Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)

PE 0605030A: Joint Tactical Network Center (JTNC)

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	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	-	0.000	0.000	68.148	-	68.148	19.909	21.788	26.849	25.000	Continuing C	Continuing
EA8: Joint Tactical Network Center (JTNC)	-	0.000	0.000	68.148	-	68.148	19.909	21.788	26.849	25.000	Continuing (	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

#### Note

Army

In accordance with the ADM dated 11 July 2012, the FY 2014 JTN funding previously residing in the Army PE 0604280A, the Navy PE 0604280N, and the Air Force PE 0604280F was transferred to this PE. The continuing Joint Tactical Networks (JTN) will remain under a joint budget strategy in the three Military Departments (MILDEPs) in new PEs (Army PE 0605030A, the Navy PE 0605030N, and the Air Force PE 0605030F). As part of the joint program budget strategy, each MILDEP budgets for their portion of the total program RDT&E funds. Prior to the President's Budget submission, the budget year funding is consolidated in the new Army PE.

## A. Mission Description and Budget Item Justification

Joint Tactical Networks (JTN) will provide interoperable, secure Joint Tactical Networking applications capable of operating in a variety of radio solutions to maintain and sustain an affordable, government-controlled open architecture, in support of Combatant Commanders', Services' and Coalition mission network requirements. JTN is responsible for the continuous development, delivery, and maintenance of networking waveforms and modified legacy radio waveforms that are Software Communications Architecture (SCA) compliant. SCA compliant waveforms enable interoperability and support Net-Centric operational warfare at sea, in the air and on the ground. Networking waveforms extend the Global Information Grid (GIG) to the last tactical mile and to the warfighter.

The JTN team is responsible for (1) the overall management and oversight of the Waveforms contained in the JTN repository; (2) development, validation, and evolution of a common JTN SCA; (3) development and evolution of waveform software applications for tactical radios; (4) development of software cryptographic algorithms and equipment applications (Information Assurance); (5) development and evolution of the JTN networking and network management software components, Joint Enterprise Network Manager (JENM); (6) testing and certification of JTN waveforms, network services, and network management; and, (7) full lifecycle support of waveforms and networking applications in order to maintain a robust industry base of radio vendors.

PE 0605030A: Joint Tactical Network Center (JTNC)

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<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army

BA 5: System Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0605030A: Joint Tactical Network Center (JTNC)

B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	68.148	-	68.148
Total Adjustments	0.000	0.000	68.148	-	68.148
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-	-			
<ul> <li>Adjustments to Budget Years</li> </ul>	-	-	68.148	-	68.148

Exhibit R-2A, RDT&E Project Ju	stification	: PB 2014 A	Army							<b>DATE</b> : Apr	il 2013	
APPROPRIATION/BUDGET ACT 2040: Research, Development, To BA 5: System Development & De	est & Evalua					NOMENCL <i>i</i> 30A: <i>Joint T</i> a		ork Center	PROJECT EA8: Joint	Tactical Ne	twork Cente	er (JTNC)
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
EA8: Joint Tactical Network Center (JTNC)	-	0.000	0.000	68.148	-	68.148	19.909	21.788	26.849	25.000	Continuing	Continuing
Quantity of RDT&E Articles												

<sup>\*</sup>FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

#### Note

Army

In FY 2012-FY 2013, the Joint Tactical Networks (JTN) funding resides in the Navy Program Element (PE) 0604280N (Joint Tactical Radio System (JTRS)), Project No. 3076 (formally known as JTRS Network Enterprise Domain (JNED)). The FY 2014 funding residing in PE 0605030A represents the total JTN Budget. FY 2015-18 PE 0605030A represents only the Army share of the JTN funding.

In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to Military Department (MILDEP) managed programs. The continuing Joint Tactical Networks (JTN) will remain under a joint budget strategy in the three MILDEPs in new PEs (Army PE 0605030A, the Navy PE 0605030N, and the Air Force PE 0605030F). As part of the joint program budget strategy, each MILDEP budgets for their portion of the total program RDT&E funds. Prior to the President's Budget submission, the budget year funding is consolidated in the new Army PE.

The Joint Tactical Networking Center (JTNC) provides the DoD centralized management, development and sustainment of joint waveform and network management applications. JTN is a component of the JTNC and the official Program of Record (PoR).

