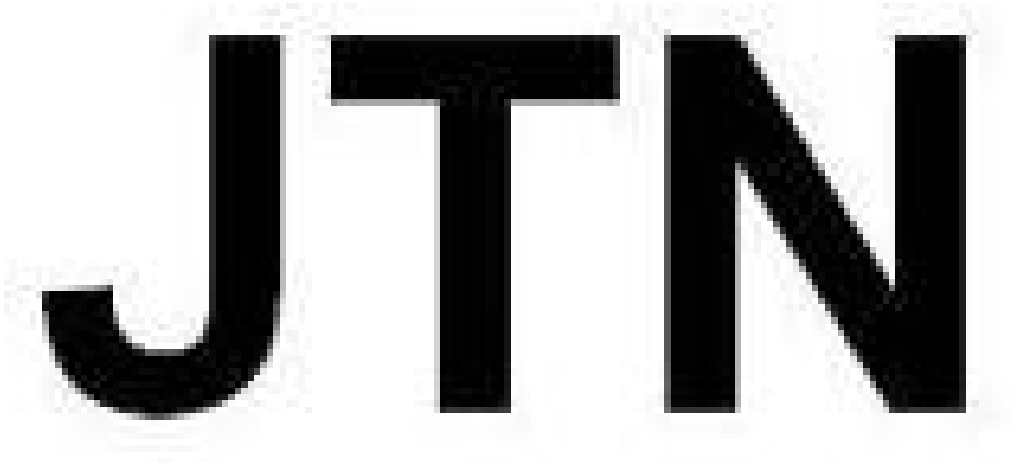
Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-284



Joint Tactical Networks (JTN)

As of December 31, 2012

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

Program Information

Program Name

Joint Tactical Networks (JTN)

DoD Component

Army

Joint Participants

Army; Navy; Air Force

Responsible Office

Responsible Office

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Date Assigned September 15, 2011

References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated June 24, 2002

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated December 21, 2009

Mission and Description

Joint Tactical Networks (JTN) develops, enhances, and sustains all portable, interoperable, mobile ad hoc joint waveforms and network manager products/applications. The networking (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 Networking 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, thereby increasing the level of joint interoperability for the tactical networks. Moreover, 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.

Executive Summary

Pursuant to a July 11, 2012 Acquisition Decision Memorandum (ADM), the Joint Tactical Radio System Network Enterprise Domain (JTRS NED) transitioned to the Joint Tactical Networks (JTN) on October 1, 2012. The JTN is an Acquisition Category (ACAT) ID Program and remains under the Department of the Army for program management and execution responsibility.

JTN retains responsibility for the products developed by the JTRS NED. The following will be actively managed/funded by JTN: Soldier Radio Waveform (SRW), Wideband Networking Waveform (WNW), Mobile User Objective System (MUOS) waveform, Link-16 waveform, and JTRS Enterprise Network Manager (JENM). However, JTN will provide reimbursable sustainment support of the following legacy waveforms: High Frequency, Have Quick II, JTRS Bowman Waveform, Single Channel Ground and Airborne Radio System (SINCGARS), Tactical Targeting Network Technology, Ultra High Frequency (UHF) Satellite Communications (SATCOM), and Very High Frequency/UHF Line of Sight. These reimbursable waveform applications will not be reported in future reports unless funds are received for support.

WNW: WNW participated in the Army's Network Integration Evaluation (NIE) 12.2 and 13.1. As part of the NIE 12.2 (April 2012 – June 2012), WNW was employed as a "carry-over capability" within the 1st Battalion, 35th Armored Regiment (1-35 AR), in support of on-going network evaluations and in anticipation of the Mid-Tier Networking Vehicular Radio (MNVR) procurement. At NIE 13.1 distinguished visitor days (November 14-16, 2012), WNW was demonstrated (it was not evaluated) as the mid-tier networking waveform solution in the Army's Objective Network Architecture. The successful demonstration revealed the ability of WNW to (1) heal lower and upper tier networks, (2) transmit full motion video, and (3) transmit Voice over Internet Protocol to connect SATCOM and SRW voice nets.

A WNW Performance and Interoperability Quick-look (WIQ)-3 occurred in November 2012. The WIQ-3 illustrated the mid-tier networking capabilities of WNW in a realistic environment using architectures that meet current and future needs of the joint forces. During WIQ-3, WNW successfully demonstrated the ability to (1) relay and maintain communications between Company (CO) networks and the Battalion network, (2) heal a fragmented CO network, (3) quickly re-route data from a failed upper tier access point, and (4) provide reliable communications beyond 25 kilometers. All of these successes were demonstrated in a multi-vendor/platform network.

A baseline update, version (v) 4.0.7, is expected in June 2013. This update will merge corrections to critical Information Assurance (IA) findings (identified in v4.0.5), Software Communications Architecture findings (identified in v4.0.2) with an update that corrects high priority Software Anomaly Reports (identified in v4.0.6).

SRW: The Design Verification Test completed in March 2012 and the Functional Configuration Audit and Physical Configuration Audit of v1.1.1 completed in April 2012. The SRW sustainment contract awarded April 30, 2012 at a value of $25.8M.

At NIE 12.2, SRW was successfully employed in both the "bridge" and "objective" architectures that supported nearly 1,000 dismounted and mounted nodes in operations across the 2nd Brigade, 1st Armored Division (2-1 AD). SRW was a key component of the Handheld, Manpack, Small Form Fit (HMS) Manpack (MP) Multi-Service Operational Test and Evaluation (MOT&E) during NIE. Quantitative analysis of the platoon loading levels achieved during NIE 12.2 indicated that the SRW network could support even the largest platoon nets where the Rifleman Radio (RR) was employed. Further, during the capstone phase of NIE, which was the final 2 weeks, Army medical support in the brigade utilized SRW in evaluation of the TempusPro medical telemetry system.

