

# UNCLASSIFIED

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2019 Navy **Date:** February 2018

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 5: System Development &amp; Demonstration (SDD)</i>					<b>R-1 Program Element (Number/Name)</b> PE 0604366N / <i>Standard Missile Improvements</i>							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	2,347.892	113.601	158.578	165.881	-	165.881	93.175	47.434	16.113	16.552	Continuing	Continuing
0439: <i>Standard Missile Improvement</i>	1,147.781	23.046	50.188	110.058	-	110.058	86.922	41.683	11.811	12.125	Continuing	Continuing
3092: <i>Standard Missile 6 Program</i>	1,200.111	90.555	108.390	55.823	-	55.823	6.253	5.751	4.302	4.427	Continuing	Continuing

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

STANDARD Missile (SM) is Navy's premier Anti-Air Warfare (AAW) missile, providing both area defense for the Fleet and self-defense for individual AEGIS CGs and DDGs, as required by the Joint Theater Air Missile Defense (TAMD), Mission Need Statement (MNS), Defense Planning Guidance (DPG), Quadrennial Defense Review (QDR), and Ship Class AAW Self Defense Capstone Requirements Document. SM-6 provides an air defense force multiplier to the U.S. Navy to greatly expand the AWS battlespace. Combining a modified AMRAAM active seeker onto the proven STANDARD Missile airframe, SM-6 provides an extended range (ER) anti-air warfare capability both over sea and overland. This low-risk approach relying on non-developmental items supported an FY 2011 Initial Operating Capability. With integrated fire control support, SM-6 BLK I ER provides the Navy with an increased battlespace against Anti-Air Warfare (AAW) threats over-the-horizon.

<b><u>B. Program Change Summary (\$ in Millions)</u></b>	<b><u>FY 2017</u></b>	<b><u>FY 2018</u></b>	<b><u>FY 2019 Base</u></b>	<b><u>FY 2019 OCO</u></b>	<b><u>FY 2019 Total</u></b>
Previous President's Budget	120.561	158.578	148.471	-	148.471
Current President's Budget	113.601	158.578	165.881	-	165.881
Total Adjustments	-6.960	0.000	17.410	-	17.410
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-3.026	0.000			
• SBIR/STTR Transfer	-3.934	0.000			
• Program Adjustments	0.000	0.000	28.000	-	28.000
• Rate/Misc Adjustments	0.000	0.000	-10.590	-	-10.590
• Congressional Directed Reductions	-14.000	-	-	-	-
Adjustments					
• Congressional Add Adjustments	14.000	-	-	-	-

## **Change Summary Explanation**

The FY 2019 funding request was reduced by \$4.000 million to account for the availability of prior year execution balances.

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<p>Proj 0439: FY 2017 Standard Missile Improvements reflects reductions for SBIR (\$.941M) and a Below Threshold Reprogramming (\$1.0M).</p> <p>FY 2019 Standard Missile Improvements reflects realignment of funding from Project 0439 to MILCON appropriation(\$5.0M), a Technical Adjustment realignment(\$4.2M) and rate/miscellaneous adjustments (\$0.9M) due to purchase inflation.</p> <p>FY 2019 Standard Missile Improvements reflects increases for SM-2 Improvements being designated as an Accelerated Acquisition Program (\$33.0M).</p> <p>Project 3092: FY 2017 Future Capabilities reflects reductions for SBIR (\$3.0M) and a Below Threshold Reprogramming (\$2.0M).</p> <p>FY 2019 Future Capabilities reflects reductions in Miscellaneous Adjustments (\$1.4M) due to purchase inflation.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018		
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
0439: <i>Standard Missile Improvement</i>	1,147.781	23.046	50.188	110.058	-	110.058	86.922	41.683	11.811	12.125	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

Missile Integration with Air and Missile Defense S-Band Radar (AMDR-S) for DDG 51 Flight III ships, and with other platforms/Combat System baselines, will include requirements review/updates and analysis, verification; technical documentation, design review and working group 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 Configuration Baseline (ACB) 20 Preliminary Design Review (PDR) (FY 2018), Critical Design Review (CDR) (FY 2019); Engineering Development Model (EDM) testing (FY 2016-2018); Combat Systems Engineering Development Site (CSEDS) , Moorestown, New Jersey Combat System/missile integration testing (FY 2018-2020); Waterfront Integration Testing (WIT) FY 2022 and ACB 20 for DDG 51 FLT III Electromagnetic Environmental Effects (E3) and Hazard of Electromagnetic Radiation to Ordnance (HERO) Testing, analysis, and reports. Missile variants: ESSM BLK 1 and 2; SM-2 BLK IIIB MU2; SM-6 BLK I and IA (Current AEGIS configuration).

