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 0204163N: *Fleet Tactical Development*							
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	107.879	2.035	15.695	46.155	-	46.155	60.903	31.299	77.159	59.614	Continuing	Continuing
0725: *Communication Automation*	107.879	2.035	15.695	46.155	-	46.155	60.903	31.299	77.159	59.614	Continuing	Continuing

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

Note

Project Unit 1083 was realigned from Program Element 0204163N to 0101402N in FY12.
ADNS was realigned from Program Element 0204163N to 0303138N in FY13 and out.

A. Mission Description and Budget Item Justification

The Communications Automation Program - This project is a continuing program that provides for automation and communications upgrades for fleet tactical users. It includes Battle Force Tactical Networks (BFTN) (formerly High Frequency Internet Protocol/Sub Network Relay), Joint Aerial Layer Network-Maritime (formerly Maritime Aerial Layer Network (MALN)).

The Battle Force Tactical Network (BFTN) on each surface, subsurface, air, or fixed US Navy platform uses previously installed/ existing Line of Sight (LOS)/Extended Line of Sight (ELOS) radios (a.k.a. Radio Frequency (RF)) to create a secure gateway that inter-connects all users into a common RF Tactical Network (a.k.a. wireless). This Network separately supports US-Only and Allied/Coalition users' tactical data information exchanges on each platform (node) between and/or across separately dispersed RF Networks even if SATCOM channels to shore are lost during an Anti-Access Area Denial (A2AD) event.

JALN-M is the Navy implementation of the JALN architecture which provides assured communications in any environment, especially A2AD. With disruption or loss of Space tier comms, JALN-M establishes and/or restores connectivity within the High Capacity Backbone (HCB) tier, the, Distribution Access Range Extension (DARE) tier, and the Transition tier in accordance with the JALN Initial Capabilities Document and the JALN Analysis of Alternatives (AoA) Final Report. JALN-M is a robust, assured communications capability providing Joint connectivity via the HCB and Navy platform connectivity via a pseudo satellite DARE capability. JALN-M will use the Extended Data Rate (XDR) waveform for intra-battle group comms, a Common Data Link (CDL) waveform for the HCB cross-link capability, and will leverage enhanced UHF/HF waveforms for coalition connectivity.

FY14 BFTN enhancements (BFTN(e)) funds will be used to continue to develop acquisition and system engineering documentation in support of an RDT&E contract, and completion of demonstration tests, modem and controller enginering change for increased data rates, interface design development and integration for network application.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
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B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	1.739	15.695	39.885	-	39.885
Current President's Budget	2.035	15.695	46.155	-	46.155
Total Adjustments	0.296	0.000	6.270	-	6.270
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.339	0.000			
• SBIR/STTR Transfer	-0.043	0.000			
• Program Adjustments	0.000	0.000	-33.609	-	-33.609
• Rate/Misc Adjustments	0.000	0.000	39.879	-	39.879

Change Summary Explanation

Battle Force Tactical Network (BFTN) funding was added for hardware modifications for increased bandwidth and software update to upgrade routability; as well as engineering services to accomplish Quality of Service (QoS) and interaction with Automated Digital Network System (ADNS) and Combined Enterprise Regional Information Exchange System - Maritime (CENTRIXS-M) Local Area Networks (LANs). BFTN baseline system was previously funded in FY11 for Operational Assessment (OA) event.

Implement JALN-M development beginning in FY13.

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 0204163N: *Fleet Tactical Development*	PROJECT 0725: *Communication Automation*	

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
0725: *Communication Automation*	107.879	2.035	15.695	46.155	-	46.155	60.903	31.299	77.159	59.614	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

Note

Project 0725 Communication Automation Automated Digital Network System (ADNS) funding was realigned from PE 0204163N to CANES PE 0303138N in FY13 and out.

Maritime Aerial Layer Network (MALN) is renamed Joint Aerial Layer Network-Maritime (JALN-M).

A. Mission Description and Budget Item Justification

The Battle Force Tactical Network (BFTN) on each surface, subsurface, air, or fixed US Navy platform uses previously installed existing Line of Sight (LOS)/Extended Line of Sight (ELOS) radios (a.k.a. Radio Frequency (RF)) to create a secure gateway that inter-connects all users into a common RF Tactical Network (a.k.a. wireless). Battle Force Tactical Network (BFTN) enables war-fighters to digitally communicate NATO and US-Only information necessary to execute and plan in a real-time operational environment without relying on ashore application server interaction. This RF Network separately supports US-Only and Allied/Coalition users within each platform to distribute information even if SATCOM channels to shore are lost. As a result, Carrier and Expeditionary Strike Group Commanders maintain the digital communication ability to execute and plan with other U.S. ships, submarines or aircraft, as well as with Allied/Coalition networks; even if SATCOM channels to shore are lost.

