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

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

1319: Research, Development, Test & Evaluation, Navy PE 0101402N: Navy Strategic Comms

BA 7: Operational Systems Development

Bit 1. Operational Systems Bevelop	mom										
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	9.492	23.208	19.208	-	19.208	25.231	15.400	12.811	13.734	Continuing	Continuing
1083: Shore To Ship Com System	-	14.430	18.187	-	18.187	25.231	15.400	12.811	13.734	Continuing	Continuing
3002: Navy Strategic Comm Project	9.492	8.778	1.021	-	1.021	-	-	-	-	0.000	19.291

A. Mission Description and Budget Item Justification

The Shore to Ship Communications System develops communication system elements which provide positive command and control of deployed submarines. 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 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.

Funds will be used for development activities necessary to increase development in Low Band Universal Communications System (LBUCS) to reach Milestone C.

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.

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

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 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	10.331	23.208	20.431	-	20.431
Current President's Budget	9.492	23.208	19.208	-	19.208
Total Adjustments	-0.839	-	-1.223	-	-1.223
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-0.533	-			
SBIR/STTR Transfer	-0.253	-			
Program Adjustments	-	-	-1.198	-	-1.198
 Rate/Misc Adjustments 	-	-	-0.025	-	-0.025
 Congressional General Reductions Adjustments 	-0.053	-	-	-	-

Change Summary Explanation

Schedule:

(1083) LBUCS: LBUCS Transmit incurred a one-year delay to Milestone C. Schedule delays were realized due to two issues: award of the LBUCS Transmit development contract was delayed due to longer than anticipated proposal evaluation; and implementation of technical changes were necessary after review of the contractor's Preliminary Design Review (PDR) package.

(3002) Due to testing deficiencies and delays, the Systems Integration Lab (SIL) and Aircraft Developmental Testing for Block I was extended to 4Q FY10. This caused a delay in the Block I operational testing and operational evaluation (OPEVAL). The Low Rate Initial Production was extended to 3Q FY13. The Block I full rate production decision and contract award was delayed until 3Q FY12 - until the completion of the Block I operational testing and OPEVAL. Technical: Not applicable.

Exhibit R-2A, RDT&E Project Just	ification: Pt	3 2013 Navy							DATE: Febi	uary 2012	
APPROPRIATION/BUDGET ACTIV	'ITY			R-1 ITEM N	OMENCLA	TURE		PROJECT			
1319: Research, Development, Test		n, Navy		PE 010140	2N: <i>Navy Sti</i>	rategic Comi	ns	1083: Shore	e To Ship Co	m System	
BA 7: Operational Systems Develop	ment										
COST (¢ in Milliana)			FY 2013	FY 2013	FY 2013					Cost To	
COST (\$ in Millions)	FY 2011	FY 2012	Base	oco	Total	FY 2014	FY 2015	FY 2016	FY 2017	Complete	Total Cost
1083: Shore To Ship Com System	-	14.430	18.187	-	18.187	25.231	15.400	12.811	13.734	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

Navy

Funding for this project transferred from PE 0204163N beginning in FY12.

A. Mission Description and Budget Item Justification

This program develops communication system elements which provide positive 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 Technical Performance Criteria.

The NC3 Long Term Solution (LTS) will provide an assessment of Information Assurance (IA) measures and alternatives to the legacy Nova messaging system and NC3 Information eXchange Terminal (NIXT) which supports the dissemination of Emergency Action Messages (EAMs) and other NC2 messages between Senior Leadership (The President of the United States, Secretary of Defense, and Chairman of the Joint Chiefs of Staff), Combatant Commanders and United States nuclear force elements.

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 being investigated to mitigate vulnerability concerns.

