



# Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-391



## Standard Missile-6 (SM-6)

As of FY 2016 President's Budget

Defense Acquisition Management  
Information Retrieval  
(DAMIR)

## Table of Contents

Common Acronyms and Abbreviations for MDAP Programs .....	3
Program Information .....	5
Responsible Office .....	5
References .....	5
Mission and Description .....	6
Executive Summary .....	7
Threshold Breaches .....	8
Schedule .....	9
Performance .....	11
Track to Budget .....	12
Cost and Funding .....	13
Low Rate Initial Production .....	20
Foreign Military Sales .....	21
Nuclear Costs .....	21
Unit Cost .....	22
Cost Variance .....	25
Contracts .....	28
Deliveries and Expenditures .....	32
Operating and Support Cost .....	33

## Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance  
ACAT - Acquisition Category  
ADM - Acquisition Decision Memorandum  
APB - Acquisition Program Baseline  
APPN - Appropriation  
APUC - Average Procurement Unit Cost  
\$B - Billions of Dollars  
BA - Budget Authority/Budget Activity  
Blk - Block  
BY - Base Year  
CAPE - Cost Assessment and Program Evaluation  
CARD - Cost Analysis Requirements Description  
CDD - Capability Development Document  
CLIN - Contract Line Item Number  
CPD - Capability Production Document  
CY - Calendar Year  
DAB - Defense Acquisition Board  
DAE - Defense Acquisition Executive  
DAMIR - Defense Acquisition Management Information Retrieval  
DoD - Department of Defense  
DSN - Defense Switched Network  
EMD - Engineering and Manufacturing Development  
EVM - Earned Value Management  
FOC - Full Operational Capability  
FMS - Foreign Military Sales  
FRP - Full Rate Production  
FY - Fiscal Year  
FYDP - Future Years Defense Program  
ICE - Independent Cost Estimate  
IOC - Initial Operational Capability  
Inc - Increment  
JROC - Joint Requirements Oversight Council  
\$K - Thousands of Dollars  
KPP - Key Performance Parameter  
LRIP - Low Rate Initial Production  
\$M - Millions of Dollars  
MDA - Milestone Decision Authority  
MDAP - Major Defense Acquisition Program  
MILCON - Military Construction  
N/A - Not Applicable  
O&M - Operations and Maintenance  
ORD - Operational Requirements Document  
OSD - Office of the Secretary of Defense  
O&S - Operating and Support  
PAUC - Program Acquisition Unit Cost

PB - President's Budget  
PE - Program Element  
PEO - Program Executive Officer  
PM - Program Manager  
POE - Program Office Estimate  
RDT&E - Research, Development, Test, and Evaluation  
SAR - Selected Acquisition Report  
SCP - Service Cost Position  
TBD - To Be Determined  
TY - Then Year  
UCR - Unit Cost Reporting  
U.S. - United States  
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

## Program Information

**Program Name**

Standard Missile-6 (SM-6)

**DoD Component**

Navy

## Responsible Office

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## References

**SAR Baseline (Production Estimate)**

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated March 26, 2010

**Approved APB**

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated August 9, 2013

## Mission and Description

The Standard Missile-6 (SM-6) Extended Range Active Missile (ERAM) is designed to provide ship self-defense, fleet area defense, and theater air defense for sea and littoral forces. Raytheon Missile Systems has been chosen as the sole source contractor for SM-6 ERAM Block I. The SM-6 ERAM is a surface-to-air supersonic missile, launched from AEGIS Cruisers and Destroyers, capable of successfully engaging manned and unmanned, fixed or rotary wing aircraft and land attack or Anti-Ship Cruise Missiles in flight. The SM-6 ERAM program is an evolutionary, capabilities based acquisition program that will use spiral development to produce an initial Block I capability, with follow-on blocks to pace emerging threat systems as required. In addition to an extended range, the initial SM-6 ERAM Block I will have active missile seeker homing for improved flight responsiveness, guidance, sub-clutter visibility, and countermeasures resistance over present SM-2 missiles and will be "Engage-On-Remote" intercept capable.

SM-6 will be an effective weapon that will apply timely, precise, accurate and lethal fire power against cruise missile threats and launch platforms in a fleet area defense role and over hostile territory. SM-6 will provide in-flight destruction capabilities over the total flight path. SM-6 may be employed in concert with the developing Joint Theater Air and Missile Defense Family of Systems to provide continuous protection to forward deployed maneuver forces as well as theater rear assets.

## Executive Summary

SM-6 was granted authority to enter FRP in an ADM dated July 15, 2013.

