

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / <i>Navy Strategic Comms</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
Total Program Element	441.689	13.536	16.558	17.218	-	17.218	16.020	18.252	18.289	18.007	Continuing	Continuing
1083: <i>Shore To Ship Com System</i>	171.179	12.955	15.761	16.235	-	16.235	14.918	17.199	17.225	17.175	Continuing	Continuing
3002: <i>Navy Strategic Comm Project</i>	270.510	0.581	0.797	0.983	-	0.983	1.102	1.053	1.064	0.832	Continuing	Continuing

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

The FY 2017 funding request was reduced by \$0.412M to account for the availability of prior year execution balances.

The Shore to Ship Communication System develops communication elements which support the Navy's Nuclear Command, Control, and Communications (NC3) requirements, providing various communications infrastructure and elements from the regional Submarine Operating Authority (SUBOPAETH) to the deployed strategic platform (fleet ballistic missile submarines). This portfolio of programs designs and develops shore-to-ship transmit and receive communications systems (i.e., Fixed Submarine Broadcast System (FSBS) and SUBOPAETH Command, Control, and Communications (C3) Systems) in support of communications with all submarine types (i.e., SSN, SSGN, and SSBN).

Realignment of funds from OPN to RDTEEN for Nuclear Command, Control & Communications Nova Technical Change (NC3 NTC) to complete Low Rate Initial Production (LRIP) and operational test and evaluation of the Nova software replacement with the Navy NC3 Emergency Action Message (EAM) Enhanced Technology (NEET) Software. NEET is being developed under an Office of Naval Research (ONR) Technology Insertion Program for Savings (TIPS) initiative to mitigate supply chain risk and comply with enhanced IA standards identified by National Security Agency (NSA) and Task Force Urgent Sentinel (TFUS).

The Navy Strategic Communications Project responds to emerging E-6B Airborne Strategic Command, Control and Communications capability requirements by performing technical evaluations, modeling and simulation, investigative ground and flight testing, enhanced software modifications and development of configuration modifications. The E-6B is a manned airborne platform that provides survivable, enduring and reliable Command, Control and Communications capability in support of the President, Secretary of Defense and United States strategic and non-strategic forces. These efforts support follow-on aircraft modification procurements necessary to ensure interoperability in information-assured network-centric strategic environments.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2017 Navy	<b>Date:</b> February 2016
---	----------------------------

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / <i>Navy Strategic Comms</i>
---	---

<b>B. Program Change Summary (\$ 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>
Previous President's Budget	13.672	16.569	16.502	-	16.502
Current President's Budget	13.536	16.558	17.218	-	17.218
Total Adjustments	-0.136	-0.011	0.716	-	0.716
• Congressional General Reductions	-	-0.011			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.095	0.000			
• SBIR/STTR Transfer	-0.232	0.000			
• Program Adjustments	0.000	0.000	1.450	-	1.450
• Rate/Misc Adjustments	0.001	0.000	-0.734	-	-0.734

**Change Summary Explanation**

Schedule Changes for Project 3002 - Upon completion of Studies & Analysis in FY16, Technical & Design Analysis and System Integration Lab Testing & Reporting will commence in FY 17 on advance technology development.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Navy										<b>Date:</b> February 2016		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms				<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System			
<b>COST (\$ in Millions)</b>	<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>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1083: Shore To Ship Com System	171.179	12.955	15.761	16.235	-	16.235	14.918	17.199	17.225	17.175	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

The Shore to Ship Communications System develops communication elements which provide Nuclear Command, Control and Communications (NC3) between the President of the United States (POTUS) and Ballistic Missile Submarines (SSBN). This portfolio of programs provides design and development for shore-to-ship transmit and receive communications systems.

The Low Band Universal Communications System (LBUCS) is a modernization program that will upgrade the low-power transmit and receive subsystems of the Fixed Submarine Broadcast System (FSBS) which are approaching their operational end of life. LBUCS will ensure operational capability of the Very Low Frequency (VLF) architecture by providing system life extension and flexibility of submarine broadcast reception to submarines operating in a stealth posture. The flexibility includes enhanced throughput and anti-jam capability, ensuring more operational traffic is delivered to submarines without risking mast exposure. LBUCS will also deliver a simplified shore architecture, maintaining capability while maximizing use of shore nodes. Finally, LBUCS provides an upgrade to the VLF receive system, with all interoperable waveforms, to ensure continued compliance with Nuclear Command and Control System Technical Performance Criteria (NTPC).

The Strategic Communications Assessment Program/Continued Evaluation Program (SCAP/CEP) provides continuous assessment of the effectiveness of the Navy NC3 network and analysis of system performance in various mission locations.

The High Voltage Improvement Program (HVIP) develops technologies to improve the high voltage insulators, bushings, antenna and transmitter components used in the high-power Low Frequency/Very Low Frequency (LF/VLF) transmit systems of the Fixed Submarine Broadcast System (FSBS).

