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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2017 Navy	<b>Date:</b> February 2016
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<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>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	2,186.356	50.241	115.644	120.561	-	120.561	173.761	135.735	88.932	102.128	Continuing	Continuing
0439: <i>Standard Missile Improvement</i>	1,117.377	11.434	19.626	24.987	-	24.987	64.465	73.613	83.390	96.317	Continuing	Continuing
3092: <i>Standard Missile 6 Program</i>	1,068.979	38.807	96.018	95.574	-	95.574	109.296	62.122	5.542	5.811	Continuing	Continuing

**Program MDAP/MAIS Code:**  
**Project MDAP/MAIS Code(s):** 197, 391

**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 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 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 2015</u></b>	<b><u>FY 2016</u></b>	<b><u>FY 2017 Base</u></b>	<b><u>FY 2017 OCO</u></b>	<b><u>FY 2017 Total</u></b>
Previous President's Budget	36.698	129.649	114.759	-	114.759
Current President's Budget	50.241	115.644	120.561	-	120.561
Total Adjustments	13.543	-14.005	5.802	-	5.802
• Congressional General Reductions	-	-0.005			
• Congressional Directed Reductions	-	-14.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	14.727	0.000			
• SBIR/STTR Transfer	-1.184	0.000			
• Program Adjustments	0.000	0.000	14.900	-	14.900
• Rate/Misc Adjustments	0.000	0.000	-9.098	-	-9.098

**Change Summary Explanation**

Decrease in Standard Missile Improvements by \$4.124M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

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<p>SBIR reduction (\$1.184) in FY15. FY 15 increase to Standard Missile 6 program (\$14.727) is for Future Capabilities Demonstration to support a TACDEMO event. FY 16 decrease to Standard Missile 6 program (\$14.005) is for Congressional reduction for 4 excess SM-6 design and analysis. FY17 increase to Standard Missile Improvement (\$14.900) is for SM-2 improvements to mitigate obsolescence and address emerging threats. FY 17 decrease to Standard Missile Improvement and Standard Missile 6 program (\$4.133) for other rate/miscellaneous reductions.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy										Date: February 2016		
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
0439: <i>Standard Missile Improvement</i>	1,117.377	11.434	19.626	24.987	-	24.987	64.465	73.613	83.390	96.317	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Project MDAP/MAIS Code: 197												
A. Mission Description and Budget Item Justification												
Modifications to SM-2 BLK IIIA are required for use on DDG-1000 class destroyers. The Joint Universal Waveform Link (JUWL) will be integrated with the Evolved Sea Sparrow Missile (ESSM) and Standard Missile (SM) to communicate with the DDG-1000 SPY-3 radar. SM-2 missile software will be updated with Interrupted Continuous Wave Illumination (ICWI) in order to allow operation with DDG-1000.												
Missile Integration with Air and Missile Defense S-Band Radar (ADMDR-S) for DDG 51 Flight III ships 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 PDR (FY16), CDR (FY18); Engineering Development Model (EDM) testing (FY16/17); Surface Combat Systems Center, Wallops Island, Virginia (SCSC) Combat System/missile integration testing (FY18/19); Waterfront Integration Testing (WIT) FY 21 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) 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.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	
<b>Title:</b> DDG-1000 Pre Plan Product Improvement (P3I) Link Integration/ICWI							8.566	0.170	0.000	0.000	0.000	
							Articles: -	-	-	-	-	
FY 2015 Accomplishments: Conducted SM guidance and round level qualification testing and Electromagnetic Interface (EMI)/E3 testing.												
FY 2016 Plans:												

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Complete Engineering Change Proposal (ECP) for qualified SM-2 BLK IIIAZ configuration. Prepare for SM-2 BLKIIIAZ SSSTRP and WSESRB in FY16.  FY 2017 Base Plans: N/A  FY 2017 OCO Plans: N/A						
Title: Standard Missile-2 Improvement  Articles:  FY 2015 Accomplishments: N/A  FY 2016 Plans: N/A  FY 2017 Base Plans: Complete operational requirements generation and staffing for approval. Complete Missile Performance Specification for 2018 project commencement. Conduct risk reduction/mitigation activities to clearly identify and reduce risk entering into project start in 2018. Complete respective acquisition documentation for the project. Finalize completion contract for the project with the prime contractor. Combat System and System of System kill chain coordination. Insensitive Munitions (IM) effort to enhance the safety and reaction of our weapons including design and development 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.  FY 2017 OCO Plans: N/A		0.000 -	0.000 -	13.293 -	0.000 -	13.293 -
Title: Air and Missile Defense Radar (AMDR) Integration  Articles:  FY 2015 Accomplishments: Developed and updated missile interface documentation to support the detailed requirements development for ACB Next and integration with AMDR. Provided design and program review support with radar and CS prime contractors and engineering studies.  FY 2016 Plans:		2.868 -	19.456 -	11.694 -	0.000 -	11.694 -

