

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improvements</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	2,939.565	295.589	343.511	319.943	-	319.943	264.010	212.945	135.471	112.357	Continuing	Continuing
0439: <i>Standard Missile Improvement</i>	1,372.517	59.325	47.386	28.948	-	28.948	39.012	34.057	36.314	13.804	Continuing	Continuing
2063: <i>SM-6 Blk IB</i>	97.894	159.409	171.921	199.204	-	199.204	181.512	168.325	89.244	89.333	Continuing	Continuing
3092: <i>Standard Missile 6 Program</i>	1,469.154	76.855	124.204	91.791	-	91.791	43.486	10.563	9.913	9.220	Continuing	Continuing

A. Mission Description and Budget Item Justification

"STANDARD Missile (SM) is Navy's premier Integrated Air and Missile Defense (IAMD) capability providing ship's self-defense and Fleet area-defense against great power competition advanced threats. The SM ""active family of missiles (FoM)"" includes Medium Range (MR) SM-2 Blk IIIC, Extended Range (ER) SM-6 Blk I, IA, IAU and Long-range (LR) SM-6 Blk IB. This SM active FoM evolution improves primary mission areas for IAMD, and evolved to include additional multi-mission defensive and offensive hypersonic kinetic capabilities. Today the SM-2 Blk IIICU, SM-6 Blk IAU and Blk IB are aligned with the Joint Warfare Concept (JWC), Joint Concept for Fires (JCF), the Navy's Navigation Plan Implementation Framework (NIF), and Navy Distributed Maritime Operations (DMO) to deliver the Navy and the Joint Force transformative capabilities addressing Combatant Commander and Chairman of the Joint Chief of Staff (JCS) highest capability gaps and capability requirements to support the Joint Operating Environment (JOE) for 2030 and 2045.

The Standard Missile 2 Blk IIIC (SM-2 Blk IIIC) is a transformation from medium range (MR) semi-active to MR active capability incorporating the SM-6 Blk I active seeker and delivering improved capabilities against the most challenging Air Warfare (AW) threats. The program was designated an Accelerated Acquisition (AA) program by the CNO/ASN RDA on November 14, 2017. The SM-2 BLK IIIC Accelerated Acquisition Program will deliver an Initial Capability in FY22. The SM-2 Block IIIC plans to transition out of the AA program into a Major Capability Acquisition (MCA) program.

The Standard Missile 6 Block IB (SM-6 Blk IB) is an upgrade of the SM-6 Blk IA, which provides improved software and hardware capabilities for long-range fires by replacing the existing Mk 104 Dual-Thrust Rocket Motor (DTRM) with a new 21"" rocket motor to extend the range. The SM-6 BLK IB delivers to the Navy and Joint Force a transformative multi-domain, multi-mission offensive hypersonic kinetic capability. SM-6 Blk IB IOC delivery is FY27.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
---	-------------------------

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improvements</i>
--	--

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	305.795	343.511	0.000	-	0.000
Current President's Budget	295.589	343.511	319.943	-	319.943
Total Adjustments	-10.206	0.000	319.943	-	319.943
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-10.206	0.000			
• Program Adjustments	0.000	0.000	0.000	-	0.000
• Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000
• Adjustments to Budget Year	-	-	319.943	-	319.943

Change Summary Explanation

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy										Date: April 2022		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improvements</i>				Project (Number/Name) 0439 / <i>Standard Missile Improvement</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
0439: <i>Standard Missile Improvement</i>	1,372.517	59.325	47.386	28.948	-	28.948	39.012	34.057	36.314	13.804	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Future Combat System Integration S-Band Radar (AMDR-S) for DDG 51 Flight III ships, with other platforms/Combat System baselines, will include requirements review/updates and analysis, verification; technical documentation, design review and working group Subject Matter Expert (SME) support, missile/radar integration, missile test hardware procurement, risk assessment, safety, test and evaluation planning, analysis, and data collection. Deliverables include interface control documents (ICDs) changes, missile specifications changes, and engineering documents updates to support AEGIS Baseline 10 (BL10) Integrated Program Review (IPR) Process Engineering Development Model (EDM) testing; Combat Systems Engineering Development Site (CSEDS) , Moorestown, NJ; Combat System/missile integration testing at Pacific Missile Range Facility/Advanced Radar Detection Laboratory (PMRF/ARDEL) Kauai, HI and Sudbury, MA; Waterfront Integration Testing (WIT) and Electromagnetic Environmental Effects (E3) and Hazard of Electromagnetic Radiation to Ordnance (HERO) testing, analysis, and reports for BL10 DDG 51 FLT III FY21-FY22; Developmental Testing and Operational Testing (DT/OT), analysis, and reports for BL10 DDG 51FLT III FY23-24 and Integrated Air Missile Defense Testing in FY26/27.

The Standard Missile 2 Blk IIIC (SM-2 Blk IIIC) is a transformation from medium range (MR) semi-active to MR "active" capability incorporating the SM-6 Blk I active seeker and delivering improved capabilities against the most challenging Air Warfare (AW) threats. The program was designated an Accelerated Acquisition (AA) program by the CNO/ASN RDA on November 14, 2017. The SM-2 BLK IIIC Accelerated Acquisition Program will deliver an Initial Capability in FY22. The SM-2 Block IIIC plans to transition out of the AA program into a Major Capability Acquisition (MCA) program. The FY23 funding allows for the SM-2 BLK IIIC program to transition to a SM-2 BLK IIICU program with integration of the electronics unit upgrade and is being conducted in coordination with the international community via FMS cases. The SM-2 BLK IIIC/IIICU is the primary AW weapon for the FFG 62 class of ships. The addition of the MR IIIC/IIICU active seeker capability does not require missile illuminators as previously required for legacy semi-active missiles.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Standard Missile-2 BLK IIIC	54.014	33.412	20.874	0.000	20.874
Articles:	-	-	-	-	-
Description: The SM-2 BLK IIIC Accelerated Acquisition Program will deliver an Initial Capability in FY23. The funding allows for the SM-2 BLK IIIC program to transition to a SM-2 BLK IIICU program with the integration of a new electronics unit required to address obsolescence. This upgrade is necessary to continue procurement of the SM-2 BLK IIIC capability and is being conducted in coordination with the international community via FMS					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 0439 / <i>Standard Missile Improvement</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>cases. The SM-2 BLK IIIC/IIICU is the primary AAW weapon for DDG's and the FFG 62 class of ships which are not planning to include missile illuminators required for legacy semi-active missiles.</p> <p>FY 2022 Plans: Complete Guided Test Vehicle 1 (GTV-1) flight tests at White Sands Missile Range (WSMR). Prepare for and conduct Quick Reaction Assessment at-sea test events. Complete QRA Runs for the Record in support of System Verification Review (SVR). Complete System Verification Review. Finalize E3 testing and receive concurrence from the Weapons System Explosive Safety Review Board (WSESRB) for fleet release.</p> <p>FY 2023 Base Plans: Close out IIIC AA program with completion of the shipboard testing and system verification review. Complete supplemental analysis and runs for the record. Award SM-2 Block IIICU contract. Begin AUR integration, qualification, and testing. Update modeling and simulation tools leveraging legacy systems. Identify any potential changes to canister mechanical/electrical interfaces to support extended platform use. Begin integration efforts into new Aegis baseline. Engage WSESRB on delta safety requirements.</p> <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: The decrease of \$12.538 from FY 2022 to FY 2023 is the result of the program transitioning from Interim Capability (IC) RDT&E to Low-Rate Initial Production (LRIP) and beginning a new SM-2 Blk IIICU RDT&E phase of the program in FY23.</p>					
<p>Title: Future Combat System Integration</p> <p align="right">Articles:</p> <p>FY 2022 Plans: Continue to plan and support missile radar and combat system (CS) testing using Inert Operational Missile (IOM), Missile Simulation Unit (MSU), or VOM with AEGIS combat system using SPY-6 at CSEDS. Continue to integrate and implement ET-17 solutions. Continue HERO and E3, including Electromagnetic Vulnerability (EMV) support issue testing as required. Continue to prepare for and support WITs. Continue to support AEGIS Baseline 10 IPR Process.</p> <p>FY 2023 Base Plans:</p>	5.311	13.974	8.074	0.000	8.074
	-	-	-	-	-

