

UNCLASSIFIED



CLEARED
For Open Publication

Oct 08, 2024

Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

Modernized Selected Acquisition Report (MSAR) Standard Missile-6 (SM-6)

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

UNCLASSIFIED

Table of Contents

Common DoD Abbreviations	3
Program Description	5
Responsible Office	6
Executive Summary	7
Schedule	9
Performance	11
Acquisition Budget Estimate	12
Unit Costs	14
Life-Cycle Costs	16
Technologies and Systems Engineering	19
Performing Activities and Contracts	20
Production	22
Deliveries and Expenditures	23
International Program Aspects	24

(U) Common DoD Abbreviations

\$B	Billions of Dollars
\$K	Thousands of Dollars
\$M	Millions of Dollars
ACAT	Acquisition Category
Acq O&M	Acquisition-Related Operations and Maintenance
ADM	Acquisition Decision Memorandum
APA	Additional Performance Attribute
APB	Acquisition Program Baseline
APPN	Appropriation
APUC	Average Procurement Unit Cost
BA	Budget Authority or Budget Activity
Blk	Block
BY	Base Year
CAE	Component Acquisition Executive
CAPE	Cost Assessment and Program Evaluation
CARD	Cost Analysis Requirements Description
CCE	Component Cost Estimate
CCP	Component Cost Position
CDD	Capability Development Document
CLIN	Contract Line Item Number
CPD	Capability Production Document
CY	Calendar Year or Constant Year
DAB	Defense Acquisition Board
DAE	Defense Acquisition Executive
DAES	Defense Acquisition Executive Summary
DAVE	Defense Acquisition Visibility Environment
DoD	Department of Defense
DSN	Defense Switched Network
EMD	Engineering and Manufacturing Development
EVM	Earned Value Management
FD	Full Deployment
FDD	Full-Deployment Decision
FMS	Foreign Military Sales
FOC	Full Operational Capability
FRP	Full-Rate Production
FY	Fiscal Year
FYDP	Future Years Defense Program
ICD	Initial Capabilities Document
ICE	Independent Cost Estimate
Inc	Increment
IOC	Initial Operational Capability
IT	Information Technology
JROC	Joint Requirements Oversight Council
KPP	Key Performance Parameter
KSA	Key System Attribute

LRIP	Low-Rate Initial Production
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Program
MILCON	Military Construction
N/A	Not Applicable
O	Objective
O&M	Operations and Maintenance
O&S	Operating and Support
ORD	Operational Requirements Document
OSD	Office of the Secretary of Defense
PAUC	Program Acquisition Unit Cost
PB	President's Budget
PE	Program Element
PEO	Program Executive Officer
PM	Program Manager
POE	Program Office Estimate
R&MF	Revolving and Management Funds
RDT&E	Research, Development, Test, and Evaluation
SAR	Selected Acquisition Report
SCP	Service Cost Position
T	Threshold
TBD	To Be Determined
TY	Then Year
U.S.	United States
U.S.C	United States Code
UCR	Unit Cost Reporting
USD(A&S)	Under Secretary of Defense (Acquisition and Sustainment)

(U) Program Description

Full Name Standard Missile-6	Short Name SM-6
PNO 391	Milestone Decision Authority Component Acquisition Executive
Lead Component Department of the Navy	Program Executive Office PEO Integrated Warfare Systems
Joint Program No	Acquisition Type Major Defense Acquisition Program
Adaptive Acquisition Pathway Major Capability Acquisition	Acquired Systems SM-6
Acquisition Category IC	
Acquisition Status Active Acquisition	

Mission

The STANDARD Missile-6 (SM-6) is a tri-mission capable (Anti-Air Warfare (AAW), Sea-Based Terminal Defense (SBT), and Anti-Surface Warfare (ASuW)) missile that provides for over-the-horizon engagements, enhanced capability at extended ranges and increased firepower with an active guidance section. Launched from AEGIS Cruisers and Destroyers, SM-6 provides timely, precise, accurate and lethal fire power against cruise missile threats and launch platforms in a fleet area defense role and is capable of successfully engaging manned and unmanned, fixed or rotary wing aircraft, and land attack or Anti-Ship Cruise Missiles (ASCM) in flight. SM-6 is an evolutionary acquisition program with requirements for future Block upgrades. Raytheon Missile Systems (RMS) is the sole source contractor for SM-6.

(U) Responsible Office**Program Executive Officer**

PEO Integrated Warfare Systems

Elizabeth S. Okano

elizabeth.s.okano.mil@us.navy.mil (primary)

(202) 781-2964 (commercial)

Program Manager

Standard Missile-6 PMO

CAPT Thomas A. Seigenthaler

no email address provided

(703) 872-1033 (commercial)

(U) Executive Summary

Program Highlights Since Last Report

SM-6 Program is in Full Rate Production for the SM-6 Block I and the more capable SM-6 Block IA variant.