The Broadcast Control Authority (BCA) project researches and models future solutions to address network/system interoperability and information assurance/cybersecurity challenges of the four regional Submarine Operating Authority (SUBOPAETH) BCA communication and network operations centers.

Nuclear Command, Control and Communications Nova Technical Change (NC3 NTC) is the Shore to Ship Communication System that develops communication elements which support the Navy's NC3 requirements, providing various communications infrastructure and elements from the regional Submarine Operating Authority (SUBOPAETH) to the deployed strategic platform (fleet ballistic missile submarines). This portfolio of programs designs and develops shore-to-ship transmit and receive communications systems (i.e., Fixed Submarine Broadcast System (FSBS) and SUBOPAETH Command, Control, and Communications (C3) Systems) in support of communications with all submarine types (i.e., SSN, SSGN, and SSBN).

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

	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
<b>Title:</b> Low Band Universal Communication System (LBUCS)	8.088	8.708	7.481	0.000	7.481

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Navy	<b>Date:</b> February 2016
--	----------------------------

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System
--	--	---

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<b>Articles:</b>	-	-	-	-	-
<p><b><i>FY 2015 Accomplishments:</i></b></p> <ul style="list-style-type: none"> <li>-Completed Phase I SWAN IA upgrade development.</li> <li>-Completed LBUCS Receive Critical Design Review (CDR).</li> <li>-Continued LBUCS Receive development including Engineering Development Model (EDM).</li> <li>-Continued statutory and regulatory acquisition documentation in preparation for LBUCS Receive deployment.</li> <li>-Continued development of a new Very Low Frequency (VLF) Mode which will be incorporated into the LBUCS Receive development effort.</li> <li>-Continued LBUCS Transmit development.</li> </ul> <p><b><i>FY 2016 Plans:</i></b></p> <ul style="list-style-type: none"> <li>-Commence and complete LBUCS Transmit developmental testing with EDM and completed LRIP units (DT-C1) &amp; (DT-C2).</li> <li>-Complete development of a new Very Low Frequency (VLF) Mode which will be incorporated into the LBUCS Receive development effort.</li> <li>-Complete development of LBUCS Receive Engineering Development Model (EDM).</li> <li>-Complete statutory and regulatory acquisition documentation in preparation for LBUCS Receive deployment.</li> <li>-Continue LBUCS Transmit Development.</li> <li>-Continue LBUCS Receive development.</li> <li>-Commence and complete LBUCS Receive DT.</li> <li>-Commence and complete LBUCS Receive EDM program review.</li> </ul> <p><b><i>FY 2017 Base Plans:</i></b></p> <ul style="list-style-type: none"> <li>-Commence and complete LBUCS Transmit Testing with completed LRIP units (IOT&amp;E), with Commander, Operational Test and Evaluation (COMOPTEVFOR).</li> <li>-Complete LBUCS Transmit development</li> <li>-Complete LBUCS Receive development.</li> <li>-Commence and complete LBUCS testing on Receive EDM.</li> <li>-Commence pre-acquisition efforts for a comprehensive program which will include all of the low power submarine shore C3 systems.</li> <li>-Commence establishment of Submarine Operating Authority (SUBOPAETH) Integrated Test Facility (SITF) and interconnectivity between other labs for end-to-end testing of FSBS Low Power and supporting C3 systems.</li> <li>-Commence the development of the next generation VLF receiver.</li> </ul> <p><b><i>FY 2017 OCO Plans:</i></b></p>					

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2017 Navy **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System
--	--	---

<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>
N/A					
<p><b>Title:</b> Strategic Communications Assessment Program (SCAP)/Continuing Evaluation Program (CEP)</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2015 Accomplishments:</b>                      -Continued mission analysis of Ballistic Missile Submarine (SSBN) Emergency Action Message (EAM) reception for SSBN patrols.                      -Continued development of automated data collection and analysis tools to reduce latency time between missions and results availability.                      -Continued reports on performance, adherence to delivery time requirements and shortfalls.</p> <p><b>FY 2016 Plans:</b>                      -Complete development of automated data collection and analysis tools to reduce latency time between missions and results availability.                      -Continue reports on performance, adherence to delivery time requirements and shortfalls.                      -Continue mission analysis of SSBN EAM reception for SSBN patrols.                      -Commence mission-based analysis for cyber risk on Navy Nuclear Command, Control and Communications (NC3) systems.</p> <p><b>FY 2017 Base Plans:</b>                      -Continue reports on performance, adherence to delivery time requirements and shortfalls.                      -Continue mission analysis of SSBN EAM reception for SSBN patrols.                      -Continue mission-based analysis for cyber risk on Navy Nuclear Command, Control and Communications (NC3) systems.</p> <p><b>FY 2017 OCO Plans:</b>                      N/A</p>	3.381  -	4.648  -	4.687  -	0.000  -	4.687  -
<p><b>Title:</b> High Voltage Improvement Program (HVIP)</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2015 Accomplishments:</b>                      -Completed examination of innovative lighting methods for high voltage Low Frequency/Very Low Frequency (LF/VLF) towers.                      -Continued analysis of sulfur hexafluoride (SF6) breakdown in high voltage fields.</p>	1.114  -	1.077  -	1.366  -	0.000  -	1.366  -