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improvements</i>	Project (Number/Name) 0439 / <i>Standard Missile Improvement</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Continue to plan and support missile radar and combat system (CS) testing using Inert Operational Missile (IOM), Missile Simulation Unit (MSU), or VOM with AEGIS combat system using SPY-6 at CSEDS. Continue to integrate and implement ET-17 solutions. Ensure all HERO and E3, including Electromagnetic Vulnerability (EMV) testing, evaluation and analysis are complete and reports generated as required. Continue to prepare for and support safety efforts for AEGIS Baseline 10. Support advances planning, preparation and execution of Waterfront Integration Testing (WIT) for Future Combat System Integration planned for Q3 FY22 and Q4 FY23. Support advanced planning and preparation for upcoming DT/OT events in FY24 and Integrated Air Missile Defense Testing in FY26/27. Continue to support AEGIS Baseline 10. IPR Process.					
<i>FY 2023 OCO Plans:</i> N/A					
<i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> The decrease of \$5.9M from FY2022 to FY2023 is due to the planned execution schedule for BL10 Combat System integration testing with DDG 51 Flight III ramping down in FY2022 in preparation for DT/OT					
Accomplishments/Planned Programs Subtotals	59.325	47.386	28.948	0.000	28.948

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• WPN/2356: <i>Standard Missile Mods</i>	66.981	130.482	71.198	-	71.198	89.078	101.246	148.126	200.378	Continuing	Continuing
Remarks											

D. Acquisition Strategy
The Navy's SM-2 Block IIIC program is an upgrade to the SM-2 Air Defense missile that will ultimately result in active, medium range missiles onboard AEGIS Cruisers and Destroyers. SM-2 Block IIIC is a rapid prototyping pathway middle tier acquisition (MTA) project that maximizes the reuse of the existing SM-6 Block I active guidance section with a SM-2 Block III rocket motor while minimizing new hardware and software development work. Initial capability is provides 109 full up-rounds. The engineering and manufacturing development contract awarded December 14, 2018. The program is anticipated to achieve an Initial Capability (IC) in FY22. The SM-2 Block IIIC plans to transition out of the AA program into a Major Capability Acquisition (MCA) program. The program will be designated as SM-2 Block IIICU and will address obsolescence and increased performance capability beyond the initial IC program.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 0439 / <i>Standard Missile Improvement</i>
--	---	--

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Design and Analysis1	C/CPFF	RAYTHEON : Tucson, AZ	437.707	31.792	Nov 2020	20.774	Nov 2021	8.028	Nov 2022	-		8.028	Continuing	Continuing	Continuing
Design and Analysis2	C/CPFF	JHU/APL : Laurel, MD	25.699	4.000	Nov 2020	2.340	Nov 2021	3.340	Nov 2022	-		3.340	0.000	35.379	-
Design and Analysis3	MIPR	MIT/Lin Lab : Lexington, MA	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	-
Design and Analysis4	WR	NSWC : Dahlgren	792.224	2.245	Nov 2020	0.950	Nov 2021	0.450	Nov 2022	-		0.450	0.000	795.869	-
Design and Analysis5	WR	NSWC : Indian Head	1.511	0.240	Nov 2020	0.000		0.000		-		0.000	0.000	1.751	-
Design and Analysis6	WR	NAWC : China Lake	5.979	0.000		0.000	Nov 2021	0.000		-		0.000	0.000	5.979	-
Design and Analysis7	Various	LOCKHEED MARTIN : Moorestown, NJ	17.775	0.000		0.000		0.000		-		0.000	0.000	17.775	-
Design and Analysis8	WR	CNO : Washington, DC	0.010	0.000		0.000		0.000		-		0.000	0.000	0.010	-
Design and Analysis9	WR	CMDP : Phoenix, AZ	4.795	0.000		0.000		0.000		-		0.000	0.000	4.795	-
Design and Analysis11	WR	NSWC : Crane	0.257	0.000		0.000		0.000		-		0.000	0.000	0.257	-
Design and Analysis12	WR	DOI&CNAP : Washington, DC	0.487	0.000		0.000		0.000		-		0.000	0.000	0.487	-
Design and Analysis13	WR	COMPTEVFOR : Norfolk, VA	0.620	0.275	Nov 2020	0.450	Nov 2021	0.020	Nov 2022	-		0.020	0.000	1.365	-
Design and Analysis14	C/CPFF	LOCKHEED MARTIN : Moorestown, NJ	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	-
Design and Analysis15	WR	CARDEROCK : Bethesda, MD	0.080	0.000		0.000		0.000		-		0.000	0.000	0.080	-
Design and Analysis16	WR	NWAS : Corona	1.908	1.136	Nov 2020	1.383	Nov 2021	0.000		-		0.000	0.000	4.427	-
Design and Analysis17	C/CPFF	CORVID : Mooresville, NC	0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	-
Design and Analysis18	C/CPFF	BAE : Rockville, MD	0.672	1.720	Nov 2020	0.883	Nov 2021	0.000		-		0.000	0.000	3.275	-
Design and Analysis19	MIPR	MDA : Dahlgren, VA	1.257	0.000		0.000		0.000		-		0.000	0.000	1.257	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 0439 / <i>Standard Missile Improvement</i>
--	---	--

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Design and Analysis20	WR	IWS3D : ARLINGTON, VA	1.500	0.000		0.000		0.000		-		0.000	0.000	1.500	-
Design and Analysis21	C/CPFF	LOCKHEED MARTIN : IWS (IWS 1)	35.188	3.400	Nov 2020	0.800	Nov 2021	2.000	Nov 2022	-		2.000	0.000	41.388	-
Design and Analysis22	WR	IWS3L : Arlington, Va	15.150	0.250	Nov 2020	0.100	Nov 2021	0.200	Nov 2022	-		0.200	0.000	15.700	-
Design and Analysis23	WR	NSWC : PHD	0.759	0.065	Nov 2020	0.000	Nov 2021	0.000		-		0.000	0.000	0.824	-
Design and Analysis24	C/CPFF	IWS1 : Washington, D.C.	5.000	0.000		5.600	Nov 2021	0.310	Nov 2022	-		0.310	0.000	10.910	-
Design and Analysis25	WR	IWS 3A : Arlington, Va	0.000	0.000		0.000		1.000	Nov 2022	-		1.000	0.000	1.000	-
Design and Analysis26	WR	IWS7 : Washington, DC	0.000	4.370	Nov 2020	1.900	Nov 2021	0.000		-		0.000	0.000	6.270	-
Design and Analysis	WR	IWS3 : Arlington, Va	0.000	0.000		0.000		4.060	Nov 2022	-		4.060	0.000	4.060	-
Subtotal			1,350.728	49.493		35.180		19.408		-		19.408	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DEVELOPMENTAL TEST & EVALUATION1	WR	NSWC : Port Hueneme	0.280	0.655	Jan 2021	1.383	Nov 2021	0.383	Nov 2022	-		0.383	0.000	2.701	-
DEVELOPMENTAL TEST & EVALUATION2	WR	WSMR : New Mexico	2.630	0.600	Jan 2021	0.150	Nov 2021	0.000		-		0.000	0.000	3.380	-
DEVELOPMENTAL TEST & EVALUATION3	WR	NAWC : Pt Mugu	0.098	0.264	Nov 2020	2.262	Nov 2021	0.000		-		0.000	0.000	2.624	-
DEVELOPMENTAL TEST & EVALUATION4	WR	PMRF : Hawaii	0.338	0.000		0.000		0.000		-		0.000	0.000	0.338	-
DEVELOPMENTAL TEST & EVALUATION5	WR	NSWC : Techrep	1.125	0.563	Jan 2021	0.565	Nov 2021	0.565	Nov 2022	-		0.565	0.000	2.818	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy												Date: April 2022			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 5				PE 0604366N / Standard Missile Improvements				0439 / Standard Missile Improvement							
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DEVELOPMENTAL TEST & EVALUATION6	SS/CPFF	RAYTHEON : Tucson, Az	1.695	0.200	Apr 2021	3.000	Nov 2021	2.500	Nov 2022	-		2.500	0.000	7.395	-
DEVELOPMENTAL TEST & EVALUATION7	C/CPFF	JHU/APL : Laurel, Md	0.519	0.000		0.200	Nov 2021	0.200	Nov 2022	-		0.200	0.000	0.919	-
DEVELOPMENTAL TEST & EVALUATION7	C/CPIF	VARIOUS : IWS (IWS 1)	0.650	3.702	May 2021	2.800	Nov 2021	0.000		-		0.000	0.000	7.152	-
DEVELOPMENTAL TEST & EVALUATION7	WR	NSWC : Dahlgren	0.248	0.220	Feb 2021	0.300	Nov 2021	0.200	Nov 2022	-		0.200	0.000	0.968	-
DEVELOPMENTAL TEST & EVALUATION7	WR	NSWC : Corona	0.000	0.000		0.200	Nov 2021	0.520	Nov 2022	-		0.520	0.000	0.720	-
DEVELOPMENTAL TEST & EVALUATION	WR	IWS3 : Arlington, VA	0.000	0.000		0.000		2.030	Nov 2022	-		2.030	0.000	2.030	-
Subtotal			7.583	6.204		10.860		6.398		-		6.398	0.000	31.045	N/A
Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CONTRACTOR ENGINEERING SUPPORT	C/CPAF	VARIOUS : VARIOUS	4.561	0.000		0.000		0.000		-		0.000	0.000	4.561	-
PROGRAM MANAGEMENT SUPPORT	C/CPAF	VARIOUS : VARIOUS	9.139	3.578	Nov 2020	1.301	Nov 2021	3.107	Nov 2022	-		3.107	0.000	17.125	-
TRAVEL	Allot	IWS3 : Arlington, VA	0.506	0.050	Nov 2020	0.045	Nov 2021	0.035	Nov 2022	-		0.035	0.000	0.636	-
Subtotal			14.206	3.628		1.346		3.142		-		3.142	0.000	22.322	N/A
Project Cost Totals			1,372.517	59.325		47.386		28.948		-		28.948	Continuing	Continuing	N/A

