

# UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy DATE: February 2012

<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0304503N: <i>SSN-688 and Trident Modernization-MIP</i>
---	---

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	1.408	-	-	-	-	-	-	-	-	0.000	1.408
0775: <i>Submarine Supt Equip Prog</i>	1.408	-	-	-	-	-	-	-	-	0.000	1.408

## A. Mission Description and Budget Item Justification

The Submarine Support Equipment Program develops and improves techniques, components, equipment, and systems that will increase submarine operational effectiveness, safety of ship, and survivability in the increasingly dense and sophisticated electromagnetic environment caused by the proliferation of complex radar, communications, and navigation equipment of potential adversaries. Improvements are necessary for Submarine Electronic Warfare Support (ES) systems to be operationally effective in the following mission areas: Joint Littoral Warfare; Joint Space and Electronic Warfare and Intelligence Collection; Maritime Protection; Information Operations, Special Operations Force (SOF) Support; and Joint Strike. Efforts include: (1) Integration of Surveillance, the technology developed and transitioned from the Advanced Submarine Support Equipment Program (ASSEP), project F0770 into the tactical ES system; (2) Resolution of software trouble reports during technology updates, from fleet feedback reports, and Submarine Warfare Federated Tactical System (SWFTS)/Non Propulsion Electronic System (NPES) Tactical Local Area Network (TACLAN) migrations; (3) Integration, test, and installation of COTS technology for system enhancements.

The Electronic Warfare Support (ES) Development Projects include the development of: Low Probability of Intercept (LPI) Direction Finding (DF), Distant ES Support and Remote Log-In, Specific Emitter Identification (SEI) Improvements, ES Vulnerability Tool, Integrated ES and Radio Frequency Distribution Unit (RFDU), Capability and Technical Initiatives, and next generation processes and radar wideband miniaturization.

Submarine Support Equipment Program was transfered from a Military Intelligence Program, Program Element (PE) 0304503N in Fiscal Year 2012 back to PE 0604503N.

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy				DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0304503N: SSN-688 and Trident Modernization-MIP			
BA 5: Development & Demonstration (SDD)					
B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	1.415	-	-	-	-
Current President's Budget	1.408	-	-	-	-
Total Adjustments	-0.007	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Congressional General Reductions Adjustments	-0.007	-	-	-	-
Change Summary Explanation					
Technical: Not applicable.					
Schedule: Not applicable.					

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0304503N: SSN-688 and Trident Modernization-MIP				PROJECT 0775: Submarine Supt Equip Prog			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
0775: Submarine Supt Equip Prog	1.408	-	-	-	-	-	-	-	-	0.000	1.408
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

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

This program develops and improves techniques, components, equipment, and systems that will increase submarine operational effectiveness, safety of ship, and survivability in the increasingly dense and sophisticated electromagnetic environment caused by the proliferation of complex radar, communications, and navigation equipment of potential adversaries. Improvements are necessary for Submarine Electronic Warfare Support (ES) systems to be operationally effective in the following mission areas: Joint Littoral Warfare; Joint Surveillance, Space and Electronic Warfare and Intelligence Collection; Maritime Protection; Information Operations, Special Operations Force (SOF) Support; and Joint Strike. Efforts include: (1) Integration of the technology developed and transitioned from the Advanced Submarine Support Equipment Program (ASSEP), project F0770 into the tactical ES system; (2) Resolution of software trouble reports during technology updates, from fleet feedback reports, and Submarine Warfare Federated Tactical System (SWFTS)/Non Propulsion Electronic System (NPES) Tactical Local Area Network (TACLAN) migrations; (3) Integration, test, and installation of COTS technology for system enhancements.

The Electronic Warfare Support (ES) Development Projects include the development of: Low Probability of Intercept (LPI) Direction Finding (DF), Distant ES Support and Remote Log-In, Specific Emitter Identification (SEI) Improvements, ES Vulnerability Tool, Integrated ES and ECS Radio Frequency Distribution Unit (RFDU), Capability and Technical Initiatives, and next generation processes and radar wideband miniaturization.

RDTE Funding line supports the entire AN/BLQ-10 ES procurement program. Average FY OPN and SCN hardware procurement yearly funds are \$100M.

