

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>
---	---

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	737.968	457.529	420.630	308.522	-	308.522	230.466	128.743	41.014	0.000	0.000	2,324.872
MD09: <i>SM-3 Block IIA Co-Development</i>	737.968	441.046	399.284	289.817	-	289.817	211.582	95.892	25.945	0.000	0.000	2,201.534
MT09: <i>SM-3 Block IIA Co-Development Test</i>	-	0.000	0.000	2.303	-	2.303	7.680	26.254	12.768	0.000	0.000	49.005
MD40: <i>Program-Wide Support</i>	-	16.483	21.346	16.402	-	16.402	11.204	6.597	2.301	0.000	0.000	74.333

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

Note

Funding in the All Prior Years column represents a summary of Prior Years Total Costs for active contracts, Military Interdepartmental Purchase Requests, and civilian salaries on the R-3.

A. Mission Description and Budget Item Justification

The Aegis Ballistic Missile Defense (Aegis BMD) mission is to deliver an enduring, operationally effective and supportable Ballistic Missile Defense capability to defend the nation, deployed forces, friends and allies, and to increase this capability by delivering evolutionary improvements as part of Ballistic Missile Defense System (BMDS) upgrades. 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 and Intercontinental Ballistic Missiles (ICBMs) in early phases of flight. Upgrades to both the Aegis BMD Weapon System and the STANDARD MISSILE-3 (SM-3) configurations evolve Aegis BMD to provide effective, supportable defensive capability against more difficult threats.

Beginning in 2006, Aegis BMD and the Japanese Ministry of Defense (JMOD) have undertaken an SM-3 Cooperative Development (SCD) program. The objective of the SCD project is the development and initial at-sea flight test of the SM-3 Blk IIA missile, and preparation for subsequent production decisions.

Key technology improvements planned for the SM-3 Block IIA missile include an increase in velocity and an increase in range provided by a 21-inch diameter rocket motor propulsion stack, more than doubled seeker sensitivity and more than three times divert capability incorporated in an advanced kinetic warhead. Key component technologies to be developed include, but are not limited to: lightweight nosecone, advanced kinetic warhead, 21-inch second stage rocket motor, and 21-inch third stage rocket motor. Technology risk reduction will be conducted to reduce key component development risk. The U.S. and Japan will bear equitable burden to conduct the Project. The assignment of work documented in the U.S./Japan Memorandum of Understanding (MOU) SCD Annex represents an equitable sharing of work. The U.S. and Japan will fund the full extent of their participation in the Project. No funds will be transferred between the U.S. and Japan under the MOU.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Missile Defense Agency	DATE: April 2013
---	-------------------------

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>
---	---

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 war fighter 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.

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

B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	473.843	420.630	273.926	-	273.926
Current President's Budget	457.529	420.630	308.522	-	308.522
Total Adjustments	-16.314	0.000	34.596	-	34.596
• 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	-9.399	0.000			
• SBIR/STTR Transfer	-6.915	0.000			
• Other Adjustment	0.000	0.000	34.596	-	34.596

Change Summary Explanation

The FY 2014 adjustment to align missile development material requirements with the new Program Design Review hardware utilization matrix plan.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MD09: <i>SM-3 Block IIA Co-Development</i>
---	---	--

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
MD09: <i>SM-3 Block IIA Co-Development</i>	737.968	441.046	399.284	289.817	-	289.817	211.582	95.892	25.945	0.000	0.000	2,201.534
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

Note

Funding in the All Prior Years column represents a summary of Prior Years Total Costs for active contracts, Military Interdepartmental Purchase Requests, and civilian salaries on the R-3.

A. Mission Description and Budget Item Justification

The U.S. and Japan have a mutual interest in the evolutionary development of improvements to the Standard Missile-3 (SM-3). In FY 2006, the two countries signed a Memorandum of Understanding (MOU) for the co-development of an upgraded, 21-inch diameter SM-3 missile (SM-3 Block IIA). The objective of the SM-3 Cooperative Development (SCD) project is the development and initial at-sea flight test of the SM-3 Blk IIA missile. The SM-3 Block IIA missile 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. The SM-3 Block IIA missile development will build upon established joint research investments by both the U.S. and Japan. The U.S. and Japan will equitably share both work and cost.