STANDARD Missile 2 (SM-2 BLK IIIC) engineering changes funding is for the design, systems engineering, analysis, integration, and test of replacements for obsolete components as well as performance improvements to address emerging threats. Analysis will include evaluation of transition to an active seeker baseline leveraging the investment made with the SM-6 and ESSM Block II missiles. Initial funding is for the requirements generation, risk reduction/mitigation, and documentation leading to the commencement of the obsolescence project. Capability improvements: Enhanced Stream-Raid performance against numerous threats to include Agile Prism via target resolution in range and Doppler and missile/target pairing logic, over-the-horizon capability for increased depth of fire, enhanced capability against electronic attack, improved firepower due to decreased dependence on illuminators, and enhanced fuzing via guidance integrated fuzing. The program has been designated an Accelerated Acquisition (AA) program by the CNO/ASN RDA. The program schedule will be shifted to reflect the change in process. The goal is to reach Initial Capability (IC) by Q3FY2022.

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

	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
<b>Title:</b> Air and Missile Defense Radar (AMDR) Integration & Test	10.254	11.967	10.881	0.000	10.881
<b>Articles:</b>	-	-	-	-	-
<b>FY 2018 Plans:</b> Provide Principal for Safety (PFS) and systems safety engineering support. Interface with Weapon System Explosive Safety Review Board (WSESRB) board members and review safety documentation as required. Continue to support and conduct early stage radar/Combat System/Missile integration/risk reduction testing with Missile Communication Test Set (MCTS)/Missile Simulator Unit (MSU) at the RIDS, Sudbury Facility or ARDEL/					

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Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements		Project (Number/Name) 0439 / Standard Missile Improvement		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
<p>PMRF. Complete E3/HERO design, analysis, and qualification testing. Develop, integrate, and test ET-17 solution to address missile combat system interface and cyber security issues. Conduct planning and configure SM-6 Internal Missile Initializer and Power Supply (IMIPS) Inert Operating Missile (IOM) in preparation for land based testing at Combat System Engineering Development Site (CSEDS) in FY 19. Conduct E3 test using inert operational missile with SPY-6 engineering development model array. Support verification analysis; technical documentation updates, special studies, design review and working group SME support, risk assessment, safety, test and evaluation planning, analysis, and data collection. Prepare for and support ACB 20 PDR and address Missile/ET17 related activities.</p> <p><b>FY 2019 Base Plans:</b> Plan, support and conduct missile, radar and combat system (CS) testing at CSEDS (Lockheed Martin Moorestown)/SCSC (Surface Combat Systems Center Wallops Island). Continue to develop, integrate, and test ET-17 solutions to address missile/CS interface and cyber security issues. Prepare for and support ACB 20 CDR and address missile/ET-17 related actions.</p> <p><b>FY 2019 OCO Plans:</b> N/A</p> <p><b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> The FY 2019 decrease is due to the transition from development to the initiation of testing of a new software build in FY 2018. In FY 2019, the development is complete and the program is testing and fielding the new software build. To control cost, the missile test program in FY 2019 is currently aligned with the Combat System Test Program.</p>						
<p><b>Title:</b> Standard Missile-2 Improvement</p> <p><b>Articles:</b></p> <p><b>FY 2018 Plans:</b> Award Engineering Manufacturing and Development (EMD) contract. Complete Preliminary Design Review (PDR) for Jet Tab Assembly (JTA) (critical path item). Refine Modeling &amp; Simulation tools, develop hardware modification tasks and perform Guidance navigational control (GNC) design tasks, Perform wind tunnel testing to lock in/validate accuracy and precision of models. Identify changes to canister electronic and mechanical interface change documents. Begin the design and validation of new hardware (i.e jet tab assemblies, Dorsal fins, and hybrid control surface assembly) required to meet medium range requirements. Conduct risk reduction/mitigation activities to clearly identify and reduce risk. Continue efforts for a completion contract for the project with the prime contractor. Continue Insensitive Munitions (IM) effort to enhance the safety and reaction of</p>		12.792 -	38.221 -	99.177 -	0.000 -	99.177 -

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>						
		<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
<p>our weapons including preliminary design efforts for a single pulse Electronic Ignition Safety Device (EISD), potentially for MK-104 dual thrust rocket motor (DTRM) in an emergent SM-2 improvements effort.</p> <p><b>FY 2019 Base Plans:</b>            Prepare for and support a Rapid Fielding Decision(RFD). Complete Low Rate Initial Production I (LRIP-I) Request for Proposal. LRIP-I will consist of 20 All Up Rounds (AUR). Perform and support WSESRBs. Perform Jet tab assemblies, Hybrid control surface assembly and dorsal fins prototype testing to verify design. Continue Vertical Launch System (VLS) and canister development efforts. Begin VLS software testing. Continue AUR component development and testing, as well as missile software development. Qualify Insensitive Munitions (IM) efforts that enhance the safety and reaction of our weapons for a single pulse Electronic Ignition Safety Device (EISD).</p> <p><b>FY 2019 OCO Plans:</b>            N/A</p> <p><b>FY 2018 to FY 2019 Increase/Decrease Statement:</b>            The increase in FY 2019 is due to the SM-2 BLK IIIC (SM-2 Improvements) program being designated an Accelerated Acquisition (AA) program by CNO/ASN RDA. A significant amount of concurrent development work (missile/Launcher/Weapon System) is required in FY 2019 to prepare for the first live fire in FY 20. Funding is required to deliver by FY 2022 versus the original Program Of Record of FY 2024.</p>						
<b>Accomplishments/Planned Programs Subtotals</b>		23.046	50.188	110.058	0.000	110.058
<b>C. Other Program Funding Summary (\$ in Millions)</b>						
N/A						
<b>Remarks</b>						
<b>D. Acquisition Strategy</b>						
Engineering and integration testing for SM-2 Improvements in FY 2017-FY2 202 to support Developmental Test in FY 2020 and continue follow-on ship integration and design update effort in FY 2021.						
<b>E. Performance Metrics</b>						
Perform E3/HERO design, analyses, and E3/HERO qualification tests for AMDR in FY 2017-2018.						
AMDR WSESRB in FY2017.						