The test community found SM-6 to be operationally effective and suitable, and IOC was achieved on November 26, 2013.

The program commenced Follow-On Operational Test and Evaluation in November 2013. The program has successfully completed four of four planned flight tests out of a total of ten planned.

The SM-6 FRP FY 2014 production contract option was awarded on June 25, 2014.

There are no significant software-related issues with this program at this time.

## Threshold Breaches

### APB Breaches

<b>Schedule</b>		<input type="checkbox"/>
<b>Performance</b>		<input type="checkbox"/>
<b>Cost</b>	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
<b>O&amp;S Cost</b>		<input type="checkbox"/>
<b>Unit Cost</b>	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

### Nunn-McCurdy Breaches

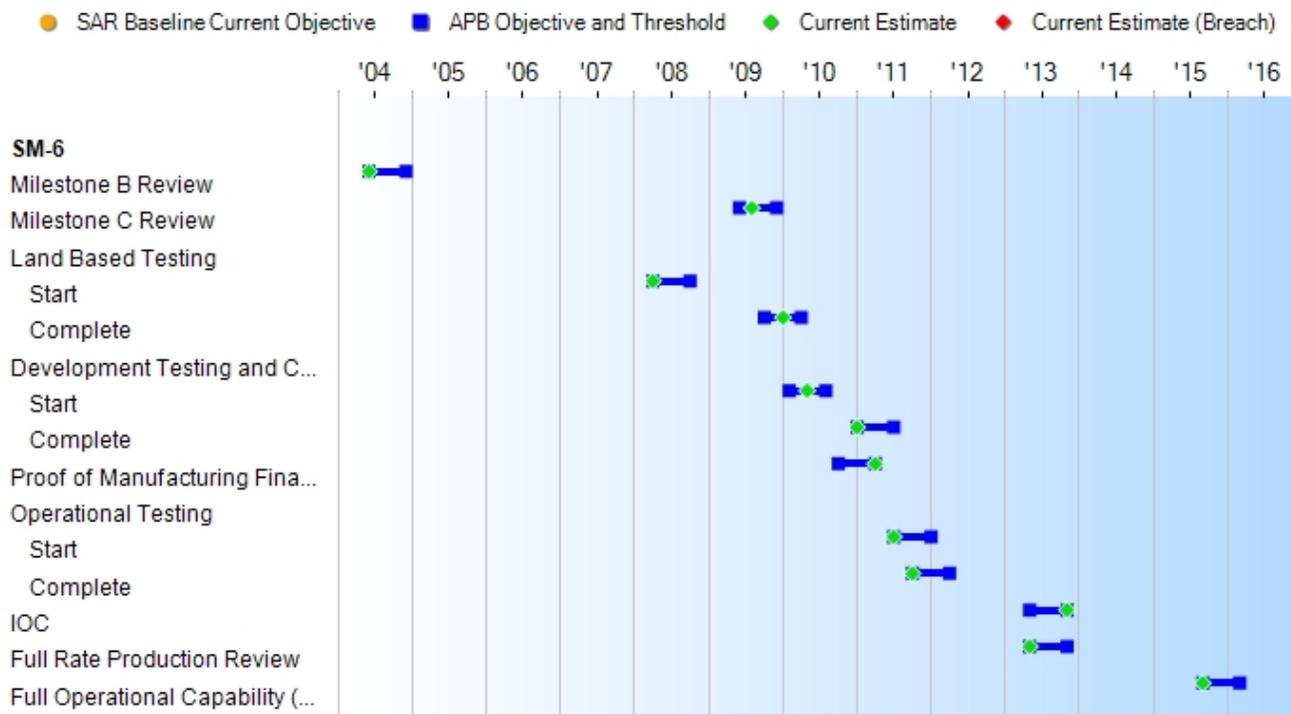
#### Current UCR Baseline

PAUC	None
APUC	None

#### Original UCR Baseline

PAUC	None
APUC	None

# Schedule



Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate
Milestone B Review	Jun 2004	Jun 2004	Dec 2004	Jun 2004
Milestone C Review	Jun 2009	Jun 2009	Dec 2009	Aug 2009
Land Based Testing				
Start	Apr 2008	Apr 2008	Oct 2008	Apr 2008
Complete	Oct 2009	Oct 2009	Apr 2010	Jan 2010
Development Testing and Combined Development and Operational Testing				
Start	Feb 2010	Feb 2010	Aug 2010	May 2010
Complete	Apr 2010	Jan 2011	Jul 2011	Jan 2011
Proof of Manufacturing Final Review	Oct 2010	Oct 2010	Apr 2011	Apr 2011
Operational Testing				
Start	Aug 2010	Jul 2011	Jan 2012	Jul 2011
Complete	Sep 2010	Oct 2011	Apr 2012	Oct 2011
IOC	Mar 2011	May 2013	Nov 2013	Nov 2013
Full Rate Production Review	Jun 2011	May 2013	Nov 2013	May 2013
Full Operational Capability (FOC)	Sep 2015	Sep 2015	Mar 2016	Sep 2015