Key technology improvements planned for the SM-3 Block IIA missile include an increase in velocity and an increase in range provided by a 21-inch diameter rocket motor propulsion stack, more than doubled seeker sensitivity and more than three times divert capability incorporated in an advanced kinetic warhead. Key component technologies to be developed include, but are not limited to: lightweight nosecone, advanced kinetic warhead, 21-inch second stage rocket motor, and 21-inch third stage rocket motor. Technology risk reduction will be conducted to reduce key component development risk. The assignment of work documented in the U.S./Japan (MOU) SCD Annex represents an equitable sharing of work. The U.S. and Japan will fund the full extent of their participation in the Project. No funds will be transferred between the U.S. and Japan under the MOU.

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

Phase I takes the program through System Design Review (SDR) completion. Aegis BMD will execute risk reduction efforts for the propulsion, nosecone, seeker and Divert Attitude Control System (DACS) development efforts and test plans, and conduct requirements definition for the SM-3 Block IIA missile configuration.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Missile Defense Agency	DATE: April 2013
--	-------------------------

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MD09: <i>SM-3 Block IIA Co-Development</i>
---	---	--

Phase II will refine the scope of work from SDR through Critical Design Review (CDR) completion. Aegis BMD will refine requirements and define the performance allocation and component configuration for the development and testing of the SM-3 Block IIA missile. Both parties will design, fabricate, test, and evaluate the SM-3 Block IIA missile sections per the agreed work-share.

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

The SCD project will:

- Develop components for the SM-3 Block IIA missile and integrate them into an All Up Round (AUR):
 - 21 inch 2nd and 3rd stage components (Japan work share)
 - 21 inch nosecone (Japan work share)
 - Advanced kinetic warhead (United States work share)
 - Advanced Seeker (United States work share)
 - Large Diameter Divert and Attitude Control System (United States work share)
 - Integrate the SM-3 Blk IIA missile and Vertical Launch System (VLS) with Aegis ship systems:
 - Includes development of a light weight VLS canister (United States work share)
 - Conduct test and evaluation through ground and flight testing using an early delivery of Aegis Ballistic Missile Defense (BMD) 5.1 system (Joint work share)

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
<p>Title: SM-3 Block IIA Cooperative Development (SCD)</p> <p style="text-align: right;">Articles:</p> <p>Description: See Description below.</p> <p>FY 2012 Accomplishments: (IAW Project Phase II Jointly approved re-plan)</p> <p>SM-3 Blk IIA Missile Development: -Successfully completed Control Surface Assembly CDR and Staging Assembly CDR (Japan workshare).</p>	<p>441.046</p> <p>0</p>	<p>399.284</p> <p>0</p>	<p>289.817</p> <p>0</p>