The FY 2024 Presidents Budget (PB) for FY 2024 did not include authorization for a follow-on Multiyear Procurement (MYP) for SM-6 Block IA in FY 2024 - FY 2028 as depicted in the FY 2025 PB. The program is now pursuing a Single Year Procurement (SYP) for FY 2024 and FY 2025. The SM-6 FRP Block I/IA MYP FY 2023 Production contract was awarded May 2023. The SM-6 FRP Block IA MYP Engineering Change Proposal (ECP) FY 2023 contract was awarded May 2023.

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

(U) History of Significant Developments Since Program Inception

Date	Description
May 2023	FRP FY 2023 SM-6 MYP Block IA ECP contract modification award
May 2023	FRP FY 2023 MYP Block I/IA contract modification award
April 2022	FRP FY 2022 SM-6 MYP Block IA ECP contract modification award
April 2022	FRP FY 2022 MYP Block I/IA contract modification award
June 2021	FRP FY 2021 MYP Block I/IA contract modification award
June 2021	FRP FY 2021 SM-6 MYP Block IA ECP contract modification award
April 2020	FRP FY 2020 SM-6 MYP Block IA ECP contract modification award
April 2020	FRP FY 2020 MYP Block I/IA contract modification award
December 2019	FRP FY 2019 - FY 2023 MYP SM-6 Block IA ECP contract award
December 2019	FRP FY 2019 - FY 2023 MYP SM-6 Block I/IA contract award
October 2019	SM-6 Block IA achieved IOC
December 2018	Resource Management Decision included an emergent requirement to increase the SM-6 Block IA procurement from 125 to 180 All Up Rounds per year starting in FY 2024
December 2018	FRP FY 2017 - FY 2018 SM-6 Block IA ECP contract award
October 2018	FY 2019 National Defense Authorization Act (NDAA) authorized a Multi-Year Procurement (MYP) and Advanced Procurement (AP) beginning with the FY 2019 program year for the procurement of up to 625 missiles, completing in the FY 2023 program year
September 2018	FRP FY 2017 - FY 2018 SM-6 Block I/IA contract award
December 2017	Full Operational Capability (FOC) achieved
January 2017	LRIP FY 2015 - FY 2016 SM-6 Block IA ECP contract award
February 2016	FRP FY 2016 SM-6 Block I/IA contract
May 2015	FRP FY 2015 SM-6 Block I/IA contract
May 2015	UCA for FY 2015 SM-6 Block IA Engineering Change Proposal (ECP) LRIP
June 2014	FRP FY 2014 SM-6 Block I contract
November 2013	Initial Operational Capability (IOC) achieved

Date	Description
September 2013	FRP FY 2013 SM-6 Block I contract
August 2013	Full Rate Production (FRP) Acquisition Decision Memorandum
July 2013	LRIP FY 2012 SM-6 Block I contract award
March 2013	Navy Electronic Resources and Requirements Review Board (ER3B) memorandum authorizing increase in procurement profile from 1200 to 1800 missiles
May 2012	Undefinitized Contract Action (UCA) for FY 2012 LRIP SM-6 Block I
October 2011	Operational Testing (OT) Flight Testing completed
June 2011	LRIP FY 2011 (Lot 3) SM-6 Block I option awarded to Raytheon Missile Systems
January 2011	Developmental Testing (DT) Flight Testing completed
July 2010	LRIP SM-6 Block I (Lot 1) contract definitized with an FY 2010 (Lot 2) option awarded to Raytheon Missile Systems
January 2010	Land Based Testing completed
September 2009	Letter contract to establish Not-to-Exceed prices for the LRIP contract FY 2009 Low-Rate Initial Production (LRIP) SM-6 Block I awarded to Raytheon Missile Systems
August 2009	Milestone C (MS C) Acquisition Decision Memorandum (ADM)
September 2004	System Development and Demonstration (SD&D) contract awarded to Raytheon Missile Systems
July 2004	Milestone B (MS B) Acquisition Decision Memorandum (ADM)