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2017 Navy **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System
--	--	---

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p>-Commenced analysis of High Voltage Test Facility (HVTF) improvement to reduce sparking and increase operational voltage output.</p> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- Complete analysis of HVTF improvement to reduce sparking and increase operational voltage output.</li> <li>-Continue analysis of SF6 breakdown in high voltage fields.</li> <li>-Commence analysis of LF/VLF Tower environmental degradation life span.</li> <li>-Commence testing of operational scale tuning reactor.</li> <li>-Commence development of Base Arc Gap for Umbrella Top Loaded Monopole (UTLM) towers.</li> <li>-Commence and complete assessment of tower light control box design in order to determine the best way forward on lighting control panels.</li> </ul> <p><b>FY 2017 Base Plans:</b></p> <ul style="list-style-type: none"> <li>-Complete analysis of SF6 breakdown in high voltage fields.</li> <li>-Continue development of Base Arc Gap for UTLM towers.</li> <li>-Continue testing of operational scale tuning reactor.</li> <li>-Continue analysis of LF/VLF Tower environmental degradation life span.</li> <li>-Commence Partial Discharge Detection (PDD) study of the characterization of defects leading to partial discharge on solid dielectrics at LF/VLF.</li> <li>-Commence Fixed Submarine Broadcast System (FSBS) materials degradation analysis.</li> </ul> <p><b>FY 2017 OCO Plans:</b> N/A</p>					
<p><b>Title:</b> Nuclear Command &amp; Control Nova Tech Change (NC3 NTC)</p> <p align="right"><b>Articles:</b></p>	0.000 -	0.000 -	1.200 -	0.000 -	1.200 -
<p><b>FY 2015 Accomplishments:</b> N/A</p> <p><b>FY 2016 Plans:</b> N/A</p> <p><b>FY 2017 Base Plans:</b></p> <ul style="list-style-type: none"> <li>-Commence system hardware and software development, integrate network monitoring and cybersecurity interfaces, conduct market research, and procure evaluation prototype equipment.</li> <li>-Commence lab infrastructure support and deliver initial system level design documentation.</li> <li>-Commence developer integration, software functional assessment, and functional integration testing.</li> </ul>					

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2017 Navy **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System
--	--	---

<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
-Commence engineering management oversight of hardware and software development and evaluation testing. <b>FY 2017 OCO Plans:</b> N/A					
<b>Title:</b> Broadcast Control Authority (BCA)  <b>FY 2015 Accomplishments:</b> -Completed development of Submarine Operating Authority (SUBOPAETH) communications tools including: File Repository, OpSked Editor, SubNote Editor, and WebOTAM. -Continued systems and security engineering support for Information Assurance (IA)/Cybersecurity improvements.  <b>FY 2016 Plans:</b> -Continue systems and security engineering support for IA/Cybersecurity improvements. -Commence research and Model-Based Systems Engineering (MBSE) efforts to support the development and alignment of Computer Network Defense (CND) and Network Operations (NETOPS) monitoring initiatives within PEO C4I and other DoD organizations.  <b>FY 2017 Base Plans:</b> -Continue systems and security engineering support for IA/Cybersecurity improvements. -Continue research and Model-Based Systems Engineering (MBSE) efforts to support the development and alignment of Computer Network Defense (CND) and Network Operations (NETOPS) monitoring initiatives within PEO C4I and other DoD organizations.  <b>FY 2017 OCO Plans:</b> N/A	0.372	1.328	1.501	0.000	1.501
<b>Articles:</b>	-	-	-	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	12.955	15.761	16.235	0.000	16.235

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPN/3107: Submarine Broadcast	11.057	16.021	34.151	-	34.151	38.132	33.164	31.903	32.736	Continuing	Continuing
<b>Remarks</b>											

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy Date: February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System
--	--	---

**D. Acquisition Strategy**

Low Band Universal Communications System (LBUCS): LBUCS is the modernization program that will upgrade the low power Transmit and Receive subsystems of the Fixed Submarine Broadcast System which are approaching their operational end of life. The testing of LBUCS completes in FY17.

**E. Performance Metrics**

LBUCS FY17: Complete Full Fielding Decisions and Operational Testing.

Strategic Communications Assessment Program (SCAP)/Continuing Evaluation Program (CEP) FY17: Delivery of Submersible Ballistic Nuclear Submarine (SSBN) patrol reports.

High Voltage Improvement (HVIP) Program FY17: Complete analysis of sulfur hexafluoride (SF6) breakdown in high voltage fields.

