

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2007

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604280A - Joint Tactical Radio System							PROJECT 162		
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
162 Network Enterprise Domain (NED)	131681			270560	198127	98178	100337	102545		901428

A. Mission Description and Budget Item Justification: The JTRS budget justification will be found in Navy FY 2008 President's budget under Joint Tactical Radio System Program (PE 0604280N, BA5) since the JTRS program is a joint program and the Navy is the lead Service for the JTRS development program.

The mission of the Joint Tactical Radio System (JTRS) is to provide the Department of Defense (DoD) with software programmable, reconfigurable digital radio systems to meet Joint Vision (JV) 2010/2020 requirements for interoperability, flexibility, adaptability, and information exchange. JTRS will acquire a family of affordable, scaleable, high-capacity, interoperable Line of Sight (LoS) and Beyond LoS radios to support simultaneous networked voice/data/video transmissions with low probability of intercept. The program will provide operational forces with an upgraded, interoperable communications capability for improved battle space management and increased Warfighter effectiveness. Interoperability with allied and coalition partners is pursued through international cooperative efforts, including signed agreements with Japan, UK and Sweden.

In Feb 2005, by direction of the Defense Acquisition Executive, all JTRS Product Lines were realigned and are now managed by the Joint Program Executive Office (JPEO) JTRS. Beginning in FY07, all JTRS RDT&E Program Elements (PE) are realigned under the Navy JTRS PE (0604280N) for the current Budget Year (BY) only. From the BY+1 through the end of the FYDP, all JTRS RDT&E projects are funded in three equal shares by each Military Department (MILDEP). This transition results in the total JTRS development funding being managed out of three MILDEP PEs (0604280A, 0604280N, and 0604280F) across the FYDP, and consolidated into one Navy PE (0604280N) for the current BY.

<u>Accomplishments/Planned Program:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT NETWORK ENTERPRISE DOMAIN				
Wideband Networking Waveform (WNW) is a high data rate networking waveform application that provides the lower tactical Internet backbone and connects tactical forces across the battle sphere. WNW will feature two signals-in-space (SiS), which are the Orthogonal Frequency Division Multiplexing (OFDM) and Anti-Jam (AJ). WNW will provide high throughput, dynamically adaptable connectivity for the exchange of Internet Protocol (IP) based voice, data, and video traffic. 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. Completed development of Version 1.1 in 4Q FY06. Platforms include: GMR and AMF.	32412			
Soldier Radio Waveform (SRW) will operate on JTR sets to provide a networked battlefield communications capability for disadvantage users engaged in land combat operations and will support voice, data, and video communications on and over 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 IP capable networks and sub-networks. SRW will be interoperable with higher throughput, IP-based network waveforms, such as WNW, through gateways. 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	26020			

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information sharing. Platforms include: GMR, AMF and HMS.				
Joint Airborne Networking- Tactical Edge (JAN-TE) will operate on JTR airborne sets to provide a networked tactical communications capability for tactical aircraft. JAN-TE will provide increased throughput, highly responsive connectivity, and ad hoc mobile networking for fighters engaged in air operations. This networking waveform is uniquely designed and engineered for highly maneuverable, fast moving aircraft for rapidly establishing networks to share high value data communications. Platforms include MIDS and Battlefield Airborne Communications Node (BACN).	5400			
Mobile User Objective System (MUOS) 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. JNED program will modify this waveform, making it compatible and certifiable to meet DoD security requirements plus enable porting to JTR sets. Platforms include: AMF.	350			
Continued the development and acquisition of software-defined legacy radio waveforms, JTRS Hardware Domain support, JNED program support, and other waveform related activities to support the legacy waveform development of High Frequency (HF) and Link 16. High Frequency (HF) radios provide beyond line-of-sight (BLOS) and some LOS voice and data communications for military platforms in all domains. The JTRS HF capabilities comprise an aggregation of four (4) different legacy radio system types: HF Independent Side Band (ISB) w/Automatic Link Establishment (ALE), HF Single Side Band (SSB) w/Automatic Link Establishment (ALE) and with anti-jam (AJ), STANAG 5066 (HF Message Protocol), and STANAG 4529 (HF Narrow Band Modem). Completed development of Enhanced Position Location and Reporting System (EPLRS) version 1.5 and performed FQT in 4Q FY06. Continued to develop EPLRS Build 2.1. Continued the development of Ultra High Frequency Satellite Communication Demand Assigned Multiple Access (UHF SATCOM DAMA). Continued to develop Single-Channel Ground and Airborne Radio System (SINCGARS) Enhanced Operating Mode version 1.3 and the Internet Controller (INC). Began the development and acquisition of Network Enterprise Services (JNES) to include a Network Manager, Common Network Services (CNS), and the JTRS unique Gateway. Continued to provide NED technical support, including waveform development, systems engineering, spectrum allocation, system security engineering and problem resolution and support of Software Communications Architecture (SCA) activities. Provided technical guidance to Platform Program Management Offices (PMO). Continued to support Waveform integration, test and evaluation to include hardware and software waveform certification process (SCA compliance testing) to meet program requirements. Continued JNED program management office support.	67499			
The JTRS budget justification will be found in Navy FY 2008 President's budget under Joint Tactical Radio System Program (PE 0604280N, BA5) since the JTRS program is a joint program and the Navy is the lead Service for the JTRS development program.				270560
Total	131681			270560