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<p>AMDR MCTS/MSU Uplink/Downlink testing is planned for FY 2017/2018.</p> <p>AMDR IOM, MSU, or VOM testing is planned for FY2019-2021.</p> <p>Combat System Integration for AMDR is planned for FY2019-2021</p> <p>Waterfront Integration Testing for AMDR is planned for FY2021/2022.</p> <p>AMDR DDG 51 FLT III IOC 4Q2023</p> <p>AMDR ET-17 MSLEX 4Q2022</p> <p>SM Improvements Preliminary Design IPR in FY2018.</p> <p>SM Improvements SSSTRP in FY2019.</p> <p>SM Improvements WSESRB in FY2019.</p> <p>SM Improvements Developmental Test in FY2021.</p> <p>SM Improvements Obtain Initial Capability approval in FY 2022.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements				Project (Number/Name) 0439 / Standard Missile Improvement					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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 Analysis1	C/CPFF	RAYTHEON : Tucson, AZ	293.551	11.958	Nov 2016	37.623	Nov 2017	58.980	Nov 2018	-		58.980	Continuing	Continuing	Continuing
Design and Analysis2	C/CPFF	JHU/APL : Laurel, MD	8.656	3.250	Nov 2016	4.718	Nov 2017	7.799	Nov 2018	-		7.799	0.000	24.423	-
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	789.367	0.238	Nov 2016	0.881	Nov 2017	0.971	Nov 2018	-		0.971	0.000	791.457	-
Design and Analysis5	WR	NSWC : Indian Head	0.940	0.000		0.000		0.100	Nov 2018	-		0.100	0.000	1.040	-
Design and Analysis6	WR	NAWC : China Lake	4.779	0.250	Nov 2016	0.600	Nov 2017	0.795	Nov 2018	-		0.795	0.000	6.424	-
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	0.100	0.100	Nov 2016	0.100	Nov 2017	0.100	Nov 2018	-		0.100	0.000	0.400	-
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	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	-
Design and Analysis16	WR	NWAS : Corona	0.736	0.200	Nov 2016	0.500	Nov 2017	0.320	Nov 2018	-		0.320	0.000	1.756	-
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	0.172	0.000		0.000		0.000		-		0.000	0.000	0.172	-
Design and Analysis19	MIPR	MDA : Dahlgren,VA	1.257	0.000		0.000		0.000		-		0.000	0.000	1.257	-

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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>					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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 Analysis20	WR	IWS3D : ARLINGTON, VA	1.500	0.000		0.000		0.000		-		0.000	0.000	1.500	-
Design and Analysis21	WR	VARIOUS : IWS (IWS 1)	11.071	6.210	Nov 2016	4.226	Nov 2017	27.256	Nov 2018	-		27.256	0.000	48.763	-
Design and Analysis22	WR	IWS3L : Arlington, Va	0.000	0.000		0.000		7.070	Nov 2018	-		7.070	0.000	7.070	-
Design and Analysis23	WR	NSWC : PHD	0.000	0.000		0.684	Nov 2017	0.100	Nov 2018	-		0.100	0.000	0.784	-
Subtotal			1,137.653	22.206		49.332		103.491		-		103.491	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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 & EVALUATION1	WR	NSWC : Port Hueneme	0.185	0.000		0.000		0.000		-		0.000	0.000	0.185	-
DEVELOPMENTAL TEST & EVALUATION2	WR	WSMR : New Mexico	1.600	0.000		0.000		5.000	Nov 2018	-		5.000	0.000	6.600	-
DEVELOPMENTAL TEST & EVALUATION3	WR	NAWC : Pt Mugu	0.098	0.000		0.000		0.000		-		0.000	0.000	0.098	-
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 : PHD/ Techrep	0.567	0.000		0.000		0.000		-		0.000	0.000	0.567	-
DEVELOPMENTAL TEST & EVALUATION6	SS/CPFF	RAYTHEON : Tucson, Az	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
DEVELOPMENTAL TEST & EVALUATION7	C/CPFF	JHU/APL : Laurel, Md	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Subtotal			2.788	0.000		0.000		5.000		-		5.000	0.000	7.788	N/A