Broadcast Control Authority (BCA) FY17: Continue research and Model-Based Systems Engineering (MBSE) efforts to support the development and alignment of Computer Network Defense (CND) and Network Operations (NETOPS) monitoring initiatives within PEO C4I and other DoD organizations.

Nuclear Command, Control and Communications Nova Technical Change (NC3 NTC) FY17: Complete development and engineering efforts for the transition of Navy NC3 Emergency Action Message (EAM) Enhanced Technology (NEET) into the program of record.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System
--	--	---

<b>Product Development (\$ in Millions)</b>				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
Development Support	WR	SSC PAC : San Diego, CA	9.569	0.158	Nov 2014	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Software Development	WR	SSC PAC : San Diego, CA	12.793	0.163	Nov 2014	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
LBUCS: Systems Engineering	WR	SSC LANT : Charleston, SC	9.123	0.000		0.854	Nov 2015	0.000		-		0.000	Continuing	Continuing	Continuing
LBUCS: Primary Hardware Development	WR	SSC LANT : Charleston, SC	0.000	0.000		0.356	Nov 2015	0.953	Nov 2016	-		0.953	Continuing	Continuing	Continuing
LBUCS: Systems Engineering	WR	SSC PAC : San Diego, CA	1.430	0.430	Nov 2014	0.839	Nov 2015	1.646	Nov 2016	-		1.646	Continuing	Continuing	Continuing
LBUCS: Software Development	WR	SSC PAC : San Diego, CA	4.024	0.532	Nov 2014	0.555	Nov 2015	0.713	Nov 2016	-		0.713	Continuing	Continuing	Continuing
LBUCS: Software Development (DC)	C/IDIQ	SSC PAC : San Diego, CA	0.000	0.923	Nov 2014	0.942	Nov 2015	0.000		-		0.000	Continuing	Continuing	Continuing
NC3 NTC - Software Development	TBD	SSC PAC : San Diego	0.000	0.000		0.000		0.700	Nov 2016	-		0.700	0.000	0.700	-
Product Development Prior Years	Various	Various : Various	66.297	0.000		0.000		0.000		-		0.000	0.000	66.297	66.297
<b>Subtotal</b>			103.236	2.206		3.546		4.012		-		4.012	-	-	-

<b>Support (\$ in Millions)</b>				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
Acquisition/Program Development	WR	SSC PAC : San Diego, CA	2.846	0.354	Nov 2014	0.204	Nov 2015	0.254	Nov 2016	-		0.254	Continuing	Continuing	Continuing
LBUCS: Acquisition/Program Development	TBD	TBD : TBD	0.000	0.000		0.000		0.240	Nov 2016	-		0.240	0.000	0.240	-
LBUCS: Information Assurance	C/CPFF	Merdan Group : San Diego, CA	1.183	0.123	Nov 2014	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
LBUCS: Security Engineering	C/CPFF	TBD : TBD	0.000	0.000		0.127	Jan 2016	0.000		-		0.000	0.000	0.127	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System
--	--	---

<b>Support (\$ in Millions)</b>				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
LBUCS: Information Assurance	WR	SSC PAC : San Diego, CA	0.908	0.425	Nov 2014	0.234	Nov 2015	0.124	Nov 2016	-		0.124	Continuing	Continuing	Continuing
LBUCS: Acquisition/Program Development	C/CPFF	CSA : San Diego, CA	2.877	0.679	Nov 2014	0.690	Nov 2015	0.000		-		0.000	Continuing	Continuing	Continuing
LBUCS: Systems Engineering	C/CPFF	FSI : San Diego, CA	1.201	0.329	Nov 2014	0.334	Nov 2015	0.000		-		0.000	Continuing	Continuing	Continuing
LBUCS: Systems Engineering	TBD	TBD : TBD	0.000	0.000		0.000		0.130	Nov 2016	-		0.130	0.000	0.130	-
Shore to Ship: Broadcast Control Authority	C/CPFF	FSI : San Diego, CA	0.302	0.378	Nov 2014	1.328	Nov 2015	0.000		-		0.000	Continuing	Continuing	Continuing
LBUCS: Logistics Support	C/CPFF	CSA : San Diego, CA	0.419	0.603	Nov 2014	0.607	Nov 2015	0.000		-		0.000	Continuing	Continuing	Continuing
LBUCS: Cost Estimating	C/CPFF	TASC : San Diego, CA	0.165	0.165	Nov 2014	0.216	Nov 2015	0.000		-		0.000	Continuing	Continuing	Continuing
Shore to Ship: High Voltage Improvement Program (HVIP) Studies and Design	WR	SSC PAC : San Diego, CA	2.853	1.114	Nov 2014	1.077	Nov 2015	1.366	Nov 2016	-		1.366	Continuing	Continuing	Continuing
Shore to Ship: Broadcast Control Authority	TBD	TBD : TBD	0.000	0.000		0.000		1.501	Nov 2016	-		1.501	0.000	1.501	-
NC3 NTC - Technical Design Documentation	TBD	SSC PAC : San Diego	0.000	0.000		0.000		0.150	Nov 2016	-		0.150	0.000	0.150	-
Support Prior Years	Various	Various : Various	5.592	0.000		0.000		0.000		-		0.000	0.000	5.592	5.592
<b>Subtotal</b>			18.346	4.170		4.817		3.765		-		3.765	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				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
SCAP/CEP: Strategic OP Systems Performance Evaluation	C/CPFF	APL/JHU : Baltimore, MD	33.784	3.439	Jan 2015	4.648	Jan 2016	4.687	Jan 2017	-		4.687	Continuing	Continuing	Continuing
LBUCS: System Testing	WR	COTF : Norfolk, VA	1.144	0.520	Nov 2014	0.525	Nov 2015	0.000		-		0.000	Continuing	Continuing	Continuing

