Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)

PE 0604366N: Standard Missile Improvements

,		'											
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost	
Total Program Element	2,022.912	55.546	63.891	75.592	-	75.592	80.042	31.159	20.002	20.355	Continuing	Continuing	
0439: Standard Missile Improvement	1,050.958	16.918	24.579	26.716	-	26.716	17.774	21.844	16.165	16.448	Continuing	Continuing	
3092: Standard Missile 6 Program	971.954	38.628	39.312	48.876	-	48.876	62.268	9.315	3.837	3.907	Continuing	Continuing	

MDAP/MAIS Code(s): 197,391

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

Standard Missile (SM) is the Navy's premier Anti-Air Warfare (AAW) missile, providing both area air 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. Agility, fuzing, and computer modifications to SM are in development to restore performance in the near term against a specific existing proliferating Anti-Ship Cruise Missile (ASCM) threat. Continuous analysis of missile capabilities vs. everevolving and proliferating aircraft and ASCM threats and long-range planning are required to keep pace with the threat.

In FY04, the Standard Missile 6 (SM-6) program was started to develop an advanced surface missile system with an active seeker and an extended range. The SM-6 missile system will leverage the Navy investment in the AEGIS Weapon System (AWS), Cooperative Engagement Capability (CEC), and airborne early warning systems, which will be upgraded in concert with missile development to support a fully integrated extended range detect-to-engage naval and joint integrated fire control capability. SM-6 is the enabler for Integrated Fire Control (IFC). Funding to support those upgrades are also included in this line. SM-6 has completed the ground based and at-sea DT flight test phase of the System Development & Demonstration (SDD) effort. SDD at-sea OT phase completed July 2011. Together, this family of systems will provide the air superiority and the umbrella of protection against the full spectrum of projected future cruise missile (anti-ship and land attack) and manned aircraft threats discussed in the Joint TAMD MNS, DPG, QDR, IAMD Roadmap, IAMD Joint Integrating Concept, AIAMD Joint Operating Concept and TAMD Capstone Requirements Document.

PE 0604366N: Standard Missile Improvements

Navy

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<sup>&</sup>lt;sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)

PE 0604366N: Standard Missile Improvements

. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	46.705	63.891	57.660	-	57.660
Current President's Budget	55.546	63.891	75.592	-	75.592
Total Adjustments	8.841	0.000	17.932	-	17.932
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
<ul> <li>Reprogrammings</li> </ul>	10.000	0.000			
<ul> <li>SBIR/STTR Transfer</li> </ul>	-1.159	0.000			
<ul> <li>Program Adjustments</li> </ul>	0.000	0.000	-2.082	-	-2.082
Rate/Misc Adjustments	0.000	0.000	20.014	-	20.014

### **Change Summary Explanation**

Technical: Program funding increased in FY14 and FY15 to execute and support demonstration(s). Program funding increased in FY 12 to complete supplemental testing to verify correction of deficiencies for the F & J antenna seen during FY 11 operational testing. This funding is also to complete the Ballistic Barrier program.

PE 0604366N: Standard Missile Improvements Navy

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APPROPRIATION/BUDGET ACT			NOMENCL			PROJECT						
1319: Research, Development, To		PE 060436	66N: Standa	ard Missile	0439: Stan	39: Standard Missile Improvement						
BA 5: System Development & Demonstration (SDD)						ents						
COST (\$ in Millions)	All Prior			FY 2014	FY 2014	FY 2014					Cost To	Total
COST (\$ III WIIIIONS)	Years	FY 2012	FY 2013 <sup>#</sup>	Base	oco##	Total	FY 2015	FY 2016	FY 2017	FY 2018	Complete	Cost
0439: Standard Missile	1,050.958	16.918	24.579	26.716	-	26.716	17.774	21.844	16.165	16.448	Continuing C	Continuing
Improvement												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navv