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Missile Defense Agency		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>		PROJECT MD09: <i>SM-3 Block IIA Co-Development</i>
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2012
<ul style="list-style-type: none"> -Successfully completed Mk 72 Booster CDR and Booster Separation Assembly CDR (U.S. workshare). -Provided interim report to Weapons System Engineering Safety Review Board approval of missile safety design. -Completed Milestone 3 and began Milestone 4 of the integrated system demonstration. -BMD 4.0.1 Engineering (ENG REL) Development was removed from Program of Record due to government SCD Replan, which enabled the ability to conduct the SCD Flight Test Missions with an Aegis BMD 5.1 system. Aegis BMD system was developed under PE 0603892C. -VLS Canister -Completed shock, vibration, temperature/humidity, and hydrostatic pressure testing of SM-3 Blk IIA Mark 29 Missile Canister. -T&E: -Conducted analysis and planning for restrained firing test in FY 2013. <p>FY 2013 Plans: (IAW Project Phase II Jointly approved re-plan)</p> <ul style="list-style-type: none"> -Conduct SM-3 Blk IIA Propulsion Stack & System/Kinetic Warhead CDR. -Conduct Mk 29 Mod 0 Canister CDR. -Conduct and analyze results of Restrained Firing Test Event. -Begin procurement of SM-3 Blk IIA RDT&E Missile Rounds to support Flight Test program. -Demonstrate performance of missile sub-sections. -Hazard Assessment Test (HAT) 40FT Vertical Drop Test and Fast Cook-Off Test and analysis in preparation for CTV-1 (Aegis Flight Test). <p>FY 2014 Plans: SM-3 Blk IIA Missile Development:</p> <ul style="list-style-type: none"> - Begin missile integration testing. - Continue purchasing SM-3 Blk IIA RDT&E Missile Rounds to support Flight Test program. - Complete qualification of missile Guidance Section. - Begin missile level Hardware in the Loop (HWIL) integration testing. - 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 <p>Vertical Launch System (VLS) Canister:</p> <ul style="list-style-type: none"> - Complete VLS ship integration drawings and VLS technical manuals. 				
				FY 2013
				FY 2014

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MD09: <i>SM-3 Block IIA Co-Development</i>
---	---	--

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
<ul style="list-style-type: none"> - Prepare for and conduct Ballistic Missile Defense System Flight and Ground Test events as reflected in the IMTP and the Exhibit R-4 schedule - Purchase materials to fabricate canisters in support of the SM-3 Cooperative Development Test Program. <p>The budget reduction in FY 2014 reflects Program of Record activities that will occur after CDR as the Program begins to transition from Development to Integration and Testing.</p>			
Accomplishments/Planned Programs Subtotals	441.046	399.284	289.817

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

<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	222.696	347.012	315.183		315.183	340.899	334.705	341.811	278.313	Continuing	Continuing
• 0603888C: <i>Ballistic Missile Defense Test & Targets</i>	88.162	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	88.162
• 0603890C: <i>BMD Enabling Programs</i>	404.311	362.711	377.605		377.605	406.983	434.661	476.444	601.286	Continuing	Continuing
• 0603896C: <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	356.900	366.552	418.355		418.355	433.470	454.452	461.991	451.947	Continuing	Continuing
• 0603902C: <i>Next Generation Aegis Missile (Standard Missile-3 Block IIB (SM-3 IIB))</i>	28.456	224.077	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	457.529	420.630	308.522		308.522	230.466	128.743	41.014	0.000	0.000	1,586.904

Remarks

D. Acquisition Strategy

The SM-3 Cooperative Development program for the SM-3 Block IIA missile will utilize a performance-based approach that ties program decision milestones to the performance of development prototypes, as well as Propulsion Test Vehicle and Control 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.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Missile Defense Agency		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MD09: <i>SM-3 Block IIA Co-Development</i>

Competition will be used to purchase any products or services, when appropriate.

E. Performance Metrics

N/A

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MD09: <i>SM-3 Block IIA Co-Development</i>
---	---	--

Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 Block IIA Cooperative Development (SCD) - BMD 4.0.1 Eng Rel - MD09	SS/CPAF	LOCKHEED MARTIN: NJ	26.611	0.000		0.000		0.000		-		0.000	0.000	26.611	43.023
SM-3 Block IIA Cooperative Development (SCD) - BMD 4.0.1 Eng Rel - MD09 - 20117135426623	MIPR	SEG: CA	2.750	0.000		0.000		0.000		-		0.000	0.000	2.750	3.273
SM-3 Block IIA Cooperative Development (SCD) - BMD 4.0.1 Eng Rel - MD09 - 20117135426625	MIPR	MDA: VA	1.234	0.000		0.000		0.000		-		0.000	0.000	1.234	2.669
SM-3 Block IIA Cooperative Development (SCD) - BMD 4.0.1 Eng Rel - MD09 - 20117135426627	MIPR	NSWC/DD/VA: Dahlgren, VA	0.780	0.000		0.000		0.000		-		0.000	0.000	0.780	1.687
SM-3 Block IIA Cooperative Development (SCD) - BMD 4.0.1 Eng Rel - MD09 - 20117135426628	MIPR	JHU/APL: MD	2.731	0.000		0.000		0.000		-		0.000	0.000	2.731	5.907
SM-3 Block IIA Cooperative Development (SCD) - Mission Assurance - MD09	MIPR	NSWC/DD/VA: Dahlgren, VA	0.400	0.350		0.700	Dec 2012	0.700	Dec 2013	-		0.700	Continuing	Continuing	Continuing
SM-3 Block IIA Cooperative Development (SCD) - SCD - MD09	MIPR	MDA :VA	19.128	33.421		0.000		0.000		-		0.000	0.000	52.549	43.458
SM-3 Block IIA Cooperative Development (SCD) - SM-3 Bk IIA Canister - MD09	MIPR	BAE: MD	19.826	13.100		5.911	Dec 2012	9.498	Dec 2013	-		9.498	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MD09: <i>SM-3 Block IIA Co-Development</i>
---	---	--

Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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 Bk IIA Development - MD09	SS/CPAF	RAYTHEON:AZ	591.214	362.776		362.346	Nov 2012	250.812	Nov 2013	-		250.812	Continuing	Continuing	Continuing
SM-3 Block IIA Cooperative Development (SCD) - SM-3 Bk IIA Development - MD09 - 20117135426611	MIPR	NSWC/DD/VA:VA	13.120	5.431		4.469	Nov 2012	8.530	Nov 2013	-		8.530	Continuing	Continuing	Continuing
SM-3 Block IIA Cooperative Development (SCD) - SM-3 Bk IIA Development - MD09 - 20117135426613	MIPR	JHU/APL:MD	27.919	16.697		15.361	Nov 2012	18.203	Nov 2013	-		18.203	Continuing	Continuing	Continuing
SM-3 Block IIA Cooperative Development (SCD) - SM-3 Bk IIA Development - MD09 - 20117135426614	MIPR	MIT/LL:MA	4.503	0.900		0.922	Nov 2012	0.830	Nov 2013	-		0.830	Continuing	Continuing	Continuing
SM-3 Block IIA Cooperative Development (SCD) - SM-3 Bk IIA Development - MD09 - 20117135426616	MIPR	NSWC/PHD:CA	6.815	0.362		0.372	Nov 2012	0.553	Nov 2013	-		0.553	Continuing	Continuing	Continuing
SM-3 Block IIA Cooperative Development (SCD) - SM-3 Bk IIA Development - MD09 - 20117135426619	MIPR	NSWC IH:MD	5.553	0.442		0.308	Nov 2012	0.691	Nov 2013	-		0.691	Continuing	Continuing	Continuing
SM-3 Block IIA Cooperative Development (SCD) - SM-3 Bk IIA Development - MD09 - 2011713542662	MIPR	MDA:VA	12.916	7.567		0.000		0.000		-		0.000	0.000	20.483	20.483

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MD09: <i>SM-3 Block IIA Co-Development</i>
---	---	--

Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 Block IIA Cooperative Development (SCD) - SM-3 Blk IIA VLS - MD09	MIPR	Lockheed Martin: Baltimore, MD	0.968	0.000		0.000		0.000		-		0.000	0.000	0.968	2.384
SM-3 Block IIA Cooperative Development (SCD) - Testing & Evaluation - MD09	MIPR	NSWC/PHD:CA	1.500	0.000		8.895	Nov 2012	0.000		-		0.000	0.000	10.395	13.995
Subtotal			737.968	441.046		399.284		289.817		0.000		289.817			

Remarks
N/A

Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000

Remarks
N/A

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000

Remarks
N/A

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MD09: <i>SM-3 Block IIA Co-Development</i>
---	---	--

Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000

Remarks
N/A

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	737.968	441.046	399.284	289.817	0.000	289.817			

Remarks
Funding in the All Prior Years column represents a summary of Prior Years Total Costs for active contracts, MIPRs, and civilian salaries on the R-3.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Missile Defense Agency		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MD09: <i>SM-3 Block IIA Co-Development</i>