(U) Schedule**(U) Schedule Events**

Events		Production APB (Milestone) 3/26/2010 Objective	APB Change 1 (Current) 8/9/2013 Objective / Threshold		Current Estimate 12/31/2023	Actual
Milestone B Review	MS B	Jun 2004	Jun 2004	Dec 2004	-	12 Jul 2004
Milestone C Review	MS C	Jun 2009	Jun 2009	Dec 2009	-	24 Aug 2009
Land Based Testing						
Land Based Testing - Start	Other	Apr 2008	Apr 2008	Oct 2008	-	1 Apr 2008
Land Based Testing - Complete	Other	Oct 2009	Oct 2009	Apr 2010	-	1 Jan 2010
Development Testing and Combined Development and Operational Testing						
Development Testing and Combined Development and Operational Testing - Start	IOT&E	Feb 2010	Feb 2010	Aug 2010	-	3 May 2010
Development Testing and Combined Development and Operational Testing - Complete	Other	Apr 2010	Jan 2011	Jul 2011	-	3 Jan 2011
Proof of Manufacturing Final Review	Other	Oct 2010	Oct 2010	Apr 2011	-	1 Apr 2011
Operational Testing						
Operational Testing - Start	IOT&E	Aug 2010	Jul 2011	Jan 2012	-	1 Jul 2011
Operational Testing - Complete	IOT&E	Sept 2010	Oct 2011	Apr 2012	-	3 Oct 2011
Initial Operational Capability (IOC) (2)	IOC	Mar 2011	May 2013	Nov 2013	-	26 Nov 2013
Full Rate Production Review	FRP Decision	Jun 2011	May 2013	Nov 2013	-	13 Jul 2013
Full Operational Capability (FOC)	FOC	Sept 2015	Sept 2015	Mar 2016	-	27 Dec 2017*

* Baseline Deviation

Notes

None

Schedule Baseline Deviation Explanation

1. The schedule breach was first reported in the December 2015 SAR. SM-6 successfully achieved FOC on December 27, 2017.

(U) Current Significant Schedule Risks and Risks Identified at Milestones/Decisions

None

(U) Performance

Additional information for this section is provided in the classified annex to this submission.

(U) Performance Attributes

No Data

(U) Requirement Source:

Sponsor(s): None

1. Document Type Not Provided

Notes: SM-6 Capability Production Document (CPD) dated December 23, 2008

Notes

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

Performance Deviation Explanation

None

(U) Acquisition Budget Estimate**(U) Total Acquisition Estimates and Quantities**

Category (\$M) Base Year: 2004	Production APB (Milestone) 3/26/2010 CY\$ obs Objective	APB Change 1 (Current) 8/9/2013 CY\$ obs Objective / Threshold		Current Estimate PB 2025 CY\$ obs / TY\$ obs	
RDT&E	861.6	834.5	918.0	834.8	933.4
Procurement	4,419.5	6,854.1	7,539.5	7,362.4	11,182.3
MILCON	0.0	0.0	-	0.0	0.0
O&M	0.0	0.0	-	0.0	0.0
R&MF	-	-	-	-	-
Total Acquisition	5,281.1	7,688.6	-	8,197.3	12,115.7
Program Acquisition Unit Cost	4.401	4.271	4.698	3.308	4.889
Average Procurement Unit Cost	3.683	3.808	4.189	2.971	4.513
Program End-Item Quantity					
Development	0	0		0	
Procurement	1200	1800		2478	
O&M-Acquired	-	-		-	

Budget Notes

SM-6 Block IA Engineering Change Proposal (ECP) production cut started in FY 2015.

The SM-6 FRP Block I/IA Multiyear Procurement (MYP) FY 2023 Production contract was awarded May 2023. The SM-6 FRP Block IA MYP ECP FY 2023 contract was awarded May 2023.

The FY 2024 PB for FY 2024 did not include authorization for a follow-on MYP for SM-6 Block IA in FY 2024 - FY 2028 as depicted in the FY 2025 PB. The program is now pursuing a Single Year Procurement (SYP) for FY 2024 and FY 2025.

The FY 2025 PB, FY 2027 through FY 2029 funding control is lower than the projected All Up Round (AUR) Unit Price for procurement SM-6 Block IA annual quantities.

Quantity Notes

SM-6 received authorization to increase the production profile from 1200 missiles to 1800 missiles as documented in the Navy Electronic Resources and Requirements Review Board (ER3B) memorandum, dated March 18, 2013.

The total procurement reflected in the MSAR is for SM-6 Block I/IA Program of Record only.