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 0439 / <i>Standard Missile Improvement</i>
--	---	--

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
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

Proj 0439	
Future Combat System Integration HERO/ EMV Testing	
Future Combat System Integration Test Planning	
Future Combat System Integration Land Based Testing	
Future Combat System Integration WIT 1	
Future Combat System Integration DT/OT	
Future Combat System Integration WIT 2	
Future Combat System Integration DDG 51 FLT III IOC	
Future Combat System Integration ET-17 MSLEX During CSSQT	
Future Combat System Integration Weapon System Explosives Safety Review Board (WSESRB)	
Future Combat System Integration Integrated Air Missile Defense Testing	
Standard Missile-2 BLK IIIC Weapon Systems Explosive Safety Review Board 2	
Standard Missile-2 BLK IIIC CTV/GTV	
Standard Missile-2 BLK IIIC Weapon Systems Explosive Safety Review Board 3	
Standard Missile-2 BLK IIIC QRA Testing	
Standard Missile-2 BLK IIIC System Verification Review	

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 0439 / <i>Standard Missile Improvement</i>
--	---	--

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
Standard Missile-2 BLK IIIC Software Systems Safety Technical Review Panel 4				■																								
Standard Missile-2 BLK IIIC Software Systems Safety Technical Review Panel 5								■																				
Standard Missile-2 BLK IIIC Weapon Systems Explosive Safety Review Board 5								■																				
Standard Missile-2 BLK IIICU Milestone B								■																				
Standard Missile-2 BLK IIIC Weapon Systems Explosive Safety Review Board 4									■																			
Standard Missile-2 BLK IIIC Initial Capability								■																				
Standard Missile-2 BLK IIICU Contract Award										■																		
Standard Missile-2 BLK IIICU SRR											■																	
Standard Missile-2 BLK IIICU Program Kickoff/ Preliminary Design Review											■																	
Standard Missile-2 BLK IIICU PDR												■																
Standard Missile-2 BLK IIICU CDR													■															
Standard Missile-2 BLK IIICU Landing Based Testing															■	■	■	■	■	■	■	■	■	■	■	■	■	■
Standard Missile-2 BLK IIICU DT/OT																											■	■

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 0439 / <i>Standard Missile Improvement</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 0439				
Future Combat System Integration HERO/EMV Testing	1	2021	1	2023
Future Combat System Integration Test Planning	1	2021	2	2024
Future Combat System Integration Land Based Testing	4	2021	3	2022
Future Combat System Integration WIT 1	4	2022	4	2022
Future Combat System Integration DT/OT	1	2023	3	2024
Future Combat System Integration WIT 2	4	2023	4	2023
Future Combat System Integration DDG 51 FLT III IOC	4	2024	4	2024
Future Combat System Integration ET-17 MSLEX During CSSQT	1	2024	3	2024
Future Combat System Integration Weapon System Explosives Safety Review Board (WSESRB)	2	2024	3	2024
Future Combat System Integration Integrated Air Missile Defense Testing	4	2026	4	2027
Standard Missile-2 BLK IIIC Weapon Systems Explosive Safety Review Board 2	1	2021	1	2021
Standard Missile-2 BLK IIIC CTV/GTV	2	2021	1	2022
Standard Missile-2 BLK IIIC Weapon Systems Explosive Safety Review Board 3	1	2022	1	2022
Standard Missile-2 BLK IIIC QRA Testing	3	2022	3	2022
Standard Missile-2 BLK IIIC System Verification Review	4	2022	4	2022
Standard Missile-2 BLK IIIC Software Systems Safety Technical Review Panel 4	1	2022	1	2022
Standard Missile-2 BLK IIIC Software Systems Safety Technical Review Panel 5	4	2022	4	2022
Standard Missile-2 BLK IIIC Weapon Systems Explosive Safety Review Board 5	4	2022	4	2022
Standard Missile-2 BLK IIICU Milestone B	4	2022	4	2022
Standard Missile-2 BLK IIIC Weapon Systems Explosive Safety Review Board 4	1	2023	1	2023

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 0439 / <i>Standard Missile Improvement</i>
--	---	--

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Standard Missile-2 BLK IIIC Initial Capability	4	2022	4	2022
Standard Missile-2 BLK IIICU Contract Award	3	2023	3	2023
Standard Missile-2 BLK IIICU SRR	4	2023	4	2023
Standard Missile-2 BLK IIICU Program Kickoff/ Preliminary Design Review	4	2023	4	2023
Standard Missile-2 BLK IIICU PDR	2	2024	2	2024
Standard Missile-2 BLK IIICU CDR	4	2024	4	2024
Standard Missile-2 BLK IIICU Landing Based Testing	2	2025	1	2026
Standard Missile-2 BLK IIICU DT/OT	3	2026	2	2027