#### Change Explanations

None

#### Notes

The extended threshold for FOC is defined in the SM-6 CPD.

## Performance

Classified Performance information is provided in the classified annex to this submission.

## Track to Budget

### General Notes

The SM-6 Development was funded under PE 0604366N - Project 3092.

The FY 2016 PB includes RDT&E funding for other STANDARD Missile improvements, none of which are included in the SM-6 development program baseline: Insensitive Munitions, Portable All-Up Round Built In Test Tester, Naval Integrated Fire Control - Counter Air, and Future Capability Demonstration.

The FY 2016 PB for SM-6 procurement (APPN 1507, PE 0204228N) includes Line Item 2234 and 6120. Both are shared with SM-2 through FY 2011. All up rounds are reflected in Budget Line Item (BLI) 2234 P1-7. Initial Spares are included in BLI 6120 P1-35.

### RDT&E

Appn	BA	PE
------	----	----

Navy 1319 05 0604366N

Project	Name
---------	------

3092 Standard Missile 6 Program (Shared) (Sunk)

**Notes:** FY 2012 is the last year of SM-6 RDT&E funding related to the Baseline Program of Record as reported in the SAR.

### Procurement

Appn	BA	PE
------	----	----

Navy 1507 02 0204228N

Line Item	Name
-----------	------

2234 STANDARD Missile

**Notes:** Shared with SM-2 through FY 2011.

Navy 1507 06 0204228N

Line Item	Name
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6120 Spares and Repair Parts (Shared)

**Notes:** Shared with SM-2 in Standard Missile Replenishment Spares line through FY 2011 and continues to be shared with other Navy programs.

## Cost and Funding

### Cost Summary

Total Acquisition Cost							
Appropriation	BY 2004 \$M			BY 2004 \$M	TY \$M		
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective	Current Estimate
RDT&E	861.6	834.5	918.0	834.7	963.2	933.4	933.4
Procurement	4419.5	6854.1	7539.5	6297.2	5634.0	9623.8	8766.3
Flyaway	--	--	--	5517.1	--	--	7695.2
Recurring	--	--	--	5493.0	--	--	7667.1
Non Recurring	--	--	--	24.1	--	--	28.1
Support	--	--	--	780.1	--	--	1071.1
Other Support	--	--	--	547.7	--	--	745.8
Initial Spares	--	--	--	232.4	--	--	325.3
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	5281.1	7688.6	N/A	7131.9	6597.2	10557.2	9699.7

#### Confidence Level

Confidence Level of cost estimate for current APB: 50%

The Independent Cost Estimate (ICE) to support SM-6 Full Rate Production Decision, like all life-cycle cost estimates previously performed by the Office of the Secretary of Defense, Cost Assessment and Program Evaluation (OSD, CAPE), is built upon a product-oriented work breakdown structure, based on historical actual cost information to the maximum extent possible, and, most importantly, based on conservative assumptions that are consistent with actual demonstrated contractor and government performance for a series of acquisition programs in which the Department has been successful.

It is difficult to calculate mathematically the precise confidence levels associated with life-cycle cost estimates prepared for Major Defense Acquisition Programs (MDAPs). Based on the rigor in methods used in building estimates, the strong adherence to the collection and use of historical cost information, and the review of applied assumptions, we project that it is equally likely that the estimate will prove low or too high for execution of the program described.

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E	0	0	0
Procurement	1200	1800	1800
Total	1200	1800	1800

**Quantity Notes**

SM-6 received authorization to increase the procurement profile from 1200 missiles to 1800 missiles as documented in the Navy Electronic Resources and Requirements Review Board memorandum, dated March 18, 2013.