Cost Baseline Deviation Explanation

None

(U) Risk and Sensitivity Analysis

Current Procurement Estimate Risks (12/31/2023)	
1	All areas are on track without any major issues. The program continues to monitor obsolescence issues and is currently mitigating the risk by leveraging STANDARD Missile resources to achieve efficiencies. The program continues to execute within the Current Acquisition Program Baseline unit cost metrics.
Current Baseline Risks (8/9/2013)	
<p>OSD CAPE ICE memorandum dated May 2013 shows a comparison of the ICE and Navy Service Cost Position with SDD at \$0 delta; Procurement at \$341M delta or 5.2% difference; O&S at (\$18M) or -3.9% difference; and Total program cost at \$323M delta out of \$8.1B or 4.1% difference. Cost Risk: CAPE suggested that the program's new Acquisition Program Baseline (APB) be established in line with a more realistic maximum SM-6 annual procurement profile reflecting the current budget environment. USD (AT&L) accepted this recommendation. Two programmatic changes have occurred since Milestone B approval: the Navy increased its total production quantity from 1,200 to 1,800, but reduced the maximum annual procurement quantity in every budget cycle, resulting in an SM-6 procurement profile that extends out an additional eight years. Despite these changes, the average procurement unit cost (APUC) has remained within 3.4% of the estimate APUC figure at Milestone C.</p>	
Original Baseline Risks (7/12/2004)	
<p>OSD CAPE ICE Memorandum dated June 2004 shows a comparison of the ICE and Navy Service Cost Position with Development at (\$6M) delta or -0.7% difference; Procurement at \$527M delta or 14% difference; O&S at \$13M delta or 4% difference; and Total program cost at \$534M delta out of \$5.5B estimate or 11% difference. The 14% difference in the procurement phase cost estimates is driven by differences in the theoretical first unit production costs (T1s), the associated SDD to production step down factors, and learning rates. Schedule Risk: Both the CAPE and the Navy estimates indicate that the current 48-month planned for the SDD phase of the SM-6 program is overly optimistic. Missile programs of this type have an average SDD phase duration of 58-months. The current SM-6 program SDD schedule does not allow for failure during the testing and evaluation phase.</p>	

(U) Unit Costs**(U) Current Estimate Compared with Current Baseline**

Category (CY\$M) Base Year: 2004	Current Baseline 08/09/2013	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	7,688.6	8,197.3	
Program Quantity	1,800	2,478	
PAUC	4.271	3.308	-22.55%
Average Procurement Unit Cost			
Procurement Cost	6,854.1	7,362.4	
Procurement Quantity	1,800	2,478	
APUC	3.808	2.971	-21.98%

(U) Current Estimate Compared with Original Baseline

Category (CY\$M) Base Year: 2004	Original Baseline 07/12/2004	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	4,866.3	8,197.3	
Program Quantity	1,200	2,478	
PAUC	4.055	3.308	-18.42%
Average Procurement Unit Cost			
Procurement Cost	3,949.6	7,362.4	
Procurement Quantity	1,200	2,478	
APUC	3.291	2.971	-9.72%

(U) Cost Growth Details**Impacts of Schedule Changes on Unit Cost**

None

Impacts of Performance Changes on Unit Cost

None

Actions taken or Proposed to Control Future Cost Growth

Program continuously monitors and assesses opportunities for cost avoidance or cost savings through contract procurement strategies and negotiations.

Status of Each Major Contract and Significant Factors Contributing to Cost and Schedule Variance; Projected Effects on Future Program Costs

See Contracts section.

Notes

None

(U) Life-Cycle Costs**(U) Operating and Support and Disposal Cost Estimates Compared with Baseline**

Category (\$M) Base Year: 2004	Production APB (Milestone) 3/26/2010 CY\$ obs Objective	APB Change 1 (Current) 8/9/2013 CY\$ obs Objective / Threshold		Current Estimate CY\$ obs / TY\$ obs	
Total O&S	344.6	443.0	487.3	500.5*	1,017.9
Total Disposal	-	-	-	-	-

* Baseline Deviation

(U) Current Cost Estimate Sources**Operating and Support Cost**

Type: Program Office Estimate

Approved by: Major Program Manager, February 10, 2020

Operating and Support Baseline Deviation Explanation

The O&S increase is due to a total procurement quantity increase from 1800 to 2400+ and extension of the fiscal year retirement date from FY 2054 to FY 2059.

Cost Notes

SM-6 will leverage the proven and mature STANDARD Missile product support infrastructure. The SM-6 is built on a wooden round concept while deployed on board a ship and having infinite shelf life. No unique storage, transportation, handling facilities, or launching systems required. A shipboard Maintenance Built-In-Test (MBIT) is being developed to test and install new software into the SM-6 round. Personnel Costs are unnecessary for missile operation.

The average annual cost per missile assumes 2478 All Up Rounds over a 30-year life cycle. The program expects the average annual operating and support cost per missile to remain unchanged with this new requirement.

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.