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy										Date: April 2022		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>				Project (Number/Name) 2063 / <i>SM-6 Blk IB</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2063: <i>SM-6 Blk IB</i>	97.894	159.409	171.921	199.204	-	199.204	181.512	168.325	89.244	89.333	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program leverages existing missile technology and advanced missile technology from the SM-6 BLK IB Phase IA Rocket Motor Rapid Prototyping Experimentation and Demonstration (RPED) effort completing in FY 20. It aligns with the STANDARD Missile roadmap and takes advantage of the Navy's investment in the AEGIS Weapon System (AWS). This missile will provide an extended range capability for SM-6 and will be a key contributor to the protection of Joint U.S. Forces, in support of the 2018 National Defense Strategy. SM-6 Block IB addresses valid Joint, Fleet, and Navy Urgent Operational Needs and existing, Joint Requirements Oversight Council (JROC)-approved requirements. The Accelerated Acquisition Board of Directors (AA BoD) met on 17 January 2018 and approved the designation of the SM-6 Block IB Phase IA (Rocket Motor) as a Rapid Prototyping, Experimentation and Demonstration (RPED) project. This designation acknowledged the requirement to expedite the development, acquisition and fielding of the SM-6 Block IB to Naval Forces. The AA BoD met 9 November 2018 and directed SM-6 BLKIB to commence All Up Round prototyping (Phase IB). In December 2020, the program initiated a restructure to transition from an Accelerated Acquisition program with 10 USC 2538 authority to a Major Development Acquisition Program.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: SM-6 BLK IB Development	159.409	149.460	199.204	0.000	199.204
Articles:	-	-	-	-	-
FY 2022 Plans: Complete design efforts started in FY 21, continue development efforts started in FY21, and initiate design verification. Continue ground testing including missile stability frequency response, live battery verification, and electrical and preliminary electromagnetic effects testing. Begin incorporating results from ground testing into model based analytical tools to facilitate design, design validation, and assessment of safety standards compliance sufficient for flight testing. Conduct a Critical Design Review for the All Up Round. Conduct test planning activities for the first Controlled Test Vehicle. Continue the preliminary design of the 21-inch rocket motor design. Conduct static firings and safety tests to verify the design. Fabricate multiple 21-inch diameter rocket motor prototypes for All-Up-Round ground testing (laboratory bench testing) and begin to fabricate test articles for rocket motor Design Verification Testing. Assemble, integrate and test hardware prototypes of Control Surface Assemblies (CSAs), Steering Control Sections (SCS), Rocket Motors (RM), and Power Conditioning and Telemetry (PC&T) sections. Begin verifying design of the All-Up-Round Thermal Protection System including analytical validation of survivability. Complete design modifications for the MK 29 Mod 1 canisters, fabricate MK29 Mod 1 canister test hardware and begin design verification. Update all associated					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy	Date: April 2022
--	-------------------------

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 2063 / <i>SM-6 Blk IB</i>
--	---	---

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>design and interface specifications as necessary. Continue In-Flight Termination system qualification to support flight testing. Continue procuring SM-6 BLK IA components, MK 72 Mod 2 Boosters, and integrate RM and SCS prototypes and MK 72 Mod 2 with SM-6 BLK IA hardware for test and continue assembly of test articles. Continue development of algorithms, software and autopilot updates to incorporate in advance of land based flight testing. Initiate planning at the Range for a Controlled Test Vehicle demonstration. Initiate acquisition planning including the development of a Test and Evaluation Master Plan and prepare acquisition documentation for a Major Defense Acquisition program. Conduct a Milestone Decision review.</p> <p><i>FY 2023 Base Plans:</i> Complete development efforts started in FY22, complete design verification sufficient to conduct a Controlled Test Vehicle (CTV). Complete incorporation of results from ground testing into model based analytical tools to facilitate design, design validation, and assessment of safety standards compliance sufficient for flight testing. Complete software build for the CTV and conduct a final qualification test for the CTV software build. Conduct a platform test to ensure integration with VLS for CTV demonstration. Complete qualification of the In-Flight Termination System to certify compliance with US range safety requirements for approval to conduct extended range CTV. Complete Packaging, Handling, Storage and Transportation Qualification testing for the MK 29 Mod 1 Canister and obtain PHS&T certification. Complete preparations at the Range for a CTV demonstration including site surveys, environmental assessments, range procedures, dry runs, and instrumenting launch and impact sites for CTV-1. Conduct CTV-1 to close out the CTV demonstration.</p> <p>Award the SM-6 Blk IB Engineering and Manufacturing Development contract. Conduct a Systems Requirements Review and initiate the preliminary design for the SM-6 Blk IB on the new Electronics Unit. SM-6 Blk IB design will leverage effort from the SM-6 Blk IAU obsolescence program and the Electronics Unit Risk Reduction conducted for the SM-6 Blk IB in FY22. Complete software and simulation test facility fabrication initiated during the EU Risk Reduction effort. Conduct shock and vibration testing on the Electronics Unit to the SM-6 Blk IB environments. Fabricate multiple 21-inch diameter rocket motor prototypes for All-Up-Round flight testing and insensitive munitions testing. Initiate rocket motor insensitive munitions testing. Begin Aegis Integration for SM-6 Blk IB extended range capability. Begin procuring SM-6 BLK IB components and MK 29 Mod I canisters for the SM-6 Blk IB flight and safety qualification testing and seven (7) Fleet Experimentation Rounds.</p> <p><i>FY 2023 OCO Plans:</i></p>					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022		
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 2063 / <i>SM-6 Blk IB</i>			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
N/A					
FY 2022 to FY 2023 Increase/Decrease Statement: The increase of \$49.744M is to consolidate multiple development increments into a single cohesive SM-6 Blk IB development effort that delivers the SM-6 Blk IB capability in FY27. The consolidation avoids inefficiencies due to multiple design iterations, but includes additional resources required to execute the consolidated program as a Major Capability Acquisition program.					
Title: Electronics Unit Integration					
Articles:					
FY 2022 Plans: Initiate replacement of the obsolete electronics unit in the SM-6 Blk IB. The replacement will leverage effort from the SM-6 Blk IA obsolescence program conducted in FY21. Initiation of the effort will include repackaging of the SM-6 Blk IB guidance section to accommodate the new electronics unit weight and dimensional differences. Perform studies to define and establish survivability requirements for the new Electronics Unit for the SM-6 Blk IB environment. Procure long lead hardware for test article fabrication and adapt BLK IB mission set architecture for new electronics unit. Plan software and simulation test facility for the SM-Blk IB and procure materials to build the facility. Develop shock and vibration allocation profiles for the SM-6 Blk IB flight environment to ensure Electronics Unit compatibility with SM-6 Blk IB environments.					
FY 2023 Base Plans: After completion of long lead activities in FY22, the Electronics Unit (EU) Integration activities will be conducted as part of the integrated SM-6 Block IB Engineering and Manufacturing Development Program rather than as a separate discrete effort.					
FY 2023 OCO Plans: N/A					
FY 2022 to FY 2023 Increase/Decrease Statement: The decrease of \$22.461M for SM-6 BLK IB Electronics Unit (EU) is due to planned completion of Electronics Unit Integration Risk Reduction Activities in FY22. After completion of FY22 risk reduction activities, the Electronics Unit Integration and SM-6 Blk IB development will be tightly coupled efforts that cannot be conducted as independent efforts. Costs for Electronics Unit Integration will be included in the SM-6 Block IB Development line beginning in FY23.					
Accomplishments/Planned Programs Subtotals					
	0.000	22.461	0.000	0.000	0.000
	-	-	-	-	-
	159.409	171.921	199.204	0.000	199.204