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

Quantity of RDT&E Articles

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 Seasparrow Missile (ESSM) and Standard Missile 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 AMDR-S radar 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, data collection. Deliverables include interface specs and engineering documents to support AMDR PDRs HW&SW (FY13) and CDRs HW&SW (FY14); EDM testing (FY15), interface specs and engineering documents to support AMDR/ACBNext for DDG 51 Flight III E3 Testing, Analysis and Reports. Missile variants: ESSM Block I; SM-2 Blk IIIB MU2, SM-6 Block I (Current Aegis Configuration)

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: DDG-1000 Pre Plan Product Improvement (P3I)Link Integration/ICWI	16.918	19.945	12.706
Articles:	0	0	0
FY 2012 Accomplishments:  Completed ESSM Critical Design Review in April 2012; Procured and assembled ESSM Production Representative Model (PRM) modules and conducted associated qualification testing; Procured SM-2 Plate 3 Proof of Design (POD) hardware and integrated modules into a functional transceiver; Conducted SM-2 Plate 3 X-band transmitter (only) design verification testing (DVT); Began SM-2 software integration with hardware.			
FY 2013 Plans: Conduct ESSM PRM qualification testing and EMI/E3 testing; Conduct SM-2 POD Plate 3 DVT; Complete SM-2 JUWL Preliminary Design Review in May 2013; Procure and assemble SM-2 Production Representative Model (PRM) modules and conduct associated qualification testing.			
FY 2014 Plans:			

PE 0604366N: Standard Missile Improvements

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DATE: April 2013

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<sup>\*</sup>FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)	<b>PROJ</b> I 0439:		ssile Improvei	ment	
B. Accomplishments/Planned Programs (\$ in Millions, Article C	Quantities in Each)		FY 2012	FY 2013	FY 2014
Deliver ESSM inert operational missile (IOM) to DDG 1000 and beg SM-2 Plate 3 qualification testing; Hold SM-2 JUWL Critical Design software into a functional missile guidance section.	•				
Title: DDG 1000 Rephase		Articles:	0.000	2.799 0	0.000
FY 2013 Plans:					
Procure test round modification kits to upgrade Block IIIAs to Zumw canisters) for developmental testing (DT).	valt IIIAs, test, and deliver Zumwalt IIIA rounds (includ	ing			
Title: Air and Missile Defense Radar (AMDR)Integration			0.000	1.835	14.010
		Articles:		0	0
FY 2013 Plans:					
AMDR Spec requirements review; conduct analysis required for rec	quirements margin within current missile ICDs; Suppo	rt AMDR			

## FY 2014 Plans:

Hardware (IOM/Spare parts) procurement - 1 IOM per missile variant; Design review participation with Radar Prime Contractor, facilitate design that complies with existing interfaces (including NIFC-CA); Analysis to include examination of new radar in natural and threat RF environments; performance analysis; Model updates.

Accomplishments/Planned Programs Subtotals

Accomplishments/Planned Programs Subtotals	16.918	24.579	26.716

DATE: April 2013

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

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navv

N/A

Navy

#### **Remarks**

## D. Acquisition Strategy

Production representative missiles will be built for ESSM between FY12 and 14 and for SM-2 FY14 and FY17.

Prime design review Technical Interchange Meetings; Engineering studies as required.

Engineering and Integration Testing for ESSM in FY14- FY15 and SM-2 in FY15. 67 ESSM missiles and 34 SM missiles are required to support Developmental Test & Operational Test (DT & OT) FY16-FY17 and continue follow-on ship integration and design update effort in FY18.

This budget reflects the procurement of the initial SM Flight Test Rounds (FTRs) in FY 13. Follow-on SM/ESSM FTRs, missile integration and test efforts and ship fill records are not funded within this budget. The 67 ESSM missiles are to be funded by PMS 500.

PE 0604366N: Standard Missile Improvements

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy	DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	<b>PROJECT</b>	
1319: Research, Development, Test & Evaluation, Navy	PE 0604366N: Standard Missile	0439: Stan	dard Missile Improvement
BA 5: System Development & Demonstration (SDD)	Improvements		

SM Development, integration, and test is expected to conclude by FY17 for the X-band JUWL and ICWI.