A Task Order (TO) to add Combat Network Radio Pre-emption capability was awarded in September 2012, and is scheduled for delivery in December 2013. A TO to finalize the Waveform Development Environment/Waveform

Testing Environment, which will leverage the Harris 1.01.1 ported version of the SRW baseline, was awarded in January 2013.

MUOS: MUOS v3.1 Formal Qualification Test (FQT) was successfully completed on November 30, 2012 with no requirement deviations or waivers. v3.1 was delivered to the Information Repository and is now available for porting to MUOS terminals. The National Security Agency (NSA) IA assessment of v3.1 completed in February 2013 with good results, and final delivery (v3.1.1) is on track for June 2013.

Link-16: The cryptographic modernization baseline was delivered in November 2012. Thirty-seven problem reports (PRs), corrected in TO 3, are being merged with the cryptographic modernization baseline update and delivered as v1.06 in May 2013. A TO for Multifunctional Information Distribution System (MIDS) on Ship was awarded in December 2012, and FQT is scheduled to complete in February 2014. MIDS on Ship TO, performed in parallel with MIDS' Block Cycle 2 upgrade, provides Navy surface ships with a cryptographic modernized Link-16 waveform capable of running on a MIDS-J terminal.

JENM: JENM v1.1 (WNW services) and JENM v1.2 (SRW services) were released in February 2012; v1.2.0.3 was delivered on April 20, 2012 and included PR corrections and usability enhancements.

JENM v1.1 and v1.2.0.3 were both used during NIE 12.2 to load all Industry Day and Program of Record (PoR) networking radios running SRW and/or WNW, respectively. The SRW and WNW networks at NIE 12.2 encompassed over 1,000 radios, consisting of Harris AN/PRC-117G, Harris AN/PRC-152A, ITT/Exelis Soldier Radio-Rifleman and SideHat radios, Ground Mobile Radio AN/VRC-107, HMS MP AN/PRC-155 and RR AN/PRC-154, and General Dynamics C4 Systems Sidewinder radios. JENM v1.2.0.3 also underwent Initial Operational Test & Evaluation during NIE 12.2, and was evaluated by Commander Operational Test and Evaluation Force (COMOPTEVFOR) for suitability and effectiveness, as it was used for planning and monitoring during the HMS MP MOT&E. COMOPTEVFOR concluded that: JENM and the radio/network manager System of Systems were operationally effective and operationally suitable and JENM was recommended for Service introduction in support of the JTRS MP and RR systems. Since then, JENM 1.2.3 with usability enhancements was released on September 11, 2012 and was used successfully in NIE 13.1. The JENM application has been successfully integrated into the Army's Joint-Tactical Networking Environment NetOps Toolkit (J-TNT) and is being fielded with Capability Set-13 (CS-13) Brigade Combat Teams. JENM 1.2.3, as a part of J-TNT 1.0.1, will also be used to configure approximately 1,200 radios at NIE 13.2 (March 2013 – May 2013) including: Harris PRC-117G's, ITT/Exelis SideHats, HMS MP's, and HMS RR's.

The JENM v2.5 development/enhancement task, intended to manage, configure, and monitor the WNW, SRW, and MUOS waveforms on a single laptop, successfully completed FQT on December 21, 2012. A follow-on TO is forthcoming to prototype solutions for the deferred MUOS Provisioning capability as the HMS MP MUOS waveform v3.1 re-hosting efforts continue to refine the planning requirements of the JENM. JTN will issue another TO to deliver JENM v2.5.1 that will support the upcoming critical MUOS and HMS test events. The upcoming test events include: (1) HMS Waveform Customer Test, (2) HMS Security Verification Testing, and (3) MUOS End-to-End Risk Reduction Test Events.

On January 29, 2013, the JENM Interface Control Document (ICD) for JENM's interfaces to waveforms and radios was established as the baseline JTRS Reference Implementation Laboratory Standard. Voting members of the Standards Board included: PoR: JTN, NSA, MNVR, MIDS-JTRS, Airborne, Maritime/Fixed Station, HMS, Consolidated Single Channel Handheld Radios-JTRS Enhanced Multi-Band Intra-Team Radios (CSCHR-JEM), CSCHR-Falcon, and MUOS, as well as Non-Developmental Initiative vendors Northrop Grumman Corporation (NGC, Freedom radio), and Rockwell Collins International (RCI, ARC-231 & ARC-210 radios). The JENM ICD Standard v1.0 will now be maintained at the Space and Naval Warfare Systems Command Net-Centric Enterprise Solutions for Interoperability collaboration site.

There are no significant software-related issues with this program at this time.