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 2063 / <i>SM-6 Blk IB</i>

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

N/A

Remarks

D. Acquisition Strategy

SM-6 Block IB Acquisition Strategy in development

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy												Date: April 2022			
Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improve ments				Project (Number/Name) 2063 / SM-6 Blk IB							
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Design and Analysis	C/CPFF	JHU/APL : Laurel, MD	10.429	2.802	Nov 2020	0.993	Nov 2021	4.445	Nov 2022	-		4.445	Continuing	Continuing	Continuing
Design and Analysis	WR	NAWC AD : China Lake	9.764	2.458	Oct 2020	1.919	Oct 2021	1.691	Nov 2022	-		1.691	Continuing	Continuing	Continuing
Design and Analysis	WR	NSWC : Indian Head	0.360	0.330	Oct 2020	0.380	Oct 2021	0.343	Nov 2022	-		0.343	Continuing	Continuing	Continuing
Design and Analysis	C/CPFF	NSMA : Tucson, AZ	49.323	57.195	Nov 2020	77.171	Nov 2021	85.517	Nov 2022	-		85.517	Continuing	Continuing	Continuing
Design and Analysis	C/CPFF	BAE : ROCKVILLE, MD	0.075	0.129	Nov 2020	0.091	Oct 2021	0.604	Nov 2022	-		0.604	Continuing	Continuing	Continuing
Design and Analysis	C/CPFF	GD-OTS : Healdsburg, CA	10.985	9.872	Nov 2020	1.568	Nov 2021	0.000		-		0.000	0.000	22.425	-
Design and Analysis	WR	NSWC Dahl : Dahlgren, Va	1.070	0.562	Oct 2020	0.470	Oct 2021	0.585	Nov 2022	-		0.585	0.000	2.687	-
Design and Analysis	Various	IWS 3L : Arlington, Va	4.496	5.487	Oct 2020	0.483	Nov 2021	0.395	Nov 2022	-		0.395	0.000	10.861	-
Design and Analysis	Various	Various : IWS 1.0	1.000	0.625	Nov 2020	0.125	Nov 2021	1.500	Nov 2022	-		1.500	0.000	3.250	-
Design and Analysis	C/CPFF	Corvid : Mooresville, NC	0.237	1.500	Nov 2020	0.801	Nov 2021	1.785	Nov 2022	-		1.785	0.000	4.323	-
Design and Analysis	WR	Indian Head : Picatinny	0.420	1.311	Oct 2020	1.872	Oct 2021	0.411	Nov 2022	-		0.411	0.000	4.014	-
Design and Analysis	WR	NAWC AD : Techrep	0.466	0.000	Oct 2020	0.000	Oct 2021	0.000	Nov 2022	-		0.000	0.000	0.466	-
Design and Analysis	C/CPFF	Aerojet : Huntsville, AL	7.444	33.189	Oct 2020	10.132	Nov 2021	15.632	Nov 2022	-		15.632	0.000	66.397	-
Design and Analysis	WR	PHD : Port Hueneme	0.000	0.000		0.022	Oct 2021	0.359	Nov 2022	-		0.359	0.000	0.381	-
Design and Analysis	C/CPFF	Lockheed Martin : Moorestown, NJ	0.000	1.000	Oct 2020	1.608	Oct 2021	0.153	Nov 2022	-		0.153	0.000	2.761	-
Need Item Text	C/CPFF	BAE Systems : Fridley, MN	0.000	0.000		3.652	Oct 2021	0.000		-		0.000	0.000	3.652	-
Subtotal			96.069	116.460		101.287		113.420		-		113.420	Continuing	Continuing	N/A

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 2063 / <i>SM-6 Blk IB</i>
--	---	---

Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test and Evaluation	C/CPFF	JHU/APL : Laurel, MD	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Developmental Test and Evaluation	WR	NAWC WD : China Lake	0.500	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Developmental Test and Evaluation	WR	NSWC : Port Hueneme	0.001	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Developmental Test and Evaluation	C/CPFF	Raytheon : Tucson, AZ	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Developmental Test and Evaluation	WR	McAlester : Rock Island	0.013	0.000		0.000		0.000		-		0.000	0.000	0.013	-
Developmental Test and Evaluation	C/CPFF	IWS 3 : Arlington, VA	0.038	0.000		0.000		0.000		-		0.000	0.000	0.038	-
Developmental Test and Evaluation	WR	Pt Mugu : CA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Developmental Test and Evaluation	WR	Corona : CA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Developmental Test and Evaluation	WR	PMRF : Hawaii	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Developmental Test and Evaluation	WR	WSMR : White Sands, NM	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Developmental Test and Evaluation	WR	COTF : Norfolk, VA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Developmental Test and Evaluation	WR	Techrep : China Lake	0.000	0.489	Oct 2020	0.627	Nov 2021	0.798	Nov 2022	-		0.798	0.000	1.914	-
Subtotal			0.552	0.489		0.627		0.798		-		0.798	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation	WR	WSMR : White Sands	0.000	0.360	Oct 2020	0.703	Nov 2021	2.700	Nov 2022	-		2.700	0.000	3.763	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 2063 / <i>SM-6 Blk IB</i>
--	---	---

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation	C/BA	JHU/APL : Laurel, MD	0.000	3.550	Oct 2020	0.662	Nov 2021	2.163	Nov 2022	-		2.163	0.000	6.375	-
Test & Evaluation	C/BA	NAWC WD : China Lake	0.000	2.250	Oct 2020	0.822	Nov 2021	2.536	Nov 2022	-		2.536	0.000	5.608	-
Test & Evaluation	C/BA	PHD : Port Hueneme	0.000	0.025	Oct 2020	0.087	Nov 2021	0.342	Nov 2022	-		0.342	0.000	0.454	-
Test & Evaluation	C/BA	NSMA : Various	0.000	24.405	Oct 2020	36.235	Nov 2021	34.931	Nov 2022	-		34.931	0.000	95.571	-
Test & Evaluation	C/BA	IWS 3 : Arlington, VA	0.000	0.050	Oct 2020	0.100	Nov 2021	0.200	Nov 2022	-		0.200	0.000	0.350	-
Test & Evaluation	C/BA	Pt Mugu : CA	0.000	0.017	Oct 2020	0.050	Nov 2021	0.051	Nov 2022	-		0.051	0.000	0.118	-
Test & Evaluation	C/BA	Corona : CA	0.000	0.138	Oct 2020	0.252	Nov 2021	0.195	Nov 2022	-		0.195	0.000	0.585	-
Test & Evaluation	C/BA	PMRF : Hawaii	0.000	0.010	Oct 2020	0.000	Nov 2021	0.051	Nov 2022	-		0.051	0.000	0.061	-
Test & Evaluation	C/BA	COTF : Norfolk, VA	0.000	0.021	Oct 2020	0.000	Nov 2021	0.237	Nov 2022	-		0.237	0.000	0.258	-
Test & Evaluation	C/BA	Dahlgren : Dahlgren, VA	0.000	0.150	Oct 2020	0.313	Nov 2021	0.220	Nov 2022	-		0.220	0.000	0.683	-
Test & Evaluation	C/BA	BAE Systems : Fridley, MN	0.000	8.307	Oct 2020	8.521	Nov 2021	4.688	Nov 2022	-		4.688	0.000	21.516	-
Test & Evaluation	C/CPFF	Aerojet : Huntsville, AL	0.000	0.000		6.755	Nov 2021	23.448	Nov 2022	-		23.448	0.000	30.203	-
Test & Evaluation	C/CPFF	GD-OTS : Healdsburg, CA	0.000	0.000		1.917	Nov 2021	0.000		-		0.000	0.000	1.917	-
Test & Evaluation	MIPR	NSA : Edwards AFB, NV	0.000	0.000		0.089	Nov 2021	0.000		-		0.000	0.000	0.089	-
Subtotal			0.000	39.283		56.506		71.762		-		71.762	0.000	167.551	N/A

Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Support	C/CPFF	VARIOUS : VARIOUS	1.273	3.177	Nov 2020	13.501	Nov 2021	13.224	Nov 2022	-		13.224	Continuing	Continuing	Continuing
Subtotal			1.273	3.177		13.501		13.224		-		13.224	Continuing	Continuing	N/A

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy							Date: April 2022				
Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>			Project (Number/Name) 2063 / <i>SM-6 Blk IB</i>				
	Prior Years	FY 2021		FY 2022		FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	97.894	159.409		171.921		199.204	-	199.204	Continuing	Continuing	N/A

Remarks

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 2063 / <i>SM-6 Blk IB</i>
--	---	---

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
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

Proj 2063	
AUR Design for CTV Demonstration	
AUR IPR (pre-Critical Design Review) for CTV Demo	
IPR-4 (Critical Design Review) for CTV Demo	
IPR-5 (Mission Readiness for CTVs) for CTV Demo	
CTV-1	
TEMP Development	
Acquisition Planning for EMD	
Milestone Decision	
Contract Award	
CTV-2	
GTV-1	
GTV-2	
GTV-3	
Steering Control Section DVT	
Steering Control Section Qualification	
Rocket Motor Design	
Rocket Motor DVT	
Rocket Motor Development	
Rocket Motor Qualification	
Begin VLS Integration	
MK 29 Mod 1 Qualification	
Aegis Integration	

