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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0101402N: Navy Strategic Comms							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	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	378.884	24.075	19.208	21.729	-	21.729	14.285	11.766	12.284	12.512	Continuing	Continuing
1083: Shore To Ship Com System	119.697	13.865	18.187	21.729	-	21.729	14.285	11.766	12.284	12.512	Continuing	Continuing
3002: Navy Strategic Comm Project	259.187	10.210	1.021	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	270.418
[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
^{##} The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The Shore to Ship Communications System develops communication system elements which provide Nuclear Command, Control and Communications (NC3) from originator to execution platforms. The Shore to Ship Communications System provides continuous assessment of the command and control links between the National Command Authority and missile platforms and is conducted to ensure compliance with Nuclear Command and Control System (C2) Technical Performance Criteria (NTPC). The Shore to Ship Communications System addresses joint system design issues for Emergency Action Message (EAM) distribution to all nuclear platforms and provides evaluation of joint interoperability of EAM delivery systems. Tools are developed to provide strategic command and control planning within the submarine shore infrastructure to support deployed ballistic missile submarines.												
The E-6B Block I modification program corrects Airborne National Command Post program Follow-On Operational Test and Evaluation operational suitability deficiencies and addresses legacy system obsolescence issues. Without the Block I program, legacy system obsolescence will result in several unsupportable mission systems. Block I designs, develops, integrates, and tests a multi-level security system, open systems architecture; replaces the intercommunications and Mission Computer Set; modifies the cooling, electrical, and Ultra-High Frequency Command, Control and Communications system; and addresses internet protocol bandwidth expansion impacts to pre-Block I baseline aircraft. Block I adds operator workstations throughout the aircraft to reduce workload and improve system interoperability, and provides a foundation for evolutionary upgrades. Other modifications (Block IA engineering change proposal) include: an additional auxiliary power unit to enhance power and cooling capabilities supporting the additional systems in the multi-level security system, open systems architecture, a very low frequency transmitter obsolescence replacement, and a high power transmit set subsystem refurbishment.												

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy				DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0101402N: Navy Strategic Comms			
BA 7: Operational Systems Development					
B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	23.208	19.208	25.231	-	25.231
Current President's Budget	24.075	19.208	21.729	-	21.729
Total Adjustments	0.867	0.000	-3.502	-	-3.502
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.425	0.000			
• SBIR/STTR Transfer	-0.558	0.000			
• Program Adjustments	0.000	0.000	-3.694	-	-3.694
• Rate/Misc Adjustments	0.000	0.000	0.192	-	0.192

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0101402N: Navy Strategic Comms				PROJECT 1083: Shore To Ship Com System			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1083: Shore To Ship Com System	119.697	13.865	18.187	21.729	-	21.729	14.285	11.766	12.284	12.512	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
Th Shore To Ship Communication System develops communication elements which provide Nuclear Command, Control and Communications (NC3) from originator to execution platforms. 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 transmit and receive subsystems of the Fixed Submarine Broadcast System (FSBS) which are approaching their operational end of life. LBUCS will ensure operational capability through the Very Low Frequency (VLF) architecture by providing system life extension and flexibility of submarine broadcast traffic to submarines operating in a stealth posture. The flexibility includes enhanced throughput and anti-jam capability, ensuring more operational products are delivered to a submarine without risking mast exposure. The flexibility further includes a simplified shore architecture to maintain capability while maximizing use of shore nodes (Broadcast Keying Sites). LBUCS also provides an upgrade to the VLF receive system, with all interoperable waveforms, to ensure continued compliance with Nuclear Command and Control System (C2) Technical Performance Criteria (NTPC).												
The Strategic Communications Assessment Program/Continued Evaluation Program provides constant assessment of the effectiveness of the end-to-end NC2 network and analysis of system performance in various mission locations.												
Concept Development/System Planning provides Network Enabled Operation (NEO) that addresses Allied interoperability issues for submarine communications in an internet protocol environment. As new technologies are realized, coalition architectures are developed and tested to ensure continued interoperability. The United States/United Kingdom VLF Project Agreement provides mutual improvements to VLF transmission and reception capabilities for submarine operations by evolving and demonstrating modern technologies and advanced waveform techniques. Concept Development/System Planning also provides for the modeling of unique Very Low Frequency/Low Frequency (VLF/LF) submarine communications capabilities which include large physical shore broadcast antennas, underwater depth penetration studies and interoperable VLF waveform analysis. Technologies to improve high voltage insulators, helix house bushings and antenna components used in the fixed VLF transmit systems are evaluated and tested through the High Voltage Improvement Program. Development of information assurance solutions for the Broadcast Control Authority (BCA) and Submarine Operating Authority wide area network are part of this program to mitigate vulnerability concerns.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: Low Band Universal Communication System (LBUCS)									7.204	13.281	16.361	