#### **E. Performance Metrics**

ESSM initial engineering design for X-Band JUWL capability was completed and Engineering Development Models (EDMs) were built and tested.

ESSM ordered material/parts and assembled Proof of Design units. Design Verification Tests are complete (FY 12).

ESSM conducted its Critical Design Review in April 2012 (FY 12).

SM-2 PDR for JUWL is planned for third quarter FY13.

SM-2 integration testing and datalink qualification for JUWL testing is planned for FY14.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604366N: Standard Missile

Improvements

**PROJECT** 

0439: Standard Missile Improvement

DATE: April 2013

Product Developme	Product Development (\$ in Millions)			FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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	220.476	14.510	Feb 2012	21.644	Nov 2012	24.231	Nov 2013	-		24.231	Continuing	Continuing	Continuing
Design and Analysis2	C/CPFF	JHU/APL:Laurel, MD	3.750	0.951	Mar 2012	1.500	Nov 2012	1.500	Nov 2013	-		1.500	0.000	7.701	
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	787.314	0.670	Apr 2012	0.340	Nov 2012	0.320	Nov 2013	-		0.320	0.000	788.644	
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	3.030	0.150	Jan 2012	0.480	Nov 2012	0.570	Nov 2013	-		0.570	0.000	4.230	
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:Washingto	on, 0.487	0.000		0.000		0.000		-		0.000	0.000	0.487	
Design and Analysis13	WR	COMPTEVFOR:Norfo	lk, 0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	
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:Bethes MD	da, 0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	
Design and Analysis16	WR	NWAS:Corona	0.325	0.000		0.000		0.000		-		0.000	0.000	0.325	
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	0.101	0.000		0.040	Nov 2012	0.030	Nov 2013	-		0.030	0.000	0.171	
Design and Analysis19	MIPR	MDA:Dahlgren,VA	1.257	0.000		0.000		0.000		-		0.000	0.000	1.257	
Design and Analysis20	WR	IWS3D:ARLINGTON, VA	1.000	0.000		0.500	Nov 2012	0.000		-		0.000	0.000	1.500	

PE 0604366N: Standard Missile Improvements Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE PROJECT

PE 0604366N: Standard Missile

0439: Standard Missile Improvement

Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	1,043.817	16.281		24.504		26.651		0.000		26.651			

Improvements

Test and Evaluation	(\$ in Milli	ons)		FY 2	012	FY 2	013	FY 2 13 Ba		FY 2014 OCO					
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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	0.000	2.788	

Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
CONTRACTOR ENGINEERING SUPPORT	C/CPAF	VARIOUS:VARIOUS	1.993	0.637	Jun 2012	0.000		0.000		-		0.000	0.000	2.630	
PROGRAM MANAGEMENT SUPPORT	C/CPAF	VARIOUS:VARIOUS	2.294	0.000		0.000		0.000		-		0.000	0.000	2.294	
TRAVEL	Allot	IWS3:Arlington, VA	0.066	0.000		0.075	Nov 2012	0.065	Nov 2013	-		0.065	0.000	0.206	
		Subtotal	4.353	0.637		0.075		0.065		0.000		0.065	0.000	5.130	

PE 0604366N: Standard Missile Improvements Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2	2014 Navy	,					DATE: April 2013				
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, BA 5: System Development & Demonstration (SDI		1366N: <i>St</i>	NCLATURE andard Missile	PROJECT 0439: Standard Missile Improvement							
	All Prior Years				FY 2014 FY 2013 Base				Cost To	Total Cost	Target Value of Contract
Project Cost Totals	1,050.958	16.918	24.579		26.716	0.000		26.716			
				'	,	'	-		-		