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 2063 / <i>SM-6 Blk IB</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2063				
AUR Design for CTV Demonstration	1	2021	2	2022
AUR IPR (pre-Critical Design Review) for CTV Demo	1	2022	1	2022
IPR-4 (Critical Design Review) for CTV Demo	4	2022	4	2022
IPR-5 (Mission Readiness for CTVs) for CTV Demo	3	2023	3	2023
CTV-1	1	2023	4	2023
TEMP Development	4	2021	4	2022
Acquisition Planning for EMD	2	2021	4	2022
Milestone Decision	4	2022	4	2022
Contract Award	1	2023	1	2023
CTV-2	2	2024	1	2025
GTV-1	1	2025	4	2025
GTV-2	3	2025	2	2026
GTV-3	3	2025	2	2026
Steering Control Section DVT	3	2021	4	2022
Steering Control Section Qualification	4	2022	2	2023
Rocket Motor Design	1	2021	1	2023
Rocket Motor DVT	4	2021	1	2023
Rocket Motor Development	1	2023	3	2023
Rocket Motor Qualification	4	2023	3	2024
Begin VLS Integration	3	2023	3	2023
MK 29 Mod 1 Qualification	1	2023	2	2025

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 2063 / <i>SM-6 Blk IB</i>

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Aegis Integration	1	2023	4	2025
Electronics Unit Integration Risk Reduction	3	2022	2	2023
IOTE	2	2026	1	2027
IOC	3	2027	3	2027

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy										Date: April 2022		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improvements</i>				Project (Number/Name) 3092 / <i>Standard Missile 6 Program</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3092: <i>Standard Missile 6 Program</i>	1,469.154	76.855	124.204	91.791	-	91.791	43.486	10.563	9.913	9.220	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program leverages existing missile technology and advanced missile technology. It aligns missile technology roadmaps across the services (NAVSEA, NAVAIR, USAF, USMC and USA) and missile variants within the services, taking advantage of the Navy's investment in the AEGIS Weapons System (AWS) and Cooperative Engagement Capability (CEC). This missile will provide an extended range engagement capability to provide the air superiority and the umbrella of protection for joint U.S. forces and allies against the full spectrum of manned-fixed and rotary-wing aircraft, unmanned aerial vehicles, and land attack and anti-ship cruise missiles in flight. This missile contributes to the continuous protection of forward deployed ground maneuver forces as well as theater rear assets supporting mission requirements discussed in the National Security Strategy (NSS), Secretary of Defense National Defense Strategy (NDS), Chairman of the Joint Chiefs' National Military Strategy (NMS), Capstone Concept for Joint Operations (CCJO), Joint Requirements Oversight Council (JROC) Integrated Air and Missile Defense (IAMD) Initial Capability Document (ICD), the JROC IAMD Joint Integrating Concept (JIC), JROC IAMD Operational Concept; the Theater and Air Missile Defense ICD (TAMD MDA-ICD), the Chairman of the Joint Chiefs of Staff Joint IAMD Vision 2020/2030 and the Joint Publication 3-01 Countering Air and Missile Threats; the Navy's Integrated Fire Control Naval Integrating Capability Concept (NIFC-NICC), the JROC Operational Requirements Document (ORD) for SM-6 BLK 1, and the JROC SM-6 Capability Production Document.

SM-6 portion of Joint and Naval Integrated Fire Control (NIFC) is to support the integration, land-based and at-sea test, and analysis in support of the NIFC-CA test and evaluation strategy. NIFC-CA Increment 1 was successfully executed between 2009 and 2015. NIFC-CA Increment 2 commenced in FY 16 and will be tested in FY20 through FY24. It integrates sensor improvements, SM-6 BLK IA, CEC and AWS AEGIS Advanced Capability Build (ACB) 16 into an advanced from the sea (FTS) Kill chain. Efforts include support for the White Sands Missile Range (WSMR) upgrade, Trackex events, Integration Events and Live Fire test at land based and at-sea tests. Flight testing will continue as future Aegis builds continue to be deployed with NIFC-CA capability.

SM-6 System Engineering and Flight Test (SEFT) supports the development of the guidance section software configuration. This includes the research, development, test and evaluation necessary to incorporate the software in production missiles. SM-6 BLK IA funding for AEGIS integration will verify compatibility with the latest Aegis Baseline ACB-16 and future Aegis builds that will use the full performance of the advanced missile. Supports modifications to the SM-6 and SM-2 Active Missile Variants Flight Instrumentation Kits to C-band and the Enhanced Flight Termination System upgrade. SEFT project directly supports the now completed Future Capabilities Demonstration (FCD) project high priority mission requirements requested by Combatant Commanders by improving the SM-6 Missile's capability. The project is continuing analyses and trade studies required for future enhancements and expansion of the mission capabilities for the SM-6 Blk IA missile, and perform the necessary missile software development to support mission capability improvement. FCD was formerly its own project and has been incorporated into SEFT in FY 2023.

STANDARD Missile 6 Electronics Unit funding is for the design, systems engineering, analysis, integration, and test of replacements for obsolete components. This effort is jointly funded with the Missile Defense Agency for a shared approach to obsolescence and improved capability in defense of the sea base. Initial funding provided

