Exhibit R-2, **RDT&E Budget Item Justification:** PB 2015 Army		**Date:** March 2014

Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0605031A *I Joint Tactical Network (JTN)*

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	-	-	17.999	-	17.999	-	-	-	-	-	17.999
EF5: *Joint Tactical Network (JTN)*	-	-	-	17.999	-	17.999	-	-	-	-	-	17.999

The FY 2015 OCO Request will be submitted at a later date.

Note

In accordance with the signed Joint Tactical Networking Center Acquisition Decision Memorandum and Charter dated 20 January 2014, funds from PE 0605030A were aligned to PE 0605031A prior to the year of execution.

A. Mission Description and Budget Item Justification

Joint Tactical Networks (JTN) Deliver, maintain, upgrade and enhance portable, interoperable, mobile ad hoc networking waveforms and network enterprise services to enhance tactical warfighting capabilities.

JTN applications are: (1) Interoperable – among all Services, capable of operating in a variety of hardware items, for both Program of Record and commercial Non-Developmental Item (NDI) radios; (2) Secure – meet all DoD and US Govt information assurance requirements; (3) Operationally Relevant – quickly and effectively meet evolving network mission requirements of Combatant Commanders and the Services; (4) Affordable – drive down procurement and support costs via a robust, competitive NDI market which adheres to open government standards.

In accordance with the Joint Tactical Networking Center ADM and Charter dated 20 January, 2014, the JTN is to actively manage and fund the development, update and sustaining of the Soldier Radio Waveform (SRW), the Wideband Networking Waveform (WNW), the Mobile User Objective System (MUOS), the Link-16 waveform, and the Joint Enterprise Network Manager (JENM). Due to the JTN's extensive knowledge and expertise, the JTN will also enhance, update, and sustain the following legacy waveforms on a reimbursable basis: the High Frequency (HF) waveform, the merged HAVE QUICK II (HQII) and Very High Frequency (VHF)/Ultra High Frequency (UHF) Line of Sight (VULOS) waveforms, the JTRS Bowman waveform (JBW), the SINCGARS waveform and the UHF Satellite Communications (SATCOM) waveform.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army				Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*			**R-1 Program Element (Number/Name)** PE 0605031A *I Joint Tactical Network (JTN)*		

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	-	17.999	-	17.999
Total Adjustments	-	-	17.999	-	17.999
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	17.999	-	17.999

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014	
Appropriation/Budget Activity 2040 I 5				**R-1 Program Element (Number/Name)** PE 0605031A I *Joint Tactical Network (JTN)*						**Project (Number/Name)** EF5 I *Joint Tactical Network (JTN)*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
EF5: *Joint Tactical Network (JTN)*	-	-	-	17.999	-	17.999	-	-	-	-	-	17.999
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	

The FY 2015 OCO Request will be submitted at a later date.

Note

In FY 2013 and Prior Years, the Joint Tactical Networks (JTN) was funded in the Navy Program Element (PE) 0604280N, Project No. 3076 formally known as JTRS Network Enterprise Domain (JNED). Program Element (PE) 0604280N represents the total JTRS RDT&E Budget (includes Multifunctional Information Distribution System (MIDS), Airborne and Maritime/Fixed Station (AMF) JTRS, Ground Mobile Radio (GMR) JTRS, Handheld/Manpack/Small Form Fit (HMS) JTRS, and JTRS Network Enterprise Domain (JNED) and Digital Modular Radios (DMR)).
In FY 2014 funding that resides in Army PE 0605030A represents the total JTN and Joint Tactical Networking Center (JTNC) budget.
In FY 2015 PE 0605031A represents the total JTN budget.

In accordance with the Acquisition Decision Memorandum (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 three MILDEPs in PEs (Army PE 0605030A, Navy PE 0605030N, and Air Force PE 0605030F). As part of the joint program budget strategy, each MILDEP budgets for approximately one-third of the total program RDT&E funds. The Joint Tactical Networking Center (JTNC) ADM and Charter dated 20 January 2014, disseminate the JTNC from JTN. Prior to the year of execution, the JTN funding is consolidated in the Army PE (0605031A) and software sustainment funds to be transferred from RDT&E to O&M,A PE (4326750A) in fiscal year of execution as part of the JTN joint program acquisition strategy.

The Joint Tactical Networks (JTN) is a joint Department of Defense (DoD) effort to develop and sustain waveforms and network enterprise services that are used by DoD software defined radios.