Remarks

PE 0604366N: Standard Missile Improvements Navy

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DATE: April 2013

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APPROPRIATION/BUDGET ACT	TIVITY				R-1 ITEM	NOMENCL	ATURE		<b>PROJECT</b>			
1319: Research, Development, Te	est & Evalua	tion, Navy			PE 060436	66N: Standa	ard Missile		3092: Stan	dard Missile	e 6 Program	
BA 5: System Development & De	monstration	(SDD)			Improveme	ents						
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3092: Standard Missile 6	971.954	38.628	39.312	48.876	_	48.876	62.268	9.315	3.837	3.907	Continuing (	Continuing

COST (\$ in Millions)
 All Prior Years
 FY 2012
 FY 2013#
 FY 2014 Base
 FY 2014 OCO##
 FY 2015 Total Total Total FY 2016
 FY 2016 FY 2017
 FY 2018 Complete
 Cost To Complete
 Total Cost

 3092: Standard Missile 6 Program
 971.954
 38.628
 39.312
 48.876
 48.876
 62.268
 9.315
 3.837
 3.907
 Continuing Continuing

 Quantity of RDT&E Articles
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Exhibit R-24 RDT&F Project Justification: PR 2014 Navy

### 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 AWS, 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 TAMD MNS, DPG, QDR, TAMD Capstone Requirements Document, Forward From the Sea, Joint Vision 2010/2020, the 2002/2003 Naval Transformational Roadmap and the Operational Requirements Document for SM-6 BLK 1.

This project addresses the Navy's requirement for an extended range area air defense missile with engage-on-remote and over-the-horizon capability as the enabler for USN and Joint integrated fire control. The SM-6 BLK 1 is the Navy's transformational enabler for the Sea Shield Operational Concept and enables the opportunity for Sea Basing and Sea Strike. This effort includes risk reduction, SDD design, insensitive munitions improvement, transition to production and operational test of the latest STANDARD Missile with the kinematic performance to defeat current and projected threats that possess low altitude, high altitude, and high velocity and maneuver characteristics at the max kinematic range of the missile. SM-6 completed OT flight test phase of the SDD effort.

The Joint Integrated Fire Enhancement funding is JROC directed for the demonstration of the Joint Land Attack Elevated Netted Sensor (JLENS) into the Naval Integrated Fire Control-Counter Air (NIFC-CA) kill chain; specifically, SM-6 integration with the JLENS and the AWS. The funding identified in this budget is part of an integrated funding package that also includes funding for PEO IWS 1.0, PEO IWS 6.0, PEO IWS 7.0 NAVAIR (PMA-231) and the Army's Cruise Missile Defense Systems JLENS Product Office. Additional funding is to support the integration, test, and analysis of the NIFC-CA test and evaluation strategy. Funds are also included for the transition of technology associated with the Missile Defense/Sea Shield Naval Interceptor Improvements (NII) Future Naval Capability (FNC) as formally signed in the NII Technology Transition Agreement (TTA) by PEO IWS 3.0, OPNAV N96, and the Office of Naval Research (PMR-51).

FTR 54 Reliability Assessment Round will be fired at WSMR in the 3rd quarter of 2013. Subsequent reliability assessment events are planned for 2014 and 2015 based on range availability. This analysis will also determine if there are any required modifications to the Aegis Combat system baseline 9 for future capability support.