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0101402N: <i>Navy Strategic Comms</i>	PROJECT 1083: <i>Shore To Ship Com System</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2012	FY 2013
		Articles:		
			0	0
FY 2012 Accomplishments: -Completed technical readiness review for transmit terminal. -Took receipt of LBUCS Transmit production representative articles (PRA). -Continued statutory and regulatory acquisition documentation in preparation for FY13 LBUCS Transmit Milestone C, including the Capability Production Document (CPD) and Information Support Plan (ISP). -Commenced LBUCS Transmit Developmental Testing (DT) and Operational Assessment (OA). FY 2013 Plans: -Complete LBUCS Transmit DT and OA. -Commence LBUCS Transmit Low Rate Initial Production (LRIP). -Commence LBUCS Receive development. -Complete LBUCS Receive Preliminary Design Review (PDR) and Critical Design Review (CDR). -Commence development of a new Very Low Frequency (VLF) mode, which will be incorporated into the LBUCS Receive development effort. -Commence Submarine Operating Authority Wide Area Network (SWAN) Information Assurance (IA) upgrade development. -Complete statutory and regulatory acquisition documentation in preparation for FY13 LBUCS Transmit Milestone C, including the Capability Production Document (CPD) and Information Support Plan (ISP). -Achieve LBUCS Transmit Milestone C. FY 2014 Plans: -Complete LBUCS Transmit Low Rate Initial Production (LRIP). -Complete LBUCS Transmit Developmental Testing (DT)/Integration Testing (IT)/Operational Testing (OT). -Complete LBUCS Receive development. -Complete development of a new VLF Mode which will be incorporated into the LBUCS Receive development effort. -Continue SWAN IA upgrade development.				
Title: Nuclear Command, Control, Communications Long Term Solution (NC3 LTS)		Articles:	1.909 0	0.000
FY 2012 Accomplishments: -Completed Navy NC3 Assessment.				
Title: Strategic Communications Assessment Program (SCAP)/Continuing Evaluation Program (CEP)		Articles:	2.879 0	3.084 0
FY 2012 Accomplishments:				3.811 0