A. Mission Description and Budget Item Justification

Joint Tactical Networks (JTN) Deliver, maintain, upgrade and enhance portable, interoperable, mobile ad hoc networking waveforms and network enterprise services to enhance tactical warfighting capabilities.
JTN applications are: (1) Interoperable – among all Services, capable of operating in a variety of hardware items, for both Program of Record and commercial Non-Developmental Item (NDI) radios; (2) Secure – meet all DoD and US Govt information assurance requirements; (3) Operationally Relevant – quickly and effectively meet evolving network mission requirements of Combatant Commanders and the Services; (4) Affordable – drive down procurement and support costs via a robust, competitive NDI market which adheres to open government standards.
In accordance with the Joint Tactical Networking Center Acquisition Decision Memorandum (ADM) and Charter dated 20 January, 2014, the JTN is to actively manage and fund the development, update and sustaining of the Soldier Radio Waveform (SRW), the Wideband Networking Waveform (WNW), the Mobile User Objective System (MUOS), the Link-16 waveform, and the Joint Enterprise Network Manager (JENM). Due to the JTN's extensive knowledge and expertise, the JTN will also

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 *I* 5	**R-1 Program Element (Number/Name)** PE 0605031A *I Joint Tactical Network (JTN)*	**Project (Number/Name)** EF5 *I Joint Tactical Network (JTN)*

enhance, update, and sustain the following legacy waveforms on a reimbursable basis: the High Frequency (HF) waveform, the merged HAVE QUICK II (HQII) and Very High Frequency (VHF)/Ultra High Frequency (UHF) Line of Sight (VULOS) waveforms, the JTRS Bowman waveform (JBW), the SINCGARS waveform and the UHF Satellite Communications (SATCOM) waveform.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Title: Legacy Radio Waveforms/Program Management **Description:** Legacy Radio Waveforms/Program Management: Includes the continued development, incremental upgrades, and software efficiencies of legacy software and other related activities to support the legacy waveform integration into hardware solutions in the field. **FY 2015 Plans:** Continue to support waveform integration, test and evaluation, and program management office support.	-	-	10.493
Title: Solder Radio Waveform (SRW) **Description:** Soldier Radio Waveform (SRW) will operate on tactical radio sets to provide a networked battlefield communications capability for power disadvantaged users engaged in land combat operations and will support voice, data, and video communications on the immediate battlefield. These forces include vehicles, rotary wing, dismounted soldiers, munitions, sensors, and unmanned air vehicles (UAV). Functional software applications will use SRW enabled JTR sets over Internet Protocol (IP) capable networks and sub-networks. SRW will be interoperable with higher throughput, IPbased network waveforms, such as Wideband Networks Waveform (WNW). As applicable, these IP-based networking waveforms will enable information exchanges through the GIG to the soldier and provide entirely new capabilities for battlefield communications and information sharing. SRW is currently ported on 19 different platforms with 11 different vendors. **FY 2015 Plans:** Continue to develop test plans and procedures for full SRW waveform conformance, enhancements to SRW v1.2.1.	-	-	0.961
Title: Wideband Networking Waveform (WNW) **Description:** Wideband Networking Waveform (WNW) is a high data rate Mobile Adhoc NETworking (MANET) waveform application that provides the mid tier tactical Internet backbone and connects tactical forces across the battle sphere. WNW will provide high throughput, dynamically adaptable connectivity for the exchange of Internet Protocol (IP) based voice, data, and video traffic. WNW will feature two signals-in-space (SiS), which are the Orthogonal Frequency Division Multiplexing (OFDM) and Anti-Jam (AJ). WNW will support network nodes on mobile, airborne, and maritime platforms. WNW includes networking services, security, High Assurance IP Equipment (HAIPE) capabilities, red black switching, and internal routing of other WNW signals. WNW is currently ported on 7 platforms with 7 different vendors. **FY 2015 Plans:**	-	-	2.758