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>					
	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Update missile models with AMDR and Combat System (CS) elements as available; generate missile fly out data; configure missile communication test set for radar risk reduction testing. Support and prepare for land based testing, provide engineering studies for integration of SM and ESSM with AMDR. Perform Electromagnetic environmental effects and Hazard of Electromagnetic Radiation to Ordnance (HERO) testing. Review E3/HERO design, analyses, and qualification tests. Develop new missile Interface Control Documents (ICDs) for SM-2, SM-6, and ESSM. Participate in and provide analysis to support the radar design evolution. 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.  <b>FY 2017 Base Plans:</b> Support and conduct early stage radar/Combat System/Missile integration/risk reduction testing with Missile Communication Test Set (MCTS). Complete E3/HERO design, analysis, and qualification testing. Conduct planning and configure SM-2/ESSM/SM-6 Internal Missile Initializer and Power Supply (IMIPS) Inert Operating Missile (IOM) in preparation for land based testing at Surface Combat Systems Center, Wallops Island, Virginia (SCSC) in FY 18. Support verification analysis; technical documentation updates, design review and working group SME support, risk assessment, safety, test and evaluation planning, analysis, and data collection.  <b>FY 2017 OCO Plans:</b> N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	11.434	19.626	24.987	0.000	24.987
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A					
<b>Remarks</b>					
<b>D. Acquisition Strategy</b> Production representative missiles will be built for ESSM between FY12 and FY15 and for SM-2 between FY14 and FY18.  Engineering and integration testing for X-Band Transceiver (XBT) ESSM in FY14-FY17 and SM-2 in FY14-FY16. 67 ESSM missiles and 37 SM missiles are required to support Developmental Test & Operational Test (DT & OT) FY17-FY18 and continue follow-on ship integration and design update effort in FY19.					

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<p>SM Development, integration, and test is expected to conclude by early FY18 for the X-band JUWL and ICWI. ESSM initial engineering design for X-Band JUWL capability was completed and development completed in FY15. XBT JUWL ESSM land-based integration testing is expected to conclude by FY16, and shipboard testing to conclude by early FY19.</p> <p>Engineering and integration testing for SM-2 Improvements in FY17-FY21 to support Developmental Test in FY20 and continue follow-on ship integration and design update effort in FY21.</p> <p><b>E. Performance Metrics</b></p> <p>SM-2 Design verification of component, plate, guidance section, and all up round with a final qualification test in December 2015 - July 2016.</p> <p>Conduct SM-2 Software System Safety Technical Review Panel (SSSTRP) and Weapon System Explosive Review Board (WSESRB) in FY16.</p> <p>Conduct SM-2 Software System Safety Technical Review Panel (SSSTRP) and Weapon System Explosive Review Board (WSESRB) in FY17.</p> <p>SM-2 BLK III ICWI JUWL Program to complete in July 2016.</p> <p>Conducting interim WSESRB for XBT JUWL ESSM in FY16. Held preliminary SSSTRP and WSESRB for Dual-Band Transceiver (DBT - supports X-Band JUWL and S-Band) ESSM in FY15, conduct interim SSSTRP and WSESRB for DBT ESSM in FY16, conduct final SSSTRP and WSESRB for DBT ESSM in FY17.</p> <p>Develop AMDR new missile ICDs for SM-2, SM-6, and ESSM BLK I in FY15/16. Develop new missile ICDs for ESSM BLK II in FY16.</p> <p>Perform E3/HERO design, analyses, E3/HERO qualification tests for AMDR in FY16-17.</p> <p>AMDR WSESRB in FY16.</p> <p>AMDR MCTS testing is planned for FY16/17.</p> <p>AMDR IOM testing is planned for FY18-21.</p> <p>Combat System Integration for AMDR is planned for FY19-20.</p> <p>Waterfront Integration Testing for AMDR is planned for FY22.</p> <p>SM-2 Improvements PDR in FY18.</p> <p>SM-2 Improvements SSSTRP in FY19.</p>		