In an Anti-Access Area Denial (A2AD) event, adversaries covertly jam or disable communications necessary to Fleet protection and tactical operation. In an effort to bolster Battle Group mission objectives for "information dominance" in a satellite denied environment, Battle Force Tatctical Network modem and controller engineering change enhancements [BFTN(e)] will increase High Frequency Internet Protocol (HFIP) data rates from 9.6Kbs to 128 Kbs (per channel) and concurrently increase Ultra High Frequency Internet Protocol (UHF) data rates from 64Kbs to 1.9Mbs. By automating BFTN (e) communications relays and network aware link establishment (NA-ALE) across battle groups and adding Unmanned Aerial Vehicles (UAV), the ranges of BFTN service levels can be extended for theatre of operations sufficient to thwart contested Satellite Communications (SATCOM) connectivity to shore servers. Enhancing BFTN [BFTN(e)] 1.92Mbps data-rates over multiple UHF circuits of 20nm range limit and multiple BFTN's 120Kbps HF circuits (200nm range limit) will support the full volume of secure military data necessary to all tactical operations. A Network Management System customized for RF Networking architectures will automate BFTN (e) Quality of Service (QoS) and Service Level Agreement (SLA) provided to the users. As a result, the enhanced BFTN [BFTN(e)] system, will self-assemble Transmission Control Protocol/Internet Protocol (TCP/IP) delivery circuits, adapt to user proximity changes due to maneuvers or operational demands and self-heal those data delivery circuits, if they are degraded or forcefully taken from the Afloat fighting force.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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FY14 BFTN (e) development efforts continue on a modification kit for AN/WSC-3 UHF and AN/URT-23 HF radios. Efforts continue on acquisition and system engineering documentation in support of a development Contract. Demonstrate and document techniques and procedures to use multiple 1.9Mbps UHF and 120Kbps (HF) RF Networks simultaneously with load-balancing and fail-over from SATCOM. This includes Developmental Test efforts, DoD Information Assurance Certification Accreditation Plan (DIACAP) & National Protection Center(NPC) integration in 1 simulated MQ-8 UAV BFTN(e) relay and 3 ships (nodes) with result being a successful completion of development tests.

JALN-M is the Navy implementation of the JALN architecture which provides assured communications in any environment, especially A2AD. With disruption or loss of Space tier comms, JALN-M establishes and/or restores connectivity within the High Capacity Backbone (HCB) tier, the Distribution Access Range Extension (DARE) tier, and the Transition tier in accordance with the JALN Initial Capabilities Document (ICD) dated 27 August 2009 and the JALN Analysis of Alternatives (AoA) Final Report dated 31 October 2011. JALN-M is a robust, assured communications capability providing Joint connectivity via the HCB and Navy platform connectivity via a pseudo satellite DARE capability. JALN-M will use the Extended Data Rate (XDR) waveform for intra-battle group communications, a Common Data Link (CDL) waveform for the HCB cross-link capability, and will leverage enhanced UHF/HF waveforms for coalition connectivity.