Exhibit R-2A, **RDT&E Project Justification:** PB 2015 Army		**Date:** March 2014
Appropriation/Budget Activity 2040 *I* 5	**R-1 Program Element (Number/Name)** PE 0605031A *I Joint Tactical Network (JTN)*	**Project (Number/Name)** EF5 *I Joint Tactical Network (JTN)*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015**
Continue enhancements, software modifications and version drop. Maintain test facility to conduct WNW test and evaluation. Develop test plans and procedures for full WNW Waveform Conformance for WNW v4.0.9.			
Title: Mobile User Objective System (MUOS) Waveform *Description:* Mobile User Objective System (MUOS) Waveform will enable MUOS satellites to provide worldwide communication satellite coverage for DoD requirements. MUOS will provide functionality comparable to commercial mobile phone systems. MUOS offers secure streaming video, netted communications, and voice/data in real time to provide essential connectivity. The JTN program will modify this waveform, making it compatible and certifiable with DoD security requirements while enabling porting to tactical radio sets. MUOS is currently being ported by 7 vendors on 7 different platforms. *FY 2015 Plans:* Continue software testing, upgrades, enhancements, software modifications and software version drops to meet DoD requirements.	-	-	0.871
Title: Joint Enterprise Net Manager (JENM) *Description:* JTRS Network Enterprise Services (JNES)/Joint Enterprise Net Manager (JENM): Prior to FY13, JTRS Network Enterprise Services (JNES) included the development and acquisition of JTRS WNW Network Manager (JWNM), Joint Enterprise Net Manager (JENM), Soldier Radio Waveform Network Manager (SRWNM), and Enterprise Network Services (ENS). In FY13 and out, JENM provides consolidated communications planning, network configuration, network activation, position reporting, fault management, security management, and network health and status reporting needed to establish and maintain a mobile wireless network comprised of JTN network waveforms. JENM can interface with other external network managers, mission planning systems, network planning systems, key management systems, and spectrum planning systems. JENM is considered a mission essential system. JENM is also considered a critical element within the J-TNT configuration management tool kit. *FY 2015 Plans:* Continue enhancements, software modifications, upgrades with full capabilities to JENM v1 and JENM v2 and software version drops (v2.8 and v2.9).	-	-	2.916
Accomplishments/Planned Programs Subtotals	-	-	17.999

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• 0604280N: *0604280N: JNED, RDTE,N*	59.077	-	-	-	-	-	-	-	-	-	59.077

PE 0605031A: *Joint Tactical Network (JTN)*
Army

R-1 Line #120

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 I 5	**R-1 Program Element (Number/Name)** PE 0605031A I *Joint Tactical Network (JTN)*	**Project (Number/Name)** EF5 I *Joint Tactical Network (JTN)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• 0303109N: *0303109N: JNED, O&M,N*	34.653	-	-	-	-	-	-	-	-	-	34.653
• 0605030A: *0605030A; JTNC, RDTE,A*	-	68.112	-	-	-	21.460	26.474	24.668	24.723	Continuing	Continuing
• 0605030F: *0605030F; JTNC, RDTE,F*	-	-	-	-	-	22.346	22.255	22.656	23.064	Continuing	Continuing
• 0605030N: *0605030N; JTNC, RDTE,N*	-	-	-	-	-	12.407	12.527	12.913	13.242	Continuing	Continuing
• 4326750A: *4326750A: JTN, O&M,A*	-	-	28.406	-	28.406	-	-	-	-	Continuing	Continuing

Remarks

In FY2013, the Joint Tactical Networking Center (JTNC) was funded in the Navy Program Element (PE) 0604280N, Project No. 3076 formally known as JTRS Network Enterprise Domain (JNED). This was a shared line with JTN.

In FY 2015 PE 0605031A represents the total JTN funding.

In accordance with the Acquisition Decision Memorandum (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 three MILDEPs in PEs (Army PE 0605030A, Navy PE 0605030N, and Air Force PE 0605030F). As part of the joint program budget strategy, each MILDEP budgets for approximately one-third of the total program RDT&E funds. The Joint Tactical Networking Center (JTNC) ADM and Charter dated 20 January 2014, disseminate the JTNC from JTN. Prior to the year of execution, the JTN funding is consolidated in the Army PE (0605031A) and software sustainment funds are realigned from RDT&E to O&M,A PE (4326750A) to support the JTN joint program acquisition strategy.