PE 0101402N: Navy Strategic Comms

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJEC	T		
1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	PE 0101402N: Navy Strategic Comms	1083: <i>Sh</i>	ore To Ship (Com System	
B. Accomplishments/Planned Programs (\$ in Millions, Articl	e Quantities in Each)		FY 2011	FY 2012	FY 2013
Title: Low Band Universal Communication System (LBUCS)		Articles:	-	7.525 0	13.281 0
FY 2012 Plans: -Complete technical readiness review for transmit terminalTake receipt of LBUCS Transmit production representative artic-Complete statutory and regulatory acquisition documentation in capability production document and information support planCommence LBUCS Transmit Developmental Testing (DT) and	preparation for FY13 LBUCS Transmit Milestone C,	including the			
FY 2013 Plans: -Complete LBUCS Transmit DT and OA. -Achieve LBUCS Transmit Milestone C. -Commence LBUCS Receive development. -Complete LBUCS Receive Preliminary Design Review (PDR) at Commence development of a new Very Low Frequency (VLF) redevelopment effort. -Commence Submarine Operating Authority Wide Area Network	mode, which will be incorporated into the LBUCS Rec				
Title: Nuclear Command, Control, Communications Long Term	Solution (NC3 LTS)	Articles:	-	1.994 0	-
FY 2012 Plans: -Complete Navy NC3 Assessment.					
Title: Strategic Communications Assessment Program (SCAP)/0	Continuing Evaluation Program (CEP)		_	2.953	3.084
7.1.07 Strategie Schillianisatione / 188888/month regian (SS/11 //)		Articles:		0	0.001
FY 2012 Plans:					
-Continue mission analysis of Ship Submersible Ballistic Nuclear for SSBN patrolsProvide reports on performance, adherence to delivery time requestionated data collection and analysis availability.	uirements and shortfalls.	, ,			
FY 2013 Plans: -Continue mission analysis of SSBN EAM reception for SSBN pa	atrole				
-Provide reports on performance, adherence to delivery time req					

PE 0101402N: *Navy Strategic Comms* Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE : Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJEC	T		
1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	PE 0101402N: Navy Strategic Comms	1083: <i>Sh</i>	ore To Ship (Com System	
B. Accomplishments/Planned Programs (\$ in Millions, Artic	le Quantities in Each <u>)</u>		FY 2011	FY 2012	FY 2013
-Complete development of automated data collection and analy availability.	sis tools to reduce latency time between missions and	d results			
Title: Concept Development/Systems Planning		Articles:	-	0.819	0.80 ² (
FY 2012 Plans: -Continue the integration of Joint/Allied Network Enabled Opera	ition (NEO) with C4I applications.				
FY 2013 Plans: -Prepare and submit final NEO report to include results and reco-Commence United States/United Kingdom Very Low Frequence-Assess US/UK performance requirements to determine which of	y (VLF) Project Agreement (PA).				
Title: High Voltage Improvement Program		Articles:	-	0.834 0	0.749
FY 2012 Plans: -Complete examination of aging for laminated wood used in VLI -Complete examination of new ferrites to reduce the loss and six -Complete examination of partial-discharge for early detection of complete examination of outdoor Helix House effortCommence examination of aging for multi-conductor High-Q in	ze of the VLF/LF Helix House enclosure. If Helix House issues.				
FY 2013 Plans: -Continue examination of aging for multi-conductor High-Q indu -Commence examination of innovative lighting methods for high					
Title: Broadcast Control Authority		Articles:	-	0.305 0	0.269
FY 2012 Plans: -Commence development of Submarine Operating Authority (SI Operation Schedule (OpSked) Editor, Submarine Notes (SubNo-Continue to develop candidate SUBOPAUTH options for inform	otes) Editor, and Web Off The Air Monitor (WebOTAN				
1-Continue to develop candidate 30b0FA0111 options for inform	lation assurance integration.	I			

PE 0101402N: *Navy Strategic Comms* Navy

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DATE: February 2012 Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy **PROJECT**

R-1 ITEM NOMENCLATURE APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy 1083: Shore To Ship Com System PE 0101402N: Navy Strategic Comms BA 7: Operational Systems Development

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
-Continue development of SUBOPAUTH communications tools including file repository, OpSked Editor, SubNotes Editor, ar WebOTAM.	d		
Accomplishments/Planned Programs Sul	ototals -	14.430	18.187

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

			FY 2013	FY 2013	FY 2013					Cost To	
<u>Line Item</u>	FY 2011	FY 2012	Base	OCO	<u>Total</u>	FY 2014	FY 2015	FY 2016	FY 2017	Complete	Total Cost
OPN/3107: Submarine Broadcast	0.000	10.357	4.183	0.000	4.183	4.986	13.346	25.186	23.573	Continuing	Continuing

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 options Contract Line Item Numbers for production and deployment. The development of LBUCS Receive will commence in FY13.

E. Performance Metrics

LBUCS FY13: Complete LBUCS Transmit developmental testing and operational assessment. Achieve LBUCS Transmit Milestone C. Complete LBUCS Receive preliminary design review and critical design review.