FY14 JALN-M development efforts continue acquisition and system engineering documentation in support of a development contract. Conduct analysis, risk reduction activities, and development of the routing, navigation, cross-link, and payload requirements. Development of the XDR payload. Trade studies and risk assessments will be completed in the areas of dynamic range, adjacent channel interference, XDR functionality, hardware RF options, security, information assurance, platform constraints, crosslink considerations, and acquisition and tracking. Risk reduction will include flight demonstrations employing the MIT/LL satellite simulator on an aircraft communicating with a surface terminal.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Automated Digital Network System (ADNS)	1.834	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: -Completed the INC II Airborne OT test events. Completed the ADNS INC III system integration into the CSRR system. Conducted the DT, OT and Joint Interoperability Test Command (JITC) Certification of ADNS INC III Submarines. Finalized the INC II Airborne OT test report. Developed, integrated and tested the Thin Line solution. Integration of SHF Split IP, MUOS and AMF/JTRS and CDL interfaced into ADNS system support. Tested and integrated the evolving network applications as they are incorporated into the C4I architecture; actions included examining and testing interfaces with Enterprise Network Management System, transition to IPv6, and final phase out of serial links. Continued the evaluation of technology insertion capabilities to the ADNS system to enhance network mobility for aircraft in a Joint-Aerial Layer Network (JALN) environment.			
Title: Battle Force Tactical Network (BFTN)	0.201	2.500	6.277
Articles:	0	0	0
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Initial Operational Test and Evaluation (IOT&E) preparation and execution. ***FY 2013 Plans:*** Completion of BFTN IOT&E event and report development as well as any follow-on test events and associated report development. Development of a BFTN (e) modification kit for AN/WSC-3 UHF and AN/URT-23 HF radios. Initiate acquisition and system engineering documentation in support of a BFTN (e) RDT&E contract. Demonstrate and document techniques and procedures to use multiple 1.9Mbps UHF and 128Kbps (HF) RF Networks simultaneously with load-balancing and fail-over from SATCOM. Also includes demonstration and assessment of anti-jamming products to meet A2AD requirements. ***FY 2014 Plans:*** Development efforts will leverage FY2013 test results toward demonstration test (DT) of BFTN(e) data rates in an at-sea topologic array of four or more platforms/nodes. Late in the year, efforts begin focus toward developmental tests using the BFTN(e) relay ashore with in-flight aerial relay bridge to ships; thus authenticating extending RF Networking datarates/ranges within and across at-sea forces, as well as into ashore BFTN(e) relays and Secret Internet Protocol Router Network (SIPRNET). DT&E of Commercial-Off-The-Shelf (COTS)/Government-Off-The-Shelf (GOTS) wideband transceiver technology to enable BFTN(e) enhancement designs. Continue development of acquisition and system engineering documentation in support of an RDT&E contract, planning and execution of demonstration tests, modem and controller design enhancements for increased data rates and HF/UHF Propagation Aware Automatic Link Establishment (PAALE), interface design development and integration for network application. Commence development of DoD Information Assurance Certification Accreditation Plan (DIACAP) & National Protection Center (NPC) plan. Integration in 1 simulated BFTN(e) Modular Relay and 3 ships (nodes) with result being a successful completion of development tests.			
Title: Joint Aerial Layer Network -Maritime (JALN-M)	0.000	13.195	39.878
Articles:		0	0
Description: ***FY 2013 Plans:*** Funds will be used to participate in OPNAV Anti-Access Area Denial (A2AD) events to include Concept of Operations (CONOPS)/ Concept of Employment(CONEMP) development, Council of Colonels engagement, and acquisition support. FY13 will accomplish three things: 1) needed modifications to the Advance Extremely High Frequency (AEHF) eXtended Data Rate (XDR) waveform will be identified and developed for use in the airborne XDR mode, 2) AEHF XDR Adaptive Coding (AC) will be developed, and 3) a flight demonstration of the airborne XDR relay functionality will be conducted. ***FY 2014 Plans:*** Develop acquisition and system engineering documentation in support of a development contract. Conduct analysis, risk reduction activities, and prototype development of the routing, navigation, cross-link, and payload requirements. Develop			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
prototype of the XDR payload. Trade studies and risk assessments will be completed in the areas of dynamic range, adjacent channel interference, XDR functionality, hardware RF options, security, information assurance, platform constraints, crosslink considerations, and acquisition and tracking. Risk reduction will include flight demonstrations employing the MIT/LL satellite simulator on an aircraft communicating with a surface terminal.			
Accomplishments/Planned Programs Subtotals	2.035	15.695	46.155

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/3057: *Battle Force Tactical Network (BFTN).*	6.496	0.285	1.851		1.851	6.047	14.753	20.050	25.574	0.000	95.553
• OPN/3050: *Ship Comm Auto*	53.613	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	87.305

Remarks

D. Acquisition Strategy

Battle Force Tactical Network (BFTN): Evolutionary acquisition approach with collegial development across activities and coalesced implementation phases at accredited facility to achieve interoperable component upgrades, system integration and automated operations that optimize Fleet implementation. Program will use awarded OMNIBUS contracts to obtain engineering and support services consistent with acquisition initiatives. Development of enhanced BFTN leverages Commercial-Off-The-Shelf (COTS) and Government-Off-The-Shelf (GOTS) products while reducing material savings by streamlining logistics, installation, integration and training areas. Where feasible, differing types of advantageous contract vehicles will be used to provide flexibility, decreased contract administrative costs, and encourage acquisition streamlining through the use of COTS products.

Joint Aerial Layer Network - Maritime (JALN-M) will address capability gaps as directed by the JALN Analysis of Alternatives (AoA) by integrating a suite of technical capabilities into a single payload. Technical and acquisition support will be provided to develop documentation necessary to conduct a full and open competition to procure Engineering Demonstration Models (EDMs).