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SM-2 Improvements WSESRB in FY19.		
SM-2 Improvements Developmental Test in FY20.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy												Date: February 2016			
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 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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	SS/CPAF	RAYTHEON : Tucson, AZ	277.984	9.172	Nov 2014	3.440	Mar 2016	20.389	Nov 2016	-		20.389	Continuing	Continuing	Continuing
Design and Analysis2	C/CPFF	JHU/APL : Laurel, MD	7.806	0.310	Nov 2014	3.781	Mar 2016	3.250	Nov 2016	-		3.250	0.000	15.147	-
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	788.667	0.601	Nov 2014	0.784	Feb 2016	0.238	Nov 2016	-		0.238	0.000	790.290	-
Design and Analysis5	WR	NSWC : Indian Head	0.940	0.000		0.000		0.000		-		0.000	0.000	0.940	-
Design and Analysis6	WR	NAWC : China Lake	4.225	0.474	Nov 2014	1.109	Feb 2016	0.250	Nov 2016	-		0.250	0.000	6.058	-
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	0.000		0.000		0.100	Nov 2016	-		0.100	0.000	0.200	-
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	0.385	0.351	Nov 2014	0.000		0.200	Nov 2016	-		0.200	0.000	0.936	-
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	0.131	0.041	Nov 2014	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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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy												Date: February 2016			
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 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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 1.0	0.000	0.000		10.052	Mar 2016	0.100	Nov 2016	-		0.100	0.000	10.152	-
Design and Analysis21	WR	IWS3A : Arlington, Va	0.000	0.000		0.000		0.100	Nov 2016	-		0.100	0.000	0.100	-
Subtotal			1,108.519	10.949		19.166		24.627		-		24.627	-	-	-
Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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		0.000		-		0.000	0.000	1.600	-
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	-
Subtotal			2.788	0.000		0.000		0.000		-		0.000	0.000	2.788	-
Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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	2.630	0.000		0.000		0.000		-		0.000	0.000	2.630	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2017 Navy													<b>Date:</b> February 2016		
<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> 0439 / <i>Standard Missile Improvement</i>					
<b>Management Services (\$ in Millions)</b>				<b>FY 2015</b>		<b>FY 2016</b>		<b>FY 2017 Base</b>		<b>FY 2017 OCO</b>		<b>FY 2017 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
PROGRAM MANAGEMENT SUPPORT	C/CPAF	VARIOUS : VARIOUS	3.246	0.423	Nov 2014	0.400	Apr 2016	0.300	Nov 2016	-		0.300	0.000	4.369	-
TRAVEL	Allot	IWS3 : Arlington, VA	0.194	0.062	Nov 2014	0.060	Nov 2015	0.060	Nov 2016	-		0.060	0.000	0.376	-
<b>Subtotal</b>			6.070	0.485		0.460		0.360		-		0.360	0.000	7.375	-
			<b>Prior Years</b>	<b>FY 2015</b>		<b>FY 2016</b>		<b>FY 2017 Base</b>		<b>FY 2017 OCO</b>		<b>FY 2017 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			1,117.377	11.434		19.626		24.987		-		24.987	-	-	-
<b>Remarks</b>															

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Exhibit R-4, RDT&amp;E Schedule Profile: PB 2017 Navy

Date: February 2016

## Appropriation/Budget Activity

1319 / 5

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

PE 0604366N / Standard Missile  
Improvements

## Project (Number/Name)

0439 / Standard Missile Improvement

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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 IOC																												
JUWL SSSTRP 3																												
JUWL WSESRB 3																												
AMDR MISSILE MODELS																												
JUWL Guidance and Round Level Testing																												
JUWL EMV Test/Analysis and Uplink/ Downlink Verification																												
JUWL Program																												
JUWL WIETC																												
AMDR Land Based Testing																												
JUWL SDTS INCO Firing																												
JUWL ITB 3																												
AMDR IOM Delivery																												
AMDR 2ND IOM Delivery																												
SM-2 Improvements PDR																												
SM-2 Improvements WSESRB																												
SM-2 Improvements WSESRB 2																												
SM-2 Improvements CDR																												
SM-2 Improvements SSSTRP																												
SM-2 Improvements WSESRB 3																												
SM-2 Improvements SSSTRP 2																												
SM-2 Improvements DT																												