Threshold Breaches

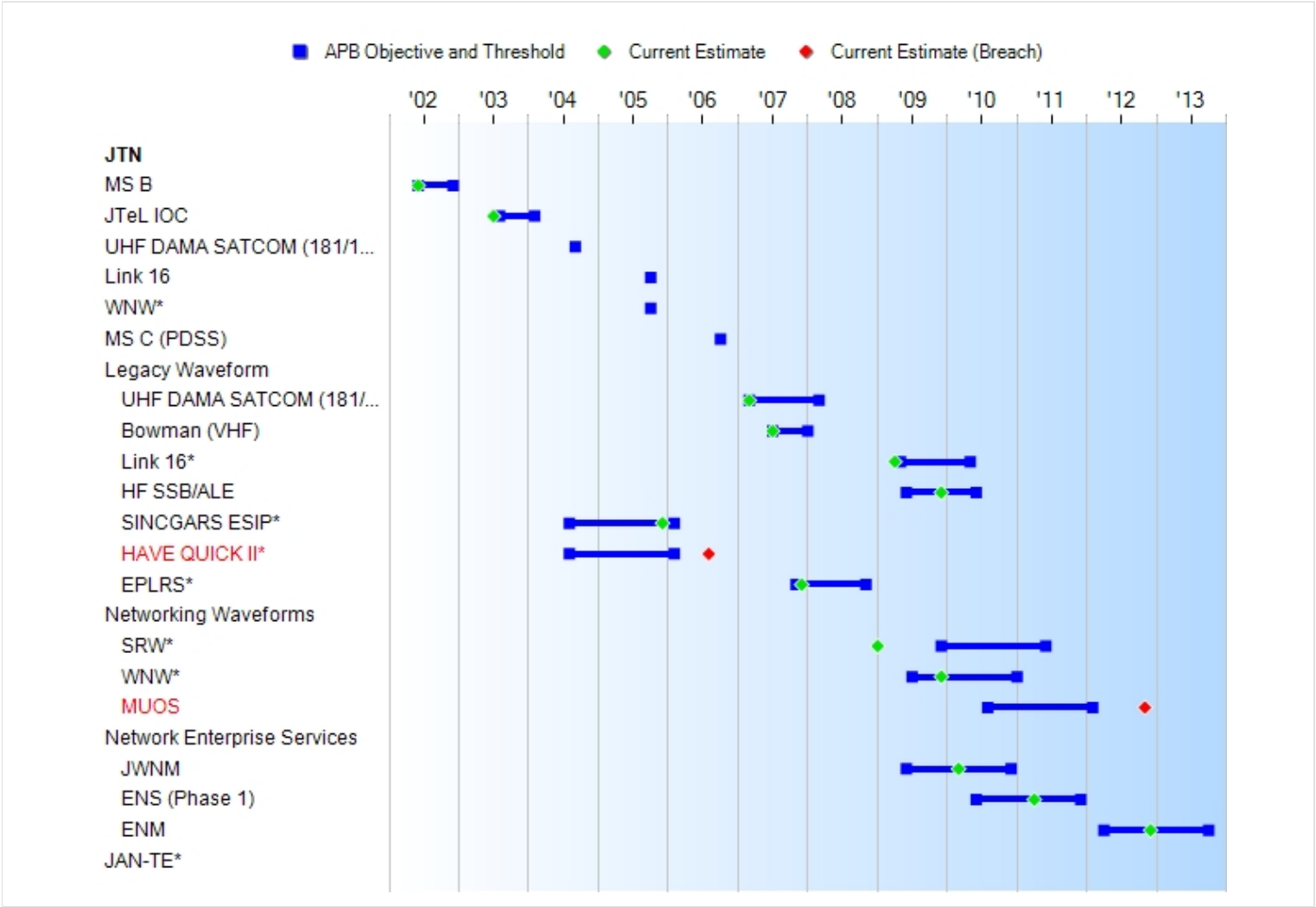
APB Breaches		
Schedule		☑
Performance		☐
Cost	RDT&E	☐
	Procurement	☐
	MILCON	☐
	Acq O&M	☐
O&S Cost		☐
Unit Cost	PAUC	☐
	APUC	☐

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Explanation of Breach

The Have Quick II (HQII) and Mobile User Objective System (MUOS) Formal Qualification Testing (FQT) breaches were reported in the December 2006 SAR and September 2011 Exception SAR, respectively.

Schedule


APB Objective and Threshold
Current Estimate
Current Estimate (Breach)
'02
'03
'04
'05
'06
'07
'08
'09
'10
'11
'12
'13
JTN
MS B
JTeL IOC
UHF DAMA SATCOM (181/1...
Link 16
WNW*
MS C (PDSS)
Legacy Waveform
UHF DAMA SATCOM (181/...
Bowman (VHF)
Link 16*
HF SSB/ALE
SINCGARS ESIP*
HAVE QUICK II*
EPLRS*
Networking Waveforms
SRW*
WNW*
MUOS
Network Enterprise Services
JWNM
ENS (Phase 1)
ENM
JAN-TE*

Milestones	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate	
MS B	JUN 2002	JUN 2002	DEC 2002	JUN 2002	
JTeL IOC	AUG 2003	AUG 2003	FEB 2004	JUL 2003	
UHF DAMA SATCOM (181/182/183)*	SEP 2004	N/A	N/A	N/A	
Link 16	OCT 2005	N/A	N/A	N/A	
WNW*	OCT 2005	N/A	N/A	N/A	
MS C (PDSS)	OCT 2006	N/A	N/A	N/A	
Legacy Waveform					
UHF DAMA SATCOM (181/182/183/184)*	N/A	MAR 2007	MAR 2008	MAR 2007	
Bowman (VHF)	N/A	JUL 2007	JAN 2008	JUL 2007	
Link 16*	N/A	MAY 2009	MAY 2010	APR 2009	
HF SSB/ALE	N/A	JUN 2009	JUN 2010	DEC 2009	
SINCGARS ESIP*	AUG 2004	AUG 2004	FEB 2006	DEC 2005	
HAVE QUICK II*	AUG 2004	AUG 2004	FEB 2006	**AUG 2006** [1]	
EPLRS*	MAR 2005	NOV 2007	NOV 2008	DEC 2007	
Networking Waveforms					
SRW*	N/A	DEC 2009	JUN 2011	JAN 2009	
WNW*	N/A	JUL 2009	JAN 2011	DEC 2009	
MUOS	N/A	AUG 2010	FEB 2012	**NOV 2012** [1]	(Ch-1)
Network Enterprise Services					
JWNM	N/A	JUN 2009	DEC 2010	MAR 2010	
ENS (Phase 1)	N/A	JUN 2010	DEC 2011	APR 2011	
ENM	N/A	APR 2012	OCT 2013	DEC 2012	(Ch-2)
JAN-TE*	N/A	TBD	TBD	N/A	