E. Performance Metrics

BFTN - Completion of engineering changes [BFTN(e] in 2014to increase High Frequency Protocol(HFIP) data rates 9.6Kbs to 128Kbs (per channel) and concurrently increase Ultra High Frequency Internet Protocol (UHF) data rates from 64Kbs to 1.9Mbs in preparation for Demonstration Testing (DT) in FY15.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	PO	SSC:PAC/LANT	1.025	0.000		0.000		0.000		-		0.000	0.000	1.025	
Primary Hardware Development	C/CPFF	Northrop Grumman:McLean, Virginia	7.793	0.000		0.000		0.000		-		0.000	0.000	7.793	
Primary Hardware Development	C/CPFF	General Dynamics:Maryland	17.601	0.000		0.000		0.000		-		0.000	0.000	17.601	
Primary Hardware Development	C/CPFF	SRA:San Diego	0.016	0.000		0.000		0.000		-		0.000	0.000	0.016	
Primary Hardware Dev. - MALN Inc 2t	C/FFP	Boeing:Washington State	1.245	0.000		0.000		0.000		-		0.000	0.000	1.245	
Primary Hardware/ Software	C/CPFF	Air Force:Various	2.078	0.000		0.000		0.000		-		0.000	0.000	2.078	
Primary Hardware/ Software MALN Inc 1	WR	SSC:PAC	0.207	0.000		0.000		0.000		-		0.000	0.000	0.207	
Integration and Test - MALN Inc 1	WR	SSC:PAC	0.810	0.000		0.000		0.000		-		0.000	0.000	0.810	
Integration and Test - MALN Inc 2	WR	SSC:PAC	0.521	0.000		0.000		0.000		-		0.000	0.000	0.521	
Integration and Test	C/CPFF	VAR:Various	0.079	0.000		0.000		0.000		-		0.000	0.000	0.079	
Systems Engineering-ADNS	WR	SSC:PAC/LANT	22.114	0.275	Nov 2011	0.000		0.000		-		0.000	0.000	22.389	
Systems Engineering	Various	VAR:Various	5.172	0.000		0.000		0.000		-		0.000	0.000	5.172	
Systems Engineering	MIPR	CECOM (MITRE):New Jersey	0.585	0.000		0.000		0.000		-		0.000	0.000	0.585	
Systems Engineering-ADNS	WR	NUWC:Newport, RI	1.414	0.450	Dec 2011	0.000		0.000		-		0.000	0.000	1.864	
Prime Mission Product	PO	SSC:PAC/LANT	4.353	0.000		0.000		0.000		-		0.000	0.000	4.353	
Integration and Test-ADNS	WR	NUWC:Newport	0.821	0.341	Nov 2011	0.000		0.000		-		0.000	0.000	1.162	
Systems Engineering	C/CPFF	Boeing:Washington State	2.087	0.000		0.000		0.000		-		0.000	0.000	2.087	
Integration and Test-ADNS	WR	SSC:PAC/LANT	0.459	0.000		0.000		0.000		-		0.000	0.000	0.459	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering-ADNS	C/CPFF	Solute:San Diego	0.253	0.000		0.000		0.000		-		0.000	0.000	0.253	
System Engineering - MALN Inc 1	WR	SSC:PAC	0.207	0.000		0.000		0.000		-		0.000	0.000	0.207	
System Engineering - MALN Inc 2	WR	SSC:PAC	0.717	0.000		0.000		0.000		-		0.000	0.000	0.717	
System Engineering - MALN Inc 1	SS/FPIF	Linquest:San Diego	0.536	0.000		0.000		0.000		-		0.000	0.000	0.536	
System Engineering - BFTN	WR	SSC:PAC	0.433	0.000		0.000		0.272	Nov 2013	-		0.272	0.000	0.705	
Integration and Test - BFTN	C/FFP	COTF:Norfolk, VA	0.257	0.000		0.000		0.000		-		0.000	0.000	0.257	
Primary Hardware Dev.- JALN-M	WR	Var:Various	0.000	0.000		3.573	Sep 2013	6.517	Nov 2013	-		6.517	0.000	10.090	
Primary Hardware/ Software - JALN-M	C/FFP	MIT/Lincoln Lab:Lexington MA	0.000	0.000		5.233	Jun 2013	24.361	Nov 2013	-		24.361	Continuing	Continuing	Continuing
Primary HW/SW Dev BFTN-e	WR	SSC:PAC	0.000	0.000		0.000		0.374	Dec 2013	-		0.374	0.000	0.374	
Primary Hardware Dev-BFTN-e	C/FFP	SAIC:Sterling, VA	0.000	0.000		0.000		0.315	Jan 2014	-		0.315	0.000	0.315	
System Engineering BFTN-e	WR	SSC:LANT JICF	0.000	0.000		0.000		0.200	Nov 2013	-		0.200	0.000	0.200	
System Engineering BFTN-e	C/CPFF	STF:San Diego	0.000	0.000		0.000		0.290	Nov 2013	-		0.290	0.000	0.290	
System Engineering BFTN-e	SS/CPIF	Rockwell:Cedar Rapids, IA	0.000	0.000		0.000		0.271	Jan 2014	-		0.271	0.000	0.271	
Primary Hardware BFTN-e	SS/CPIF	Rockwell:Cedar Rapids, IA	0.000	0.000		0.000		0.100	Jan 2014	-		0.100	0.000	0.100	
System Engineering BFTN-e	WR	NAVAIR:Lexington Park, MD	0.000	0.000		0.000		0.218	Apr 2014	-		0.218	0.000	0.218	