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

(U) Operating and Support Variance with Prior Estimate

No Data

(U) Operating and Support Cost Element Structure Estimates by Acquired System

(CY\$M) Base Year: 2004							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
SM-6	-	173.2	101.1	153.7	-	72.5	500.5
Program	-	173.2	101.1	153.7	-	72.5	500.5

(U) Annual Operating and Support Costs per Unit Compared with Antecedent System

(CY\$M) Base Year: 2004							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
SM-6	-	3.0	3.2	2.1	-	0.2	8.5

(U) Operating and Support Cost Estimate Assumptions

System	Quantity to Sustain	Unit Expected Service Life (Years)	Unit of Measure	Fiscal Years Operational
SM-6	2,478	30.0	0	2004 - 2059

Additional O&S Estimate Assumptions

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

Antecedent Estimate Assumptions

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 Block IIIA/IIIB FY 2015 PB is the basis for the SM-2 average annual cost per missile.

O&S Annual Cost Calculation Memo

Total O&S Cost = \$500.5M (BY04\$)

Number of missiles = 2478

Number of operational years = 30 year life cycle

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

The SM-6 program expects the average annual cost per missile to remain unchanged. An Independent Logistic Assessment (ILA) was completed on October 30, 2017. The SM-6 Program is compliant with statutory and regulatory requirements, including United States Title 10 Sections 4323, DoD Instruction (DoDI) 5000.91, and SECNAV Instruction 5000.2G Gate 7 Review (Post IOC Sustainment). The SM-6 Program Sustainment Review is being planned.

(U) Technologies and Systems Engineering

(U) Current Significant Technical Risks and Risks Identified at Milestones/Decisions

Event	Date	Description
Current	12/29/2023	The program office has been funded to develop an Electronics Unit (EU) upgrade to address a production obsolescence issue.

(U) Performing Activities and Contracts

(U) External Government Activities

None

(U) Contracts and Efforts

Contract Title	Contract Number / Effort	Contractor	Phase
SM-6 FRP 17/18	N00024-17-C-5409/1	Raytheon	Production
SM-6 MYP FY19 - FY23	N00024-20-C-5405	Raytheon	Production

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	N00024-17-C-5409/1	Order Number:	-
Contract Title:	SM-6 FRP 17/18	Strategy:	FAR 15: Negotiated Contracts
CAGE:	15090 - Raytheon	Contracting Office:	NAVSEA 02
City, State/Province:	Tucson, AZ		
Effort Number:	-	Supported Phase:	Production
Type:	Firm-Fixed-Price	Award Date:	September 28, 2018
Latest Modification Date:	November 8, 2022	Definitization Date:	September 28, 2018
Latest Modification No.:	P00023	Work Start Date:	-
Technical Data Rights:	Unlimited Rights		
Notes:	The SM-6 FRP Block I and Block IA FY 2017 - FY 2018 Production contract was awarded on September 28, 2018. FY17 SM-6 Block I deliveries are complete as of 8/31/2020. FY17 SM-6 Block IA deliveries are complete as of 12/31/2022. FY18 SM-6 Block I deliveries are complete as of 3/31/2021. FY18 SM-6 Block IA deliveries are complete as of 11/30/2023. Scheduled Quantities and Deliveries to Date are not reported due to classification. Cost Variance: Cost Variance reporting is not required on this FFP contract. Schedule Variance: Schedule Variance reporting is not required on this FFP contract.		

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Estimate at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
564.5 564.5	- -	- -	250	250	250

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	N00024-20-C-5405	Order Number:	-
Contract Title:	SM-6 MYP FY19 - FY23	Strategy:	FAR 15: Negotiated Contracts
CAGE:	15090 - Raytheon	Contracting Office:	NAVSEA 02
City, State/Province:	Tucson, AZ		

Effort Number: - **Supported Phase:** Production
Type: Fixed-Price Incentive (Firm Target) **Award Date:** December 20, 2019
Latest Modification Date: December 11, 2023 **Definitization Date:** December 20, 2019
Latest Modification No.: P00018 **Work Start Date:** December 20, 2019
Technical Data Rights: Unlimited Rights
Notes: The SM-6 FRP Block I/IA MYP FY 2023 Production contract was awarded May 2023. The SM-6 FRP Block IA MYP Engineering Change Proposal (ECP) FY 2023 contract was awarded May 2023. The SM-6 program awarded a sole source multi-year contract using 10 U.S.C. 3204 statutory authority Permitting Other Than Full and Open Competition. Scheduled quantities and deliveries to date are not reported due to classification.