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DATE: April 2013

<sup>\*</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: A	April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604366N: Standard Missile Improvements	<b>PROJ</b> 3092:	ECT Standard Mis	sile 6 Progra	m
B. Accomplishments/Planned Programs (\$ in Millions, Article	Quantities in Each)		FY 2012	FY 2013	FY 2014
Title: Joint Integrated Fire Enhancement		Articles:	2.862 0	0.000	0.000
Description: Joint Integrated Fire Enhancement					
FY 2012 Accomplishments:					
Supported Pair-wise testing between SM-6 and JLENS; conducte Control (IFC) Kill Chain; supported SM-6: 6 degrees of freedom (I Live Fire Event and post-flight analysis for JLENS IFC Live Fire E	DoF) accreditation; conducted pre-flight analysis for JL				
Title: SM 6 Missile Development/Improvement		Articles:	16.396 0	9.620 0	0.000
FY 2012 Accomplishments: Continued (ACB 12) and (CSEDS) integration and test; Continued integration and test; Completed analysis of OT-IIB.	d Captive Carry Flight Test; Integrated Fire Control (IFC	D)			
FY 2013 Plans: Support follow on test and evaluation (FOT&E); ACB 12 B/L 9 into (PRP) flight test and analysis.	egration and flight test; and Processor Replacement Pr	ogram			
Title: SM6/AWS & VLS Integration		Articles:	1.624 0	0.000	0.000
FY 2012 Accomplishments: AEGIS Weapons System and MK 41 Vertical Launch Integration of	of SM-6 IFC mode to ACB12.				
Title: Insensitive Munitions (IM)		Articles:	0.000	15.300 0	4.114 0
FY 2013 Plans:					
Electronic Arm & Fire Device (EAFD) & Active Mitigation (AM) tec motors (RM) of dual pulse configuration; prime contractor & subs safety program plan per WSESRB recommendation; and develop	integration & procurement support; develop & maintair				
FY 2014 Plans:					
Safety Plans; POA&M Development; IM STRAT Plan Development  Title: SM6 OT&E Support	nt; Threat Hazard Assessment Update.		7.746	0.000	0.000

PE 0604366N: Standard Missile Improvements

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: A	April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604366N: Standard Missile Improvements	<b>PROJ</b> I 3092:		sile 6 Progra	m
B. Accomplishments/Planned Programs (\$ in Millions, Article Q	uantities in Each)		FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Completed activities related to SM-6 IOT&E (OT-IIB) testing and anareport. They also include quartz lamp testing and wind tunnel testing	, ,	ОТ			
Title: Portable All-Up Round Bit Tester (PABTs)		Articles:	0.000	7.000 0	5.000 0
FY 2013 Plans: Integrated Baseline Review (IBR); System Requirements review (SF	RR)/System Functional Review (SFR) and detailed de	sign.			
FY 2014 Plans: Continue detailed design and development; Preliminary Design Revidevelopment.	iew/Critical Design Review (PDR/CDR) and interface				
Title: Naval Integrated Fire Control - Counter Air (NIFC-CA)		Articles:	0.000	7.392 0	5.762 0
FY 2013 Plans: Integration of SM-6 6-DOF (Degrees of freedom) with NIFC-CA fede simulation performance predictions; Execution of one land-based (W Center (PMTC) live fire test; Completion of NIFC-CA CONOPS.					
FY 2014 Plans: Execution of Live-Fire NIFC-CA tests at WSMR; Execution of three a limitations and analysis based on federated 6-DOF and live fire test		nd			
Title: Future Capability Demonstration		Articles:	0.000	0.000	34.000
FY 2014 Plans: Execute demonstration events to include supporting data collections					
Title: FY 12 OMNIBUS (SM-6 Supplemental Testing)		Articles:	10.000 0	0.000	0.000
FY 2012 Accomplishments: FY 12 Accomplishments - Wind Tunnel testing - Planning for flight test					

PE 0604366N: Standard Missile Improvements

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 5: System Development & Demonstration (SDD)

PATE: April 2013

R-1 ITEM NOMENCLATURE

PE 0604366N: Standard Missile

Improvements

PROJECT

3092: Standard Missile 6 Program

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- FTR Events			
Test Planned			
- Completed wind tunnel test reporting			
- Executed FTR 27 and 27A			
- Completing analysis and reporting of supplemental flight test events			
- Complete Ballistic Barrier Program			
Accomplishments/Planned Programs Subtotals	38.628	39.312	48.876

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

			FY 2014	FY 2014	FY 2014					Cost To	
<u>Line Item</u>	FY 2012	FY 2013	<b>Base</b>	OCO	<u>Total</u>	FY 2015	FY 2016	FY 2017	FY 2018	<b>Complete</b>	<b>Total Cost</b>
<ul> <li>WPN 2234: Standard Missile</li> </ul>	356.878	399.482	367.985		367.985	546.972	564.003	708.436	810.665	4,288.021	8,488.409
<ul> <li>Standard Missile: QTY</li> </ul>	89.000	94.000	81.000		81.000	125.000	127.000	160.000	174.000	861.000	1,800.000