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0101402N: Navy Strategic Comms	PROJECT 1083: Shore To Ship Com System		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
<div>-Continued mission analysis of Ship Submersible Ballistic Nuclear Submarine (SSBN) Emergency Action Message (EAM) reception for SSBN patrols.</div> <div>-Provided reports on performance, adherence to delivery time requirements and shortfalls.</div> <div>-Continued development of automated data collection and analysis tools to reduce latency time between missions and results availability.</div> <div>FY 2013 Plans:</div> <div>-Continue mission analysis of Ship Submersible Ballistic Nuclear Submarine (SSBN) Emergency Action Message (EAM)reception for Ship Submersible Ballistic Nuclear Submarine (SSBN) patrols.</div> <div>-Provide reports on performance, adherence to delivery time requirements and shortfalls.</div> <div>-Complete development of automated data collection and analysis tools to reduce latency time between missions and results availability.</div> <div>FY 2014 Plans:</div> <div>-Continue mission analysis of Ship Submersible Ballistic Nuclear Submarine (SSBN) Emergency Action Message (EAM) reception of SSBN Patrols.</div> <div>-Provide reports on performance, adherence to delivery time requirements and shortfalls.</div>				
<div>Title: Concept Development/Systems Planning</div> <div>Articles:</div> <div>FY 2012 Accomplishments:</div> <div>-Integrated Joint/Allied Network Enabled Operation (NEO) with Command, Control, Communications, Computers, and Intelligence (C4I) applications.</div> <div>FY 2013 Plans:</div> <div>-Prepare and submit final NEO report to include results and recommendations.</div> <div>-Commence United States/United Kingdom Very Low Frequency (VLF) Project Arrangement (PA).</div> <div>-Assess United States/United Kingdom performance requirements to determine which concepts to pursue.</div> <div>FY 2014 Plans:</div> <div>-Continue United States/United Kingdom Very Low Frequency (VLF) Project Arrangement (PA).</div> <div>-Determine appropriate United States/United Kingdom performance requirements to determine which concepts to pursue.</div>		0.784 0	0.804 0	0.414 0
<div>Title: High Voltage Improvement Program</div> <div>Articles:</div> <div>FY 2012 Accomplishments:</div>		0.797 0	0.749 0	0.841 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2012	FY 2013	FY 2014		
<div>-Completed examination of aging laminated wood used in Very Low Frequency (VLF)/Low Frequency (LF) Helix Houses.</div> <div>-Completed examination of new ferrites to reduce the loss and size of the VLF/LF Helix House enclosure.</div> <div>-Completed examination of partial-discharge for early detection of Helix House issues.</div> <div>-Completed examination of outdoor Helix House effort.</div> <div>-Commenced examination of aging for multi-conductor High-Q inductor cable used in VLF/LF Helix Houses.</div> <div>FY 2013 Plans:</div> <div>-Continue examination of aging multi-conductor High-Q inductor cable used in VLF/LF Helix Houses.</div> <div>-Commence examination of innovative lighting methods for high voltage Very Low Frequency (VLF)/Low Frequency (LF) towers.</div> <div>FY 2014 Plans:</div> <div>-Complete examination of innovative lighting methods for high voltage VLF/LF towers.</div> <div>-Commence examination of methods for reducing risk of fire or damage by detection of partial discharge in Helix House.</div> <div>-Complete examination of aging multi-conductor High-Q inductor cable used in VLF/LF Helix Houses.</div>											
<div>Title: Broadcast Control Authority</div> <div>Articles:</div> <div>FY 2012 Accomplishments:</div> <div>-Commenced development of Submarine Operating Authority (SUBOPAUTH) communications tools including file repository, Operation Schedule (OpSked) Editor, Submarine Notes (SubNotes) Editor, and Web Off The Air Monitor (WebOTAM).</div> <div>-Developed candidate SUBOPAUTH options for information assurance integration.</div> <div>FY 2013 Plans:</div> <div>-Continue development of SUBOPAUTH communications tools including file repository, OpSked Editor, SubNotes Editor, and WebOTAM.</div> <div>FY 2014 Plans:</div> <div>-Complete development of SUBOPAUTH communications tools including file repository, OpSked Editor, SubNotes Editor, and WebOTAM.</div> <div>-Commence development of BCA System Monitor.</div>							0.292 0	0.269 0	0.302 0		
Accomplishments/Planned Programs Subtotals							13.865	18.187	21.729		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/3107: Submarine Broadcast	11.243	4.183	7.856		7.856	11.237	18.828	16.422	18.629	Continuing	Continuing