Submarine Support Equipment Program was transferred from a Military Intelligence Program, Program Element (PE) 0304503N in Fiscal Year 2012 back to PE 0604503N.

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

	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<b>Title:</b> Submarine Support Equipment Program	1.408	-	-
<b>Articles:</b>	0		
<b>FY 2011 Accomplishments:</b> Updated AN/BLQ-10 software baseline changes for SWFTS and NPES. Researched, tested and integrated technical insertion upgrades to the AN/BLQ-10 system. Tested the next generation of technical insertion processors.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.408	-	-

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0304503N: SSN-688 and Trident Modernization-MIP				PROJECT 0775: Submarine Supt Equip Prog			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPN/256000: Submarine Supt Equip Prog	69.728	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	69.728
• SCN/201300: Virginia Class Submarine	57.952	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.952
• RDT&E/0604558N: Submarine Tactical Warfare	2.775	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.775
D. Acquisition Strategy											
AN/BLQ-10 (V) ES System - Procurements are executed/managed in accordance with the Acquisition Strategy Report (Rev 6) for AN/BLQ-10(V) ES System dtd 12/14/09 and the Acquisition Plan (Rev 8) for AN/BLQ-10(V) ES System dtd 12/15/09. PE 0304503N funds will be executed via work requests.											
E. Performance Metrics											
The RDD program goal is to respond to urgent operational needs within 30 days and provide for rapid development and fielding of prototype solutions within 270 days.											

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy											DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0304503N: SSN-688 and Trident Modernization-MIP				PROJECT 0775: Submarine Supt Equip Prog						
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
AN/BLQ-10 ES Product Development	C/CPFF	Various:Not Specified	0.156	-		-		-		-	0.000	0.156	Continuing	
Systems Engineering and Test Support	WR	NUWC:Newport RI	0.962	-		-		-		-	0.000	0.962	Continuing	
Systems Engineering and Test Support	C/CPAF	TBD*:Not Specified	0.255	-		-		-		-	0.000	0.255	Continuing	
Subtotal			1.373	-		-		-		-	0.000	1.373		
Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Travel	WR	NAVSEA:WNY	0.007	-		-		-		-	0.000	0.007	0.014	
SBIR Assessment	Various	Not Specified:Not Specified	0.028	-		-		-		-	0.000	0.028	0.028	
Subtotal			0.035	-		-		-		-	0.000	0.035	0.042	
Remarks Labor (Research) removed. No longer applicable.														
			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			1.408	-		-		-		-	0.000	1.408		
Remarks * FY11 Systems Engineering and Test Support contract is to be competitively awarded.														

**UNCLASSIFIED**

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	<b>R-1 ITEM NOMENCLATURE</b> PE 0304503N: SSN-688 and Trident Modernization-MIP	<b>PROJECT</b> 0775: Submarine Supt Equip Prog
Empty content area for the table		

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0304503N: <i>SSN-688 and Trident Modernization-MIP</i>	<b>PROJECT</b> 0775: <i>Submarine Supt Equip Prog</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 0775</b>				
AN/BLQ-10 BASELINE SWFTS AND NPES Changes, SPR Resolution and Software Enhancements: Software Update	1	2011	1	2011
AN/BLQ-10 BASELINE SWFTS AND NPES Changes, SPR Resolution and Software Enhancements:	1	2011	4	2011
Capability Insertions (Pulse Digitizer Upgrade, Processor Upgrade, Muliti Static Passive Ranging/Signature Reduction): Research	1	2011	1	2011
Capability Insertions (Pulse Digitizer Upgrade, Processor Upgrade, Muliti Static Passive Ranging/Signature Reduction):	1	2011	3	2011
Capability Insertions (Pulse Digitizer Upgrade, Processor Upgrade, Muliti Static Passive Ranging/Signature Reduction): Test	3	2011	3	2011
Capability Insertions (Pulse Digitizer Upgrade, Processor Upgrade, Muliti Static Passive Ranging/Signature Reduction): Integrate	4	2011	4	2011
Technical Insertions Test(Next Generation Processor, RADAR Wide Band Miniaturization, Advanced EW Tuners: Test	1	2011	1	2011
Technical Insertions Test(Next Generation Processor, RADAR Wide Band Miniaturization, Advanced EW Tuners:	1	2011	4	2011