#### Remarks

Navy

### D. Acquisition Strategy

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

#### **E. Performance Metrics**

Accomplishments

- DT Flight Tests at PMRF Jan 11
- OT TRR May 11
- OT Flight Tests at PMRF Jul 11
- LRIP III Option II Contract Award Jul 11
- LRIP IV UCA Contract Award May 12
- SM-6 SD&D Contract SPI is currently at 1.00 and CPI is at 1.00

## **Upcoming Milestones**

- OT IIIA Apr 12 Dec 13
- Integrated Fire Control (IFC) Apr 12 Sep 14
- PRP Flight Test May 13

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy BA 5: System Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604366N: Standard Missile

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**PROJECT** 

3092: Standard Missile 6 Program

DATE: April 2013

Product Developme	nt (\$ in M	illions)		FY 2	2012	FY 2	2013		2014 ase	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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	648.230	17.460	Feb 2012	25.509	Nov 2012	11.818	Nov 2013	-		11.818	Continuing	Continuing	Continuing
Design & Analysis	C/CPFF	JHU/APL:Laurel MD	42.108	3.310	May 2012	2.411	Nov 2012	3.049	Nov 2013	-		3.049	0.000	50.878	
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	3.285	1.149	Mar 2012	0.543	Nov 2012	0.050	Nov 2013	-		0.050	0.000	5.027	
Design & Analysis	WR	NSWC:Dahlgren	9.845	1.059	Apr 2012	0.400	Nov 2012	0.175	Nov 2013	-		0.175	0.000	11.479	
Design & Analysis	WR	NSWC:Indian Head	3.291	0.021	Nov 2012	0.300	Nov 2012	0.300	Nov 2013	-		0.300	0.000	3.912	
Design & Analysis	WR	NSWC:PHD	9.012	0.000		0.050	Nov 2012	0.050	Nov 2013	-		0.050	0.000	9.112	
Design & Analysis	WR	NSWC:Crane	1.191	0.065	Mar 2012	0.000		0.000		-		0.000	0.000	1.256	
Design & Analysis	MIPR	JSPO:Eglin AFB	23.722	0.327	May 2012	0.000		0.000		-		0.000	0.000	24.049	
Design & Analysis	C/CPFF	LOCKHEED Martin:Moorestown, NJ	5.794	0.280	Nov 2012	0.000		7.000	Nov 2013	-		7.000	0.000	13.074	
Design & Analysis	WR	NSWC:Corona	16.559	0.000		0.200	Nov 2012	0.100	Nov 2013	-		0.100	0.000	16.859	
Design & Analysis	Reqn	ONR:Arlington, VA	5.150	0.170	Nov 2012	0.000		0.000		-		0.000	0.000	5.320	
Design & Analysis	Reqn	NRL:Washington, DC	0.090	0.000		0.000		0.000		-		0.000	0.000	0.090	
Design & Analysis	WR	COMPTEVFOR:Norfo	2.155	0.000		0.000		0.000		-		0.000	0.000	2.155	
Design & Analysis	WR	CARDEROCK:Philade	Iphia 2.549	0.000		0.000		0.000		-		0.000	0.000	2.549	
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		0.080	Nov 2012	0.000		-		0.000	0.000	6.526	
Design & Analysis	MIPR	ARMY:Redstone	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	
Design & Analysis	WR	NAWCAD:Pax River, MD	0.392	0.000		0.000		0.000		-		0.000	0.000	0.392	
Design & Analysis	C/CPFF	CORVID:Mooresville, NC	2.750	0.150	Mar 2012	0.500	Nov 2012	0.000		-		0.000	0.000	3.400	
Design & Analysis	C/CPFF	RNB:Arlington, VA	0.010	0.000		0.000		0.000		-		0.000	0.000	0.010	

PE 0604366N: Standard Missile Improvements Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