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C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Remarks											
D. Acquisition Strategy											
Low Band Universal Communications System (LBUCS): LBUCS is the modernization program that will upgrade the Transmit and Receive subsystems of the Fixed Submarine Broadcast System which are approaching their operational end of life. A cost plus incentive fee contract was awarded for Transmit subsystem development in 4Q FY09 with three sequential fixed price option Contract Line Item Numbers for production and deployment. The development of LBUCS Receive will commence in FY13.											
E. Performance Metrics											
LBUCS FY14: Complete LBUCS Transmit initial OT&E.											
Concept Development/Systems Planning FY14: Determine appropriate United States/United Kingdom performance requirements to determine which concepts to pursue.											
Strategic Communications Assessment Program (SCAP)/Continuing Evaluation Program (CEP) FY14: Delivery of Submersible Ballistic Nuclear Submarine (SSBN) patrol reports.											
High Voltage Improvement (HVIP) Program FY14: Complete examination of innovative lighting methods for high voltage Very Low Frequency (VLF)/Low Frequency (LF) towers.											
Broadcast Control Authority (BCA) FY14: Complete development of Submarine Operating Authority (SUBOPAUTH) communications tools.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0101402N: Navy Strategic Comms				PROJECT 1083: Shore To Ship Com System					
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
Systems Engineering	WR	SSC PAC:San Diego, CA	50.733	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
LBUCS: Systems Engineering	WR	SSC LANT:Charleston, SC	0.475	2.580	Oct 2011	2.610	Oct 2012	3.228	Oct 2013	-		3.228	Continuing	Continuing	Continuing
LBUCS: Primary Hardware Development	C/CPIF	SAIC:San Diego, CA	10.340	1.346	Nov 2011	0.000		0.000		-		0.000	0.000	11.686	
Shore to Ship: Ancillary Hardware	WR	SSC PAC:San Diego, CA	0.147	0.000		0.000		0.000		-		0.000	0.000	0.147	
Shore to Ship: Systems Engineering	WR	SSC PAC:San Diego, CA	0.222	0.000		0.000		0.000		-		0.000	0.000	0.222	
Development Support	WR	SSC PAC:San Diego, CA	7.207	0.000		6.088	Oct 2012	4.195	Oct 2013	-		4.195	Continuing	Continuing	Continuing
Software Development	WR	SSC PAC:San Diego, CA	12.367	0.000		0.466	Oct 2012	4.568	Oct 2013	-		4.568	Continuing	Continuing	Continuing
Subtotal			81.491	3.926		9.164		11.991		0.000		11.991			
Support (\$ 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
Acquisition/Program Development	WR	SSC PAC:San Diego, CA	1.506	0.575	Oct 2011	0.279	Oct 2012	0.000		-		0.000	0.000	2.360	
LBUCS: Logistics Support	C/CPFF	Cambridge International:Cambridge International	1.716	0.248	Jun 2012	0.363	Jun 2013	0.402	Jun 2014	-		0.402	Continuing	Continuing	Continuing
LBUCS: Information Assurance	C/CPFF	Merdan Group:San Diego, CA	0.158	0.217	Oct 2011	0.272	Oct 2012	0.314	Oct 2013	-		0.314	Continuing	Continuing	Continuing
LBUCS: Information Assurance	WR	SSC PAC:San Diego, CA	0.000	0.000		0.254	Oct 2012	0.254	Oct 2013	-		0.254	Continuing	Continuing	Continuing
LBUCS: Technical Data	C/CPFF	ANSOL:San Diego, CA	0.158	0.232	Oct 2011	0.236	Oct 2012	0.236	Oct 2013	-		0.236	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0101402N: Navy Strategic Comms				PROJECT 1083: Shore To Ship Com System					
Support (\$ 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
LBUCS: Acquisition/ Program Development	C/CPFF	CSA:San Diego, CA	0.728	0.545	Oct 2011	0.740	Oct 2012	0.763	Oct 2013	-		0.763	Continuing	Continuing	Continuing
LBUCS: Systems Engineering	C/CPFF	FSI:San Diego, CA	0.300	0.207	Oct 2011	0.307	Oct 2012	0.412	Oct 2013	-		0.412	Continuing	Continuing	Continuing
LBUCS: Cost Estimating	C/CPFF	Booz Allen Hamilton:San Diego, CA	0.230	0.235	Oct 2011	0.235	Oct 2012	0.241	Oct 2013	-		0.241	Continuing	Continuing	Continuing
Shore to Ship: Software Development	WR	SSC PAC:San Diego, CA	0.229	0.397	Oct 2011	0.204	Oct 2012	0.697	Oct 2013	-		0.697	Continuing	Continuing	Continuing
Shore to Ship: Studies and Design	WR	SSC PAC:San Diego, CA	0.386	0.895	Oct 2011	0.800	Oct 2012	0.646	Oct 2013	-		0.646	Continuing	Continuing	Continuing
Shore to Ship: Broadcast Control Authority	C/CPFF	Predicate Logic:San Diego, CA	0.524	0.405	Oct 2011	0.269	Oct 2012	0.214	Oct 2013	-		0.214	Continuing	Continuing	Continuing
Subtotal			5.935	3.956		3.959		4.179		0.000		4.179			
Test and Evaluation (\$ 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
SCAP/CEP: Strategic OP Systems Performance Evaluation	C/CPFF	APL/JHU:Baltimore, MD	24.010	2.879	May 2012	3.084	May 2013	3.811	May 2014	-		3.811	Continuing	Continuing	Continuing
LBUCS: System Testing	WR	COTF:Norfolk, VA	0.177	0.195	Oct 2011	0.300	Oct 2012	0.300	Oct 2013	-		0.300	Continuing	Continuing	Continuing
LBUCS: System Testing	WR	SSC PAC:San Diego, CA	0.238	0.250	Oct 2011	0.316	Oct 2012	0.789	Oct 2013	-		0.789	Continuing	Continuing	Continuing
Subtotal			24.425	3.324		3.700		4.900		0.000		4.900			

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy													DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>							R-1 ITEM NOMENCLATURE PE 0101402N: <i>Navy Strategic Comms</i>				PROJECT 1083: <i>Shore To Ship Com System</i>				