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Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements				Project (Number/Name) 0439 / Standard Missile Improvement					
<b>Management Services (\$ in Millions)</b>				<b>FY 2017</b>		<b>FY 2018</b>		<b>FY 2019 Base</b>		<b>FY 2019 OCO</b>		<b>FY 2019 Total</b>			
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	2.630	0.000		0.000		0.000		-		0.000	0.000	2.630	-
PROGRAM MANAGEMENT SUPPORT	C/CPAF	VARIOUS : VARIOUS	4.434	0.780	Nov 2016	0.796	Nov 2017	1.537	Nov 2018	-		1.537	0.000	7.547	-
TRAVEL	Allot	IWS3 : Arlington, VA	0.276	0.060	Nov 2016	0.060	Nov 2017	0.030	Nov 2018	-		0.030	0.000	0.426	-
<b>Subtotal</b>			7.340	0.840		0.856		1.567		-		1.567	0.000	10.603	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			1,147.781	23.046		50.188		110.058		-		110.058	Continuing	Continuing	N/A
<b>Remarks</b>															

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Exhibit R-4, RDT&amp;E Schedule Profile: PB 2019 Navy

Date: February 2018

## Appropriation/Budget Activity

1319 / 5

## R-1 Program Element (Number/Name)

PE 0604366N / Standard Missile  
Improvements

## Project (Number/Name)

0439 / Standard Missile Improvement

	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
<b>Proj 0439</b>																												
JUWL SSSTRP 2																												
JUWL WSESRB 2																												
JUWL SSSTRP 3																												
JUWL WSESRB 3																												
JUWL IOC																												
AMDR Land Based Testing																												
JUWL SDTS INCO Firing																												
JUWL ITB 3																												
AMDR IOM Delivery																												
AMDR 2ND IOM Delivery																												
AMDR DT/OT																												
AMDR DDG 51 FLT III IOC																												
AMDR ET-17 MSLEX During CSSQT																												
SM-2 Improvements Preliminary Design IPR																												
SM-2 Improvements WSESRB																												
SM-2 Improvements WSESRB 2																												
SM-2 Improvements All Up Round IPR																												
SM-2 Improvements SSSTRP																												
SM-2 Improvements WSESRB 3																												
SM-2 Improvements SSSTRP 2																												
SM-2 Improvements CTV/GTV																												
SM-2 Improvements WSESRB 4																												
SM-2 Improvements DT-1/2																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy																								Date: February 2018													
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										FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
SM-2 Improvements Military Utility Assessment										[REDACTED]																											
SM-2 Improvements Initial Capability										[REDACTED]																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements	Project (Number/Name) 0439 / Standard Missile Improvement	

## Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 0439</b>				
JUWL SSSTRP 2	3	2017	3	2017
JUWL WSESRB 2	4	2017	4	2017
JUWL SSSTRP 3	1	2019	1	2019
JUWL WSESRB 3	1	2019	1	2019
JUWL IOC	2	2020	2	2020
AMDR Land Based Testing	1	2017	1	2020
JUWL SDTS INCO Firing	3	2017	3	2017
JUWL ITB 3	4	2017	4	2017
AMDR IOM Delivery	4	2017	4	2017
AMDR 2ND IOM Delivery	4	2017	4	2017
AMDR DT/OT	1	2022	3	2023
AMDR DDG 51 FLT III IOC	4	2023	4	2023
AMDR ET-17 MSLEX During CSSQT	4	2022	4	2022
SM-2 Improvements Preliminary Design IPR	3	2018	3	2018
SM-2 Improvements WSESRB	3	2018	3	2018
SM-2 Improvements WSESRB 2	1	2019	1	2019
SM-2 Improvements All Up Round IPR	3	2019	3	2019
SM-2 Improvements SSSTRP	2	2019	2	2019
SM-2 Improvements WSESRB 3	3	2019	3	2019
SM-2 Improvements SSSTRP 2	3	2020	3	2020
SM-2 Improvements CTV/GTV	2	2020	3	2021

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements		Project (Number/Name) 0439 / Standard Missile Improvement	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
SM-2 Improvements WSESRB 4		2	2020	2	2020
SM-2 Improvements DT-1/2		3	2021	3	2021
SM-2 Improvements Military Utility Assessment		1	2022	1	2022
SM-2 Improvements Initial Capability		3	2022	3	2022

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements				Project (Number/Name) 3092 / Standard Missile 6 Program			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
3092: Standard Missile 6 Program	1,200.111	90.555	108.390	55.823	-	55.823	6.253	5.751	4.302	4.427	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), Cooperative Engagement Capability (CEC), and airborne early warning systems. 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, thereby contributing to the continuous protection of forward deployed ground maneuver forces as well as theater rear assets as discussed in the Joint Theater Air Missile Defense (TAMD) Mission Need Statement (MNS), Defense Planning Guide (DPG), Quadrennial Defense Review (QDR), TAMD Capstone Requirements Document, Forward From the Sea, Joint Vision 2010/2020, the 2002/2003 Naval Transformational Roadmap, the Operational Requirements Document for SM-6 BLK 1, and the SM-6 Capability Production Document.