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Assured C2 Comms Assessment/Analysis - JALN	Various	VAR:Various	0.000	0.000		2.990	Jun 2013	0.000		-		0.000	0.000	2.990	
Security Architecture/ Information Assurance (XDR Pod) - JALN	Various	VAR:Various	0.000	0.000		0.000		0.600	Nov 2013	-		0.600	0.000	0.600	
Primary HW Dev BFTN-e	WR	SSC:PAC NIEF/JCF	0.000	0.000		0.000		0.265	Nov 2013	-		0.265	0.000	0.265	
System Engineering BFTN-e	C/CPFF	BAH:San Diego	0.000	0.000		0.000		0.190	Nov 2013	-		0.190	0.000	0.190	
System Engineering BFTN-e	WR	SSC:LANT	0.000	0.000		0.000		0.290	Nov 2013	-		0.290	0.000	0.290	
Primary HW Analysis BFTN-e	C/CPFF	Var:Various	0.000	0.000		0.000		0.155	Nov 2013	-		0.155	0.000	0.155	
Primary Software Dev BFTN-e	TBD	Var:Various	0.000	0.000		2.030	Jun 2013	1.650	Nov 2013	-		1.650	0.000	3.680	
		Subtotal	70.783	1.066		13.826		36.068		0.000		36.068			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	SSC:PAC/LANT	0.160	0.000		0.000		0.000		-		0.000	0.000	0.160	
Software Development	Various	VAR:Various	7.250	0.000		0.000		0.000		-		0.000	0.000	7.250	
Integrated Logistics Support-ADNS	WR	SSC:PAC/LANT	0.138	0.000		0.000		0.000		-		0.000	0.000	0.138	
Integrated Logistics Support	Various	VAR:Various	1.150	0.000		0.000		0.000		-		0.000	0.000	1.150	
Documentation - JALN	Various	VAR:Various	0.506	0.000		0.191	Jun 2013	0.000		-		0.000	0.000	0.697	
Technical Data	Various	VAR:Various	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	
Studies and Analysis	WR	SSC:PAC/LANT	0.960	0.000		0.000		0.000		-		0.000	0.000	0.960	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Documentation- MALN Inc 1	WR	SSC:PAC	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	
Studies and Analysis - BFTN-e	WR	SSC:PAC	0.048	0.000		0.000		0.110	Oct 2013	-		0.110	0.000	0.158	
Studies and Analysis BFTN-e	C/CPFF	STF:San Diego	0.000	0.000		0.000		0.100	Nov 2013	-		0.100	0.000	0.100	
Documentation BFTN-e	C/BA	Not Specified:Not Specified	0.000	0.000		0.000		0.215	Jul 2014	-		0.215	0.000	0.215	
Technical Analysis/Mission Assurance - JALN	WR	NAVAIR:NAVAIR	0.000	0.000		0.000		5.500	Nov 2013	-		5.500	0.000	5.500	
Documentation BFTN-e	Various	VAR:Various	0.000	0.000		0.000		0.248	Dec 2013	-		0.248	0.000	0.248	
		Subtotal	10.912	0.000		0.191		6.173		0.000		6.173	0.000	17.276	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation-ADNS	WR	SSC:PAC/LANT	6.659	0.000		0.000		0.000		-		0.000	0.000	6.659	
Developmental Test & Evaluation-ADNS	MIPR	JTIC:Fort Huachuca, AZ	0.374	0.075	Nov 2011	0.000		0.000		-		0.000	0.000	0.449	
Operational Test & Evaluation-ADNS	WR	COMOPTEVOR:Norfolk, VA	1.377	0.320	Nov 2011	0.000		0.000		-		0.000	0.000	1.697	
Operational Test & Evaluation	Various	VAR:Various	4.955	0.000		0.000		0.000		-		0.000	0.000	4.955	
Developmental Test & Evaluation-MALN INC I	WR	SSC:PAC	0.148	0.000		0.000		0.000		-		0.000	0.000	0.148	
Developmental Test & Evaluation-MALN INC II	WR	SSC:PAC	0.604	0.000		0.000		0.000		-		0.000	0.000	0.604	
Developmental Test and Evaluation BFTN-e	C/CPFF	Rockwell:Cedar Rapids, IA	0.000	0.000		0.000		0.340	Nov 2013	-		0.340	0.000	0.340	