## Cost and Funding

### Funding Summary

Appropriation Summary									
FY 2016 President's Budget / December 2014 SAR (TY\$ M)									
Appropriation	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
RDT&E	933.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	933.4
Procurement	1440.8	451.4	452.4	513.6	532.3	544.8	559.8	4271.2	8766.3
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2016 Total	2374.2	451.4	452.4	513.6	532.3	544.8	559.8	4271.2	9699.7
PB 2015 Total	2482.6	462.2	529.9	545.9	600.1	614.6	656.4	4248.7	10140.4
Delta	-108.4	-10.8	-77.5	-32.3	-67.8	-69.8	-96.6	22.5	-440.7

Quantity Summary										
FY 2016 President's Budget / December 2014 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	360	110	113	125	125	125	125	717	1800
PB 2016 Total	0	360	110	113	125	125	125	125	717	1800
PB 2015 Total	0	348	110	125	125	125	125	125	717	1800
Delta	0	12	0	-12	0	0	0	0	0	0

## Cost and Funding

### Annual Funding By Appropriation

Annual Funding							
1319   RDT&E   Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2004	--	--	--	--	--	--	25.5
2005	--	--	--	--	--	--	83.8
2006	--	--	--	--	--	--	114.8
2007	--	--	--	--	--	--	150.0
2008	--	--	--	--	--	--	172.6
2009	--	--	--	--	--	--	195.4
2010	--	--	--	--	--	--	112.6
2011	--	--	--	--	--	--	61.0
2012	--	--	--	--	--	--	17.7
Subtotal	--	--	--	--	--	--	933.4

Annual Funding 1319   RDT&E   Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2004 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2004	--	--	--	--	--	--	25.0
2005	--	--	--	--	--	--	80.0
2006	--	--	--	--	--	--	106.3
2007	--	--	--	--	--	--	135.6
2008	--	--	--	--	--	--	153.2
2009	--	--	--	--	--	--	171.3
2010	--	--	--	--	--	--	97.2
2011	--	--	--	--	--	--	51.4
2012	--	--	--	--	--	--	14.7
Subtotal	--	--	--	--	--	--	834.7

Annual Funding 1507   Procurement   Weapons Procurement, Navy								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2009	19	92.4	--	17.6	110.0	12.4	122.4	
2010	11	54.5	--	10.5	65.0	32.7	97.7	
2011	59	210.5	--	--	210.5	32.5	243.0	
2012	89	272.2	--	--	272.2	67.2	339.4	
2013	89	264.7	--	--	264.7	54.4	319.1	
2014	93	259.2	--	--	259.2	60.0	319.2	
2015	110	396.2	--	--	396.2	55.2	451.4	
2016	113	396.5	--	--	396.5	55.9	452.4	
2017	125	465.8	--	--	465.8	47.8	513.6	
2018	125	474.9	--	--	474.9	57.4	532.3	
2019	125	487.0	--	--	487.0	57.8	544.8	
2020	125	494.5	--	--	494.5	65.3	559.8	
2021	125	598.9	--	--	598.9	74.8	673.7	
2022	125	625.2	--	--	625.2	77.0	702.2	
2023	125	635.8	--	--	635.8	78.4	714.2	
2024	125	653.2	--	--	653.2	80.3	733.5	
2025	125	664.7	--	--	664.7	81.9	746.6	
2026	92	620.9	--	--	620.9	80.1	701.0	
Subtotal	1800	7667.1	--	28.1	7695.2	1071.1	8766.3	

Annual Funding 1507   Procurement   Weapons Procurement, Navy							
Fiscal Year	Quantity	BY 2004 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2009	19	80.0	--	15.2	95.2	10.8	106.0
2010	11	46.4	--	8.9	55.3	27.9	83.2
2011	59	175.8	--	--	175.8	27.2	203.0
2012	89	223.8	--	--	223.8	55.3	279.1
2013	89	214.3	--	--	214.3	44.1	258.4
2014	93	206.6	--	--	206.6	47.8	254.4
2015	110	310.5	--	--	310.5	43.3	353.8
2016	113	305.1	--	--	305.1	43.1	348.2
2017	125	351.7	--	--	351.7	36.1	387.8
2018	125	351.6	--	--	351.6	42.5	394.1
2019	125	353.5	--	--	353.5	41.9	395.4
2020	125	351.9	--	--	351.9	46.4	398.3
2021	125	417.8	--	--	417.8	52.2	470.0
2022	125	427.6	--	--	427.6	52.7	480.3
2023	125	426.3	--	--	426.3	52.6	478.9
2024	125	429.4	--	--	429.4	52.8	482.2
2025	125	428.4	--	--	428.4	52.8	481.2
2026	92	392.3	--	--	392.3	50.6	442.9
Subtotal	1800	5493.0	--	24.1	5517.1	780.1	6297.2

## Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
<b>Approval Date</b>	7/12/2004	4/5/2012
<b>Approved Quantity</b>	120	178
<b>Reference</b>	Milestone B ADM	LRIP Lot 4 ADM
<b>Start Year</b>	2009	2009
<b>End Year</b>	2011	2012

The SM-6 program received authorization to enter into a fourth year of LRIP as documented in the ADM dated April 5, 2012. This ADM authorized the increase in the total LRIP quantity from 120 (10 percent) to 178 (15 percent) based on a procurement profile of 1200 missiles, and deferred the FRP decision to FY 2013.