Initial Price (TY\$M) Target / Ceiling		Current Price (TY\$M) Target / Ceiling		Estimate at Completion (TY\$M) Contractor / PM		Initial Quantity	Current Quantity	Delivered Quantity
1,049.2	1,098.9	1,004.2	1,053.9	969.9	969.9	625	625	-

Work Completed (%): 59.69%
Cost Variance (TY\$M): -68.7
Schedule Variance (TY\$M): -26.3

Factors Contributing to Cost Variance and Projected Effects on Program Costs

The Integrated Baseline Review was completed on September 14, 2020. Cost Variance (-68.7% ITD) decreased due to combining material requirements across projects for procurement, fabrication and assembly (also known as pegging), which is continuously being monitored with accounting to understand overall pegging impacts. As a result of the 2020 merger of Raytheon and United Technologies cost accounting standards, legacy circuit card assembly center of excellence will be converted from an Inter-Organizational Transfer (IOT) to a single business unit Stock Transport Order (STO) which shifts material accounting from a purchase part to a make item within another business unit factory. This conversion continues to impact the factory side of Earned Value due to STO cash flow and the inability for the cost account manager to claim competition.

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

The Integrated Baseline Review was completed on September 14, 2020. Schedule Variance (-26.3% ITD) decreased due to Aerojet being schedule due to an exit cone issue that has been mitigated through partnering with Raytheon to provide government furnished material until Aerojet recovers schedule.

(U) Production**(U) Low-Rate Initial Production**

	Original LRIP Determination	Current LRIP Determination
Total LRIP Quantity	120	178
Date	7/12/2004	4/15/2012
Reference	Milestone B ADM	LRIP Lot 4 ADM
LRIP Period	FY 2009 - 2011	FY 2009 - 2012
Total Procurement Quantity	1,200	1,200
LRIP Percentage of Total	10.0%	14.8%

Rationale if LRIP Quantity Exceeds 10% of Total Procurement Quantity (Current Determination)

The SM-6 Program received authorization to enter into a fourth year of LRIP as documented in the ADM dated April 05, 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.

LRIP Notes

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.

(U) Deliveries and Expenditures**(U) Acquisition Funding**

	Total Estimate	Actual to Date	Actual, Percent Complete
Years Appropriated	27	21	77.8%
Appropriations (TY, \$M)	12,115.7	7,705.0	63.6%
Expenditures (TY, \$M)	12,115.7	5,479.0	45.2%

(U) End Items Delivered

	Total Required	Planned to Date	Actual to Date	Actual, Percent Complete
Procurement	2,478			
SM-6		977	977	
Total	2,478	977	977	39.4%

Notes

Program continuously monitors and assess opportunities for cost avoidance or cost savings through contract procurement strategies and negotiations.

(U) International Program Aspects

General Memo

The program developed and the United States Navy (USN) Technology Transfer and Security Assistance Review Board (TTSARB) approved a disclosure policy to govern the export of SM-6 Block I. Export of SM-6 Block I is authorized to several countries that employ advanced (e.g., AEGIS) combat systems. Several countries have provided letters of intent to procure SM-6 Block I, but no formal Letter of Request (LOR) for an FMS Case has been submitted.

FMS cases will require additional funding to address obsolescence in several SM-6 Block I components prior to production, with initial deliveries estimated in the late 2030 timeframe. SM-6 Block IA is not authorized for export.

Exportability and Business Issues

There are no exportability or business issues at this time.

Is design for international exportability planned?	No	Industry/Partner Exportability Cost-Sharing?	No
If not, has the MDA approved an exportability waiver for a U.S.-only design?	Not Applicable		

Program Protection: Technology Security and Foreign Disclosure Issues

No security and foreign disclosures have been defined for this program.

(U) Agreements

No International Agreements have been defined for SM-6



UNCLASSIFIED

**Modernized
Selected Acquisition Report
Supplement**

**Standard Missile-6
(SM-6)**

FY 2025 President's Budget
As of: December 31, 2023

UNCLASSIFIED

MSAR Supplement Sections

Program Description

Program Use of the Adaptive Acquisition Framework

Technologies and Systems Engineering

Funding Sources (Acquisition)

Funding Sources (Operating and Support)

Acquisition Estimate and Quantity Summary

Annual Acquisition Estimates by Appropriation Account

Acquired System Annual End-Item Quantities by Appropriation Account

Nuclear Costs

Operational Fielding Plan

O&S Independent Cost Estimate

Annual Operating and Support Estimates by Cost Element

Program Description

Full Name

Standard Missile-6

Short Name

SM-6

PNO

391

Lead Component

Navy

AAF Pathway

MCA

Acquisition Type

MDAP

Acquired Systems

SM-6

Related Programs

Full Name	PNO	Pathway	Type	ACAT/ BCAT	Acquisition Status	Costs in SAR?	
						Acq	O&S