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy												Date: February 2016			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 7				PE 0101402N / Navy Strategic Comms				1083 / Shore To Ship Com System							
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
LBUCS: System Testing	WR	SSC PAC : San Diego, CA	1.920	1.385	Nov 2014	1.247	Nov 2015	1.174	Nov 2016	-		1.174	Continuing	Continuing	Continuing
LBUCS: System Testing	WR	JITC : Fort Huachuca, AZ	0.000	0.203	Nov 2014	0.207	Nov 2015	0.225	Nov 2016	-		0.225	Continuing	Continuing	Continuing
LBUCS: Hardware Support for Testing	WR	SSC LANT : Charleston, SC	0.000	0.054	Nov 2014	0.058	Nov 2015	1.263	Nov 2016	-		1.263	Continuing	Continuing	Continuing
NC3 NTC - System Testing	TBD	SSC PAC : San Diego	0.000	0.000		0.000		0.290	Nov 2016	-		0.290	0.000	0.290	-
<b>Subtotal</b>			36.848	5.601		6.685		7.639		-		7.639	-	-	-
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
LBUCS: Program Management	WR	SSC PAC : San Diego, CA	8.728	0.653	Nov 2014	0.386	Nov 2015	0.425	Nov 2016	-		0.425	Continuing	Continuing	Continuing
Contractor Engineering Support	MIPR	MITRE : San Diego, CA	3.605	0.325	Nov 2014	0.327	Nov 2015	0.334	Nov 2016	-		0.334	Continuing	Continuing	Continuing
LBUCS: Travel	WR	SSC PAC : San Diego, CA	0.416	0.000		0.000		0.000		-		0.000	0.000	0.416	-
NC3 NTC - Program Management	TBD	SSC PAC : San Diego	0.000	0.000		0.000		0.060	Nov 2016	-		0.060	0.000	0.060	-
<b>Subtotal</b>			12.749	0.978		0.713		0.819		-		0.819	-	-	-
<b>Project Cost Totals</b>			171.179	12.955		15.761		16.235		-		16.235	-	-	-
<b>Remarks</b>															

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System
--	--	---

Fiscal Year	2015				2016				2017				2018				2019				2020				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>Acquisition Milestones</b> Low Band Universal Communications System (LBUCS) <i>Transmit</i>				ADM (FY16 Hardware Procurement)		ADM (FY17-18 H/W Procurements)		ADM (FY17-18 H/W Procurements)		Full Fielding Decision																		
<b>Test &amp; Evaluation</b>				Tech Eval (DT-C1)		Integrated Test (DT-C2)		Integrated Test (DT-C2)		OTRR																		
<b>Equipment Procurement</b>	LRIP Procurement	LRIP Procurement			FY16 Procurement	FY16 Procurement			FY17 Procurement	FY17 Procurement					FY18 Procurement	FY18 Procurement												
<b>Equipment Installation</b>		Installation LRIP	Installation LRIP	Installation LRIP	Installation LRIP	Installation LRIP			Installation	Installation	Installation	Installation			Installation	Installation												

Note 1: IOC is achieved following EAM testing in IOT&E.  
 Note 2: The ADMs provide hardware acquisition authority by Milestone Decision Authority prior to the IOT&E report.  
 Note 3: LBUCS Transmit equipment and cables will be installed in racks and must go through acceptance and integration testing prior to installation. Timeframe varies due to complexity of each site's unique system configuration.