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 0204163N: *Fleet Tactical Development*	PROJECT 0725: *Communication Automation*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test and Evaluation BFTN-e	WR	SSC:PAC/LANT	0.000	0.074	Sep 2012	0.514	Nov 2012	0.207	Nov 2013	-		0.207	0.000	0.795	
Initial Operational Test and Evalustion - BFTN	WR	COMOPTEVOR:Norfolk, VA	0.000	0.078	Sep 2012	0.113	Jun 2013	0.000		-		0.000	0.000	0.191	
Developmental Test and Evaluation BFTN-e	WR	NAVAIR:Lexington Park, MD	0.000	0.000		0.000		0.125	Jun 2014	-		0.125	0.000	0.125	
Developmental Test and Evaluation BFTN-e	C/CPFF	STF:San Diego	0.000	0.000		0.000		0.198	Nov 2013	-		0.198	0.000	0.198	
Developmental Test and Evaluation BFTN-e	C/CPFF	SAIC:Sterling, VA	0.000	0.000		0.000		0.075	Nov 2013	-		0.075	0.000	0.075	
Developmental Test and Evaluation BFTN-e	C/CPFF	VAR:Various	0.000	0.000		0.000		0.208	Dec 2013	-		0.208	0.000	0.208	
Test Management/ Oversight	C/CPFF	SSC:PAC JICF	0.000	0.000		0.015	Nov 2012	0.248	Oct 2013	-		0.248	0.000	0.263	
Test Support BFTN-e	C/CPFF	CSA:San Diego	0.000	0.000		0.000		0.080	Oct 2013	-		0.080	0.000	0.080	
		Subtotal	14.117	0.547		0.642		1.481		0.000		1.481	0.000	16.787	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various	VAR:Various	0.546	0.000		0.000		0.000		-		0.000	0.000	0.546	
Government Engineering Support	WR	SSC:PAC/LANT	0.817	0.000		0.000		0.000		-		0.000	0.000	0.817	
Program Management Support	C/CPAF	VAR:Various	8.363	0.000		0.000		0.000		-		0.000	0.000	8.363	
Program Management Support- MALN Inc 1and 2	C/FPIF	BAH:San Diego, CA	0.724	0.000		0.000		0.000		-		0.000	0.000	0.724	
Acquisition Workforce MALN Inc 1 and 2	WR	SSC:PAC	1.243	0.000		0.000		0.000		-		0.000	0.000	1.243	

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 0204163N: *Fleet Tactical Development*	PROJECT 0725: *Communication Automation*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPFF	X-FEDS:San Diego	0.130	0.121	Oct 2011	0.000		0.000		-		0.000	0.000	0.251	
Program Management Support	C/CPFF	Solute:San Diego	0.244	0.301	Nov 2011	0.000		0.000		-		0.000	0.000	0.545	
Program Management Support	C/CPFF	TBD:TBD	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
Program Management - JALN	Various	VAR:Various	0.000	0.000		1.036	Mar 2013	1.250	Mar 2014	-		1.250	0.000	2.286	
Program Management - BFTN-e	C/FFP	TBD:TBD	0.000	0.000		0.000		0.690	Oct 2013	-		0.690	0.000	0.690	
Program Management- BFTN-e	WR	SSC:PAC	0.000	0.000		0.000		0.245	Oct 2013	-		0.245	0.000	0.245	
Engineering Management BFTN-e	WR	SSC:LANT	0.000	0.000		0.000		0.248	Oct 2013	-		0.248	0.000	0.248	
		Subtotal	12.067	0.422		1.036		2.433		0.000		2.433	0.000	15.958	

	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	107.879	2.035		15.695		46.155		0.000		46.155			