[1] *APB Breach*

Acronyms And Abbreviations

ALE - Automatic Link Establishment
DAMA - Demand Assigned Multiple Access
ENM - Enterprise Network Manager
ENS - Enterprise Networking Services
EPLRS - Enhanced Position Location Reporting System
ESIP - Enhanced System Improvement Program
HF - High Frequency
JAN-TE - Joint Airborne Network - Tactical Edge
JTeL IOC - JTRS Technology Lab Initial Operational Capability
JWNM - JTRS WNW Network Manager
MS - Milestone
MUOS - Mobile User Objective System
N/A - Not Applicable
PDSS - Post Deployment Sustainment Support
SATCOM - Satellite Communications
SINCGARS - Single Channel Ground and Airborne Radio System
SRW - Soldier Radio Waveform
SSB - Single Side Band
UHF - Ultra High Frequency
VHF - Very High Frequency
WNW - Wideband Networking Waveform

Change Explanations

(Ch-1) The Networking Waveforms MUOS Current Estimate changed from August 2012 to November 2012 predominantly as a result of the significant number of software development problem change reports coming out of Waveform Integration Point (WIP)-3.3.

(Ch-2) The Network Enterprise Services ENM Current Estimate changed from September 2012 to December 2012 to maximize synchronization with and focus on software capability and architecture that provides for more flexible and extensible solutions in support of MUOS and Mid-tier Networking Vehicular Radio (MNVR) development.

Memo

A star (*) denotes a Key Performance Parameter (KPP).

Performance

Characteristics	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
UHF DAMA SATCOM (181/182/183)*	225-400 MHz 5 and 25KHz 64Kbps	N/A	N/A	N/A	N/A
WNW*	2M-2GHz Scalable BW,BPS	N/A	N/A	N/A	N/A
Link 16	(960-121 5MHz) 3 MHz 118/236 Kbps w/FEC	N/A	N/A	N/A	N/A
Legacy Waveforms					
SINCGARS ESIP*	30-88MHz 25KHz 1 6Kbps	30-88MHz 25KHz 16Kbps	30-88MHz 25KHz 16Kbps	30-88MHz 25KHz 16Kbps	30-88MHz 25KHz 16Kbps
HAVE QUICK II*	225-400 MHz 25KH z 16Kbps	225-400 MHz 25KHz 16Kbps	225-400 MHz 25KHz 16Kbps	225-400 MHz 25KHz 16Kbps	225-400 MHz 25KHz 16Kbps
EPLRS*	420-450 MHz 3MHz (57Kbps VHSIC SIP 114Kbps VECP)	420MHz - 450MHz; 3MHz; (57Kbps, VHSIC SIP 228Kbps VECP)	420MHz - 450MHz; 3MHz; (57Kbps, VHSIC SIP 228Kbps VECP)	420MHz- 450MHz; 3MHz; (57Kbps, VHSIC SIP 228Kbps VECP)	420MHz- 450MHz; 3MHz; (57Kbps, VHSIC SIP 228Kbps VECP)
Bowman (VHF)	N/A	30MHz - 80MHz; 25KHz; 156Kbps	30MHz - 80MHz; 25KHz; 156Kbps	30MHz- 80MHz; 25KHz; 156Kbps	30MHz- 80MHz; 25KHz; 156Kbps
HF SSB/ALE	N/A	1.5MHz - 30MHz; 3Khz; VOICE: (A&D) DATA: 75, 150, 300, 600, 1200, 2400, 3200, 4800, 6400, 8000, 9600 bps per SSB channel	2.0MHz - 30MHz; 3KHz; VOICE: (A&D) DATA: 75, 150, 300, 600, 1200, 2400, 3200, 4800, 6400, 8000, 9600 bps per SSB channel	2.0MHz- 30MHz; 3KHz; VOICE: (A&D) DATA: 75, 150, 300, 600, 1200, 2400, 3200, 4800, 6400, 8000, 9600 bps per SSB channel	2.0MHz- 30MHz; 3KHz; VOICE: (A&D) DATA: 75, 150, 300, 600, 1200, 2400, 3200, 4800, 6400, 8000, 9600 bps per SSB channel