Program Use of the Adaptive Acquisition Framework

SM-6 Program is in Full Rate Production for the SM-6 Block I and the more capable SM-6 Block IA variant. The Fiscal Year (FY) 2024 Presidents Budget (PB) for FY 2024 did not include authorization for a follow-on Multiyear Procurement (MYP) for SM-6 Block IA in FY 2024-FY 2028 as depicted in the FY 2025 PB. The program is now pursuing a Single Year Procurement (SYP) for FY 2024 and FY 2025. The SM-6 FRP Block I/IA MYP FY 2023 Production contract was awarded May 2023. The SM-6 FRP Block IA MYP Engineering Change Proposal (ECP) FY 2023 contract was awarded May 2023.

Technologies and Systems Engineering

Standard Missile-6

Major Software Efforts

Title	Status	Fielding Date	Description

Major Engineering Changes

Title	Original Need Date	Fielding Date	Description, Rationale and Program Impacts

Funding Sources (Acquisition)

Acquisition Funding Notes

SM-6 Program of Record is SM-6 Block I and Block IA (WPN 2234 and WPN 6120 (Replenishment Spares 2234: Standard Missile)

Standard Missile-6

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
Procurement	1507N	02	2234 - Standard Missile	0204228N	-	x	
RDT&E	1319N	05	0604366N - Standard Missile Improvements	0604366N	3092 - Standard Missile 6 Program	x	x
Procurement	1507N	XX	OTHER - Other or New 1507N Line Item	XXX	XXX - --	x	
Note: 1507N BA 02 BLI 2234C - Standard Missile PE 0204228N (BLI 2234C is advance procurement line for multi-year procurement FY19-FY23)							
Procurement	1507N	06	6120 - Spares and Repair Parts	0204228N	-		
Note: 1507N BA 06 BLI 6120 - Replenishment Spares (BA 02 Other Missiles: 2234/Standard Missile) PE 0204228N (BLI 6120 is a shared replenishment space line for all navy missiles of which Standardm Missile is delineated)							

Funding Sources (Operating and Support)

Note: Budget lines fund activities executed by the Program Office or Sustainment Office.

Operating and Support Funding Notes

None

Standard Missile-6

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
----------	---------	----	-----------	-----------------	---------------	--------	------

Acquisition Estimate and Quantity Summary**Standard Missile-6****Acquisition Estimates**

Category	PB 2025	TY (\$M)	Current Base Year	Original Base Year	Report Fiscal Year
			CY2004 (\$M)	CY2004 (\$M)	CY2024 (\$M)
RDT&E		933.4	834.8	834.8	1,322.2
Procurement		11,182.3	7,362.4	7,362.4	11,660.5
MILCON		-	-	-	-
O&M		-	-	-	-
Total Acquisition		12,115.7	8,197.2	8,197.2	12,982.7
PAUC		4.889	3.308	3.308	5.239
APUC		4.513	2.971	2.971	4.706

Acquisition End-Item Quantities

System	PB 2025	Development	Procurement
SM-6		-	2,478
Total		-	2,478

Unit Description

All Up Round Missile

Current and Future Years Defense Program Summary, TY(\$M)

Appropriation	Prior	2024	2025	2026	2027	2028	2029	To Complete	Total
RDT&E	933.4	-	-	-	-	-	-	-	933.4
Procurement	6,127.1	644.4	775.6	969.9	855.9	895.7	913.6	-	11,182.3
MILCON	-	-	-	-	-	-	-	-	-
O&M	-	-	-	-	-	-	-	-	-
PB 2025 Total	7,060.5	644.4	775.6	969.9	855.9	895.7	913.6	-	12,115.7

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Standard Missile-6

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1319N - Research, Development, Test & Eval, Navy					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2004 (\$M)
Total		933.4	933.4	-	834.8
2004		25.500	25.5	1.020301	25.0
2005		83.800	83.8	1.047155	80.0
2006		114.800	114.8	1.079784	106.3
2007		150.000	150.0	1.106232	135.6
2008		172.600	172.6	1.126411	153.2
2009		195.400	195.4	1.140874	171.3
2010		112.600	112.6	1.157987	97.2
2011		61.000	61.0	1.185636	51.4
2012		17.700	17.7	1.205300	14.7