**Acronym Legend:**

ADM: Acquisition Decision Memorandum	IOT&E: Initial Operational Test and Evaluation
BCA: Broadcast Control Authority	LRIP: Low-Rate Initial Production
BTS: Broadcast Transmitter Station	MS-C: Milestone C
CPD: Capability Production Document	OT: Operational Testing
DT: Developmental Testing	OTRR: Operational Test Readiness Review
FRP: Full Rate Production	Tech Eval: Technical Evaluation
IOC: Initial Operational Capability	

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System
--	--	---

Fiscal Year	2015				2016				2017				2018				2019				2020				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>Acquisition Milestones</b>								△																				
Low Band Universal Communications System (LBUCS) <u>Receive</u>								EDM Program Review								△												
<b>Contractual Milestones/Timeline</b>	▲							△																				
	CDR							EDM																				
<b>Test &amp; Evaluation</b>								△				△																
								DT				DT/OT																
<b>Equipment Procurement</b>												△																△
												Procurement																
<b>Equipment Installation</b>																△												△
																Installation												

Note 1: EDM supports DT/OT

**Acronym Legend:**

CDR: Critical Design Review  
 DT: Developmental Testing  
 EDM: Engineering Development Model

OT: Operational Testing  
 PDR: Preliminary Design Review

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System
--	--	---

Fiscal Year	2015				2016				2017				2018				2019				2020				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>Studies and Analysis</b> Strategic Communications Assessment Program (SCAP) Continuing Evaluation Program (CEP)																												
<b>Milestones and Deliverables</b>	<div style="display: flex; justify-content: center; align-items: center; gap: 20px;"> <span>△</span> Analysis Automation Toolset                 </div>																											
<b>Contractual Milestones/Timelines</b>																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System
--	--	---

<b>EXHIBIT R4, RDT&amp;E Schedule Profile</b>		<b>DATE:</b> July 2015
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319 / 07	<b>PROGRAM ELEMENT</b> 0101402N -Nuclear Command & Control Navy Tech Change (NC3 NTC)	<b>PROJECT NUMBER AND NAME</b> 1083 - NC3 NTC

Fiscal Year	2015				2016				2017				2018				2019				2020				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>Acquisition Milestones</b>																												
Initial Operation Capability (IOC)																												
Full Development Deployment (FDD)																												
Full Operational Capability (FOC)																												
<b>Engineering and Manufacturing Development</b>																												
NEET - HW Dev																												
NEET - SW Dev																												
NEET - SW2 Dev																												
NEET SW3 Dev																												
NEET SW4 Dev																												
<b>Test &amp; Evaluation Milestones</b>																												
Developmental Test (DT)																												
Operational Test (OT)																												
<b>Production Milestones</b>																												
Limited Deployment (LD)																												
Full Deployment (FD)																												
Technical Refresh (Tech Refresh)																												
<b>Deliveries</b>																												
Limited Deployment (LD)																												
Full Deployment (FD)																												

NOTE:  
NUCLEAR COMMAND, CONTROL and COMMUNICATION (EMERGENCY ACTION MESSAGE) ENHANCED TECHNOLOGY (NEET)

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 1083 / Shore To Ship Com System
--	--	---

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 1083</b>				
LBUCS: Low Rate Initial Production (LRIP) Procurement - Transmit	1	2015	3	2015
LBUCS: LRIP Installation - Transmit	3	2015	4	2016
LBUCS: Developmental Test (DT-C1)/Technical Evaluation - Transmit	1	2016	1	2016
LBUCS: Acquisition Decision Memorandum (ADM) (FY16 Hardware Procurement) - Transmit	2	2016	2	2016
LBUCS: FY16 Procurement - Transmit	2	2016	3	2016
LBUCS: Integrated Test (DT-C2) - Transmit	4	2016	4	2016
LBUCS: Acquisition Decision Memorandum (ADM) (FY17-18 H/W Procurement) - Transmit	1	2017	1	2017
LBUCS: FY17 Procurement - Transmit	1	2017	2	2017
LBUCS: Operational Test Readiness Review (OTRR) - Transmit	2	2017	2	2017
LBUCS: Operational Test (IOT&E) - Transmit	2	2017	2	2017
LBUCS: Initial Operational Capability (IOC) - Transmit	2	2017	2	2017
LBUCS: Full Fielding Decision - Transmit	2	2017	2	2017
LBUCS: Installation Transmit	2	2017	4	2018
LBUCS: FY18 Procurement - Transmit	1	2018	2	2018
LBUCS: Engineering Design Model (EDM) - Receive	1	2015	4	2016
LBUCS: Critical Design Review (CDR) - Receive	1	2015	1	2015
LBUCS: Developmental Test (DT) - Receive	2	2016	4	2016
LBUCS: EDM Program Review - Receive	4	2016	4	2016
LBUCS: Developmental Testing/Operational Testing (DT/OT) - Receive	2	2017	4	2017
LBUCS: Full Fielding Program Review - Receive	4	2017	4	2017

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / <i>Navy Strategic Comms</i>	<b>Project (Number/Name)</b> 1083 / <i>Shore To Ship Com System</i>
--	---	--

