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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 Navy **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>				<b>R-1 ITEM NOMENCLATURE</b>							
1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				PE 0304503N: <i>SSN-688 and Trident Modernization-MIP</i>							
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	-	1.415	-	-	-	-	-	-	-	0.000	1.415
0775: <i>Submarine Supt Equip Prog</i>	-	1.415	-	-	-	-	-	-	-	0.000	1.415

**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. Joint 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 ECS Radio Frequency Distribution Unit (RFDU), Capability and Technical Initiatives, and next generation processes and radar wideband miniaturization.

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

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	-	1.415	1.440	-	1.440
Current President's Budget	-	1.415	-	-	-
Total Adjustments	-	-	-1.440	-	-1.440
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	-	-	-1.419	-	-1.419
• Rate/Misc Adjustments	-	-	-0.021	-	-0.021

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<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>
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**Change Summary Explanation**

Technical: Not applicable.

Schedule: Not applicable.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 Navy **DATE:** February 2011

<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>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0775: <i>Submarine Supt Equip Prog</i>	-	1.415	-	-	-	-	-	-	-	0.000	1.415
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)**

	FY 2010	FY 2011	FY 2012
<b>Title:</b> Submarine Support Equipment Program	-	1.415	-
<b>Articles:</b>		0	
<b>FY 2011 Plans:</b> Update AN/BLQ-10 baseline with technical insertion enhancements. Research and resolve AN/BLQ-10 SPRs.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	1.415	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Navy	<b>DATE:</b> February 2011
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<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>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• OPN/256000: <i>Submarine Supt Equip Prog</i>	0.000	71.558	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	71.558
• SCN/201300: <i>Virginia Class Submarine</i>	0.000	46.850	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	46.850
• RDT&E/0303562N: <i>Submarine Tactical Warfare</i>	0.000	3.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.600

**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.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy** **DATE:** February 2011

<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>
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<b>Product Development (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	Dec 2011	-		-		-	0.000	0.156	Continuing
Systems Engineering and Test Support	WR	NUWC:Newport RI	-	0.962	Nov 2011	-		-		-	0.000	0.962	Continuing
Systems Engineering and Test Support	C/CPAF	TBD*:Not Specified	-	0.255	Mar 2011	-		-		-	0.000	0.255	Continuing
<b>Subtotal</b>			-	1.373		-		-		-	0.000	1.373	

<b>Management Services (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	-	0.014	Oct 2011	-		-		-	0.000	0.014	0.014
SBIR Assessment	Various	Not Specified:Not Specified	-	0.028	Mar 2011	-		-		-	0.000	0.028	0.028
<b>Subtotal</b>			-	0.042		-		-		-	0.000	0.042	0.042

**Remarks**

Labor (Research) removed. No longer applicable.

	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	-	1.415	-	-	-	0.000	1.415	

**Remarks**

\* FY11 Systems Engineering and Test Support contract is to be competitively awarded.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 Navy		<b>DATE:</b> February 2011
<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</i> <i>Modernization-MIP</i>	<b>PROJECT</b> 0775: <i>Submarine Supt Equip Prog</i>

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<b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2012 Navy</b>		<b>DATE:</b> February 2011
<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	1	2011	1	2011
Capability Insertions 1 (Pulse Digitizer Upgrade, Processor Upgrade, Muliti Static Passive Ranging/Signature Reduction)	1	2011	1	2011
Capability Insertions 2 (Pulse Digitizer Upgrade, Processor Upgrade, Muliti Static Passive Ranging/Signature Reduction)	2	2011	2	2011
Capability Insertions 3 (Pulse Digitizer Upgrade, Processor Upgrade, Muliti Static Passive Ranging/Signature Reduction)	3	2011	3	2011
Technical Insertions (Next Generation Processor, RADAR Wide Band Miniaturization, Advanced EW Tuners)	1	2011	1	2011