Remarks

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 0204163N: *Fleet Tactical Development*	**PROJECT** 0725: *Communication Automation*

JALN-M Program Schedule

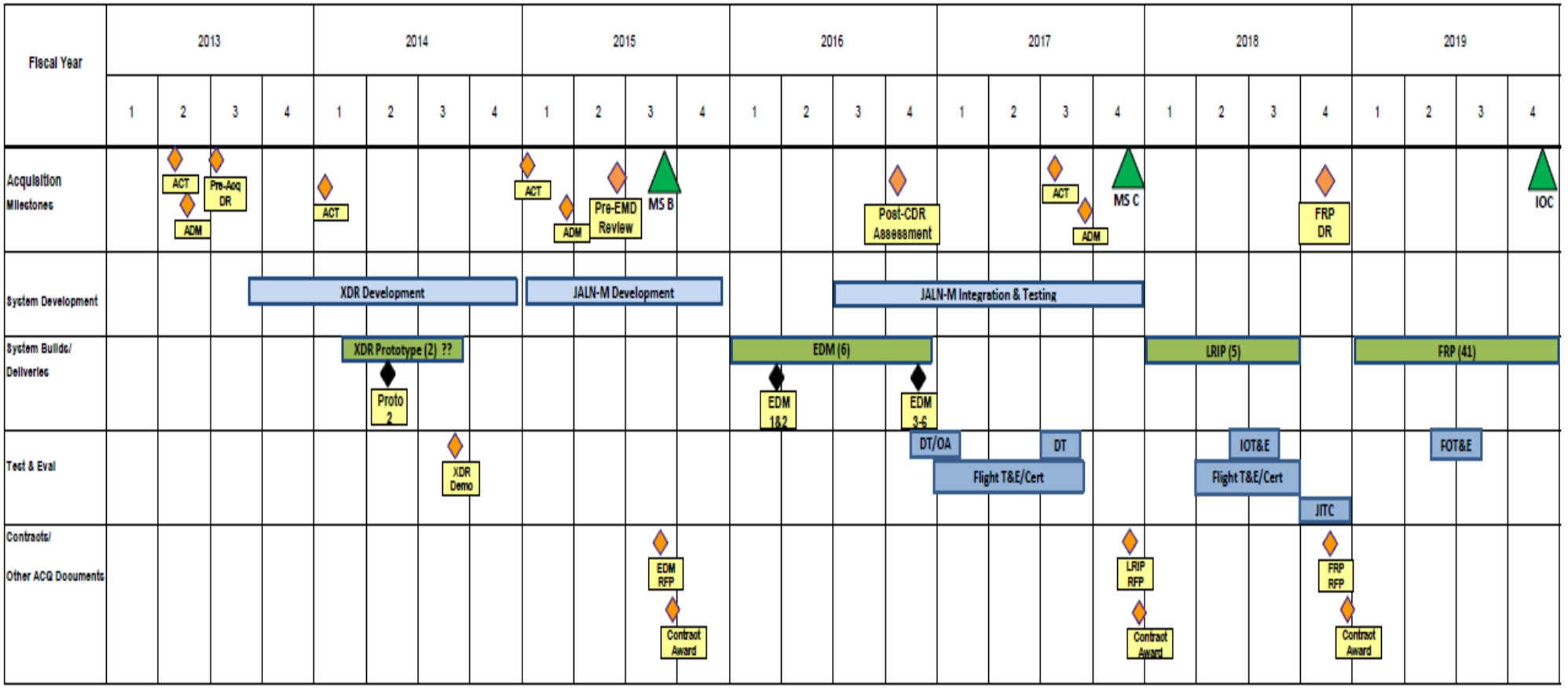
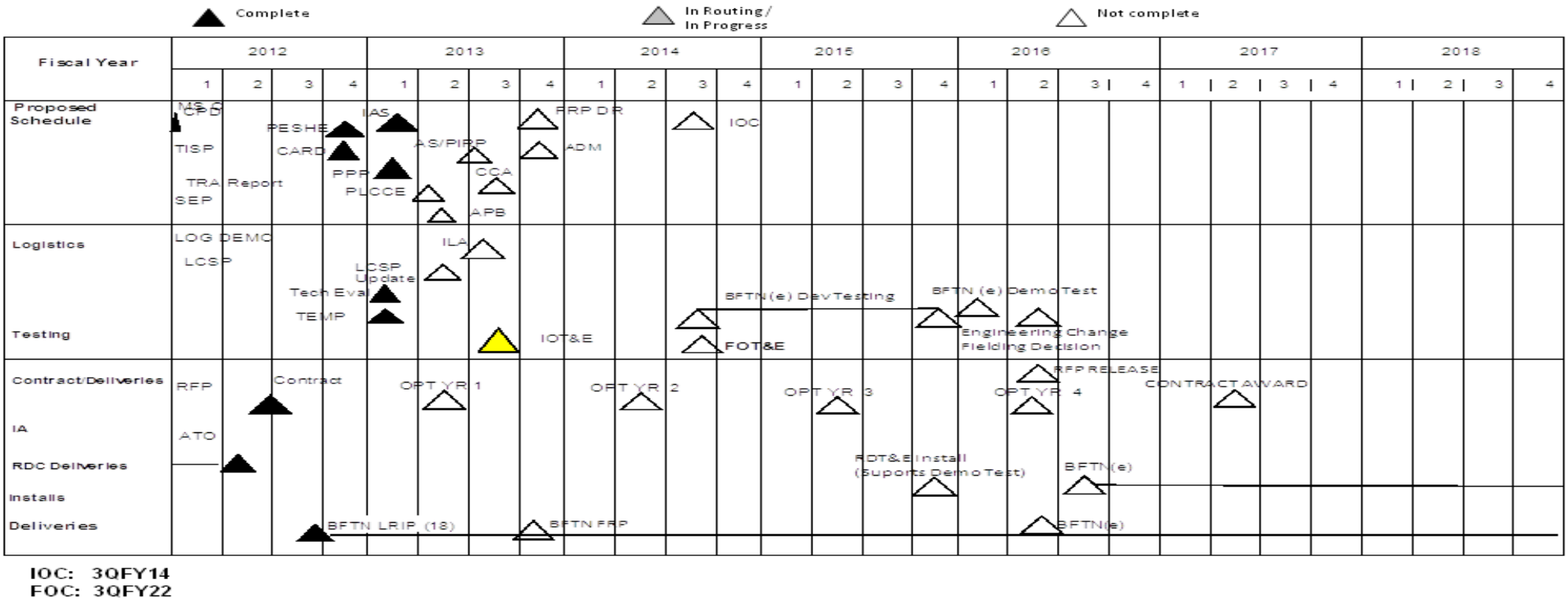