Link 16*	N/A	960MHz - 1215MHz; 3MHz; 118/1137 Kbps, w/FEC	960MHz - 1215MHz; 3MHz; 118/1137 Kbps, w/FEC	960MHz- 1215MHz ; 3MHz; 118/ 1137 Kbps, w/FEC	960MHz- 1215MHz ; 3MHz; 118/ 1137 Kbps, w/FEC
UHF DAMA SATCOM (181/182/183/184)*	N/A	225MHz - 400MHz; 5KHz & 25KHz; 75bps - 64Kbps	225MHz - 400MHz; 5KHz & 25KHz; 75bps - 56Kbps	225MHz- 400MHz; 5KHz & 25KHz; 75bps- 56Kbps	225MHz- 400MHz; 5KHz & 25KHz; 75bps- 56Kbps
Networking Waveforms					
WNW (Throughput) *	N/A	5Mbps	2Mbps	7Mbps	7Mbps
SRW (Network Throughput)*	N/A	1200Kbps	600Kbps	600Kbps	600Kbps
MUOS	N/A	240MHz - 320MHz; 5KHz & 25KHz; 2.4, 9.6, 16, 32, 64 Kbps	240MHz - 320MHz; 5KHz & 25KHz; 2.4, 9.6, 16, 32, 64 Kbps	240MHz- 320MHz; 5KHz & 25KHz; 2.4, 9.6, 16, 32, 64 Kbps	240MHz- 320MHz; 5KHz & 25KHz; 2.4, 9.6, 16, 32, 64 Kbps
Network Enterprise Services					
JWNM	N/A	Reconfigure 150 sets operating WNW in 5 min	Reconfigure 35 sets operating WNW in 10 min	TBD	Reconfigure 35 sets operating WNW in 10 min
ENM	N/A	Provide network planning, management and control of WNW, SRW, and MUOS on all Increment 1 form factors	Provide network planning, management and control of WNW, SRW, and MUOS on all Increment 1 form factors	TBD	Provide network planning, management and control of WNW, SRW and MUOS on all Increment 1 form factors
ENS	N/A	SINCGARS R/R IP data w/WNW, SRW and EPLRS on all applicable Increment 1 form factors (HF and UHF)	SINCGARS R/R IP data w/WNW, SRW and EPLRS on the GMR; SINCGARS R/R IP data with SRW and EPLRS on the HMS	TBD	SINCGARS R/R IP data w/WNW, SRW on the GMR; SINCGARS R/R IP data with SRW on the HMS MANPACK; WNW R/R IP

		SATCOM DAMA R/R IP data w/all applicable Increment 1 waveforms and form factors	MANPACK; WNW R/R IP data with HF and UHF SATCOM DAMA on the GMR		data with HF and UHF SATCOM DAMA on the GMR
JAN-TE (Network Throughput)*	N/A	TBD	TBD	TBD	TBD

Requirements Source: Operational Requirements Document (ORD) 3.2/3.2.1 (Increment 1) dated August 28, 2006

Acronyms And Abbreviations

A&D - Analog & Digital
ALE - Automatic Link Establishment
bps - Bits Per Second
BW - Bandwidth
DAMA - Demand Assigned Multiple Access
ENM - Enterprise Network Manager
ENS - Enterprise Networking Services
EPLRS - Enhanced Position Location Reporting System
ESIP - Enhanced System Improvement Program
FEC - Forward Error Correction
GHz - Gigahertz
GMR - Ground Mobile Radio
HF - High Frequency
HMS - Handheld, Manpack and Small Form Fit
IP - Internet Protocol
JAN-TE - Joint Airborne Network - Tactical Edge
JWNM - JTRS WNW Network Manager
Kbps - Kilo bits per second
KHz - Kilohertz
Mbps - Megabits Per Second
MHz - Megahertz
min - Minutes
MUOS - Mobile User Objective System
N/A - Not Applicable
R/R - Routing/Retransmit
SATCOM - Satellite Communications
SINCGARS - Single Channel Ground and Airborne Radio System
SIP - Software Integration Plan
SRW - Soldier Radio Waveform
SSB - Single Side Band
TBD - To Be Determined
UHF - Ultra High Frequency
VECP - Value Engineering Change Proposal
VHF - Very High Frequency
VHSIC - Very High Speed Integrated Circuit
WNW - Wideband Networking Waveform

Change Explanations

None

Memo

Asterisk (*) Denotes Key Performance Parameter (KPP). Increment 1 focuses on initial near-term waveform software capability development of the KPP waveforms and network manager.

Per the December 21, 2009 Acquisition Decision Memorandum (ADM), the JAN-TE capability remains an unfunded requirement.

Track To Budget

General Memo

The Total JTN development funding is managed out of three Military Department (MILDEP) Program Elements (PEs) [0605030A, 0605030F, and 0605030N] across the Future Years Defense Program (FYDP), but realigned in the budget year for execution under the Army RDT&E PE [0605030A].

RDT&E

APPN 1319	BA 05	PE 0604280N	(Navy)	
	Project 3076	Joint Tactical Radio System (JTRS) Network Enterprise Domain (NED)		(Sunk)
APPN 1319	BA 05	PE 0605030N	(Navy)	
	Project 3077	Joint Tactical Networking Center (JTNC)		
APPN 2040	BA 05	PE 0604280A	(Army)	
	Project 162	Joint Tactical Radio System (JTRS) Network Enterprise Domain (NED)	(Shared)	
APPN 2040	BA 05	PE 0605030A	(Army)	
	Project EA8	Joint Tactical Networking Center (JTNC)		
APPN 3600	BA 05	PE 0605030F	(Air Force)	
	Project 655068	Joint Tactical Networking Center (JTNC)		

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

Appropriation	BY2002 $M			BY2002 $M	TY $M		
	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Dev Est	Current APB Development Objective	Current Estimate
RDT&E	812.9	1743.2	1917.5	1781.1	914.4	1961.8	2084.3
Procurement	0.0	0.0	--	0.0	0.0	0.0	0.0
Flyaway	0.0	--	--	0.0	0.0	--	0.0
Recurring	0.0	--	--	0.0	0.0	--	0.0
Non Recurring	0.0	--	--	0.0	0.0	--	0.0
Support	0.0	--	--	0.0	0.0	--	0.0
Other Support	0.0	--	--	0.0	0.0	--	0.0
Initial Spares	0.0	--	--	0.0	0.0	--	0.0
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	812.9	1743.2	N/A	1781.1	914.4	1961.8	2084.3

Quantity	SAR Baseline Dev Est	Current APB Development	Current Estimate
RDT&E	0	0	0
Procurement	0	0	0
Total	0	0	0

The JTN products are not systems or end items. They are components of software-defined radios. Accordingly, the JTN Program has no unit quantities.