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Standard Missile-6

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1507N - Weapons Procurement, Navy									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2004 (\$M)
Total	9,307.9	-	451.4	443.6	-	979.4	11,182.3	-	7,362.4
2004							-	1.040892	-
2005							-	1.069643	-
2006							-	1.096502	-
2007							-	1.120375	-
2008							-	1.138103	-
2009	92.455		17.570	3.930		8.450	122.4	1.154454	106.0
2010	54.492		10.532	6.960		25.710	97.7	1.174168	83.2
2011	210.510			6.220		26.250	243.0	1.196642	203.1
2012	272.144			9.680		57.520	339.3	1.214655	279.4
2013	264.658			14.500		39.900	319.1	1.231916	259.0
2014	259.163			18.970		41.020	319.2	1.249065	255.5
2015	361.839			14.870		42.630	419.3	1.269440	330.3
2016	379.427			17.120		37.830	434.4	1.293288	335.9
2017	448.700			4.978		42.510	496.2	1.321291	375.5
2018	482.200			13.960		44.350	540.5	1.357578	398.1
2019	445.569			20.650		44.640	510.9	1.397436	365.6
2020	445.311			12.830		44.350	502.5	1.452872	345.9
2021	444.111		16.148	33.840		42.750	536.8	1.519168	353.4
2022	444.684		104.981	37.700		49.160	636.5	1.578501	403.2
2023	443.800		78.650	37.300		49.610	609.4	1.619322	376.3
2024	448.310		100.000	30.690		65.440	644.4	1.654874	389.4
2025	580.260		92.079	30.630		72.600	775.6	1.689799	459.0
2026	847.610		31.397	31.240		59.700	969.9	1.725285	562.2
2027	764.400			31.870		59.590	855.9	1.761516	485.9
2028	801.130			32.500		62.090	895.7	1.798508	498.0
2029	817.150			33.150		63.330	913.6	1.836276	497.5

Acquired System Annual End-Item Quantities by Appropriation Account
(Aligned to Budget Position: PB 2025)

Standard Missile-6

1319N - Research, Development, Test & Eval, Navy				
fiscal year	SM-6			Total
Total	-			-
Undistributed				-

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Standard Missile-6

1507N - Weapons Procurement, Navy				
fiscal year	SM-6			Total
Total	2,478			2,478
Undistributed				-
2004				-
2005				-
2006				-
2007				-
2008				-
2009	19			19
2010	11			11
2011	59			59
2012	89			89
2013	89			89
2014	93			93
2015	95			95
2016	101			101
2017	125			125
2018	125			125
2019	125			125
2020	125			125
2021	125			125
2022	125			125
2023	125			125
2024	97			97
2025	125			125
2026	145			145
2027	180			180
2028	250			250
2029	250			250

Nuclear Costs

Standard Missile-6

Program's Use of Department of Energy Resources

None

Operational Fielding Plan

Standard Missile-6

Some data for this section cannot be provided in an unclassified report

System: SM-6

Fielding and Inventory Notes

None

SM-6 Fielding Plan and Inventory

fiscal year	Store	Field	Expend/Loss	Decommission	Inventory
2023					
2024					-
2025					-
2026					-
2027					-
2028					-
2029					-

O&S Independent Cost Estimate

Standard Missile-6

Independent and Current Cost Estimate Comparison

Category	CY2004 (\$M)	Independent Cost Estimate 5/13/2013	Current Estimate 2/10/2020	Variance with ICE (%)
Unit-Level Manpower		-	-	-
Unit Operations		153.3	173.2	13%
Maintenance		89.4	101.1	13%
Sustaining Support		135.8	153.7	13%
Continued System Improvements		-	-	-
Other		64.5	72.5	12%
Total O&S		443.0	500.5	13%

Independent Cost Estimate Source

Event: Full Rate Production Decision

Type: Independent Cost Estimate

Approved by: OSD Cost Assessment & Program Evaluation, May 13, 2013

Note: 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 2478 All Up Rounds (AURs) over a 30-year life cycle. The SM-6 Program expects the average annual cost per missile to remain unchanged with this new requirement. 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.

Current Cost Estimate Source

Type: Program Office Estimate

Approved by: Major Program Manager, February 10, 2020

Note: The Program Office updated the O&S cost estimate in 2020 when the quantity profile was increased in the FYDP above the Program of Record quantity of 1800 All Up Rounds. The O&S estimate was last updated by the OSD CAPE in 2013 in support of the Full Rate Production decision. A detailed current estimate by fiscal year is not yet available. The Program Office will update the O&S estimate in support of Gate 7 Sustainment Review (TBD)

Cost Estimate Variance Explanation

N/A

Annual Operating and Support Estimates by Cost Element

Standard Missile-6

System: SM-6

Source for TY-CY Conversion: n/a

Operating and Support Cost Elements							
fiscal year	1.0 Unit-Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY2004 (\$M)
Total	-	-	-	-	-	-	-