The SM-6 program received authorization to increase the procurement profile from 1200 missiles to 1800 missiles as documented in the Navy Electronic Resources and Requirements Review Board memorandum, dated March 18, 2013.

The SM-6 program built up 25 non-LRIP rounds to be test fired during the System Development and Demonstration phase of the program. All 25 missiles were expended prior to IOC.

## **Foreign Military Sales**

None

## **Nuclear Costs**

None

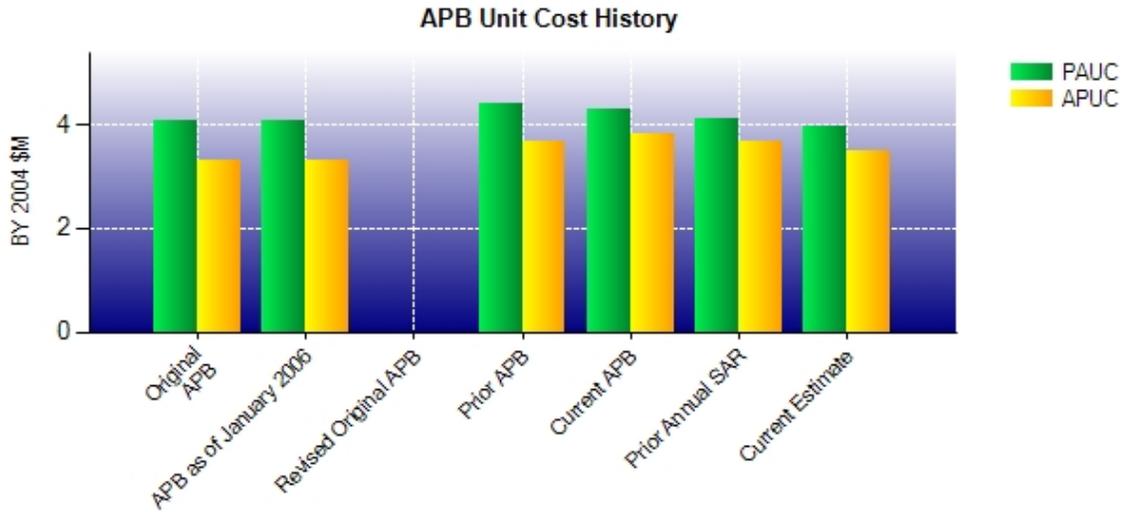
## Unit Cost

### Unit Cost Report

Item	BY 2004 \$M	BY 2004 \$M	% Change
	Current UCR Baseline (Aug 2013 APB)	Current Estimate (Dec 2014 SAR)	
<b>Program Acquisition Unit Cost</b>			
Cost	7688.6	7131.9	
Quantity	1800	1800	
Item	4.271	3.962	-7.23
<b>Average Procurement Unit Cost</b>			
Cost	6854.1	6297.2	
Quantity	1800	1800	
Unit Cost	3.808	3.498	-8.14

Item	BY 2004 \$M	BY 2004 \$M	% Change
	Original UCR Baseline (Jul 2004 APB)	Current Estimate (Dec 2014 SAR)	
<b>Program Acquisition Unit Cost</b>			
Cost	4866.3	7131.9	
Quantity	1200	1800	
Unit Cost	4.055	3.962	-2.29
<b>Average Procurement Unit Cost</b>			
Cost	3949.6	6297.2	
Quantity	1200	1800	
Unit Cost	3.291	3.498	+6.29

**Unit Cost History**



Item	Date	BY 2004 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Jul 2004	4.055	3.291	4.986	4.163
APB as of January 2006	Jul 2004	4.055	3.291	4.986	4.163
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	Mar 2010	4.401	3.683	5.498	4.695
Current APB	Aug 2013	4.271	3.808	5.865	5.347
Prior Annual SAR	Dec 2013	4.122	3.659	5.634	5.115
Current Estimate	Dec 2014	3.962	3.498	5.389	4.870