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022		
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 3092 / <i>Standard Missile 6 Program</i>			
for the requirements generation, risk reduction/mitigation, and establishment of development facilities necessary for the commencement of the obsolescence project. The Missile Defense Agency was the contracting office for the risk reduction/mitigation and establishment of development facilities which completed in FY20 . The USN development effort began in FY21, continues through FY24 and remains a jointly funded effort with the Missile Defense Agency. This effort will deliver a SM-6 BLK IAU Engineering Change Proposal in Q3FY24 to continue production of SM-6 BKL IA Missiles with the Ultra Electronics Unit.					
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
Title: Electronics Unit (EU) Obsolescence-Upgrade					
Articles:					
	57.738	70.332	70.597	0.000	70.597
	-	-	-	-	-
FY 2022 Plans: Conduct system level Critical Design Review (CDR). Begin Proof of Manufacturing (POM) sensor and Electronic Unit (EU) hardware builds and integration of the EU into the Guidance Section. Complete Guidance section builds for Guidance sections used as the units under test to support electrostatic discharge testing, Guidance Section Design Verification Testing, Live Battery Testing. Begin tower testing and electrostatic discharge testing. Begin manufacturing assessments and operations support to document the programs current manufacturing readiness level and path to achieve Manufacturing Readiness Level (MRL) 8 in support of transition to production efforts. Complete initial tactical and simulation software release to support tower testing and flight test campaigns. Conduct Test and Evaluation Working Group activities required for planning and coordinating amongst the range, data collection leads, modeling and simulation engineering team and other organizations for execution of program's ground and sea flight test campaigns.					
FY 2023 Base Plans: Complete the Proof of Manufacturing (POM) sensor and Electronic Unit (EU) hardware builds. Complete integration of the EU into the guidance Section and guidance section builds for 6 guidance sections used as the units under test to support SM6-Block IAU testing for Hazard of Electromagnetic Radiation to Ordnance (HERO) , Environmental Testing, Tower testing, Guided Test Vehicle-1 (GTV1) and Guided Test Vehicle-2 (GTV2) and an All up Round (AUR) production assembly pathfinder to support flight test round builds. Continue manufacturing assessments and operations support to monitor program manufacturing readiness level and execution of plan to achieve Manufacturing Readiness Level (MRL) 8 in support of transition to production efforts. Complete tactical software builds and Functional Qualification Test (FQT) of software to support GTV1 and GTV2. Continue Test an Evaluation Working Group activities, planning and coordination with test range and data collection leads, engineering teams and their support organizations. Complete GTV1 (Q3FY23) and GTV2 (Q1FY24) flight test campaigns.					
FY 2023 OCO Plans:					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022		
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 3092 / <i>Standard Missile 6 Program</i>			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
N/A					
FY 2022 to FY 2023 Increase/Decrease Statement: The increase of \$.265 from FY 2022 to FY 2023 will enable the ability to fully fund required production material purchases. The effort is transitioning from design to verification/testing and preventing delays in production materials, ensures minimal impacts to the scheduling of flight test rounds and campaigns.					
Title: SM-6 System Engineering and Flight Test Support (SEFT)					
Articles:					
	14.049	49.806	17.788	0.000	17.788
	-	-	-	-	-
FY 2022 Plans: Continue to plan and execute ACB 16 integration testing of the SM-6 BLK IA. Tasks include developing live fire scenarios & test objectives, coordinating missile, ship, target and range assets, and evaluating system performance against the test objectives. Execute live-fire testing concurrently with ship Combat Systems Ship Qualification Trials (CSSQT) and/or land based flight testing at Desert Ship at White Sands Missile Range in order to verify performance improvement developed by the Software Upgrade Program (SWUP). Modifications to the SM-6 and SM-2 Active Missile Variants and upgrade to an enhanced flight termination system. Testing & Evaluation (T&E) activities to support IOC of the DDG 51 Flt III and FFG(X). This effort supports transition to C-Band telemetry and associated modifications to the SM-6 and SM-2 Active Missile Variants Flight Instrumentation Kits. Upgrades NSWC Corona and PMRF range telemetry data processing equipment, flight analysis data tools, and secure management /storage, and portable telemetry data collection that are mandatory for future active missile test and evaluation events. Outyear System Engineering and Flight Test (SEFT) project line will incorporate Future Capability Demonstrations funding and activities.					
FY 2023 Base Plans: Testing & Evaluation (T&E) activities to support IOC of the DDG 51 Flt III and FFG(X). This effort supports transition to C-Band telemetry and associated modifications to the SM-6 and SM-2 Active Missile Variants Flight Instrumentation Kits. Upgrades NSWC Corona and PMRF range telemetry data processing equipment, flight analysis data tools, and secure management /storage, and portable telemetry data collection that are mandatory for future active missile test and evaluation events. Continue analyses and trade studies to identify future enhancements and expansion of mission capabilities for the SM-6 Blk IA missile. This mission expansion effort was formerly known as Future Capability Demonstration (FCD). FCD was formerly its own project; it has completed and future efforts are being incorporated into SEFT in FY 2023.					
FY 2023 OCO Plans:					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022		
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 3092 / <i>Standard Missile 6 Program</i>			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
N/A					
FY 2022 to FY 2023 Increase/Decrease Statement: The decrease of \$32.018 from FY 2022 to FY 2023 is due to completion of SM-6 Block IA ACB-16 flight testing and flight testing of current phase of Software Upgrade (SWUP) testing. SWUP testing resumes in FY24. The decrease is also the maturation of the C-Band test telemetry development and its anticipated progress in FY22. This reduction also results in a reducing the support to flight testing.					
Title: Naval Integrated Fire Control - Counter Air (NIFC-CA)					
Articles:					
	2.740	3.031	3.406	0.000	3.406
	-	-	-	-	-
FY 2022 Plans: Continue supporting increment two (2) System of Systems (SOS) integration and test activities commence work for SM-6 BLK I and IA NIFC-CA related software upgrades. Support test events At-Sea 8 and Live Fire Test 8.					
FY 2023 Base Plans: Continue supporting increment two (2) System of Systems (SOS) integration and test activities commence work for SM-6 BLK I and IA NIFC-CA related software upgrades.					
FY 2023 OCO Plans: N/A					
FY 2022 to FY 2023 Increase/Decrease Statement: The increase of \$0.375 from FY 2022 to FY 2023 is due to inflation indices. Anticipate the same level of NIFC-CA integration activities in FY 2023 as FY 2022					
Title: Future Capability Demonstration (FCD)					
Articles:					
	2.328	1.035	0.000	0.000	0.000
	-	-	-	-	-
FY 2022 Plans: Continue analyses and trade studies to identify future enhancements and expansion of the Future Capability Demonstration mission capabilities for the SM-6 Blk IA missile. Conduct necessary missile software development to support mission capability improvement and necessary modeling and simulation to support the software development. Investigate future test data collection opportunities, and performance analysis. Future Capability Demonstrations project line, to include funding and activities, will be incorporated into the System Engineering and Flight test project line in outyears.					
FY 2023 Base Plans:					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 3092 / <i>Standard Missile 6 Program</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Incorporated into SEFT FY 2023 OCO Plans: N/A FY 2022 to FY 2023 Increase/Decrease Statement: The decrease of \$1.035 from FY 2022 to FY 2023 is because the FCD effort is being merged into the SEFT project. To support program efficiencies FCD is being merged into SEFT. The studies and modeling effort in the FCD project align with the systems engineering and test activities for the SM-6 future capabilities.					
Accomplishments/Planned Programs Subtotals	76.855	124.204	91.791	0.000	91.791

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• WPN 2234: <i>Standard Missile</i>	503.011	598.826	572.040	-	572.040	716.059	868.624	1,090.517	916.820	3,132.394	12,680.573
• WPN 2234C: <i>Standard Missile</i>	66.716	45.357	0.000	-	0.000	206.905	127.803	0.000	0.000	0.000	668.549

Remarks
BLI 2234C is the Advanced Procurement.

D. Acquisition Strategy
SM-6 Acquisition Strategy signed by OSD AT&L 14 March 2012.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 3092 / <i>Standard Missile 6 Program</i>
--	---	--

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Design & Analysis	C/CPFF	RAYTHEON : Tucson, AZ	803.222	2.948	Nov 2020	33.730	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Design & Analysis	C/CPFF	JHU/APL : Laurel MD	72.073	0.000	Nov 2020	9.402	Nov 2021	0.000		-		0.000	0.000	81.475	-
Design & Analysis	MIPR	MIT/Lin Lab : Lexington, MA	0.550	0.000		0.000		0.000		-		0.000	0.000	0.550	-
Design & Analysis	WR	NAWC : China Lake/ Techrep	13.894	0.000	Nov 2020	0.254	Nov 2021	0.000		-		0.000	0.000	14.148	-
Design & Analysis	WR	NSWC : Dahlgren	13.988	0.000	Nov 2020	1.432	Nov 2021	0.000		-		0.000	0.000	15.420	-
Design & Analysis	WR	NSWC : Indian Head	3.942	0.000		0.000		0.000		-		0.000	0.000	3.942	-
Design & Analysis	WR	NSWC : PHD	12.940	0.000	Nov 2020	0.161	Nov 2021	0.000		-		0.000	0.000	13.101	-
Design & Analysis	WR	NSWC : Crane	1.256	0.000	Nov 2020	0.000		0.000		-		0.000	0.000	1.256	-
Design & Analysis	MIPR	JSPO : Eglin AFB	24.049	0.000		0.000		0.000		-		0.000	0.000	24.049	-
Design & Analysis	C/CPFF	LOCKHEED Martin : Moorestown, NJ	6.724	0.000		0.000		0.000		-		0.000	0.000	6.724	-
Design & Analysis	WR	NSWC : Corona	26.186	0.000	Nov 2020	3.015	Nov 2021	0.000		-		0.000	0.000	29.201	-
Design & Analysis	Reqn	ONR : Arlington, VA	5.320	0.000		0.000		0.000		-		0.000	0.000	5.320	-
Design & Analysis	Reqn	NRL : Washington, DC	0.140	0.000		0.000		0.000		-		0.000	0.000	0.140	-
Design & Analysis	WR	COMPTEVFOR : Norfolk, VA	2.620	0.000		0.000		0.000		-		0.000	0.000	2.620	-
Design & Analysis	WR	CARDEROCK : Philadelphia, PA	4.058	0.000		0.000		0.000		-		0.000	0.000	4.058	-
Design & Analysis	WR	NSWC : Pt Mugu	1.643	0.000		0.000		0.000		-		0.000	0.000	1.643	-
Design & Analysis	C/CPFF	BAE : Rockville, MD	6.486	0.000		0.000		0.000		-		0.000	0.000	6.486	-
Design & Analysis	MIPR	ARMY : Redstone	0.350	0.000		0.000		0.000		-		0.000	0.000	0.350	-
Design & Analysis	WR	NAWCAD : Pax River, MD	3.762	0.000		0.000		0.000		-		0.000	0.000	3.762	-
Design & Analysis	C/CPFF	CORVID : Mooresville, NC	15.970	0.000	Nov 2020	0.000		0.000		-		0.000	0.000	15.970	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improve ments	Project (Number/Name) 3092 / Standard Missile 6 Program
--	---	---