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 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	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
SM-3 BIK IIA DACS Risk Reduction Implementation Decision	▲																											
SM-3 BIK IIA DACS Preliminary Design Review (PDR)	▲																											
SM-3 BIK IIA KW Preliminary Design Review (PDR)		▲																										
SM-3 BIK IIA System Preliminary Design Review (PDR)		▲																										
SM-3 BIK IIA PS Critical Design Review (CDR)						△																						
SM-3 BIK IIA SYS/KW Critical Design Review (CDR)								△																				
Restrained Level Firing						◇																						

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Missile Defense Agency		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MD09: <i>SM-3 Block IIA Co-Development</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
SM-3 Blk IIA DACS Risk Reduction Implementation Decision	1	2012	1	2012
SM-3 Blk IIA DACS Preliminary Design Review (PDR)	1	2012	1	2012
SM-3 Blk IIA KW Preliminary Design Review (PDR)	2	2012	2	2012
SM-3 Blk IIA System Preliminary Design Review (PDR)	2	2012	2	2012
SM-3 Blk IIA PS Critical Design Review (CDR)	2	2013	2	2013
SM-3 Blk IIA SYS/KW Critical Design Review (CDR)	4	2013	4	2013
Restrained Level Firing	2	2013	2	2013

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MT09: <i>SM-3 Block IIA Co-Development Test</i>
---	---	---

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
MT09: <i>SM-3 Block IIA Co-Development Test</i>	-	0.000	0.000	2.303	-	2.303	7.680	26.254	12.768	0.000	0.000	49.005
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

Note

N/A

A. Mission Description and Budget Item Justification

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 war fighter 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. The bottom line is that MDA is focused on conducting meaningful ballistic missile testing that demonstrates the capabilities of the BMDS.

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

	FY 2012	FY 2013	FY 2014
Title: SM-3 Co-Development Testing	0.000	0.000	2.303
Articles:	0	0	0
Description: See Description below.			
FY 2012 Accomplishments:			
- No FY 2012 efforts, funding begins in FY 2014			
FY 2013 Plans:			
- No FY 2013 efforts, funding begins in FY 2014			
FY 2014 Plans:			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MT09: <i>SM-3 Block IIA Co-Development Test</i>
---	---	---

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
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.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	2.303

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

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	222.696	347.012	315.183		315.183	340.899	334.705	341.811	278.313	Continuing	Continuing
• 0603888C: <i>Ballistic Missile Defense Test & Targets</i>	88.162	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	88.162
• 0603890C: <i>BMD Enabling Programs</i>	404.311	362.711	377.605		377.605	406.983	434.661	476.444	601.286	Continuing	Continuing
• 0603896C: <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	356.900	366.552	418.355		418.355	433.470	454.452	461.991	451.947	Continuing	Continuing
• 0603902C: <i>Next Generation Aegis Missile (Standard Missile-3 Block IIB (SM-3 IIB))</i>	28.456	224.077	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• 0604880C: <i>Land Based SM-3 (LBSM3)</i>	299.012	276.338	129.374		129.374	124.547	51.927	55.808	32.938	Continuing	Continuing

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MT09: <i>SM-3 Block IIA Co-Development Test</i>
---	---	---

Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000

Remarks

N/A

Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000

Remarks

N/A

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 Co-Development Testing - SM-3 Blk IIA Development (SCD) Testing & Evaluation - MT09	MIPR	NSWC:PHD CA	0.000	0.000		0.000		0.900	Nov 2013	-		0.900	Continuing	Continuing	Continuing
SM-3 Co-Development Testing - SM-3 Blk IIA Development (SCD) Testing & Evaluation - MT09 - 2012628435314	MIPR	NSWC/DD/VA:Dahlgren, VA	0.000	0.000		0.000		0.400	Nov 2013	-		0.400	Continuing	Continuing	Continuing
SM-3 Co-Development Testing - SM-3 Blk IIA Development (SCD) Testing & Evaluation - MT09 - 20126284353142	MIPR	JHU:APL MD	0.000	0.000		0.000		0.400	Nov 2013	-		0.400	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MT09: <i>SM-3 Block IIA Co-Development Test</i>
---	---	---