**SAR Unit Cost History**

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial PAUC Development Estimate	Changes								PAUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
4.986	0.114	0.000	-0.046	0.000	0.153	0.000	0.291	0.512	5.498

Current SAR Baseline to Current Estimate (TY \$M)									
PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
5.498	-0.017	-0.377	0.136	0.000	-0.029	0.000	0.178	-0.109	5.389

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
4.163	0.085	0.000	-0.046	0.000	0.202	0.000	0.291	0.532	4.695

Current SAR Baseline to Current Estimate (TY \$M)									
APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
4.695	-0.017	-0.110	0.136	0.000	-0.012	0.000	0.178	0.175	4.870

SAR Baseline History					
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate	
Milestone A	N/A	N/A	N/A	N/A	
Milestone B	N/A	Jun 2004	Jun 2004	Jun 2004	
Milestone C	N/A	Sep 2008	Jun 2009	Aug 2009	
IOC	N/A	Sep 2010	Mar 2011	Nov 2013	
Total Cost (TY \$M)	N/A	5983.3	6597.2	9699.7	
Total Quantity	N/A	1200	1200	1800	
PAUC	N/A	4.986	5.498	5.389	

## Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	963.2	5634.0	--	6597.2
Previous Changes				
Economic	+1.2	+34.9	--	+36.1
Quantity	--	+2619.6	--	+2619.6
Schedule	--	+247.3	--	+247.3
Engineering	--	--	--	--
Estimating	-31.0	+308.9	--	+277.9
Other	--	--	--	--
Support	--	+362.3	--	+362.3
Subtotal	-29.8	+3573.0	--	+3543.2
Current Changes				
Economic	--	-66.0	--	-66.0
Quantity	--	--	--	--
Schedule	--	-1.7	--	-1.7
Engineering	--	--	--	--
Estimating	--	-330.7	--	-330.7
Other	--	--	--	--
Support	--	-42.3	--	-42.3
Subtotal	--	-440.7	--	-440.7
Total Changes	-29.8	+3132.3	--	+3102.5
CE - Cost Variance	933.4	8766.3	--	9699.7
CE - Cost & Funding	933.4	8766.3	--	9699.7

Summary BY 2004 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	861.6	4419.5	--	5281.1
Previous Changes				
Economic	--	--	--	--
Quantity	--	+1761.1	--	+1761.1
Schedule	--	+20.4	--	+20.4
Engineering	--	--	--	--
Estimating	-26.9	+157.4	--	+130.5
Other	--	--	--	--
Support	--	+227.4	--	+227.4
Subtotal	-26.9	+2166.3	--	+2139.4
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	-254.6	--	-254.6
Other	--	--	--	--
Support	--	-34.0	--	-34.0
Subtotal	--	-288.6	--	-288.6
Total Changes	-26.9	+1877.7	--	+1850.8
CE - Cost Variance	834.7	6297.2	--	7131.9
CE - Cost & Funding	834.7	6297.2	--	7131.9

Previous Estimate: December 2013

Procurement	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	-66.0
Re-phased procurement buy profile between FY 2014 and FY 2016. (Schedule)	0.0	-1.7
Adjustment for current and prior escalation. (Estimating)	+3.7	+4.9
Refined estimating relationships for the SM-6 Block I and Block IA. (Estimating)	+6.2	+17.4
Decrease in FY 2014 due to net savings resulting from contract negotiations which included an increase in FY 2014 quantity from 81 to 93 All Up Round missiles. (Estimating)	-17.1	-21.4
Decrease in FY 2014 due to delay of production cut-in decision for the Engineering Change Proposal for the SM-6 Block IA from FY 2014 to FY 2015. (Estimating)	-37.0	-46.4
Decrease in FYDP for SM-6 Block I unit cost efficiencies consistent with FY 2014 contract negotiation and realignment of funds for higher Navy priorities. (Estimating)	-184.3	-248.9
Decrease in FYDP for anticipated SM-6 Block IA unit cost efficiencies and realignment of funds for higher Navy priorities. (Estimating)	-26.1	-36.3
Adjustment for current and prior escalation. (Support)	+0.9	+0.8
Decrease in Other Support due to realignment of funds. (Support)	-30.9	-37.9
Decrease in Initial Spares due to under funded spares requirements. (Support)	-4.0	-5.2
Procurement Subtotal	-288.6	-440.7

## Contracts

### Contract Identification

**Appropriation:** Procurement  
**Contract Name:** SM-6 LRIP 123  
**Contractor:** Raytheon Missile Systems (RMS)  
**Contractor Location:** 1151 East Hermans Road  
 Tucson, AZ 85731-1337  
**Contract Number:** N00024-09-C-5305/0  
**Contract Type:** Fixed Price Incentive(Firm Target) (FPIF)  
**Award Date:** September 04, 2009  
**Definitization Date:** July 01, 2010

### Contract Price

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
368.0	397.4	89	377.2	407.5	92	377.2	377.2

### Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to contract modification P00015 which added three additional FY 2012 All Up Round missiles in support of the Missile Defense Agency Sea Based Terminal efforts.