Strategic Communications Assessment Program/Continuing Evaluation Program FY13: Delivery of Submersible Ballistic Nuclear Submarine (SSBN) patrol reports.

Concept Development FY13: Delivery of final Network Enabled Operations (NEO) report. Assessment report of United States/United Kingdom Very Low Frequency (VLF) performance requirements and recommendation of best VLF concepts to pursue.

High Voltage Improvement Program FY13: Continue examination of aging for multi-conductor High-Q inductor cable. Commence examination of innovative lighting methods for high voltage VLF/LF towers.

Broadcast Control Authority FY13: Delivery of design options to incorporate information assurance capability.

PE 0101402N: Navy Strategic Comms

Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy

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

DATE: February 2012

Product Development (\$ in Millio	ns)		FY 2	2012	FY 2 Ba			2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	SSC PAC:San Diego, CA	50.733	-		-		-		-	Continuing	Continuing	Continuing
LBUCS: Systems Engineering	WR	SSC LANT:Charleston, SC	0.475	1.075	Oct 2011	2.610	Oct 2012	-		2.610	Continuing	Continuing	Continuing
LBUCS: Primary Hardware Development	C/CPIF	SAIC:San Diego, CA	10.340	1.010	Nov 2011	-		-		-	0.000	11.350	
Shore to Ship: Ancillary Hardware	WR	SSC PAC:San Diego, CA	0.147	-		-		-		-	Continuing	Continuing	Continuing
Shore to Ship: Systems Engineering	WR	SSC PAC:San Diego, CA	0.222	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	61.917	2.085		2.610		-		2.610			

Remarks

Total prior years cost amounts shown are from PE 0204163N and are provided for context.

Support (\$ in Millions)				FY 2	012	FY 2 Ba			2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	SSC PAC:San Diego, CA	4.853	2.354	Oct 2011	6.088	Oct 2012	-		6.088	Continuing	Continuing	Continuing
Software Development	WR	SSC PAC:San Diego, CA	11.912	0.455	Oct 2011	0.466	Oct 2012	-		0.466	Continuing	Continuing	Continuing
Acquisition/Program Development	WR	SSC PAC:San Diego, CA	1.506	0.275	Oct 2011	0.279	Oct 2012	-		0.279	Continuing	Continuing	Continuing
LBUCS: Logistics Support	C/CPFF	UNKNOWN:UNKNOWN	1.716	0.338	May 2012	0.363	Oct 2012	-		0.363	Continuing	Continuing	Continuing
LBUCS: Information Assurance	C/CPFF	Merdan Group:San Diego, CA	0.158	0.217	Oct 2011	0.272	Oct 2012	-		0.272	Continuing	Continuing	Continuing
LBUCS: Information Assurance	WR	SSC PAC:San Diego, CA	-	-		0.254	Oct 2012	-		0.254	Continuing	Continuing	Continuing
LBUCS: Technical Data	C/CPFF	ANSOL:San Diego, CA	0.158	0.182	Oct 2011	0.236	Oct 2012	-		0.236	Continuing	Continuing	Continuing

PE 0101402N: Navy Strategic Comms Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy

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

DATE: February 2012

Support (\$ in Millions)				FY 2	012	FY 2 Ba	2013 se		2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
LBUCS: Acquisition/Program Development	C/CPFF	CSA:San Diego, CA	0.728	0.626	Oct 2011	0.740	Oct 2012	-		0.740	Continuing	Continuing	Continuing
LBUCS: Systems Engineering	C/CPFF	FSI:San Diego, CA	0.300	0.307	Oct 2011	0.307	Oct 2012	-		0.307	Continuing	Continuing	Continuing
LBUCS: Cost Estimating	C/CPFF	Booz Allen Hamilton:San Diego, CA	0.230	0.235	Oct 2011	0.235	Oct 2012	-		0.235	Continuing	Continuing	Continuing
NC3 LTS: Information Assurance	C/CPFF	Merdan Group:San Diego, CA	0.375	0.100	Oct 2011	-		-		-	0.000	0.475	
NC3 LTS: Technical Data	C/CPFF	ANSOL:San Diego, CA	0.884	0.200	Oct 2011	-		-		-	0.000	1.084	
NC3 LTS: Acquisition/Program Development	C/CPFF	CSA:San Diego, CA	1.208	0.346	Oct 2011	-		-		-	0.000	1.554	
NC3 LTS: Logistics Support	C/CPFF	TCI:San Diego, CA	0.972	-		-		-		-	0.000	0.972	
NC3 LTS: Systems Engineering	C/CPFF	FSI:San Diego, CA	0.920	-		-		-		-	0.000	0.920	
NC3 LTS: Systems Engineering	MIPR	MITRE:San Diego, CA	7.622	0.220	Oct 2011	-		-		-	0.000	7.842	
NC3 LTS: Cost Estimating	C/CPFF	Booz Allen Hamilton:San Diego, CA	0.227	0.232	Oct 2011	-		-		-	0.000	0.459	
Shore to Ship: Software Development	WR	SSC PAC:San Diego, CA	0.229	0.173	Oct 2011	0.207	Oct 2012	-		0.207	Continuing	Continuing	Continuing
Shore to Ship: Studies and Design	WR	SSC PAC:San Diego, CA	0.386	0.595	Oct 2011	0.800	Oct 2012	-		0.800	Continuing	Continuing	Continuing
Shore to Ship: Broadcast Control Authority	C/CPFF	Predicate Logic:San Diego, CA	0.524	0.305	Oct 2011	0.269	Oct 2012	-		0.269	Continuing	Continuing	Continuing
		Subtotal	34.908	7.160		10.516		-		10.516			