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Design & Analysis	C/CPFF	RNB : Arlington, VA	0.010	0.000		0.000		0.000		-		0.000	0.000	0.010	-
Design & Analysis	WR	SPAWAR : Arlington, VA	0.007	0.000		0.000		0.000		-		0.000	0.000	0.007	-
Design & Analysis	WR	ARMY : Cecom	0.066	0.000		0.000		0.000		-		0.000	0.000	0.066	-
Design & Analysis	C/FP	GENERAL DYNAMICS : Falls Church, VA	1.660	0.000		0.000		0.000		-		0.000	0.000	1.660	-
Design & Analysis	WR	VARIOUS : (IWS 1A)	130.356	0.000	Nov 2020	0.000		0.000		-		0.000	0.000	130.356	-
Design & Analysis	WR	VARIOUS : (VLS)	26.024	0.000		0.000		0.000		-		0.000	0.000	26.024	-
Design & Analysis	WR	NSWC : WSMR	2.200	0.000	Nov 2020	0.000		0.000		-		0.000	0.000	2.200	-
Design & Analysis	WR	PMRF : Hawaii	3.856	0.000		0.000		0.000		-		0.000	0.000	3.856	-
Design & Analysis	WR	DOI : Washington D.C.	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Design & Analysis	C/CPFF	IWS 3A : Arlington, VA	25.281	61.942	Nov 2020	71.203	Nov 2021	64.504	Nov 2022	-		64.504	0.000	222.930	-
Subtotal			1,208.633	64.890		119.197		64.504		-		64.504	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation	WR	NSWC : Port Hueneme	9.374	0.267	Nov 2020	0.000		0.208	Nov 2022	-		0.208	0.000	9.849	-
Developmental Test & Evaluation	WR	NSWC : WSMR	33.200	0.000	Nov 2020	0.000		0.500	Nov 2022	-		0.500	0.000	33.700	-
Developmental Test & Evaluation	WR	PMRF : Hawaii	47.601	0.000	Nov 2020	0.000		0.000		-		0.000	0.000	47.601	-
Developmental Test & Evaluation	WR	NAWC : Pt Mugu	6.066	0.000	Nov 2020	0.000		0.035	Nov 2022	-		0.035	0.000	6.101	-
Developmental Test & Evaluation	C/CPAF	RAYTHEON : Tucson, AZ	52.617	0.000		0.000		12.103	Nov 2022	-		12.103	0.000	64.720	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improve ments	Project (Number/Name) 3092 / Standard Missile 6 Program
--	---	---

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation	C/CPFF	JHU/APL : Laurel, MD	19.804	0.376	Nov 2020	0.000		0.577	Nov 2022	-		0.577	0.000	20.757	-
Developmental Test & Evaluation	WR	NSWC : Corona	16.326	2.237	Nov 2020	0.000		4.828	Nov 2022	-		4.828	0.000	23.391	-
Developmental Test & Evaluation	WR	NSWC : Dahlgren	3.386	0.379	Nov 2020	0.000		0.860	Nov 2022	-		0.860	0.000	4.625	-
Developmental Test & Evaluation	WR	VLS : Arlington, VA	2.369	0.000	Nov 2020	0.000		0.000		-		0.000	0.000	2.369	-
Developmental Test & Evaluation	WR	COMPTEVFOR : Norfolk, Va	2.119	0.000	Nov 2020	0.000		0.078	Nov 2022	-		0.078	0.000	2.197	-
Developmental Test & Evaluation	WR	VARIOUS : (IWS 1A)	4.282	1.751	Nov 2020	0.000		0.350	Nov 2022	-		0.350	0.000	6.383	-
Developmental Test & Evaluation	WR	NSWC : Carderock	2.580	0.000		0.000		0.000		-		0.000	0.000	2.580	-
Developmental Test & Evaluation	WR	NAWC : China Lake	9.618	0.801	Nov 2020	0.000		0.398	Nov 2022	-		0.398	0.000	10.817	-
Developmental Test & Evaluation	WR	ONR : Arlington, Va	3.425	0.000		0.000		0.000		-		0.000	0.000	3.425	-
Developmental Test & Evaluation	WR	DOI : Washington D.C.	0.545	0.000		0.000		0.000		-		0.000	0.000	0.545	-
Subtotal			213.312	5.811		0.000		19.937		-		19.937	0.000	239.060	N/A

Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Contractor Engineering Services	C/CPAF	VARIOUS : Various	44.448	4.217	Nov 2020	4.968	Nov 2021	1.000	Nov 2022	-		1.000	0.000	54.633	-
Travel	Various	IWS3 : Arlington, VA	1.631	0.040	Nov 2020	0.039	Nov 2021	0.020	Nov 2022	-		0.020	0.000	1.730	-
DAWDF	C/FP	Not Specified : Not Specified	1.130	0.000		0.000		0.000		-		0.000	0.000	1.130	-

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 3092 / <i>Standard Missile 6 Program</i>

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
Proj 3092																												
NIFC-CA Live Fire Test (7) Track Ex				■																								
NIFC-CA At-Sea Test (9) Track Ex				■																								
NIFC-CA Live Fire Test 8					■																							
NIFC-CA At-Sea Test 8							■																					
NIFC-CA Live Fire Test (X4)									■																			
NIFC-CA Live Fire Test (X4.5)									■																			
NIFC-CA At-Sea Test (X5)															■													
NIFC-CA At-Sea Test (X6)															■													
NIFC-CA Live Fire Test (X7)																					■							
NIFC-CA At-Sea Test (X8)																					■							
NIFC-CA At-Sea Test (X9)																									■			
NIFC-CA Live Fire Test (X10)																								■				
NIFC-CA Live Fire Test (X11)																											■	
NIFC-CA Live Fire Test (X12)																											■	■
System Engineering and Flight Test SM-6 Block IA Software Upgrade Flt Test																												
System Engineering and Flight Test ACB 16																												
System Engineering and Flight Test Future Baseline 1																												
System Engineering and Flight Test Future Baseline 2																												
Electronics Unit Critical Design Review																												
Electronics Unit Guided Test Vehicle Test (1)																												
Electronics Unit Guided Test Vehicle Test (2)																												

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 3092 / <i>Standard Missile 6 Program</i>
--	---	--

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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

Electronics Unit At-Sea Test	█																											
Electronics Unit Engineering Change Proposal for Production	█																											

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 3092 / <i>Standard Missile 6 Program</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3092				
NIFC-CA Live Fire Test (7) Track Ex	4	2021	4	2021
NIFC-CA At-Sea Test (9) Track Ex	4	2021	4	2021
NIFC-CA Live Fire Test 8	1	2022	1	2022
NIFC-CA At-Sea Test 8	3	2022	3	2022
NIFC-CA Live Fire Test (X4)	1	2023	1	2023
NIFC-CA Live Fire Test (X4.5)	1	2023	1	2023
NIFC-CA At-Sea Test (X5)	1	2024	1	2024
NIFC-CA At-Sea Test (X6)	1	2024	1	2024
NIFC-CA Live Fire Test (X7)	1	2025	1	2025
NIFC-CA At-Sea Test (X8)	1	2025	1	2025
NIFC-CA At-Sea Test (X9)	1	2026	1	2026
NIFC-CA Live Fire Test (X10)	1	2026	1	2026
NIFC-CA Live Fire Test (X11)	1	2027	1	2027
NIFC-CA Live Fire Test (X12)	1	2027	3	2027
System Engineering and Flight Test SM-6 Block IA Software Upgrade Flt Test	3	2022	3	2022
System Engineering and Flight Test ACB 16	4	2022	4	2022
System Engineering and Flight Test Future Baseline 1	1	2027	1	2027
System Engineering and Flight Test Future Baseline 2	4	2027	4	2027
Electronics Unit Critical Design Review	1	2022	1	2022
Electronics Unit Guided Test Vehicle Test (1)	3	2023	3	2023
Electronics Unit Guided Test Vehicle Test (2)	4	2023	4	2023

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / <i>Standard Missile Improve ments</i>	Project (Number/Name) 3092 / <i>Standard Missile 6 Program</i>
--	---	--

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Electronics Unit At-Sea Test	2	2024	2	2024
Electronics Unit Engineering Change Proposal for Production	3	2024	3	2024