# A. Mission Description and Budget Item Justification

Joint Tactical Networks (JTN) will provide interoperable, secure Joint Tactical Networking applications capable of operating in a variety of radio solutions to maintain and sustain an affordable, government-controlled open architecture, in support of Combatant Commanders', Services' and Coalition mission network requirements. JTN is responsible for the continuous development, delivery, and maintenance of networking waveforms and modified legacy radio waveforms that are Software Communications Architecture (SCA) compliant. SCA compliant waveforms enable interoperability and support Net-Centric operational warfare at sea, in the air and on the ground. Networking waveforms extend the Global Information Grid (GIG) to the last tactical mile and to the warfighter.

The JTN team is responsible for (1) the overall management and oversight of the Waveforms contained in the JTN repository; (2) development, validation, and evolution of a common JTN SCA; (3) development and evolution of waveform software applications for tactical radios; (4) development of software cryptographic algorithms and equipment applications (Information Assurance); (5) development and evolution of the JTN networking and network management software components, Joint Enterprise Network Manager (JENM); (6) testing and certification of JTN waveforms, network services, and network management; and, (7) full lifecycle support of waveforms and networking applications in order to maintain a robust industry base of radio vendors.

PE 0605030A: Joint Tactical Network Center (JTNC)

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<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

	UNCLASSIFIED				
Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE: A	April 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0605030A: Joint Tactical Network Center (JTNC)	PROJECT EA8: <i>Joint</i>		Network Cen	ter (JTNC)
B. Accomplishments/Planned Programs (\$ in Millions)		FY	2012	FY 2013	FY 2014
Title: Wideband Networking Waveform (WNW)			0.000	0.000	9.48
<b>Description:</b> Wideband Networking Waveform (WNW) is a high data application that provides the mid tier tactical Internet backbone and control provide high throughput, dynamically adaptable connectivity for the extinction video traffic. WNW will feature two signals-in-space (SiS), which are the Anti-Jam (AJ). WNW will support network nodes on mobile, airborne, security, High Assurance IP Equipment (HAIPE) capabilities, red black WNW is currently ported on 6 platforms with 6 different vendors.	onnects tactical forces across the battle sphere. WNW waschange of Internet Protocol (IP) based voice, data, and he Orthogonal Frequency Division Multiplexing (OFDM) and maritime platforms. WNW includes networking serv	and			
FY 2014 Plans: Continue Software In Service Support for the WNW waveform.					
Title: Soldier Radio Waveform (SRW)			0.000	0.000	3.60
<b>Description:</b> Soldier Radio Waveform (SRW) will operate on tactical capability for power disadvantaged users engaged in land combat oper communications on the immediate battlefield. These forces include verand unmanned air vehicles (UAV). Functional software applications were and sub-networks. SRW will be interoperable with higher throughput, these IP-based networking waveforms will enable information exchannew capabilities for battlefield communications and information sharing different vendors.	erations and will support voice, data, and video ehicles, rotary wing, dismounted soldiers, munitions, sen will use SRW enabled JTR sets over IP capable networks IP-based network waveforms, such as WNW. As applications through the GIG to the soldier and provide entirely	sors, able,			
FY 2014 Plans: Continue Software In Service Support for the SRW waveform.					
Title: Mobile User Objective System (MUOS) Waveform			0.000	0.000	6.00
<b>Description:</b> Mobile User Objective System (MUOS) Waveform will esatellite coverage for DoD requirements. MUOS will provide functiona MUOS offers secure streaming video, netted communications, and volume JTN program will modify this waveform, making it compatible and cert to tactical radio sets. MUOS is currently being ported by 5 vendors on	ality comparable to commercial mobile phone systems. Dice/data in real time to provide essential connectivity. To tifiable with DoD security requirements while enabling po	he			
FY 2014 Plans:					