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										FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SM-2 Improvements WSESRB 4										<div></div>																											

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**Schedule Details**

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 0439</b>				
JUWL SSSTRP 2	1	2016	1	2016
JUWL WSESRB 2	2	2016	2	2016
JUWL IOC	4	2018	4	2018
JUWL SSSTRP 3	3	2016	3	2016
JUWL WSESRB 3	3	2016	3	2016
AMDR MISSILE MODELS	3	2015	4	2015
JUWL Guidance and Round Level Testing	3	2015	3	2015
JUWL EMV Test/Analysis and Uplink/Downlink Verification	1	2016	4	2017
JUWL Program	1	2015	1	2017
JUWL WIETC	1	2015	1	2015
AMDR Land Based Testing	1	2017	4	2019
JUWL SDTS INCO Firing	3	2017	3	2017
JUWL ITB 3	4	2017	4	2017
AMDR IOM Delivery	3	2016	3	2016
AMDR 2ND IOM Delivery	3	2017	3	2017
SM-2 Improvements PDR	4	2017	1	2018
SM-2 Improvements WSESRB	2	2018	2	2018
SM-2 Improvements WSESRB 2	2	2019	2	2019
SM-2 Improvements CDR	2	2019	2	2019
SM-2 Improvements SSSTRP	4	2019	4	2019
SM-2 Improvements WSESRB 3	2	2020	2	2020

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy			Date: February 2016		
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 SSSTRP 2		3	2020	3	2020
SM-2 Improvements DT		4	2020	3	2021
SM-2 Improvements WSESRB 4		2	2021	2	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy										Date: February 2016		
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3092: <i>Standard Missile 6 Program</i>	1,068.979	38.807	96.018	95.574	-	95.574	109.296	62.122	5.542	5.811	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Project MDAP/MAIS Code: 391												

## **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 commences in FY 16 and will be delivered as a FY19 and FY22 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. FY16 will also execute an IFC FTS Kill Chain Demo with JSF.

Insensitive Munitions (IM) effort supports transition of technology associated with Office of Naval Research (ONR) HARDKILL Future Naval Capabilities reflected in a signed level B, Technology Transition Agreement (TTA), endorse by PEO IWS 3.0, OPNAV N96, ONR, and MDA AX.

Portable All Up Round Bit Tester (PABTs) eliminates the need for missiles to be removed from the ship and transported to the Intermediate Logistics Maintenance Facility (ILMF) to undergo testing, reprogramming, and maintenance checks. PABTs development and subsequent delivery in FY16 will increase missile/asset availability to the fleet and result in significant maintenance savings over the SM-6 lifecycle.

Future capabilities demonstration project supports SM demonstrations, captive flight tests, data collection, and analysis tasks.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy				Date: February 2016				
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements		Project (Number/Name) 3092 / Standard Missile 6 Program				
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 OT-5/15 regression flight tests and associated RFR required for SM-6 FOC, and other SM-6 flight test events.								
SM-6 OT-5/15 Development project supports the system engineering and software development to correct a deficiency discovered during Operational Tests 5 and 15. Correction of this deficiency is required for SM-6 FOC.								
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<b>Title:</b> SM-6 System Engineering and Flight Test Support  <b>Articles:</b>  <b>FY 2015 Accomplishments:</b> Completed two FOT&E events. Prepared for the remaining four FOT&E events and FY16 flight test events.  <b>FY 2016 Plans:</b> Complete preparation for and support the remaining four FOT&E events. Complete SM-6 FOT&E Runs for the Record in support of SM-6 Full Operational Capability declaration. Complete preparation for and support the FY16 flight test events.  <b>FY 2017 Base Plans:</b> Prepare for and support OT-5/15 Regression Flight Tests in conjunction with the Future Capabilities Demo CTV flight tests at the Pacific Missile Range Facility. Collection of data, performance analysis, and reliability assessments. Complete any required OT-5/15 Runs for the Record.  <b>FY 2017 OCO Plans:</b> N/A				6.087	21.300	10.500	0.000	10.500
				-	-	-	-	-
<b>Title:</b> Insensitive Munitions (IM)  <b>Articles:</b>  <b>FY 2015 Accomplishments:</b> The prime contractor continued the development effort to complete the ISD technology concept. Safety plans and reviews with the safety community are being executed regarding the ISD effort.  <b>FY 2016 Plans:</b> The prime contractor will continue the development effort of the ISD technology concept. Safety plans and reviews with the safety community will be planned and executed.  <b>FY 2017 Base Plans:</b>				0.957	1.000	0.000	0.000	0.000
				-	-	-	-	-