SM-6 portion of Joint and Naval Integrated Fire Control (IFC) 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 delivered as a FY19 and FY23 capability. It integrates sensor improvements, SM-6 BLK IA, CEC and AWS ACB 16 into an advanced from the sea (FTS) Kill chain. Efforts include support for the WSMR upgrade, Trackex events, Integration Events and Live Fire test at land based and at-sea tests.

Future Capabilities Demonstration project supports systems engineering, SM demonstrations, captive flight tests, data collection, and analysis tasks to develop and demonstrate new capabilities for the SM-6 Missile. These capabilities directly support high priority mission requirements requested by Combatant Commanders. Additional details are held at a higher classification.

SM-6 System Engineering and Flight Test Support project supports the completion of SM-6 Follow-On Test and Evaluation (FOT&E) flight tests and Runs for the Record (RFR) required for SM-6 Full Operational Capability (FOC), the completion of Verification of Correction of Deficiencies (VCD) regression flight tests for OT-5/15 deficiencies and associated RFR required for SM-6 FOC, and other SM-6 BLK I test events.

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

	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
<b>Title:</b> SM-6 System Engineering and Flight Test Support	23.868	6.200	5.500	0.000	5.500
<b>Articles:</b>	-	-	-	-	-
<b>FY 2018 Plans:</b>					

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy				Date: February 2018		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements		Project (Number/Name) 3092 / Standard Missile 6 Program		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Prepare for and support AEGIS Speed to Capability (ASToC) efforts, Combat System Ship Qualifications Trials (CSSQTs), and Fleet firings. Conduct ongoing assessments of capabilities against emerging threats. Collection of data, performance analysis, and reliability assessments. Conduct flight test for SWA for regression testing. Commence work for missile software updates for SM 6 BLK I.  <b>FY 2019 Base Plans:</b> Complete missile software updates work for SM-6 BLK I. Conduct follow on regression test. Perform a flight test, at Pt Mugu, for the collection of data, performance and analysis, and reliability assessments.  <b>FY 2019 OCO Plans:</b> N/A  <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> The decrease in FY 2019 corresponds to completion of software development activities and transition to test and evaluation and fielding for the new software build.						
<b>Title:</b> Naval Integrated Fire Control - Counter Air (NIFC-CA)  <b>Articles:</b>  <b>FY 2018 Plans:</b> Continue supporting Increment 2 System of System (SoS) integration and test activities associated with the WSMR Desert Ship Upgrade. Continue integrating SM-6 6DoF updates into the NIFC-CA Federation Support Quarterly Program Reviews, Performance Assessment Working Groups, Modeling and Simulation Working Group, and System Engineering Integration and Test Working Group. Support test event At-Sea (4), Live Fire Test (LFT) (7), and At-Sea (5), and post event performance analysis.  <b>FY 2019 Base Plans:</b> Continue supporting Increment 2 System of System (SoS) integration and test activities associated with the White Sands Missile Range (WSMR) Desert Ship Upgrade. Commence work for SM-6 BLK I and IA NIFC-CA related software upgrades. Support test event LFT (8) and At-Sea (6).  <b>FY 2019 OCO Plans:</b> N/A  <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> The decrease is due to supporting three test events in FY 2018 versus two test events in FY 2019.		2.147 -	6.191 -	2.988 -	0.000 -	2.988 -
<b>Title:</b> Future Capability Demonstration		64.540	95.999	47.335	0.000	47.335

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 Navy			<b>Date:</b> February 2018		
<b>Appropriation/Budget Activity</b> 1319 / 5		<b>R-1 Program Element (Number/Name)</b> PE 0604366N / <i>Standard Missile Improvements</i>		<b>Project (Number/Name)</b> 3092 / <i>Standard Missile 6 Program</i>	