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 Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	MIPR	MITRE:San Diego, CA	1.777	1.510	Oct 2011	0.000		0.000		-		0.000	0.000	3.287	
LBUCS: Program Management	WR	SSC PAC:San Diego, CA	5.803	1.049	Oct 2011	1.314	Oct 2012	0.559	Oct 2013	-		0.559	Continuing	Continuing	Continuing
LBUCS: Travel	WR	SSC PAC:San Diego, CA	0.266	0.100	Oct 2011	0.050	Oct 2012	0.100	Oct 2013	-		0.100	Continuing	Continuing	Continuing
Subtotal			7.846	2.659		1.364		0.659		0.000		0.659			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	119.697	13.865		18.187		21.729		0.000		21.729			

Remarks

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PE 0101402N: *Navy Strategic Comms*
 Navy

UNCLASSIFIED
 Page 11 of 19

R-1 Line #168

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy																				DATE: April 2013									
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development										R-1 ITEM NOMENCLATURE PE 0101402N: Navy Strategic Comms										PROJECT 1083: Shore To Ship Com System									
Fiscal Year	2012				2013				2014				2015				2016				2017				2018				
	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	
Acquisition Milestones																													
Low Band Universal Communication System (LBUCS) Receive																													
Contractual Milestones/Timeline																													
Test & Evalutaion																													
Equipment Procurement																													
Equipment Installation																													

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

1319: *Research, Development, Test & Evaluation, Navy*

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0101402N: Navy Strategic Comms

PROJECT

1083: *Shore To Ship Com System*[illegible]

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0101402N: <i>Navy Strategic Comms</i>	PROJECT 1083: <i>Shore To Ship Com System</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 1083				
LBUCS: Production Representative Article (PRA) - Transmit	1	2012	2	2012
LBUCS: Capability Production Document (CPD) - Transmit	1	2012	2	2013
LBUCS: Technology Readiness Review (TRR) - Transmit	1	2012	1	2012
LBUCS: Developmental Test/Operational Assesment (DT/OA) - Transmit	4	2012	2	2013
LBUCS: Production Representative Article (PRA) - Receive	1	2013	4	2014
LBUCS: Milestone-C (MS-C) - Transmit	3	2013	3	2013
LBUCS: Production Design Review (PDR) - Receive	3	2013	3	2013
LBUCS: Critical Design Review (CDR) - Receive	4	2013	4	2013
LBUCS: Low Rate Initial Production (LRIP) - Transmit	4	2013	2	2014
LBUCS: Developmental Test/Technical Evaluation (DT/TE) - Transmit	2	2014	2	2014
LBUCS: Integrated Test (IT) - Transmit	3	2014	3	2014
LBUCS: Operational Test Readiness Review (OTRR) - Transmit	3	2014	3	2014
LBUCS: Operational Test (OT) - Transmit	4	2014	4	2014
LBUCS: Initial Operational Capability (IOC) - Transmit	1	2015	1	2015
LBUCS: Developmental Test/Operational Assesment (DT/OA) - Receive	1	2015	1	2015
LBUCS: Full Rate Production Milestone (FRP) - Transmit	1	2015	1	2015
LBUCS: EDM Program Review - Receive	2	2015	2	2015
LBUCS: Broadcast Keying Site (BKS) Full Rate Production (FRP) - Transmit	2	2015	4	2015
LBUCS: Broadcast Transmit Site (BTS) Full Rate Production (FRP) - Transmit	1	2016	4	2016
LBUCS: Full Rate Production (FRP) - Receive	4	2015	4	2018
LBUCS: Installation Broadcast Keying Site (BKS) - Transmit	1	2016	4	2016

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013	
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		Start		End
Events by Sub Project		Quarter	Year	Quarter
LBUCS: Installation - Receive		1	2016	4
LBUCS: Installation Broadcast Transmit Site (BTS) - Transmit		1	2017	4
CEP: Studies and Analysis		1	2012	4
CEP: Analysis Automation		3	2013	3
CEP: Task Order		1	2013	1
LBUCS: Low Rate Initial Production - Receive		2	2015	2
LBUCS: Full Fielding Program Review - Receive		4	2015	4
LBUCS: Developmental Testing- Receive		3	2015	3
LBUCS: Operational Testing- Receive		3	2015	3