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
LBUCS: Procurement - Receive	1	2017	4	2019
LBUCS: Installation - Receive	2	2018	4	2020
CEP: Studies and Analysis	1	2015	4	2021
CEP: Analysis Automation	4	2016	4	2016
NC3 NTC: Acquisition MS - IOC	3	2019	3	2019
NC3 NTC: Acquisition MS - FDD	3	2020	3	2020
NC3 NTC: Acquisition MS - FOC	1	2021	1	2021
NC3 NTC: Engineering & Manufacturing Development - NEET HW Dev	1	2017	4	2018
NC3 NTC: Engineering & Manufacturing Development - NEET SW Dev	1	2017	4	2018
NC3 NTC: Engineering & Manufacturing Development - NEET SW2 Dev	1	2019	4	2019
NC3 NTC: Engineering & Manufacturing Development - NEET SW3 Dev	1	2020	4	2020
NC3 NTC: Engineering & Manufacturing Development - NEET SW4 Dev	1	2021	4	2021
NC3 NTC: Test & Evaluation MS Development - DT	1	2019	1	2019
NC3 NTC: Test & Evaluation MS Development - OT	2	2019	2	2019
NC3 NTC: Production MS - LD	4	2017	2	2019
NC3 NTC: Production MS - FD	2	2019	4	2020
NC3 NTC: Production MS - Tech Refresh	1	2021	4	2021
NC3 NTC: Deliverables - LD	4	2018	2	2019
NC3 NTC: Deliverables - FD	2	2019	4	2020

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Navy										<b>Date:</b> February 2016		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms				<b>Project (Number/Name)</b> 3002 / Navy Strategic Comm Project			
<b>COST (\$ in Millions)</b>	<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>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3002: Navy Strategic Comm Project	270.510	0.581	0.797	0.983	-	0.983	1.102	1.053	1.064	0.832	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

The E-6 is a manned airborne platform that provides survivable, enduring and reliable Command, Control and Communications capability in support of the President, Secretary of Defense and United States strategic and non-strategic forces. In order to respond effectively to emerging capability requirements, continued effort is needed to perform technical evaluations, modeling and simulation, investigative ground and flight testing, enhanced software modifications and development of configuration modifications. Funding has been added starting in FY15 for advanced development engineering and analysis of hardware/software required to optimize E-6 systems for interoperability in a network-centric strategic environment. FY16 funds continued and increased fidelity of the evaluations began in FY15. Additional government personnel were provided to explore and evaluate advanced technology advancements which could provide mission improvements, reduce aircraft weight, and extend weapons systems life span. Funding is critical to pursuit and capture of most cost effective and mission suitable procurement programs.

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

	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
<b>Title:</b> Operational System Development, Studies and Demonstrations	0.581	0.797	0.983	0.000	0.983
<b>Articles:</b>	-	-	-	-	-
<b>FY 2015 Accomplishments:</b> Performed and conducted advanced simulations, integrations and demonstrations using E-6B Systems Integration Laboratory and contractor assets of newly developed commercial technology to address system obsolescence and potential upgrades to ensure survivability and reliability of the E-6B platform.					
<b>FY 2016 Plans:</b> Perform and conduct advanced simulations, integrations and demonstrations using E-6B Systems Integration Laboratory and contractor assets of newly developed commercial technology to address system obsolescence and potential upgrades to ensure survivability and reliability of the E-6B platform.					
<b>FY 2017 Base Plans:</b> Conduct demonstrations of moderate technical readiness level hardware as tailored for E-6B weapons systems usage. Anticipated demonstrations will be in support of development of fiber optic transmission and control and power system upgrades and efficiencies.					
<b>FY 2017 OCO Plans:</b> N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	0.581	0.797	0.983	0.000	0.983

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Navy	<b>Date:</b> February 2016
--	----------------------------

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 3002 / Navy Strategic Comm Project
--	--	--

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

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APN 056400: E-6 Series	206.127	178.987	222.077	-	222.077	223.387	225.241	146.366	149.980	257.150	2,544.750

**Remarks**

**D. Acquisition Strategy**

"Research, Development, Test & Evaluation, Navy (RDT&E,N) funds for continuing efforts to perform technical evaluations, modeling & simulation and investigative ground and flight testing. Aircraft Procurement, Navy, Modification of Aircraft (APN-5) funds for integration, procurement and installation of aircraft modifications."

**E. Performance Metrics**

Mission Systems Evaluation; Technical Analysis 1st Qtr FY17, Design Analysis 2nd Qtr FY17, Systems Integration Lab (SIL) Test and Reporting 4th Qtr FY17.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 3002 / Navy Strategic Comm Project
--	--	--