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>					
	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
<p align="right"><b>Articles:</b></p> <p><b>FY 2018 Plans:</b> Continue development of additional capabilities in SM-6 Blk IA missile. Complete preparation for and support Future Capability Demonstration At-Sea Test 3 (two CTVs, one GTV, and one TACDEMO flight) at the Pacific Missile Range Facility (PMRF) in 3QFY18. Prepare for Future Capability Demonstration Land-Based Test 1 (two TACDEMO flights) at White Sands Missile Range in 2QFY19 and Future capability Demonstration At-Sea 4 (one TACDEMO flight) at PMRF in 1Q20. Conduct captive flight tests (CFTs) for collection of data, performance analysis, and reliability assessments. Conduct necessary missile and AEGIS combat system software development. Additional details are held at a higher classification.</p> <p><b>FY 2019 Base Plans:</b> Continue development of additional capabilities in SM-6 Blk IA missile. Complete preparation for and support Future Capability Demonstration Land-Based Test 1 (two TACDEMO flights) at White Sands Missile Range in 2QFY19. Complete all preparations for Future Capability Demonstration At-Sea Test 4 (one TACDEMO flight) at Pacific Missile Range Facility (PMRF) in 1QFY20. Conduct captive flight tests (CFTs) for collection of data, performance analysis, and reliability assessments. Complete missile and AEGIS combat system software development and conduct necessary software alignment with other SM-6 capabilities. Additional details are held at a higher classification.</p> <p><b>FY 2019 OCO Plans:</b> N/A</p> <p><b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> The reduction is due to supporting four (4) At-Sea flight tests in FY 2018 versus two (2) Land Based flight tests in FY 2019 and much of the software development work will be complete in FY 2018. Additional details are held at a higher classification.</p>	-	-	-	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	90.555	108.390	55.823	0.000	55.823

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• WPN 2234: <i>Standard Missile</i>	491.212	546.083	490.210	-	490.210	488.631	490.739	489.059	489.310	3,333.056	9,076.631
• Standard Missile: <i>QTY</i>	108.000	125.000	125.000	-	125.000	125.000	125.000	125.000	125.000	386.000	1,800.000