R-1 ITEM NOMENCLATURE

**PROJECT** 

1319: Research, Development, Test & Evaluation, Navy

PE 0604366N: Standard Missile

3092: Standard Missile 6 Program

DATE: April 2013

BA 5: System Development & Demonstration (SDD)

APPROPRIATION/BUDGET ACTIVITY

Improvements

Product Developme	nt (\$ in M	illions)		FY 2	2012	FY 2	2013	FY 2 Ba	2014 ise	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	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)	59.773	0.000		0.000		11.000	Nov 2013	-		11.000	0.000	70.773	
Design & Analysis	WR	VARIOUS:(VLS)	24.772	0.000		0.040	Nov 2012	0.050	Nov 2013	-		0.050	0.000	24.862	
Design & Analysis	WR	NSWC:WSMR	0.000	0.000		0.100	Nov 2012	0.100	Nov 2013	-		0.100	0.000	0.200	
	•	Subtotal	870.070	23.991		30.133		33.692		0.000		33.692			

Test and Evaluation	(\$ in Milli	ons)		FY 2	2012	FY 2	2013		2014 ise		2014 CO	FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Develpomental Test & Evaluation	WR	NSWC:Port Hueneme	0.400	0.790	May 2012	0.200	Nov 2012	0.700	Nov 2013	-		0.700	0.000	2.090	
Develpomental Test & Evaluation	WR	NSWC:WSMR	19.321	4.180	May 2012	1.848	Nov 2012	1.900	Nov 2013	-		1.900	0.000	27.249	
Develpomental Test & Evaluation	WR	PMRF:Hawaii	38.089	0.112	Jun 2012	0.000		0.000		-		0.000	0.000	38.201	
Develpomental Test & Evaluation	WR	NAWC:Pt Mugu	0.769	0.000		0.000		2.000	Nov 2013	-		2.000	0.000	2.769	
Develpomental Test & Evaluation	C/CPAF	RAYTHEON:Tucson, AZ	14.242	1.024	Feb 2012	1.841	Nov 2012	1.854	Nov 2013	-		1.854	0.000	18.961	
Develpomental Test & Evaluation	C/CPFF	JHU/APL:Laurel, MD	1.250	2.498	Mar 2012	2.455	Nov 2012	2.630	Nov 2013	-		2.630	0.000	8.833	
Develpomental Test & Evaluation	WR	NSWC:Corona	1.750	2.148	Mar 2012	0.800	Nov 2012	1.620	Nov 2013	-		1.620	0.000	6.318	
Develpomental Test & Evaluation	WR	NSWC:Dahlgren	0.500	0.363	May 2012	0.100	Nov 2012	0.550	Nov 2013	-		0.550	0.000	1.513	

PE 0604366N: Standard Missile Improvements

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Navy

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy DATE: April 2013 APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 1319: Research, Development, Test & Evaluation, Navy PE 0604366N: Standard Missile 3092: Standard Missile 6 Program BA 5: System Development & Demonstration (SDD) *Improvements* FY 2014 FY 2014 FY 2014 Test and Evaluation (\$ in Millions) oco FY 2012 FY 2013 Base Total Contract Target Method Performing All Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Date Cost Date Cost Date Complete Cost Contract Cost Cost Developmental Test & WR VLS:Arlington, VA 0.750 0.805 Jun 2012 0.385 Nov 2012 0.150 Nov 2013 0.150 0.000 2.090 Evaluation Developmental Test & COMPTEVFOR: Norfolk, WR 0.250 0.672 May 2012 0.000 0.000 0.000 0.922 0.000 Evaluation Developmental Test & WR VARIOUS:(IWS 1A) 0.000 0.902 May 2012 0.000 0.000 0.000 0.902 0.000 Evaluation Developmental Test & 2.000 Nov 2013 WR NSWC:Carderock 0.000 0.000 0.000 2.000 0.000 2.000 Evaluation Subtotal 77.321 13.494 7.629 13.404 0.000 13.404 0.000 111.848 FY 2014 FY 2014 FY 2014 Management Services (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Method All Prior **Cost To** Value of Performing Award Award Award Award Total **Cost Category Item** & Type Activity & Location Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract Contractor Engineering C/CPAF VARIOUS: Various 22.405 1.083 Feb 2012 1.500 Nov 2012 1.730 Nov 2013 1.730 0.000 26.718 Services IWS3:Arlington, VA 1.028 0.060 Dec 2011 0.050 Nov 2012 0.050 Nov 2013 0.050 0.000 Travel Various 1.188 Not Specified:Not DAWDE C/FP 1.130 0.000 0.000 0.000 0.000 0.000 1.130 Specified Subtotal 24.563 1.143 1.550 1.780 0.000 1.780 0.000 29 036 Target All Prior FY 2014 Value of FY 2014 FY 2014 Cost To Total