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2014 President's Budget / December 2012 SAR (TY$ M)

Appropriation	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
RDT&E	1767.2	59.1	68.1	15.6	8.4	8.4	8.7	148.8	2084.3
Procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2014 Total	1767.2	59.1	68.1	15.6	8.4	8.4	8.7	148.8	2084.3
PB 2013 Total	1712.7	59.1	30.9	15.6	8.4	8.4	8.7	148.8	1992.6
Delta	54.5	0.0	37.2	0.0	0.0	0.0	0.0	0.0	91.7

Program funding and production quantities listed in this SAR are consistent with the FY 2014 President's Budget (PB). The FY 2014 PB did not reflect the enacted DoD appropriation for FY 2013, nor sequestration; it reflected the President's requested amounts for FY 2013.

Quantity	Undistributed	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	0	0	0	0	0	0	0	0	0
PB 2014 Total	0	0	0	0	0	0	0	0	0	0
PB 2013 Total	0	0	0	0	0	0	0	0	0	0
Delta	0	0	0	0	0	0	0	0	0	0

Cost and Funding

Annual Funding By Appropriation

Annual Funding TY$
1319 | RDT&E | Research, Development, Test, and Evaluation, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2007	--	--	--	--	--	--	221.5
2008	--	--	--	--	--	--	241.5
2009	--	--	--	--	--	--	207.5
2010	--	--	--	--	--	--	200.8
2011	--	--	--	--	--	--	115.4
2012	--	--	--	--	--	--	147.6
2013	--	--	--	--	--	--	59.1
2014	--	--	--	--	--	--	--
2015	--	--	--	--	--	--	5.2
2016	--	--	--	--	--	--	2.8
2017	--	--	--	--	--	--	2.8
2018	--	--	--	--	--	--	2.9
2019	--	--	--	--	--	--	2.9
2020	--	--	--	--	--	--	2.9
2021	--	--	--	--	--	--	3.0
2022	--	--	--	--	--	--	3.0
2023	--	--	--	--	--	--	3.1
2024	--	--	--	--	--	--	3.1
2025	--	--	--	--	--	--	3.3
2026	--	--	--	--	--	--	3.3
2027	--	--	--	--	--	--	3.4
2028	--	--	--	--	--	--	3.5
2029	--	--	--	--	--	--	3.5
2030	--	--	--	--	--	--	3.6
2031	--	--	--	--	--	--	3.6
2032	--	--	--	--	--	--	3.7

2033	--	--	--	--	--	--	3.7
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**1256.7**

Annual Funding BY$
1319 | RDT&E | Research, Development, Test, and Evaluation, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2002 $M	Non End Item Recurring Flyaway BY 2002 $M	Non Recurring Flyaway BY 2002 $M	Total Flyaway BY 2002 $M	Total Support BY 2002 $M	Total Program BY 2002 $M
2007	--	--	--	--	--	--	194.4
2008	--	--	--	--	--	--	208.1
2009	--	--	--	--	--	--	176.5
2010	--	--	--	--	--	--	168.3
2011	--	--	--	--	--	--	94.2
2012	--	--	--	--	--	--	118.2
2013	--	--	--	--	--	--	46.4
2014	--	--	--	--	--	--	--
2015	--	--	--	--	--	--	3.9
2016	--	--	--	--	--	--	2.1
2017	--	--	--	--	--	--	2.0
2018	--	--	--	--	--	--	2.1
2019	--	--	--	--	--	--	2.0
2020	--	--	--	--	--	--	2.0
2021	--	--	--	--	--	--	2.0
2022	--	--	--	--	--	--	2.0
2023	--	--	--	--	--	--	2.0
2024	--	--	--	--	--	--	2.0
2025	--	--	--	--	--	--	2.1
2026	--	--	--	--	--	--	2.0
2027	--	--	--	--	--	--	2.1
2028	--	--	--	--	--	--	2.1
2029	--	--	--	--	--	--	2.0
2030	--	--	--	--	--	--	2.1
2031	--	--	--	--	--	--	2.0
2032	--	--	--	--	--	--	2.0
2033	--	--	--	--	--	--	2.0
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**1046.6**

The Total JTN development funding is managed out of three Military Department (MILDEP) Program Elements (PEs) [0605030A, 0605030F, and 0605030N] across the Future Years Defense Program (FYDP), but realigned in the budget year for execution under the Army RDT&E PE [0605030A].