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 Navy										<b>Date:</b> February 2018	
<b>Appropriation/Budget Activity</b> 1319 / 5				<b>R-1 Program Element (Number/Name)</b> PE 0604366N / <i>Standard Missile Improvements</i>				<b>Project (Number/Name)</b> 3092 / <i>Standard Missile 6 Program</i>			
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
			<u>FY 2019</u>	<u>FY 2019</u>	<u>FY 2019</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Complete</u>	<u>Total Cost</u>
<b>Remarks</b>											
<b>D. Acquisition Strategy</b>											
SM-6 Acquisition Strategy signed by OSD AT&L 14 March 2012.											
<b>E. Performance Metrics</b>											
Accomplishments											
- Future Capability Demonstration Captive Flight Test 2nd quarter 2015 - 1st quarter 2016											
- Future Capability Demonstration Captive Test Vehicle events Feb 2015											
- DT (FOT&E) 2015											
- Future Capability Demonstration At-Sea Test (2) Jan 2016											
- NIFC-CA At-Sea Test (3) Sep 2016											
- NIFC-CA Live Fire Test (4) (Joint Strike Fighter Demo) Sep 2016											
- OT (FOT&E) Jan 2016											
- Future Capability Demonstration Captive Flight Test (CFT) (3) Mar 2017											
- NIFC-CA Live Fire Test (5) May 2017											
- Operational Test (OT-5/15) Apr 2017											
- Full Operational Capability (FOC) Dec 2017											
Upcoming Milestones											
- Integrated Fire Control (IFC) Increments I (Oct 2008-Sep 2015) and II (Oct 2015-Sep 2022)											
- Future Capability Demonstration At-Sea Test (3) 3Q FY 18											
- Future Capability Demonstration Land-Based Test (1) 2Q FY 19											
- Future Capability Demonstration At-Sea Test (4) 1Q FY 20											
- Future Capability Demonstration Captive Flight Test (CFT) (4) 1Q-2Q FY 18											
- Future Capability Demonstration Captive Flight Test (CFT) (5) 4Q FY 18 - 1Q FY 19											
- NIFC-CA At-Sea Test (5) Mar 2018											
- NIFC-CA Live Fire Test (7) Sep 2018											
- NIFC-CA Live Fire Test (8) Mar 2019											
- NIFC-CA At-Sea Test (6) Jul 2019											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements				Project (Number/Name) 3092 / Standard Missile 6 Program					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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 & Analysis	C/CPFF	RAYTHEON : Tucson, AZ	725.198	37.470	Nov 2016	46.109	Nov 2017	17.352	Nov 2018	-		17.352	Continuing	Continuing	Continuing
Design & Analysis	C/CPFF	JHU/APL : Laurel MD	55.081	5.088	Nov 2016	5.523	Nov 2017	5.144	Nov 2018	-		5.144	0.000	70.836	-
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	5.405	0.363	Nov 2016	0.321	Nov 2017	0.480	Nov 2018	-		0.480	0.000	6.569	-
Design & Analysis	WR	NSWC : Dahlgren	11.789	0.160	Nov 2016	0.211	Nov 2017	0.000		-		0.000	0.000	12.160	-
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	10.917	0.150	Nov 2016	0.250	Nov 2017	0.000		-		0.000	0.000	11.317	-
Design & Analysis	WR	NSWC : Crane	1.256	0.000		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	6.074	0.000		0.000		0.000		-		0.000	0.000	6.074	-
Design & Analysis	WR	NSWC : Corona	20.233	0.431	Nov 2016	1.000	Nov 2017	0.000		-		0.000	0.000	21.664	-
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	2.495	0.125	Nov 2016	0.000		0.000		-		0.000	0.000	2.620	-
Design & Analysis	WR	CARDEROCK : Philadelphia, PA	3.658	0.200	Nov 2016	0.200	Nov 2017	0.000		-		0.000	0.000	4.058	-
Design & Analysis	WR	NSWC : Pt Mugu	0.613	0.000		0.000		0.000		-		0.000	0.000	0.613	-
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	3.712	0.000		0.050	Nov 2017	0.000		-		0.000	0.000	3.762	-
Design & Analysis	C/CPFF	CORVID : Mooresville, NC	7.100	3.000	Nov 2016	3.200	Nov 2017	1.670	Nov 2018	-		1.670	0.000	14.970	-
Design & Analysis	C/CPFF	RNB : Arlington, VA	0.010	0.000		0.000		0.000		-		0.000	0.000	0.010	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements				Project (Number/Name) 3092 / Standard Missile 6 Program					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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 & 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)	89.582	15.400	Nov 2016	15.000	Nov 2017	9.455	Nov 2018	-		9.455	0.000	129.437	-
Design & Analysis	WR	VARIOUS : (VLS)	25.324	0.350	Nov 2016	0.000		0.000		-		0.000	0.000	25.674	-
Design & Analysis	WR	NSWC : WSMR	0.100	0.100	Nov 2016	0.000		0.000		-		0.000	0.000	0.200	-
Design & Analysis	WR	PMRF : Hawaii	3.106	0.000		0.700	Nov 2017	0.000		-		0.000	0.000	3.806	-
Design & Analysis	WR	DOI : Washington D.C.	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Subtotal			1,014.223	62.837		72.564		34.101		-		34.101	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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 & Evaluation	WR	NSWC : Port Hueneme	4.429	2.000	Nov 2016	1.700	Nov 2017	1.245	Nov 2018	-		1.245	0.000	9.374	-
Developmental Test & Evaluation	WR	NSWC : WSMR	26.667	0.625	Nov 2016	7.500	Nov 2017	3.175	Nov 2018	-		3.175	0.000	37.967	-
Developmental Test & Evaluation	WR	PMRF : Hawaii	41.144	1.157	Nov 2016	12.800	Nov 2017	3.000	Nov 2018	-		3.000	0.000	58.101	-
Developmental Test & Evaluation	WR	NAWC : Pt Mugu	3.991	0.200	Nov 2016	0.000		0.875	Nov 2018	-		0.875	0.000	5.066	-
Developmental Test & Evaluation	C/CPAF	RAYTHEON : Tucson, AZ	37.417	5.500	Nov 2016	6.500	Nov 2017	3.200	Nov 2018	-		3.200	0.000	52.617	-
Developmental Test & Evaluation	C/CPFF	JHU/APL : Laurel, MD	13.463	3.600	Nov 2016	0.941	Nov 2017	1.800	Nov 2018	-		1.800	0.000	19.804	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements				Project (Number/Name) 3092 / Standard Missile 6 Program					
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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 & Evaluation	WR	NSWC : Corona	10.376	2.600	Nov 2016	0.600	Nov 2017	2.750	Nov 2018	-		2.750	0.000	16.326	-
Developmental Test & Evaluation	WR	NSWC : Dahlgren	1.888	0.578	Nov 2016	0.300	Nov 2017	0.620	Nov 2018	-		0.620	0.000	3.386	-
Developmental Test & Evaluation	WR	VLS : Arlington, VA	2.369	0.000		0.000		0.000		-		0.000	0.000	2.369	-
Developmental Test & Evaluation	WR	COMPTEVFOR : Norfolk, Va	1.514	0.150	Nov 2016	0.225	Nov 2017	0.230	Nov 2018	-		0.230	0.000	2.119	-
Developmental Test & Evaluation	WR	VARIOUS : (IWS 1A)	3.082	0.700	Nov 2016	0.500	Nov 2017	0.000		-		0.000	0.000	4.282	-
Developmental Test & Evaluation	WR	NSWC : Carderock	2.280	0.000		0.100	Nov 2017	0.200	Nov 2018	-		0.200	0.000	2.580	-
Developmental Test & Evaluation	WR	NAWC : China Lake	0.194	4.924	Nov 2016	0.480	Nov 2017	0.000		-		0.000	0.000	5.598	-
Developmental Test & Evaluation	WR	ONR : Arlington, Va	1.854	1.571	Nov 2016	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			151.213	23.605		31.646		17.095		-		17.095	0.000	223.559	N/A
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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 Services	C/CPAF	VARIOUS : Various	32.193	4.050	Nov 2016	4.117	Nov 2017	4.504	Nov 2018	-		4.504	0.000	44.864	-
Travel	Various	IWS3 : Arlington, VA	1.352	0.063	Nov 2016	0.063	Nov 2017	0.123	Nov 2018	-		0.123	0.000	1.601	-
DAWDF	C/FP	Not Specified : Not Specified	1.130	0.000		0.000		0.000		-		0.000	0.000	1.130	-
Subtotal			34.675	4.113		4.180		4.627		-		4.627	0.000	47.595	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy										Date: February 2018					
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements					Project (Number/Name) 3092 / Standard Missile 6 Program					
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			1,200.111	90.555		108.390		55.823		-		55.823	Continuing	Continuing	N/A
Remarks															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2019 Navy			<b>Date:</b> February 2018		
<b>Appropriation/Budget Activity</b> 1319 / 5		<b>R-1 Program Element (Number/Name)</b> PE 0604366N / <i>Standard Missile Improvements</i>			<b>Project (Number/Name)</b> 3092 / <i>Standard Missile 6 Program</i>