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0204163N: *Fleet Tactical Development*	**PROJECT** 0725: *Communication Automation*

BFTN Schedule



IOC: 3QFY14
FOC: 3QFY22

Exhibit R-4A, RDT&E Schedule Details: 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 0204163N: *Fleet Tactical Development*	**PROJECT** 0725: *Communication Automation*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
JALN				
ACT (Pre-Acq DR)	2	2013	2	2013
ADM (Pre-Acq DR)	2	2013	2	2013
Pre-Acq DR	3	2013	3	2013
XDR Development	3	2013	4	2014
XDR Prototype 2	1	2014	3	2015
Prototpye 2	2	2014	2	2014
XDR Demo	3	2014	3	2014
ACT (MS B)	1	2015	1	2015
JALN-M Development	1	2015	4	2015
ADM (MS B)	1	2015	1	2015
Pre-EMD Review	2	2015	2	2015
MS B	3	2015	4	2015
EDM RFP	3	2015	3	2015
Contract Award I	3	2015	4	2015
EMD	1	2016	4	2016
EDM 1 & 2	1	2016	2	2016
JALN-M Integration & Testing	3	2016	4	2017
Post-CDR Assessment	4	2016	4	2016
EDM 3-6	4	2016	4	2016
DT/OA	4	2016	1	2017
Flight T&E/Cert	4	2016	3	2017

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**	**Year**
DT	3	2017	3	2017
ACT (MS C)	3	2017	3	2017
ADM (MS C)	3	2017	3	2017
MS C	4	2017	4	2017
LRIP RFP	4	2017	4	2017
Contract Award II	4	2017	4	2017
LRIP (5)	1	2018	3	2018
IOT&E	2	2018	3	2018
FRP DR	4	2018	4	2018
JITC	4	2018	4	2018
FRP RFP	4	2018	4	2018
Contract Award III	4	2018	4	2018
BFTN				
Technical Evaluation	1	2013	1	2013
IOT&E	3	2013	3	2013
FRP DR	4	2013	4	2013
FOT&E	3	2014	3	2014
BFTN(e) Developmental Testing	3	2014	4	2015
BFTN (e) Demo Test	1	2016	1	2016
BFTN Production Deliveries	3	2012	2	2016
BFTN (e) Production Deliveries	2	2016	4	2018