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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy			Date: February 2016			
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Effort combined with SM-2 Improvements starting in FY 17.						
FY 2017 OCO Plans: N/A						
Title: Portable All-Up Round Bit Tester (PABTs)  Articles:  FY 2015 Accomplishments: Completed harware/software Preliminary Design review (PDR) and interface development and support efforts for hardware/software Crtical Desgin Review (CDR).  FY 2016 Plans: N/A  FY 2017 Base Plans: N/A  FY 2017 OCO Plans: N/A		0.958 -	0.000 -	0.000 -	0.000 -	0.000 -
Title: SM-6 OT-5/15 Development  Articles:  FY 2015 Accomplishments: Began development of software correction for deficiencies found during IOT&E events OT-5 and OT-15. Additional details are held at a higher classification.  FY 2016 Plans: Complete development of the OT-5/15 correction  FY 2017 Base Plans: N/A  FY 2017 OCO Plans: N/A		3.300 -	8.900 -	0.000 -	0.000 -	0.000 -
Title: Naval Integrated Fire Control - Counter Air (NIFC-CA)  Articles:  FY 2015 Accomplishments:		1.943 -	2.106 -	2.215 -	0.000 -	2.215 -

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy				Date: February 2016		
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Developed initial Capabilities and Limitations. Supported successful first deployment of the NIFC-CA Capability. Integrated missile 6-DoF upgrade to NIFC-CA Federation. Successfully conducted Live Fire Test-3 at the White Sands Missile Range. Successfully executed engineering and integration tracking exercises to support live fire events and for validation of SoS simulation.  <b>FY 2016 Plans:</b> Continue NIFC-CA Increment 1 live fire tests and updates to capabilities and limitations. Commence NIFC-CA Increment 2 2019/2022 capability. Support the WSMR Desert Ship Upgrade III in support of NIFC-CA Increment 2. Integrate the SM-6 Block IA missile simulation into the NIFC-CA Federation. Support development of NIFC-CA Increment 2 test strategy, Performance Assessment, Data Analysis, and Systems Engineering Working Groups.  <b>FY 2017 Base Plans:</b> Support Increment 2 SoS integration and test activities associated with the WSMR Desert Ship Upgrade. Integrate 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. Provide MSU and support to engineering test events and post event performance analysis.  <b>FY 2017 OCO Plans:</b> N/A						
Title: Future Capability Demonstration  <b>Articles:</b>		25.562 -	62.712 -	82.859 -	0.000 -	82.859 -
FY 2015 Accomplishments: Controlled Test Vehicle (CTV) flight tests at the Pacific Missile Range Facility, data collections, performance analysis tasks, reliability assessment, and Combat Systems Integration Test (CSIT). Integration testing of the entire architecture interfaces missile, data network, AEGIS, and airborne sensor. Prepared for TACDEMO. Additional details are held at a higher classification.  <b>FY 2016 Plans:</b> Complete preparation for and support the TACDEMO. Begin development of additional capabilities in SM-6 Blk IA. Additional details are held at a higher classification.  <b>FY 2017 Base Plans:</b>						

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Navy				<b>Date:</b> February 2016	
<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 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Prepare for and support two additional CTV flight tests at the Pacific Missile Range Facility. Collection of data, performance analysis, and reliability assessments. Continue development of additional capabilities in SM-6 Blk IA missile. Additional details are held at a higher classification  <b>FY 2017 OCO Plans:</b> N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	38.807	96.018	95.574	0.000	95.574

  