Remarks

Total prior years cost amounts shown are from PE 0204163N and are provided for context.

PE 0101402N: Navy Strategic Comms

Navy

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy

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

DATE: February 2012

Test and Evaluation (\$	in Millions	5)		FY 2	2012	FY 2 Ba			2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SCAP/CEP: Strategic OP Systems Performance Evaluation	C/CPFF	APL/JHU:Baltimore, MD	24.010	2.953	Dec 2011	3.081	Oct 2012	-		3.081	Continuing	Continuing	Continuing
LBUCS: System Testing	WR	COTF:Norfolk, VA	0.177	0.150	Oct 2011	0.300	Oct 2012	-		0.300	Continuing	Continuing	Continuing
LBUCS: System Testing	WR	SSC PAC:San Diego, CA	0.238	0.260	Oct 2011	0.316	Oct 2012	-		0.316	Continuing	Continuing	Continuing
NC3 LTS: System Testing	WR	COTF:Norfolk, VA	0.206	0.142	Oct 2011	-	Oct 2012	-		-	0.000	0.348	
		Subtotal	24.631	3.505		3.697		-		3.697			

Remarks

Total prior years cost amounts shown are from PE 0204163N and are provided for context.

Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	MIPR	MITRE:San Diego, CA	1.777	-		-		-		-	0.000	1.777	
LBUCS: Program Management	WR	SSC PAC:San Diego, CA	5.803	1.189	Oct 2011	1.264	Oct 2012	-		1.264	Continuing	Continuing	Continuing
LBUCS: Travel	WR	SSC PAC:San Diego, CA	0.266	0.100	Oct 2011	0.100	Oct 2012	-		0.100	Continuing	Continuing	Continuing
NC3 LTS: Government Engineering Support	WR	SSC PAC:San Diego, CA	4.082	0.325	Oct 2011	-	Oct 2012	-		-	0.000	4.407	
NC3: Travel	WR	SSC PAC:San Diego, CA	0.049	0.066	Oct 2011	-	Oct 2012	-		-	0.000	0.115	
		Subtotal	11.977	1.680		1.364		-		1.364			

Remarks

Total prior years cost amounts shown are from PE 0204163N and are provided for context.

PE 0101402N: *Navy Strategic Comms* Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy	ATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy PE 0101402N: Navy Strategic Comms 1083: Shore To Ship Com System

BA 7: Operational Systems Development

1083: Shore To Ship Com System

	Total Prior Years		FY 2013	FY 201		Cost To		Target Value of
	Cost	FY 2012	Base	ОСО	Total	Complete	Total Cost	Contract
Project Cost Totals	133.433	14.430	18.187	-	18.187			

Remarks

FY 2011 amounts shown are from PE 0204163N and are provided for context.