Annual Funding TY$
2040 | RDT&E | Research, Development, Test, and Evaluation, Army

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
1998	--	--	--	--	--	--	11.0
1999	--	--	--	--	--	--	13.4
2000	--	--	--	--	--	--	35.5
2001	--	--	--	--	--	--	59.8
2002	--	--	--	--	--	--	72.7
2003	--	--	--	--	--	--	62.9
2004	--	--	--	--	--	--	105.6
2005	--	--	--	--	--	--	140.3
2006	--	--	--	--	--	--	131.7
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	--
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	68.1
2015	--	--	--	--	--	--	5.2
2016	--	--	--	--	--	--	2.8
2017	--	--	--	--	--	--	2.8
2018	--	--	--	--	--	--	2.9
2019	--	--	--	--	--	--	2.9
2020	--	--	--	--	--	--	2.9
2021	--	--	--	--	--	--	3.0
2022	--	--	--	--	--	--	3.0
2023	--	--	--	--	--	--	3.1
2024	--	--	--	--	--	--	3.1
2025	--	--	--	--	--	--	3.3
2026	--	--	--	--	--	--	3.3

2027	--	--	--	--	--	--	3.4
2028	--	--	--	--	--	--	3.5
2029	--	--	--	--	--	--	3.5
2030	--	--	--	--	--	--	3.6
2031	--	--	--	--	--	--	3.6
2032	--	--	--	--	--	--	3.7
2033	--	--	--	--	--	--	3.7
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**764.3**

Annual Funding BY$
2040 | RDT&E | Research, Development, Test, and Evaluation, Army

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2002 $M	Non End Item Recurring Flyaway BY 2002 $M	Non Recurring Flyaway BY 2002 $M	Total Flyaway BY 2002 $M	Total Support BY 2002 $M	Total Program BY 2002 $M
1998	--	--	--	--	--	--	11.4
1999	--	--	--	--	--	--	13.8
2000	--	--	--	--	--	--	36.0
2001	--	--	--	--	--	--	59.8
2002	--	--	--	--	--	--	71.9
2003	--	--	--	--	--	--	61.1
2004	--	--	--	--	--	--	100.2
2005	--	--	--	--	--	--	129.3
2006	--	--	--	--	--	--	118.1
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	--
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	52.0
2015	--	--	--	--	--	--	3.9
2016	--	--	--	--	--	--	2.1
2017	--	--	--	--	--	--	2.0
2018	--	--	--	--	--	--	2.1
2019	--	--	--	--	--	--	2.0
2020	--	--	--	--	--	--	2.0
2021	--	--	--	--	--	--	2.0
2022	--	--	--	--	--	--	2.0
2023	--	--	--	--	--	--	2.0
2024	--	--	--	--	--	--	2.0
2025	--	--	--	--	--	--	2.0
2026	--	--	--	--	--	--	2.0

2027	--	--	--	--	--	--	2.0
2028	--	--	--	--	--	--	2.1
2029	--	--	--	--	--	--	2.0
2030	--	--	--	--	--	--	2.0
2031	--	--	--	--	--	--	2.0
2032	--	--	--	--	--	--	2.0
2033	--	--	--	--	--	--	2.0
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**693.8**

The Total JTN development funding is managed out of three Military Department (MILDEP) Program Elements (PEs) [0605030A, 0605030F, and 0605030N] across the Future Years Defense Program (FYDP), but realigned in the budget year for execution under the Army RDT&E PE [0605030A].

Annual Funding TY$
3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2015	--	--	--	--	--	--	5.2
2016	--	--	--	--	--	--	2.8
2017	--	--	--	--	--	--	2.8
2018	--	--	--	--	--	--	2.9
2019	--	--	--	--	--	--	2.9
2020	--	--	--	--	--	--	2.9
2021	--	--	--	--	--	--	3.0
2022	--	--	--	--	--	--	3.0
2023	--	--	--	--	--	--	3.1
2024	--	--	--	--	--	--	3.1
2025	--	--	--	--	--	--	3.3
2026	--	--	--	--	--	--	3.3
2027	--	--	--	--	--	--	3.4
2028	--	--	--	--	--	--	3.5
2029	--	--	--	--	--	--	3.5
2030	--	--	--	--	--	--	3.6
2031	--	--	--	--	--	--	3.6
2032	--	--	--	--	--	--	3.7
2033	--	--	--	--	--	--	3.7
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**63.3**

Annual Funding BY$
3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2002 $M	Non End Item Recurring Flyaway BY 2002 $M	Non Recurring Flyaway BY 2002 $M	Total Flyaway BY 2002 $M	Total Support BY 2002 $M	Total Program BY 2002 $M
2015	--	--	--	--	--	--	4.0
2016	--	--	--	--	--	--	2.1
2017	--	--	--	--	--	--	2.1
2018	--	--	--	--	--	--	2.1
2019	--	--	--	--	--	--	2.0
2020	--	--	--	--	--	--	2.0
2021	--	--	--	--	--	--	2.0
2022	--	--	--	--	--	--	2.0
2023	--	--	--	--	--	--	2.0
2024	--	--	--	--	--	--	2.0
2025	--	--	--	--	--	--	2.1
2026	--	--	--	--	--	--	2.0
2027	--	--	--	--	--	--	2.1
2028	--	--	--	--	--	--	2.1
2029	--	--	--	--	--	--	2.0
2030	--	--	--	--	--	--	2.1
2031	--	--	--	--	--	--	2.0
2032	--	--	--	--	--	--	2.0
2033	--	--	--	--	--	--	2.0
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**40.7**

The Total JTN development funding is managed out of three Military Department (MILDEP) Program Elements (PEs) [0605030A, 0605030F, and 0605030N] across the Future Years Defense Program (FYDP), but realigned in the budget year for execution under the Army RDT&E PE [0605030A].

Low Rate Initial Production

There is no Low Rate Initial Production (LRIP) for the JTN program.