PE 0605030A: Joint Tactical Network Center (JTNC) Army

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				UNCLA5	SIFIED						
Exhibit R-2A, RDT&E Project Just	tification: PB 2	2014 Army							DATE: A	pril 2013	
APPROPRIATION/BUDGET ACTIV 2040: Research, Development, Test BA 5: System Development & Demo	t & Evaluation,	•					etwork Cente	PROJEC EA8: Join		letwork Cent	ter (JTNC)
B. Accomplishments/Planned Pro	ograms (\$ in M	lillions)						F	Y 2012	FY 2013	FY 2014
Continue Software In Service Supp	ort for the MUC	S waveform	n.								
Title: JTRS Network Enterprise Ser	vices (JNES)/J	TRS Enter	prise Networ	k Manager (	JENM)				0.000	0.000	16.099
Description: JTRS Network Enterponents Network Enterprise Services (JNES) Enterprise Network Manager (JENM (ENS). In FY13 and out, JENM proposition reporting, fault management maintain a mobile wireless network managers, mission planning system JENM is considered a mission essemanagement tool kit.  FY 2014 Plans:	included the of the off, soldier Rad vides consolidant, security man comprised of Jas, network plant ential system.	developmentio Waveformated communagement, and ITN network	nt and acquism Network Munications pland network waveforms ms, key mar	sition of JTR Manager (SR anning, netw health and s . JENM can nagement sy	S WNW Net WNM), and work configurated tatus report interface wi stems, and	work Manag Enterprise N ation, netwo ng needed t th other exte spectrum pla	er (JWNM), a letwork Servi rk activation, o establish a ernal network anning systen	ces			
Continue Software In Service Supp.  Title: Legacy Radio Waveforms/Pro		ment							0.000	0.000	32.967
<b>Description:</b> Legacy Radio Waveforand software efficiencies of legacy solutions in the field.	orms/Program I	Managemei									<b>0</b> _100.
FY 2014 Plans: Continue to support waveform integrate to meet program requirements. Cor Legacy waveforms.											
				Accon	nplishment	s/Planned P	rograms Su	btotals	0.000	0.000	68.148
C. Other Program Funding Summ	ary (\$ in Millio	ons)	FY 2014	FY 2014	FY 2014					Cost To	
Line Item • 0604280N: 0604280N: JNED, RDTE,N	<b>FY 2012</b> 147.190	<b>FY 2013</b> 59.077	Base	OCO	Total	FY 2015	FY 2016	FY 2017		Complete 0.000	206.267
• 0605030N: 0605030N: JTNC, RDTE,N						16.911	14.039	14.274	14.536	Continuing	Continuing

PE 0605030A: Joint Tactical Network Center (JTNC) Army

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	<b>PROJECT</b>	
2040: Research, Development, Test & Evaluation, Army	PE 0605030A: Joint Tactical Network Center	EA8: Joint	Tactical Network Center (JTNC)
BA 5: System Development & Demonstration (SDD)	(JTNC)		
C Other Program Funding Summer, (\$ in Millions)	·	•	

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

			FY 2014	FY 2014	FY 2014					Cost To	
Line Item	FY 2012	FY 2013	<b>Base</b>	000	<u>Total</u>	FY 2015	FY 2016	FY 2017	FY 2018	Complete	<b>Total Cost</b>
• 0605030F: 0605030F: JTNC,						20.088	22.346	22.255	22.656	Continuing	Continuing
RDTE,F											
• 0303109N: <i>0303109N: JNED</i> ,	39.508	42.264								0.000	81.772

O&M,N

#### Remarks

In FY 2012-FY 2013, the Joint Tactical Networks (JTN) funding resides in the Navy Program Element (PE) 0604280N (Joint Tactical Radio System (JTRS)), Project No. 3076 (formally known as JTRS Network Enterprise Domain (JNED)). In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to Military Department (MILDEP) managed programs. The continuing Joint Tactical Networks (JTN) will remain under a joint budget strategy in the three MILDEPs in new PEs (Army PE 0605030A, the Navy PE 0605030N, and the Air Force PE 0605030F). As part of the joint program budget strategy, each MILDEP budgets for their portion of the total program RDT&E funds. Prior to the President's Budget submission, the budget year funding is consolidated in the new Army PE.

## D. Acquisition Strategy

JTN is responsible for common core activities including developing and updating the SCA compliant legacy and networking waveforms that operate on multiple hardware sets and in all operational environments that support network-centric operational warfare, as well as common networking services (interface standards, network managers, etc). Waveform developments (upgrading, developing, and maintaining) will generally be procured through full and open contract competitions. The JTN program is developing waveforms and Cryptographic Equipment Applications (CEAs) for use within the software-defined radio community.

The FY 2014 Budget supports continued development of waveforms/supporting software, testing support, and the National Security Agency (NSA) evaluation of software Information Assurance (IA) compliance.