### Contract Variance

Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2014)	+15.0	-2.3
Previous Cumulative Variances	+12.9	-13.4
Net Change	+2.1	+11.1

### Cost and Schedule Variance Explanations

The favorable net change in the cost variance is due to Raytheon labor performing more efficiently than planned in the Manufacturing, Program Management, and Systems Engineering Teams as the LRIP lot 3 All Up Rounds were built, tested and delivered.

The favorable net change in the schedule variance is due to Raytheon completing the LRIP lot 3 All Up Round deliveries.

**Notes**

On September 4, 2009, Raytheon Missile Systems was awarded a letter contract to establish Not-to-Exceed prices for the LRIP Contract Line Item Numbers. The contract was definitized on July 1, 2010. Contract Option 2 (FY 2011 lot 3) was awarded on June 23, 2011.

The SM-6 Milestone C ADM dated August 24, 2009 authorized LRIP lot 1 plus Long Lead Material (LLM) for FY 2010 (lot 2). The SM-6 LRIP lot 2 ADM dated June 7, 2010 authorized LRIP lot 2 plus LLM for FY 2011 (lot 3). The SM-6 LRIP lot 3 and LLM ADM dated May 13, 2011 authorized LRIP lot 3 plus LLM for FY 2012.

An Integrated Baseline Review (IBR) for FY 2009 lot 1 was successfully conducted in January 2011. A follow-on IBR for FY 2010 lot 2 was successfully conducted in June 2011 and a follow-on IBR for FY 2011 lot 3 was successfully conducted in January 2012.

This contract is more than 90% complete; therefore, this is the final report for this contract.

**Contract Identification**

**Appropriation:** Procurement  
**Contract Name:** SM-6 LRIP 4  
**Contractor:** Raytheon Missile Systems (RMS)  
**Contractor Location:** 1151 East Hermans Road  
 Tucson, AZ 85756  
**Contract Number:** N00024-12-C-5401/1  
**Contract Type:** Fixed Price Incentive(Firm Target) (FPIF)  
**Award Date:** May 10, 2012  
**Definitization Date:** July 05, 2013

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
266.4	279.2	89	266.4	279.2	89	266.4	266.4

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2014)	-0.4	-7.6
Previous Cumulative Variances	-2.9	+39.9
Net Change	+2.5	-47.5

**Cost and Schedule Variance Explanations**

The favorable net change in the cost variance is due to Raytheon completing 62 of 89 of LRIP lot 4 All Up Round deliveries within plan.

The unfavorable net change in the schedule variance is due to Raytheon performing behind the baseline plan.

**Notes**

On May 10, 2013, Raytheon Missile Systems was awarded a letter contract to establish Not To Exceed prices for the LRIP lot 4 Contract Line Item Numbers. The contract was definitized on July 5, 2013.

The SM-6 program received authorization to enter into a fourth year of LRIP in FY 2012 as documented in the ADM dated April 5, 2012.

An Integrated Baseline Review for FY 2014 lot 4 was successfully conducted in November 2013.

**Contract Identification**

**Appropriation:** Procurement  
**Contract Name:** SM-6 FRP  
**Contractor:** RMS Missile Systems (RMS)  
**Contractor Location:** 1151 Hermans Road  
 Tucson, AZ 85756  
**Contract Number:** N00024-13-C-5407/0  
**Contract Type:** Firm Fixed Price (FFP)  
**Award Date:** January 31, 2013  
**Definitization Date:** September 26, 2013

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
276.8	N/A	89	564.8	N/A	182	564.8	564.8

**Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to contract modification P00014 which awarded the FY 2014 contract option on June 25, 2014.

**Cost and Schedule Variance Explanations**

Cost and Schedule Variance reporting is not required on this (FFP) contract.

**Notes**

On January 31, 2013, Raytheon Missile Systems was awarded a contract for Long Lead Material for the FY 2013 FRP contract. The base contract (FY 2013) was definitized on September 26, 2013. The FY 2014 contract option was awarded on June 25, 2014.