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<u>B. Program Change Summary</u>	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2007)	139546	832259	285870	271043
Current BES/President's Budget (FY 2008/2009)	131681			270560
Total Adjustments	-7865	-832259	-285870	-483
Congressional Program Reductions		-832259		
Congressional Rescissions				
Congressional Increases				
Reprogrammings	-7865			
SBIR/STTR Transfer				
Adjustments to Budget Years			-285870	-483

Change Summary Explanation: Funding - FY 06: \$3.902M was reprogrammed from this PE to support O&M requirement for stand-up and operation of JPEO JTRS Organization. Additional \$3.963M adjustment reflects reprogramming to fund higher Army priorities.
 FY 07: \$832.3M was realigned from this PE to the Navy JTRS RDT&E PE 0604280N in support of the JTRS joint program acquisition strategy.
 FY 08: \$285.9M was realigned from this PE to the Navy JTRS RDT&E PE 0604280N in support of the JTRS joint program acquisition strategy.
 FY 09: \$.483M adjustment reflects a reduction to fund higher Army priorities.

<u>C. Other Program Funding Summary</u>	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
SEE FOOTNOTE									Continuing	Continuing

Comment: ****The JTRS budget justification will be found in Navy FY 2008 President's budget under Joint Tactical Radio System Program (PE 0604280N, BA5) since the JTRS program is a joint program and the Navy is the lead Service for the JTRS development program.**

D. Acquisition Strategy The JTRS budget justification will be found in Navy FY 2008 President's budget under Joint Tactical Radio System Program (PE 0604280N, BA5) since the JTRS program is a joint program and the Navy is the lead Service for the JTRS development program.

ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
5 - System Development and Demonstration			0604280A - Joint Tactical Radio System									162		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
JOINT NETWORK ENTERPRISE DOMAIN														
Architecture Development and Validation, Evolve and Provide CM Mgmt of SCA	Various	Various	66834	909	2Q							Cont.	Cont.	Cont.
Waveform Development; Crypto S/W; Waveform Sustainment Engineering	Various	Various	367121	106086	1-2Q							Cont.	Cont.	Cont.
Certification (SCA Compliance Testing)	Various	Various	60464	6900	1-2Q							Cont.	Cont.	Cont.
Technology Advancement/Problem Resolution	Various	Various	8260										8260	
JTF WARNET	Various	Various	57000										57000	
SEE FOOTNOTE										270560			270560	Cont.
Subtotal:			559679	113895						270560		Cont.	Cont.	Cont.

Remarks: **The JTRS budget justification will be found in Navy FY 2008 President's budget under Joint Tactical Radio System Program (PE 0604280N, BA5) since the JTRS program is a joint program and the Navy is the lead Service for the JTRS development program.

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
JOINT NETWORK ENTERPRISE DOMAIN														
FFRDC - MITRE and Other contracted Technical Support	FFP	Various	59360	9500	1-2Q							Cont.	Cont.	Cont.
Subtotal:			59360	9500								Cont.	Cont.	Cont.

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III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:														
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
JOINT NETWORK ENTERPRISE DOMAIN														
Program Support	Various	Various	44847	8286	1-2Q							Cont.	Cont.	Cont.
Subtotal:			44847	8286								Cont.	Cont.	Cont.
Project Total Cost:			663886	131681						270560		Cont.	Cont.	Cont.

Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY
5 - System Development and Demonstration

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0604280A - Joint Tactical Radio System

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Event Name	FY 06				FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13			
	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	1	2	3	4
SEE FOOTNOTE	** SEE FOOTNOTE **																															

Schedule Detail (R4a Exhibit)

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<u>Schedule Detail</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
SEE FOOTNOTE	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q

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