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• WPN 2234: <i>Standard Missile</i>	404.464	417.252	501.212	-	501.212	511.633	522.957	535.995	544.561	3,766.962	8,641.651
• Standard Missile: <i>QTY</i>	100.000	113.000	125.000	-	125.000	125.000	125.000	125.000	125.000	632.000	1,830.000

**Remarks**

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

**E. Performance Metrics**  
 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  
  
 Upcoming Milestones  
 - Integrated Fire Control (IFC) Increments I (Oct 2008-Sep 2015) and II (Oct 2015-Sep 2022)  
 - Future Capability Demonstration At-Sea Test (2) Jan 2016  
 - Future Capability Demonstration At-Sea Test (3) May 2017  
 - Future Capability Demonstration At-Sea Test (4) May 2018  
 - Future Capability Demonstration At-Sea Test (5) Aug 2019  
 - Operational Test (OT- 5/15) May 2017  
 - OT (FOT&E )2016  
 - NIFC-CA Live Fire Test (4) Jun 2016

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604366N / Standard Missile Improvements	Project (Number/Name) 3092 / Standard Missile 6 Program
<div>- NIFC-CA Joint Strike Fighter Demo Sep 2016</div> <div>- NIFC-CA Live Fire Test Jun 2017</div>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy												Date: February 2016			
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>					
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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/CPIF	RAYTHEON : Tucson, AZ	686.272	14.663	Feb 2015	26.888	Dec 2015	38.122	Nov 2016	-		38.122	Continuing	Continuing	Continuing
Design & Analysis	C/CPFF	JHU/APL : Laurel MD	49.062	2.445	Feb 2015	3.574	Dec 2015	4.037	Nov 2016	-		4.037	0.000	59.118	-
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	4.637	0.000		0.768	Nov 2015	0.548	Nov 2016	-		0.548	0.000	5.953	-
Design & Analysis	WR	NSWC : Dahlgren	11.325	0.329	Feb 2015	0.135	Nov 2015	0.150	Nov 2016	-		0.150	0.000	11.939	-
Design & Analysis	WR	NSWC : Indian Head	3.862	0.055	Feb 2015	0.025	Nov 2015	0.000		-		0.000	0.000	3.942	-
Design & Analysis	WR	NSWC : PHD	9.282	0.600	Feb 2015	1.035	Nov 2015	0.125	Nov 2016	-		0.125	0.000	11.042	-
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	16.659	1.449	Feb 2015	2.125	Nov 2015	0.500	Nov 2016	-		0.500	0.000	20.733	-
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	0.090	0.000		0.050	Nov 2015	0.000		-		0.000	0.000	0.140	-
Design & Analysis	WR	COMPTEVFOR : Norfolk, VA	2.155	0.215	Nov 2014	0.125	Nov 2015	0.000		-		0.000	0.000	2.495	-
Design & Analysis	WR	CARDEROCK : Philadelphia, PA	2.549	0.509	Feb 2015	0.600	Nov 2015	0.200	Nov 2016	-		0.200	0.000	3.858	-
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	6.446	0.000		0.040	Jan 2016	0.000		-		0.000	0.000	6.486	-
Design & Analysis	MIPR	ARMY : Redstone	0.050	0.300	Feb 2015	0.000		0.000		-		0.000	0.000	0.350	-
Design & Analysis	WR	NAWCAD : Pax River, MD	0.392	1.056	Feb 2015	2.264	Nov 2015	0.000		-		0.000	0.000	3.712	-
Design & Analysis	C/CPFF	CORVID : Mooresville, NC	2.900	1.200	Nov 2014	3.000	Nov 2015	3.000	Nov 2016	-		3.000	0.000	10.100	-
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 2017 Navy												Date: February 2016			
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>					
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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)	69.563	4.702	Feb 2015	15.904	Dec 2015	0.000		-		0.000	0.000	90.169	-
Design & Analysis	WR	VARIOUS : (VLS)	24.927	0.347	Feb 2015	0.050	Mar 2016	0.575	Nov 2016	-		0.575	0.000	25.899	-