### **E. Performance Metrics**

Army

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

PE 0605030A: Joint Tactical Network Center (JTNC)

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army

R-1 ITEM NOMENCLATURE

**PROJECT** 

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)

PE 0605030A: Joint Tactical Network Center EA8: Joint Tactical Network Center (JTNC)

DATE: April 2013

(JTNC)

Management Servic	es (\$ in M	illions)		FY 2	2012	FY 2	2013	FY 2 Ba	2014 ise	FY 2		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	Total Cost	Target Value of Contract
Program Management Support	C/Various	Various::Various	0.000	-		-		6.101	Mar 2014	-		6.101	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		6.101		0.000		6.101			

Product Developme	duct Development (\$ in Millions)			FY 2	2012	FY 2	2013		2014 ise		2014 CO	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	Total Cost	Target Value of Contract
Network Enterprise Services Development	C/Various	Boeing::Huntington Beach, CA	0.000	-		-		7.423	Mar 2014	-		7.423	0.000	7.423	0.000
Post FQT / Software Sustainment	C/Various	BAE::Wayne, NJ	0.000	-		-		4.207	Mar 2014	-		4.207	Continuing	Continuing	Continuing
Post FQT / Software Sustainment	C/Various	Boeing::Huntington Beach, CA	0.000	-		-		8.676	Dec 2013	-		8.676	Continuing	Continuing	Continuing
Post FQT / Software Sustainment	C/TBD	TBD::TBD	0.000	-		-		6.000	Mar 2014	-		6.000	Continuing	Continuing	Continuing
Post FQT / Software Sustainment	C/Various	General Dynamics::Scottsdale AZ	0.000	-		-		9.481	Oct 2013	-		9.481	Continuing	Continuing	Continuing
Post FQT / Software Sustainment	C/Various	Harris::Rochester, NY	0.000	-		-		3.601	Dec 2013	-		3.601	Continuing	Continuing	Continuing
Post FQT / Software Sustainment	WR	SSC PAC::San Diego, CA	0.000	-		-		7.630	Oct 2013	-		7.630	Continuing	Continuing	Continuing
Certification (Interim SCA Compliance Testing)	MIPR	NSA::Ft. Meade, MD	0.000	-		-		0.404	Dec 2013	-		0.404	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		47.422		0.000		47.422			

#### Remarks

In FY12-FY13, the Joint Tactical Networks (JTN) funding resides in the Navy Program Element (PE) 0604280N (Joint Tactical Radio System (JTRS)), Project No. 3076 (formally known as JTRS Network Enterprise Domain (JNED)). The FY14 funding residing in PE 0605030A represents the total JTN Budget.

PE 0605030A: Joint Tactical Network Center (JTNC) Army

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: System Development & Demonstration (SDD)

DATE: April 2013

R-1 ITEM NOMENCLATURE
PE 0605030A: Joint Tactical Network Center (JTNC)

(JTNC)

Support (\$ in Millions				FY 2	2012	FY 2	2013		2014 ise	FY 2		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	Total Cost	Target Value of Contract
JTN Engineering/Technical Support	C/Various	Various::Various	0.000	-		-		14.625	Mar 2014	-		14.625	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		14.625		0.000		14.625			
All De		All Dries					EV.	2044	EV 2	044	EV 2014	Coat To	Total	Target	

#### All Prior FY 2014 FY 2014 FY 2014 Cost To Value of Total Years FY 2012 FY 2013 Base oco Total Complete Contract Cost 0.000 0.000 68.148 0.000 68.148 **Project Cost Totals** 0.000

Remarks

PE 0605030A: Joint Tactical Network Center (JTNC) Army

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	<b>PROJECT</b>	
2040: Research, Development, Test & Evaluation, Army	PE 0605030A: Joint Tactical Network Center	EA8: Joint	Tactical Network Center (JTNC)
BA 5: System Development & Demonstration (SDD)	(JTNC)		

	F	FY 2012				FY	2013	3		FY	2014	ļ.		FY 2	2015	;		FY 2	2016	3		FY	2017	,		FY 2	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
Software Sustainment																												

PE 0605030A: Joint Tactical Network Center (JTNC) Army

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army	DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	<b>PROJECT</b>	
2040: Research, Development, Test & Evaluation, Army	PE 0605030A: Joint Tactical Network Center	EA8: Joint	Tactical Network Center (JTNC)
BA 5: System Development & Demonstration (SDD)	(JTNC)		

# Schedule Details

	Start		End	
Events	Quarter	Year	Quarter	Year
Software Sustainment	1	2014	4	2018