<b>Product Development (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Primary Hardware Development Block I*	C/CPIF	Rockwell Collins : Cedar Rapids, IA	142.880	0.000		0.000		0.000		-		0.000	0.000	142.880	142.880
Award Fees	C/CPAF	Rockwell Collins : Cedar Rapids, IA	3.751	0.000		0.000		0.000		-		0.000	0.000	3.751	3.751
Primary Hardware Development Block IA ECP**	C/CPIF	Rockwell Collins : Cedar Rapids, IA	42.447	0.000		0.000		0.000		-		0.000	0.000	42.447	42.447
Ancillary Hardware Development	C/CPIF	Rockwell Collins : Cedar Rapids, IA	4.933	0.000		0.000		0.000		-		0.000	0.000	4.933	4.933
Training Development WST	C/CPIF	Rockwell Collins : Cedar Rapids, IA	1.213	0.000		0.000		0.000		-		0.000	0.000	1.213	1.213
<b>Subtotal</b>			195.224	0.000		0.000		0.000		-		0.000	0.000	195.224	195.224

**Remarks**  
 \* The Rockwell Collins Primary Hardware Development Block I contract was converted from a Competitively Awarded/Cost plus Award Fee to a Cost Plus Incentive Fee beginning in FY07.  
 \*\* The Rockwell Collins Primary Hardware Development Block IA Engineering Change Proposal (ECP) contract was definitized in July 2010.

<b>Support (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Studies & Analyses	Various	Various : Not Specified	4.477	0.455	Apr 2015	0.474	Feb 2016	0.808	Nov 2016	-		0.808	Continuing	Continuing	Continuing
<b>Subtotal</b>			4.477	0.455		0.474		0.808		-		0.808	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation	WR	NAWCAD : Patuxent River, MD	0.668	0.000		0.000		0.000		-		0.000	0.000	0.668	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 3002 / Navy Strategic Comm Project
--	--	--

<b>Test and Evaluation (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Operational Test & Evaluation	WR	NAWCAD : Patuxent River, MD	2.148	0.000		0.000		0.000		-		0.000	0.000	2.148	-
Other Support	WR	NAVAIR HQ : Patuxent River, MD	3.645	0.000		0.000		0.000		-		0.000	0.000	3.645	-
<b>Subtotal</b>			6.461	0.000		0.000		0.000		-		0.000	0.000	6.461	-

<b>Management Services (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Contractor Engineering Support	Various	Various : Not Specified	13.850	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Governmental Support	Various	Various : Not Specified	37.728	0.000		0.123	Mar 2016	0.000		-		0.000	Continuing	Continuing	Continuing
Program Management Support	Various	Various : Not Specified	10.598	0.000		0.000		0.000		-		0.000	0.000	10.598	-
Travel	WR	NAVAIR HQ : Patuxent River, MD	2.172	0.126	Dec 2014	0.200	Oct 2015	0.175	Oct 2016	-		0.175	Continuing	Continuing	Continuing
<b>Subtotal</b>			64.348	0.126		0.323		0.175		-		0.175	-	-	-

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		270.510	0.581	0.797	0.983	0.983	-	-	-

**Remarks**

**UNCLASSIFIED**

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

**Date:** February 2016

**Appropriation/Budget Activity**  
1319 / 7

**R-1 Program Element (Number/Name)**  
PE 0101402N / Navy Strategic Comms

**Project (Number/Name)**  
3002 / Navy Strategic Comm Project

Proj 3002	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
<b>Advanced Development</b>																												
Studies & Analysis																												
Technical & Design Analysis																												
Systems Integration Lab (SIL) Testing & Reporting																												

2017DON - 0101402N - 3002

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0101402N / Navy Strategic Comms	<b>Project (Number/Name)</b> 3002 / Navy Strategic Comm Project
--	--	--

**Schedule Details**

<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
<b>Proj 3002</b>				
Advanced Development: Studies & Analysis: Studies & Analysis	2	2015	4	2016
Advanced Development: Technical & Design Analysis: Technical & Design Analysis (FY17)	1	2017	2	2017
Advanced Development: Technical & Design Analysis: Technical & Design Analysis (FY18)	1	2018	2	2018
Advanced Development: Technical & Design Analysis: Technical & Design Analysis (FY19)	1	2019	2	2019
Advanced Development: Technical & Design Analysis: Technical & Design Analysis (FY20)	1	2020	2	2020
Advanced Development: Technical & Design Analysis: Technical & Design Analysis (FY21)	1	2021	2	2021
Advanced Development: Systems Integration Lab (SIL) Testing & Reporting: SIL Testing & Reporting (FY17)	3	2017	4	2017
Advanced Development: Systems Integration Lab (SIL) Testing & Reporting: SIL Testing & Reporting (FY18)	3	2018	4	2018
Advanced Development: Systems Integration Lab (SIL) Testing & Reporting: SIL Testing & Reporting (FY19)	3	2019	4	2019
Advanced Development: Systems Integration Lab (SIL) Testing & Reporting: SIL Testing & Reporting (FY20)	3	2020	4	2020
Advanced Development: Systems Integration Lab (SIL) Testing & Reporting: SIL Testing & Reporting (FY21)	3	2021	4	2021

**UNCLASSIFIED**

**THIS PAGE INTENTIONALLY LEFT BLANK**

**UNCLASSIFIED**