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0101402N: Navy Strategic Comms				PROJECT 3002: Navy Strategic Comm Project			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3002: Navy Strategic Comm Project	259.187	10.210	1.021	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	270.418
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The E-6B Block I modification program corrects Airborne National Command Post program Follow-On Operational Test and Evaluation operational suitability deficiencies and addresses legacy system obsolescence issues. Without the Block I program, legacy system obsolescence will result in several unsupportable mission systems. Block I designs, develops, integrates, and tests a Multi-Level Security (MLS) system, Open Systems Architecture (OSA); replaces the intercommunications and Mission Computer Set; modifies the cooling, electrical, and Ultra-High Frequency Command, Control and Communications system; and addresses Internet Protocol Bandwidth Expansion impacts to pre-Block I baseline aircraft. Block I adds operator workstations throughout the aircraft to reduce workload and improve system interoperability, and provides a foundation for evolutionary upgrades. Other modifications (Block IA Engineering Change Proposal (ECP)) include: an additional Auxiliary Power Unit to enhance power and cooling capabilities supporting the additional systems in the MLS system, OSA, a Very Low Frequency Transmitter obsolescence replacement, and a High Power Transmit Set subsystem refurbishment.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2012	FY 2013	FY 2014
Title: Conduct Developmental Test (DT) Governmental Training Articles: FY 2012 Accomplishments: Continue Block IA ECP DT Governmental Training efforts. FY 2013 Plans: Complete Block IA ECP DT Governmental Training efforts.										0.604	0.250	0.000
										0	0	
Title: Prototype Aircraft Installation Articles: FY 2012 Accomplishments: Continue Block IA ECP Prototype Aircraft Installation efforts. FY 2013 Plans: Complete Block IA ECP Prototype Aircraft Installation efforts.										9.108	0.771	0.000
										0	0	
Title: Developmental/Operational Testing										0.498	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy							DATE: April 2013				
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0101402N: <i>Navy Strategic Comms</i>			PROJECT 3002: <i>Navy Strategic Comm Project</i>				

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
<i>Articles:</i>		0		
<i>FY 2012 Accomplishments:</i> Begin and complete Block IA ECP operational testing to obtain a successful OPEVAL report.				
Accomplishments/Planned Programs Subtotals		10.210	1.021	0.000

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN 056400: <i>E-6 A/B Series</i>	152.211	158.332	189.312		189.312	214.450	198.952	202.520	206.129	368.857	2,172.462
Remarks											
D. Acquisition Strategy Competitively awarded Cost Plus Award Fee development contract. The current contract was modified on 13 April 2007 to a Cost Plus Incentive Fee contract. A new sole source Firm Fixed Price (FFP) contract was awarded for LRIP in 4th quarter of FY2010 with Full Rate Production being a new sole source follow-on FFP contract.											
E. Performance Metrics Block I Milestone C decision achieved in 3rd quarter FY2010. FRP Contract Award 1st quarter FY2013. Block I IOC planned for 2nd quarter FY2014.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0101402N: Navy Strategic Comms				PROJECT 3002: Navy Strategic Comm Project					
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
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	31.641	9.818	Nov 2011	0.821	Feb 2013	0.000		-		0.000	0.000	42.280	42.280
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
Subtotal			184.418	9.818		0.821		0.000		0.000		0.000	0.000	195.057	195.057
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.															
Support (\$ 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
Studies & Analyses	Various	Various:Not Specified	4.477	0.000		0.000		0.000		-		0.000	0.000	4.477	
Subtotal			4.477	0.000		0.000		0.000		0.000		0.000	0.000	4.477	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0101402N: Navy Strategic Comms						PROJECT 3002: Navy Strategic Comm Project			
Test and Evaluation (\$ 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
Developmental Test & Evaluation	WR	NAWCAD:Patuxent River, MD	0.668	0.000		0.000		0.000		-		0.000	0.000	0.668	
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	
Subtotal			6.461	0.000		0.000		0.000		0.000		0.000	0.000	6.461	
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 Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various	Various:Not Specified	13.700	0.150	May 2012	0.000		0.000		-		0.000	0.000	13.850	
Governmental Support	Various	Various:Not Specified	37.728	0.000		0.000		0.000		-		0.000	0.000	37.728	
Program Management Support	Various	Various:Not Specified	10.550	0.000		0.000		0.000		-		0.000	0.000	10.550	
Travel	WR	NAVAIR HQ:Patuxent River, MD	1.853	0.242	Nov 2011	0.200	Nov 2012	0.000		-		0.000	0.000	2.295	
Subtotal			63.831	0.392		0.200		0.000		0.000		0.000	0.000	64.423	
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			259.187	10.210		1.021		0.000		0.000		0.000	0.000	270.418	
Remarks															