Design & Analysis	WR	NSWC : WSMR	0.100	0.000		0.000		0.500	Nov 2016	-		0.500	0.000	0.600	-
Design & Analysis	WR	PMRF : Hawaii	0.000	0.772	Feb 2015	2.334	Nov 2015	0.000		-		0.000	0.000	3.106	-
Design & Analysis	WR	DOI : Washington D.C.	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Subtotal			929.876	28.642		58.917		47.757		-		47.757	-	-	-
Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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	2.065	0.641	Feb 2015	1.723	Nov 2015	0.750	Nov 2016	-		0.750	0.000	5.179	-
Developmental Test & Evaluation	WR	NSWC : WSMR	26.042	0.250	Feb 2015	0.375	Mar 2016	0.625	Nov 2016	-		0.625	0.000	27.292	-
Developmental Test & Evaluation	WR	PMRF : Hawaii	38.201	0.757	Feb 2015	2.186	Nov 2015	5.500	Nov 2016	-		5.500	0.000	46.644	-
Developmental Test & Evaluation	WR	NAWC : Pt Mugu	2.769	0.375	Feb 2015	0.847	Nov 2015	0.200	Nov 2016	-		0.200	0.000	4.191	-
Developmental Test & Evaluation	C/CPAF	RAYTHEON : Tucson, AZ	18.961	1.331	Feb 2015	17.606	Dec 2015	5.500	Nov 2016	-		5.500	0.000	43.398	-
Developmental Test & Evaluation	C/CPFF	JHU/APL : Laurel, MD	7.436	2.845	Feb 2015	3.182	Dec 2015	4.138	Nov 2016	-		4.138	0.000	17.601	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy												Date: February 2016			
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 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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	6.718	0.500	Feb 2015	3.158	Nov 2015	4.261	Nov 2016	-		4.261	0.000	14.637	-
Developmental Test & Evaluation	WR	NSWC : Dahlgren	1.508	0.000		0.380	Nov 2015	0.400	Nov 2016	-		0.400	0.000	2.288	-
Developmental Test & Evaluation	WR	VLS : Arlington, VA	2.044	0.000		0.325	Mar 2016	0.100	Nov 2016	-		0.100	0.000	2.469	-
Developmental Test & Evaluation	WR	COMPTEVFOR : Norfolk, Va	1.364	0.000		0.150	Nov 2015	0.100	Nov 2016	-		0.100	0.000	1.614	-
Developmental Test & Evaluation	WR	VARIOUS : (IWS 1A)	0.902	1.330	Feb 2015	0.850	Dec 2015	20.600	Nov 2016	-		20.600	0.000	23.682	-
Developmental Test & Evaluation	WR	NSWC : Carderock	2.000	0.000		0.280	Nov 2015	0.100	Nov 2016	-		0.100	0.000	2.380	-
Developmental Test & Evaluation	WR	NAWC : China Lake	0.000	0.000		0.194	Nov 2015	1.430	Nov 2016	-		1.430	0.000	1.624	-
Developmental Test & Evaluation	WR	ONR : Arlington, Va	0.000	0.536	Feb 2015	1.318	Nov 2015	0.000		-		0.000	0.000	1.854	-
Developmental Test & Evaluation	WR	DOI : Washington D.C.	0.000	0.000		0.545	Nov 2015	0.000		-		0.000	0.000	0.545	-
Subtotal			110.010	8.565		33.119		43.704		-		43.704	0.000	195.398	
Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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	26.781	1.500	Feb 2015	3.912	Apr 2016	4.050	Nov 2016	-		4.050	0.000	36.243	-
Travel	Various	IWS3 : Arlington, VA	1.182	0.100	Feb 2015	0.070	Nov 2015	0.063	Nov 2016	-		0.063	0.000	1.415	-
DAWDF	C/FP	Not Specified : Not Specified	1.130	0.000		0.000		0.000		-		0.000	0.000	1.130	-
Subtotal			29.093	1.600		3.982		4.113		-		4.113	0.000	38.788	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2017 Navy										<b>Date:</b> February 2016			
<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>Prior Years</b>	<b>FY 2015</b>		<b>FY 2016</b>		<b>FY 2017 Base</b>		<b>FY 2017 OCO</b>		<b>FY 2017 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	1,068.979	38.807		96.018		95.574		-		95.574	-	-	-
<b>Remarks</b>													



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Exhibit R-4, RDT&amp;E Schedule Profile: PB 2017 Navy