Remarks

Navy

PE 0604366N: Standard Missile Improvements

**Project Cost Totals** 

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FY 2013

39.312

FY 2012

38.628

Years

971.954

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Base

48.876

oco

0.000

Complete

Total

48.876

Contract

Cost

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy DATE: April 2013 APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 1319: Research, Development, Test & Evaluation, Navy PE 0604366N: Standard Missile 3092: Standard Missile 6 Program BA 5: System Development & Demonstration (SDD) Improvements 2012 2013 2014 2015 2016 2017 2018 Fiscal Year Acquisition Milestones Design Reviews/Decisions Tactical SWDevelopment/ Final Qualification Test (FQT) Captive Carry Integration CSEDS (ACB 12) Test **Hight Tests** DT IIB1 (CTW DT IIB2 (GTV) Test & Evaluation Milestones Supp'l Testing OTIIIA Development Test (DT) DT IB2 BOA/DT ICI/DT IB 1DT IC2 RFR & Data Operational Test (OT) OT (1-14) Spares /OT IIIB IFC Integrated Fire Control (IFC) Production Milestones LRIP I Deliveries LRIPIV FY2012 LRIP III Deliveries LRIPIV Deliveries FRP DELIVERIES FRP Award FY12 - FY18 RP Long Lead Materials FRP Deliveries FY15-FY18 CLASSIFICATION: EXHIBIT R-4 SCHEDULE PROFILE UNCLA SSIFIED

PE 0604366N: Standard Missile Improvements Navy

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DATE: April 2013 Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE **PROJECT** 

1319: Research, Development, Test & Evaluation, Navy PE 0604366N: Standard Missile 3092: Standard Missile 6 Program BA 5: System Development & Demonstration (SDD)

Improvements

### Schedule Details

	Sta	art	En	End	
Events by Sub Project	Quarter	Year	Quarter	Year	
Proj 3092					
IOC	2	2013	3	2013	
Full-Rate Production (FRP) Decision	3	2013	3	2013	
Full Operational Capability (FOC)	4	2015	1	2016	
WSESRB	1	2013	2	2013	
Captive Carry	1	2012	3	2012	
CSEDS (ACB 12) (ACB 12 B/L 9)	1	2012	2	2012	
Supplemental Testing	3	2012	1	2013	
OT IIIA	4	2013	2	2014	
OT IIIB	2	2015	2	2015	
Runs for the Record (RFR) & Data Analysis	1	2012	4	2012	
Runs for Record Final Report	1	2013	1	2013	
Integrated Fire Control (IFC)	3	2012	3	2016	
Low-Rate Initial Production I Deliveries	1	2012	3	2012	
Low-Rate Initial Production II Deliveries	3	2012	4	2012	
Low-Rate Initial Production III Deliveries	3	2013	2	2014	
Low-Rate Initial Production IV Deliveries	3	2014	2	2015	
Full Rate Production (FRP) Deliveries	3	2015	4	2018	
Full Rate Production (FRP) I Long Lead Material	2	2012	2	2012	
LRIP IV Award	3	2012	3	2012	
Full Rate Production (FRP) Award	2	2014	2	2018	

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