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SM-3 Co-Development Testing - SM-3 Blk IIA Development (SCD) Testing & Evaluation - MT09 - 20126284353143	MIPR	NAWC:Pt. Mugu CA	0.000	0.000		0.000		0.500	Nov 2013	-		0.500	Continuing	Continuing	Continuing
SM-3 Co-Development Testing - SM-3 Blk IIA Development (SCD) Testing & Evaluation-MT09 - 20126284353146	MIPR	NSWC:IH MD	0.000	0.000		0.000		0.103	Nov 2013	-		0.103	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		2.303		0.000		2.303			

Remarks

N/A

Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000

Remarks

N/A

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000	0.000	2.303	0.000	2.303			

Remarks

N/A

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MT09: <i>SM-3 Block IIA Co-Development Test</i>
---	---	---

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 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	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
SCD PTV-01 (Aegis Flight Test)																												
SCD CTV-01 (Aegis Flight Test)																												
SCD CTV-02 (Aegis Flight Test)																												
SFTM-1 E1/E2 (Aegis Intercept Flight Test)																												
FTX-23 (Aegis Flight Test)																												
SFTM-2 (Aegis Intercept Flight Test)																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Missile Defense Agency		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MT09: <i>SM-3 Block IIA Co-Development Test</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
SCD PTV-01 (Aegis Flight Test)	1	2014	1	2014
SCD CTV-01 (Aegis Flight Test)	2	2015	2	2015
SCD CTV-02 (Aegis Flight Test)	4	2015	4	2015
SFTM-1 E1/E2 (Aegis Intercept Flight Test)	3	2016	3	2016
FTX-23 (Aegis Flight Test)	3	2016	3	2016
SFTM-2 (Aegis Intercept Flight Test)	1	2017	1	2017

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MD40: <i>Program-Wide Support</i>
---	---	---

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
MD40: <i>Program-Wide Support</i>	-	16.483	21.346	16.402	-	16.402	11.204	6.597	2.301	0.000	0.000	74.333
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

Note

In FY 2014, Program Wide Support reflects a proportional change as a result of adjustments to SM-3 Block IIA Co-Development.

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 Service, and Federally Funded Research and Development Center (FFRDC) providing integrity and oversight of the BMDS as well as, supporting MDA in enabling the development and evaluation of technologies that will respond to the changing threat. In addition, includes Global Deployment personnel and support performing deployment site preparation and activation. Other costs included provide facility capabilities for MDA Executing Agent locations, such as physical and technical security, legal services, 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. Also includes legal settlements. In keeping with congressional intent, Program Wide Support is allocated on a pro-rata basis and therefore, fluctuates by year based on the total MDA budget.

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

	FY 2012	FY 2013	FY 2014
Title: Program Wide Support	16.483	21.346	16.402
Articles:	0	0	0
Description: See Description below.			
FY 2012 Accomplishments: See paragraph A, Mission Description and Budget Item Justification			
FY 2013 Plans: See paragraph A, Mission Description and budget item justification.			
FY 2014 Plans: See paragraph A: Mission Description and Budget Item Justification			
Accomplishments/Planned Programs Subtotals	16.483	21.346	16.402

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Missile Defense Agency		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT 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		

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Missile Defense Agency **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604881C: <i>AEGIS SM-3 Block IIA Co-Development</i>	PROJECT MD40: <i>Program-Wide Support</i>
---	---	---

Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Wide Support - Agency Operations and Support Services	C/CPFF	Various; Multi:AL, CO, VA	0.000	16.483		21.346	Mar 2013	16.402	Mar 2014	-		16.402	Continuing	Continuing	Continuing
Subtotal			0.000	16.483		21.346		16.402		0.000		16.402			

Remarks
N/A

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	16.483	21.346	16.402	0.000	16.402			

Remarks
N/A