	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
<b>Proj 3092</b>																												
Full Operational Capability (FOC)																												
Runs for the Record Final Report																												
Future Capability Demonstration Captive Flight Test (CFT) 3																												
Future Capability Demonstration Captive Flight Test (CFT) 4																												
Future Capability Demonstration Land Based Test (LBT) 1																												
Future Capability Demonstration At-Sea test 3																												
Future Capability Demonstration At-Sea test 4																												
Future Capability Tri-Capable Missile Regression Flight Tests																												
OT-5/15 Flight Test																												
NIFC-CA Live Fire Test (LFT) 5 (WSMR) (Inc 1)																												
NIFC-CA Integration & Test (Inc 2)																												
NIFC-CA Increment 2 Live Firing Testing (WSMR)																												
Integrated Fire Control Increment 2																												
NIFC-CA At-Sea Test (4)																												
NIFC-CA Live Fire Test (8)																												
NIFC-CA At-Sea Test (6)																												
Future Capability Demonstration Captive Flight Test (CFT) 5																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy																Date: February 2018																															
Appropriation/Budget Activity 1319 / 5																R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements																Project (Number/Name) 3092 / Standard Missile 6 Program															
																FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023							
																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				
Full Rate Production (FRP) 3 Deliveries																																															
Full Rate Production (FRP) 4 Deliveries																																															
Full Rate Production (FRP) 5 Deliveries																																															
Full Rate Production (FRP) 6 Deliveries																																															
Full Rate Production (FRP) 5 Award																																															
Full Rate Production (FRP) 6 Award																																															
Full Rate Production (FRP) 7 Award																																															
Full Rate Production (FRP) 8 Award																																															
Full Rate Production (FRP) 9 Award																																															
Full Rate Production (FRP) 10 Award																																															
Full Rate Production (FRP) 11 Award																																															

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 Navy			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604366N / <i>Standard Missile Improvements</i>	<b>Project (Number/Name)</b> 3092 / <i>Standard Missile 6 Program</i>	

**Schedule Details**

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3092</b>				
Full Operational Capability (FOC)	1	2018	1	2018
Runs for the Record Final Report	4	2017	4	2017
Future Capability Demonstration Captive Flight Test (CFT) 3	2	2017	4	2017
Future Capability Demonstration Captive Flight Test (CFT) 4	1	2018	2	2018
Future Capability Demonstration Land Based Test (LBT) 1	2	2019	2	2019
Future Capability Demonstration At-Sea test 3	3	2018	3	2018
Future Capability Demonstration At-Sea test 4	1	2020	1	2020
Future Capability Tri-Capable Missile Regression Flight Tests	3	2017	3	2017
OT-5/15 Flight Test	3	2017	3	2017
NIFC-CA Live Fire Test (LFT) 5 (WSMR) (Inc 1)	3	2017	3	2017
NIFC-CA Integration & Test (Inc 2)	2	2018	2	2018
NIFC-CA Increment 2 Live Firing Testing (WSMR)	3	2018	3	2018
Integrated Fire Control Increment 2	4	2018	4	2020
NIFC-CA At-Sea Test (4)	1	2018	1	2018
NIFC-CA Live Fire Test (8)	2	2019	2	2019
NIFC-CA At-Sea Test (6)	4	2019	4	2019
Future Capability Demonstration Captive Flight Test (CFT) 5	1	2019	1	2019
Full Rate Production (FRP) 3 Deliveries	3	2017	2	2018
Full Rate Production (FRP) 4 Deliveries	3	2018	2	2019
Full Rate Production (FRP) 5 Deliveries	3	2019	2	2020
Full Rate Production (FRP) 6 Deliveries	3	2020	2	2021



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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements		Project (Number/Name) 3092 / Standard Missile 6 Program	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
Full Rate Production (FRP) 5 Award		2	2017	2	2017
Full Rate Production (FRP) 6 Award		2	2018	2	2018
Full Rate Production (FRP) 7 Award		2	2019	2	2019
Full Rate Production (FRP) 8 Award		2	2020	2	2020
Full Rate Production (FRP) 9 Award		2	2021	2	2021
Full Rate Production (FRP) 10 Award		2	2022	2	2022
Full Rate Production (FRP) 11 Award		2	2023	2	2023