The SM-6 FRP ADM dated July 15, 2013 authorized the program to enter into FRP.

## Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	154	154	1800	8.56%
Total Program Quantity Delivered	154	154	1800	8.56%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	9699.7	Years Appropriated	12
Expended to Date	1618.2	Percent Years Appropriated	52.17%
Percent Expended	16.68%	Appropriated to Date	2825.6
Total Funding Years	23	Percent Appropriated	29.13%

The above data is current as of February 02, 2015.

## Operating and Support Cost

### Cost Estimate Details

<b>Date of Estimate:</b>	May 13, 2013
<b>Source of Estimate:</b>	CAPE ICE
<b>Quantity to Sustain:</b>	1800
<b>Unit of Measure:</b>	Missile
<b>Service Life per Unit:</b>	30.00 Years
<b>Fiscal Years in Service:</b>	FY 2013 - FY 2054

Since the SM-6 is a wooden round (a concept that pictures a weapon as being completely reliable and, while deployed on board a ship, having an infinite shelf life while at the same time requiring no special handling, storage, surveillance, or maintenance by ships force personnel), Personnel Costs are unnecessary for missile operation.

The average annual cost per missile assumes 1800 All Up Rounds over a 30 year life cycle.

Unit Level Consumption includes Range and Target Costs, as well as Post Flight Analysis.

Intermediate Maintenance consists of Intermediate Level Maintenance facility costs.

Depot Maintenance includes Depot Maintenance and Refurbishment.

Sustaining Support includes Sustaining Investment and Software Maintenance.

Indirect Costs includes Installation and Personnel Support.

### Sustainment Strategy

SM-6 will leverage the proven and mature STANDARD Missile product support infrastructure. No unique storage, transportation, handling facilities, or launching systems will be required. The All Up Round will be considered a "wooden round" on board ship, with no Operational Level Maintenance (O-Level) required. In the future, a shipboard portable Maintenance Built-In-Test (MBIT) capability will allow a team to come aboard and test or install new software into the SM-6 round.

### Antecedent Information

For reporting purposes, SM-2 is the antecedent by definition of the closest analogous system to SM-6. The SM-6 program meets a different threat set and demonstrates enhanced capabilities in comparison to the SM-2 program.

SM-2 Cost/Missile/Year based on average quantity serviced in FY 2015, converted to BY 2004\$. SM-2 BLK IIIA/IIIB FY 2015 PB is the basis for the SM-2 average annual cost per missile.

The Final SM-2 SAR was reported in December 2003. The total O&S reported in the Final SM-2 SAR has been covered to BY 2004\$ for comparison.

Annual O&S Costs BY2004 \$K			
Cost Element	SM-6		SM-2 (Antecedent)
	Average Annual Cost Per Missile		Average Annual Cost Per Missile
Unit-Level Manpower		0.000	0.000
Unit Operations		3.000	1.500
Maintenance		3.200	5.000
Sustaining Support		2.100	1.200
Continuing System Improvements		0.000	0.000
Indirect Support		0.200	0.500
Other		0.000	0.000
<b>Total</b>		<b>8.500</b>	<b>8.200</b>

Item	Total O&S Cost \$M			
	SM-6			SM-2 (Antecedent)
	Current Production APB Objective/Threshold	Current Estimate		
<b>Base Year</b>	443.0	487.3	460.3	912.3
<b>Then Year</b>	863.9	N/A	845.9	N/A

#### Equation to Translate Annual Cost to Total Cost

Average Annual Missile O&S Cost = Total O&S Cost / number of missiles / number of operational missile years.

Total O&S Cost = \$460.3M (BY04\$)

Number of missiles = 1800

Number of operational years = 30 year life cycle

Differences in Annual Cost per Missile and Total O&S Cost are due to rounding issues.

O&S Cost Variance		
Category	BY 2004 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2013 SAR	460.3	
Programmatic/Planning Factors	0.0	
Cost Estimating Methodology	0.0	
Cost Data Update	0.0	
Labor Rate	0.0	
Energy Rate	0.0	
Technical Input	0.0	
Other	0.0	
<b>Total Changes</b>	<b>0.0</b>	
Current Estimate	460.3	

#### Disposal Estimate Details

**Date of Estimate:**

**Source of Estimate:**

**Disposal/Demilitarization Total Cost (BY 2004 \$M):**

The Army is responsible for demilitarization of all Department of Defense missile systems at the end of the missile service life, including the STANDARD missile. Disposal costs are not identified at this time.