.000	0.000	0	76.887
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note In FY 2016, FY 2017 and FY 2018, Program Wide Support reflects proportional changes as a result of a decrease to SM-3 Block IIA Co-Development. 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 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, 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  Articles:  Description: N/A  FY 2016 Accomplishments: N/A  FY 2017 Plans: N/A  FY 2018 Plans: N/A									7.593	2.759	0.923	
									-	-	-	
Accomplishments/Planned Programs Subtotals									7.593	2.759	0.923	

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Missile Defense Agency		<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604881C / <i>AEGIS SM-3 Block IIA Co-Development</i>	<b>Project (Number/Name)</b> MD40 / <i>Program-Wide Support</i>
<p><b><u>C. Other Program Funding Summary (\$ in Millions)</u></b> N/A</p> <p><b><u>Remarks</u></b></p> <p><b><u>D. Acquisition Strategy</u></b> N/A</p> <p><b><u>E. Performance Metrics</u></b> N/A</p>		

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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 0604881C / AEGIS SM-3 Block IIA Co-Development				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 Operations Management	Allot	Various: Multi : AL less than CA less than CO less than VA	6.435	0.114		0.055	Jul 2017	0.018	Jul 2018	-		0.018	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Other Agency Services	MIPR	Defense Manpower Data Center : AL,CA, CO, VA	0.009	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Service	C/CPFF	Various : Multi: AL, CA, CO, VA	11.258	0.000		2.704	Jul 2017	0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/Various	Various; Multi : AL, CO, VA	44.237	7.479	Mar 2016	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services (FFP)	C/FFP	Various : Multi: AL, CA, CO, VA	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services (Reqn)	Reqn	Various : Multi: AL, CA, CO, VA	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Facilities and Maintenance	MIPR	Various: Multi : AK, AL, CA, VA	3.673	0.000		0.000		0.905	Aug 2018	-		0.905	Continuing	Continuing	Continuing
Subtotal			65.612	7.593		2.759		0.923		-		0.923	-	-	-
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			65.612	7.593		2.759		0.923		-		0.923	-	-	-
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 0604881C / AEGIS SM-3 Block IIA Co-Development				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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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Missile Defense Agency			<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604881C / <i>AEGIS SM-3 Block IIA Co-Development</i>	<b>Project (Number/Name)</b> MD40 / <i>Program-Wide Support</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD40 Program-Wide Support	1	2016	4	2018