PE 0101402N: *Navy Strategic Comms* Navy

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy	DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: Research, Development, Test & Evaluation, Navy	PE 0101402N: Navy Strategic Comms	1083: Shore To Ship Com System
BA 7: Operational Systems Development		

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy	DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: Research, Development, Test & Evaluation, Navy	PE 0101402N: Navy Strategic Comms	1083: Shore To Ship Com System
BA 7: Operational Systems Development		

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy	DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: Research, Development, Test & Evaluation, Navy	PE 0101402N: Navy Strategic Comms	1083: Shore To Ship Com System
BA 7: Operational Systems Development		

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy	DATE: February 2012	
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

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

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy PE 0101402N: Navy Strategic Comms 1083: Shore To Ship Com System

BA 7: Operational Systems Development

Schedule Details

	Sta	ırt	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
Proj 1083					
LBUCS: Production Representative Article (PRA) - Transmit	1	2011	2	2012	
LBUCS: Capability Production Document (CPD) - Transmit	1	2011	3	2012	
LBUCS: Critical Design Review (CDR) - Transmit	1	2011	1	2011	
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	4	2013	
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/Fielding Program Review (FPR) - 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	2	2015	4	2017	

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

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development

PE 0101402N: Navy Strategic Comms

1083: Shore To Ship Com System

	Sta	Start			
Events by Sub Project	Quarter	Year	Quarter	Year	
LBUCS: Installation Broadcast Keying Site (BKS) - Transmit	1	2016	4	2016	
LBUCS: Installation - Receive	1	2016	4	2017	
LBUCS: Installation Broadcast Transmit Site (BTS) - Transmit	1	2017	4	2017	
LBUCS: Full Operational Capability (FOC) - Transmit	4	2017	4	2017	
NC3 LTS: Capabilities Design Document (CDD)	1	2011	2	2011	
NC3 LTS: Test & Evaluation Master Plan (TEMP)	1	2011	1	2012	
NC3 LTS: Navy NC3 Assessment	4	2012	4	2012	
CEP: Studies and Analysis	1	2011	4	2017	
CEP: Analysis Automation	3	2013	3	2013	
CEP: Task Order	1	2013	1	2013	

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				R-1 ITEM NOMENCLATURE PE 0101402N: Navy Strategic Comms				PROJECT 3002: Navy Strategic Comm Project			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
3002: Navy Strategic Comm Project	9.492	8.778	1.021	-	1.021	-	-	-	-	0.000	19.291

0

0

0

0

0

A. Mission Description and Budget Item Justification

0

Quantity of RDT&E Articles

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy

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 2011	FY 2012	FY 2013
Title: Conduct Developmental Test (DT) Governmental Training		5.230	0.280	0.250
	Articles:	0	0	0
FY 2011 Accomplishments:				
Completed Block I Developmental Testing (DT) and continued Block IA ECP DT Governmental Training efforts.				
FY 2012 Plans:				
Continue Block IA ECP DT Governmental Training efforts.				
FY 2013 Plans:				
Complete Block IA ECP DT Governmental Training efforts.				
Title: Conduct DT Support Training		0.429	-	-
	Articles:	0		
FY 2011 Accomplishments:				
Continued work towards completion of Block IA ECP DT Support Training efforts.				
Title: Prototype Aircraft Installation		3.833	8.000	0.771
	Articles:	0	0	0
FY 2011 Accomplishments:				

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DATE: February 2012

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy **DATE:** February 2012 APPROPRIATION/BUDGET ACTIVITY **PROJECT** R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy PE 0101402N: Navy Strategic Comms

3002: Navy Strategic Comm Project BA 7: Operational Systems Development

			1
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Completed Block I Prototype Aircraft Installation efforts and continued Block IA ECP Prototype Aircraft Installation efforts.			
FY 2012 Plans:			
Continue Block IA ECP Prototype Aircraft Installation efforts.			
Continue Block IA Lot 1 Tolotype Airdraft Installation enorts.			
FY 2013 Plans:		!	
Complete Block IA ECP Prototype Aircraft Installation efforts.			
Title: Developmental/Operational Testing		0.498	
	_	0.430	_
Articles:		0	
FY 2012 Plans:			
Begin and complete Block IA ECP operational testing to obtain a successful OPEVAL report.			

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

			FY 2013	FY 2013	FY 2013					Cost To	
<u>Line Item</u>	FY 2011	FY 2012	Base	OCO	<u>Total</u>	FY 2014	FY 2015	FY 2016	FY 2017	Complete	Total Cost
• APN 056400: <i>E-6 A/B Series</i>	128.895	148.053	158.332	0.000	158.332	190.011	216.225	201.178	204.704	270.319	1,868.795

Accomplishments/Planned Programs Subtotals

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 guarter FY2010.

FRP Contract Award planned for 3rd quarter FY2012.