Date: February 2016

## 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 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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)																												
DT/OT DI (FOT&E)																												
Runs for the Record																												
Runs for the Record Final Report																												
Future Capability Demonstration Captive Flight Test (CFT) 2																												
Future Capability Demonstration Captive Flight Test (CFT) 3																												
Future Capability Demonstration Base Test (LBT) 1																												
Future Capability Demonstration At-Sea test 1																												
Future Capability Demonstration At-Sea test 2																												
Future Capability Demonstration At-Sea test 3																												
Future Capability Demonstration At-Sea test 4																												
Future Capability Demonstration At-Sea test 5																												
Future Capability Demonstration PDR																												
Future Capability Tri-Capable Missile Regression Flight Tests																												
OT-5/15 Flight Test																												
Integrated Fire Control Increment I and II																												
NIFC-CA Live Fire (WSMR) (inc 1)																												

## UNCLASSIFIED

Exhibit R-4, RDT&amp;E Schedule Profile: PB 2017 Navy

Date: February 2016

## 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 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
NIFC-CA Live Fire 4 (WSMR) (Inc 1)																												
NIFC-CA Joint Strike Fighter Demo																												
NIFC-CA Live Fire Test (Inc 1)																												
NIFC-CA Integration & Test (Inc 2)																												
NIFC-CA Increment 2 Live Firing Testing (WSMR)																												
Integrated Fire Control Increment 2																												
Low-Rate Initial Production IV Deliveries																												
Full Rate Production (FRP) 1 Deliveries																												
Full Rate Production (FRP) 2 Deliveries																												
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) 3 Award																												
Full Rate Production (FRP) 4 Award																												
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																												

## UNCLASSIFIED

Exhibit R-4A, RDT&amp;E Schedule Details: PB 2017 Navy

Date: February 2016

## Appropriation/Budget Activity

1319 / 5

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

PE 0604366N / Standard Missile  
Improvements

## Project (Number/Name)

3092 / Standard Missile 6 Program

## Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3092</b>				
Full Operational Capability (FOC)	1	2018	1	2018
DT/OT DI (FOT&E)	1	2015	2	2016
Runs for the Record	3	2016	3	2016
Runs for the Record Final Report	1	2017	1	2017
Future Capability Demonstration Captive Flight Test (CFT) 2	2	2015	4	2015
Future Capability Demonstration Captive Flight Test (CFT) 3	2	2017	4	2017
Future Capability Demonstration Base Test (LBT) 1	2	2019	2	2019
Future Capability Demonstration At-Sea test 1	2	2015	2	2015
Future Capability Demonstration At-Sea test 2	2	2016	2	2016
Future Capability Demonstration At-Sea test 3	3	2017	3	2017
Future Capability Demonstration At-Sea test 4	3	2018	3	2018
Future Capability Demonstration At-Sea test 5	4	2019	4	2019
Future Capability Demonstration PDR	3	2015	3	2015
Future Capability Tri-Capable Missile Regression Flight Tests	3	2017	3	2017
OT-5/15 Flight Test	3	2017	3	2017
Integrated Fire Control Increment I and II	1	2015	4	2021
NIFC-CA Live Fire (WSMR) (inc 1)	2	2015	2	2015
NIFC-CA Live Fire 4 (WSMR) (Inc 1)	3	2016	3	2016
NIFC-CA Joint Strike Fighter Demo	4	2016	4	2016
NIFC-CA Live Fire Test (Inc 1)	3	2017	3	2017
NIFC-CA Integration & Test (Inc 2)	2	2018	2	2018

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Exhibit R-4A, RDT&amp;E Schedule Details: PB 2017 Navy

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1319 / 5

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

PE 0604366N / Standard Missile  
Improvements

## Project (Number/Name)

3092 / Standard Missile 6 Program

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
NIFC-CA Increment 2 Live Firing Testing (WSMR)	3	2018	3	2018
Integrated Fire Control Increment 2	4	2018	4	2020
Low-Rate Initial Production IV Deliveries	1	2015	2	2015
Full Rate Production (FRP) 1 Deliveries	3	2015	2	2016
Full Rate Production (FRP) 2 Deliveries	3	2016	2	2017
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
Full Rate Production (FRP) 3 Award	2	2015	2	2015
Full Rate Production (FRP) 4 Award	2	2016	2	2016
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