D. Acquisition Strategy

JTN develops, enhances, and sustains all portable, interoperable, mobile ad hoc joint waveforms and network manager products/applications. The networking waveforms (Soldier Radio Waveform (SRW), Wideband Networking Waveform (WNW), and Mobile User Objective System (MUOS)) and legacy (Link-16) waveforms and network enterprise services products (JTRS Enterprise Network Manager (JENM), etc.) are capable of operating in a variety of hardware transport solutions for both Program of Record (PoR) and commercial, non-developmental item (NDI) radios, increasing the level of joint interoperability for the tactical networks. JTN employs a competitive contracting strategy to ensure warfighter access to the best technology and capabilities while addressing threats and future requirements affordably, effectively, and in a timely fashion. The FY 2015 Budget supports continued development of waveforms/supporting software and testing.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0605031A / *Joint Tactical Network (JTN)*	**Project (Number/Name)** EF5 / *Joint Tactical Network (JTN)*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPFF	Various : Various	0.000	-		-		1.799	Mar 2014	-		1.799	-	1.799	-
Subtotal			0.000	-		-		1.799		-		1.799	-	1.799	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Post Formal Qualification Testing-Link 16	C/CPIF	BAE : Wayne, NJ	0.000	-		-		0.444	Dec 2014	-		0.444	-	0.444	-
Post Formal Qualitfication Testing-JENM	C/CPIF	Boeing : Huntington Beach, CA	0.000	-		-		2.916	Oct 2014	-		2.916	-	2.916	-
Post Formal Qualitfication Testing-MUOS	C/CPIF	Lockheed Martin Corp. : Sunnyvale, CA	0.000	-		-		0.871	Dec 2014	-		0.871	-	0.871	-
Post Formal Qualitfication Testing-WNW	C/CPIF	General Dynamiccs : Scottsdale, AZ	0.000	-		-		2.758	Dec 2014	-		2.758	-	2.758	-
Post Formal Qualitfication Testing-SRW	C/CPIF	Harris : Rochester, NY	0.000	-		-		0.961	Dec 2014	-		0.961	-	0.961	-
Post FQT/Software Sustainment	MIPR	SSC PAC : San Diego, CA	0.000	-		-		3.566	Oct 2014	-		3.566	-	3.566	-
Post FQT/Software Sustainment	MIPR	CERDEC : APG, MD	0.000	-		-		0.917	Oct 2014	-		0.917	-	0.917	-
Post FQT/Software Sustainment	MIPR	SSC LANT : Charleston, SC	0.000	-		-		0.917	Oct 2014	-		0.917	-	0.917	-
Subtotal			0.000	-		-		13.350		-		13.350	-	13.350	-

Remarks

FY 2015 PE 0605031A represents the total JTN RDTE budget.

In accordance with the Acquisition Decision Memorandum (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 three MILDEPs in PEs (Army PE 0605030A, Navy PE 0605030N, and Air Force PE 0605030F). As part of the joint program budget strategy, each MILDEP budgets for approximately one-third of the total program RDT&E funds. The Joint

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2015 Army		**Date:** March 2014	
Appropriation/Budget Activity 2040 *I* 5	**R-1 Program Element (Number/Name)** PE 0605031A *I Joint Tactical Network (JTN)*	**Project (Number/Name)** EF5 *I Joint Tactical Network (JTN)*	

Product Development ($ in Millions)				**FY 2013**		**FY 2014**		**FY 2015 Base**		**FY 2015 OCO**		**FY 2015 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Tactical Networking Center (JTNC) ADM and Charter dated 20 January 2014, disseminate the JTNC from JTN. Prior to the year of execution, the JTN funding is consolidated in the Army PE (0605031A) and software sustainment funds are realigned from RDT&E to O&M,A PE (4326750A) to support the JTN joint program acquisition strategy.															

Support ($ in Millions)				**FY 2013**		**FY 2014**		**FY 2015 Base**		**FY 2015 OCO**		**FY 2015 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Development/Engineering/ Technical Support	C/CPFF	Various : various	0.000	-		-		2.850	Oct 2014	-		2.850	-	2.850	-
Subtotal			0.000	-		-		2.850		-		2.850	-	2.850	-

			Prior Years	**FY 2013**		**FY 2014**		**FY 2015 Base**		**FY 2015 OCO**		**FY 2015 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals			0.000	-		-		17.999		-		17.999	-	17.999	-

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2015 Army		**Date:** March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0605031A / *Joint Tactical Network (JTN)*	**Project (Number/Name)** EF5 / *Joint Tactical Network (JTN)*

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Wideband networking Waveform (WNW)									■	■	■	■																
Soldier Radios Waveform (SRW)									■	■	■	■																
Mobile User Objective System (MUOS) Waveform									■	■	■	■																
JTRS Enterprise Network Manager (JENM)									■	■	■	■																

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army				Date: March 2014
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0605031A / Joint Tactical Network (JTN)		Project (Number/Name) EF5 / Joint Tactical Network (JTN)

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Wideband networking Waveform (WNW)	1	2015	4	2015
Soldier Radios Waveform (SRW)	1	2015	4	2015
Mobile User Objective System (MUOS) Waveform	1	2015	4	2015
JTRS Enterprise Network Manager (JENM)	1	2015	4	2015