Block I IOC planned for 1st quarter FY2014.

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9.492

8.778

1.021

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy

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

DATE: February 2012

Product Development (\$ in Millions)		FY 2	2012		2013 ise	FY 2013 OCO		FY 2013 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development Block I *	C/CPIF	Rockwell Collins:Cedar Rapids, IA	142.880	-		-		-		-	0.000	142.880	142.880
Award Fees	C/CPAF	Rockwell Collins:Cedar Rapids, IA	3.751	-		-		-		-	0.000	3.751	3.751
Primary Hardware Development Block IA ECP**	C/CPIF	Rockwell Collins:Cedar Rapids, IA	31.641	8.000	Dec 2011	0.771	Dec 2012	-		0.771	0.000	40.412	40.415
Ancillary Hardware Development	C/CPFF	Rockwell Collins:Cedar Rapids, IA	4.933	-		-		-		-	0.000	4.933	4.933
Training Development WST	C/CPIF	Rockwell Collins:Cedar Rapids, IA	1.213	-		-		-		-	0.000	1.213	1.213
	•	Subtotal	184.418	8.000		0.771		-		0.771	0.000	193.189	193.192

Remarks

^{**} The Rockwell Collins Primary Hardware Development Block IA Engineering Change Proposal (ECP) contract was definitized in July 2010.

Support (\$ in Millions)				FY 2	2012	FY 2 Ba	2013 ise	FY 2		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Studies & Analyses	Various	Various:Not Specified	4.477	-		-		-		-	0.000	4.477	
		Subtotal	4.477	-		-		-		-	0.000	4.477	

Test and Evaluation (\$ in Millions)		FY 2	2012		2013 ise		2013 CO	FY 2013 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWCAD:Patuxent River, MD	0.668	-		-		-		-	0.000	0.668	
Operational Test & Evaluation	WR	NAWCAD:Patuxent River, MD	2.148	-		-		-		-	0.000	2.148	

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^{*} 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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy

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

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Test and Evaluation (\$ in Millions)			FY 2	2012		2013 se		2013 CO	FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Support	WR	NAVAIR HQ:Patuxent River, MD	3.645	-		-		-		-	0.000	3.645	
		Subtotal	6.461	-		-		-		-	0.000	6.461	

Management Services (\$ in Millions)		FY 2	2012		2013 se		2013 CO	FY 2013 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various	Various:Not Specified	13.700	-		-		-		-	0.000	13.700	
Governmental Support	Various	Various:Not Specified	37.728	0.498	Dec 2011	-		-		-	0.000	38.226	
Program Management Support	Various	Various:Not Specified	10.550	-		-		-		-	0.000	10.550	
Travel	WR	NAVAIR HQ:Patuxent River, MD	1.853	0.280	Nov 2011	0.250	Nov 2012	-		0.250	0.000	2.383	
		Subtotal	63.831	0.778		0.250		-		0.250	0.000	64.859	

	Total Prior Years Cost	FY 2012	FY 2013 Base		2013 CO	FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	259.187	8.778	1.021	-		1.021	0.000	268.986	

Remarks

PE 0101402N: Navy Strategic Comms Navy

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy	DATE: February 2012				
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT			
1319: Research, Development, Test & Evaluation, Navy	PE 0101402N: Navy Strategic Comms	3002: Navy Strategic Comm Project			
BA 7: Operational Systems Development					
		·			

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

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy PE 0101402N: Navy Strategic Comms 3002: Navy Strategic Comm Project

BA 7: Operational Systems Development

Schedule Details

	St	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
Navy Strategic Communications					
Acquisition Milestones: Milestones: Initial Operational Capability (IOC)	1	2014	1	2014	
Acquisition Milestones: Production: LRIP Phase (APN)	1	2011	3	2013	
Acquisition Milestones: Production: Full Rate Production (FRP) (Blk I)	1	2012	4	2017	
Test and Evaluation: Operational Evaluation: Operational Testing (OPEVAL) (Blk I)	1	2011	3	2011	
Production Milestones: Contract Awards: Full Rate Production (FRP) Contract Award (Blk I)	3	2012	3	2012	
Production Milestones: Decisions: Full Rate Production (FRP) Decision/Start (Blk I)	3	2012	3	2012	
Deliveries: LRIP Deliveries: LRIP Block I Deliveries	4	2011	3	2013	
Deliveries: FRP Deliveries: FRP Block I Deliveries	4	2013	4	2017	