Foreign Military Sales

None

Nuclear Cost

None

Unit Cost

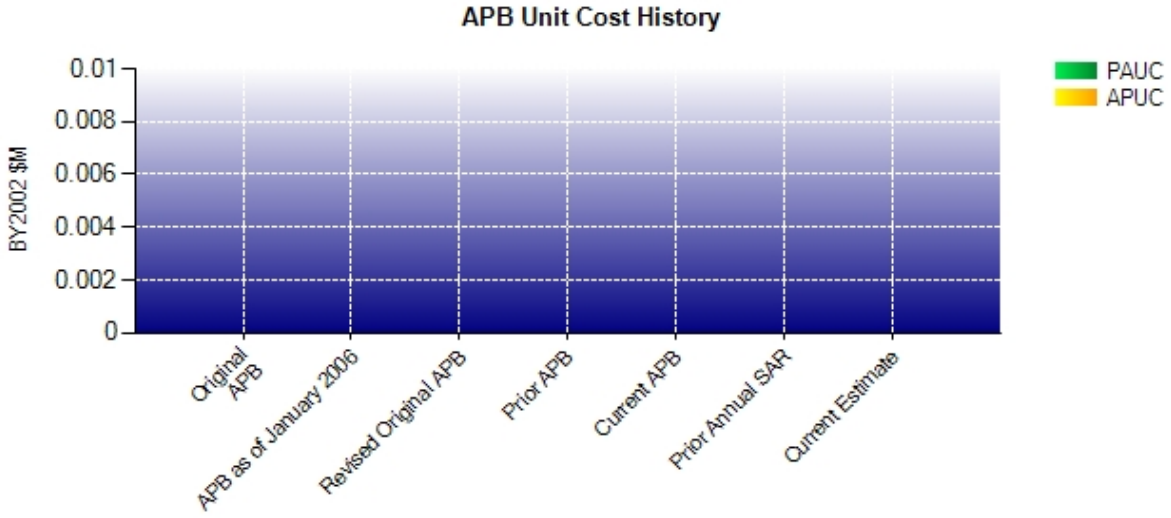
Unit Cost Report

Unit Cost	BY2002 $M Current UCR Baseline (DEC 2009 APB)	BY2002 $M Current Estimate (DEC 2012 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	1743.2	1781.1	
Quantity	0	0	
Unit Cost	--	--	--
Average Procurement Unit Cost (APUC)			
Cost	0.0	0.0	
Quantity	0	0	
Unit Cost	--	--	--

Unit Cost	BY2002 $M Original UCR Baseline (JUN 2002 APB)	BY2002 $M Current Estimate (DEC 2012 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	812.9	1781.1	
Quantity	0	0	
Unit Cost	--	--	--
Average Procurement Unit Cost (APUC)			
Cost	--	0.0	
Quantity	--	0	
Unit Cost	--	--	--

The JTN products are not systems or end items. They are components of software-defined radios. Accordingly, the JTN Program has no unit quantities.

Unit Cost History



		BY2002 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	JUN 2002	N/A	N/A	N/A	N/A
APB as of January 2006	JUN 2002	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	JAN 2008	N/A	N/A	N/A	N/A
Current APB	DEC 2009	N/A	N/A	N/A	N/A
Prior Annual SAR	DEC 2011	N/A	N/A	N/A	N/A
Current Estimate	DEC 2012	N/A	N/A	N/A	N/A

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY $M)

Initial PAUC Dev Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Current SAR Baseline to Current Estimate (TY $M)

Initial APUC Dev Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	JUN 2002	N/A	JUN 2002
Milestone C	N/A	OCT 2006	N/A	N/A
IOC	N/A	N/A	N/A	N/A
Total Cost (TY $M)	N/A	914.4	N/A	2084.3
Total Quantity	N/A	0	N/A	0
Prog. Acq. Unit Cost (PAUC)	N/A	N/A	N/A	N/A

The JTN products are not systems or end items. They are components of software-defined radios. Therefore, the JTN Program has no Milestone C.

Cost Variance

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	914.4	--	--	914.4
Previous Changes				
Economic	+25.4	--	--	+25.4
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	+725.3	--	--	+725.3
Estimating	+327.5	--	--	+327.5
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+1078.2	--	--	+1078.2
Current Changes				
Economic	+7.3	--	--	+7.3
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+84.4	--	--	+84.4
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+91.7	--	--	+91.7
Total Changes	+1169.9	--	--	+1169.9
CE - Cost Variance	2084.3	--	--	2084.3
CE - Cost & Funding	2084.3	--	--	2084.3

Summary Base Year 2002 $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	812.9	--	--	812.9
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	+648.1	--	--	+648.1
Estimating	+253.5	--	--	+253.5
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+901.6	--	--	+901.6
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+66.6	--	--	+66.6
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+66.6	--	--	+66.6
Total Changes	+968.2	--	--	+968.2
CE - Cost Variance	1781.1	--	--	1781.1
CE - Cost & Funding	1781.1	--	--	1781.1

Previous Estimate: December 2011

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+7.3
Increase reflects Below Threshold Reprogramming (BTR) funding for Tactical Targeting Network Technology (TTNT) Development (Navy). (Estimating)	+19.3	+24.1
Increase reflects funding realignment from Air Force in support of Air Force unique requirements (Navy). (Estimating)	+25.2	+31.5
Increase reflects Execution Realignment by JTRS Joint Program Executive Office (Navy). (Estimating)	+1.0	+1.3
Decrease reflects Small Business Innovation Research (SBIR) and Small Business Technology Transfer (SBTR) Assessment (Navy). (Estimating)	-1.9	-2.4
Reflects Required Minimum Distribution (RMD) transfer of funding to Army for execution. (Subtotal)	-0.1	+0.1
Decrease reflects annual transfer of Navy to the executing agent, Army (Navy). (Estimating)	(-7.9)	(-10.3)
Increase reflects annual transfer of Navy & Air Force to the executing agent, Army (Army). (Estimating)	(+15.8)	(+20.7)
Decrease reflects annual transfer of Air Force to the executing agent, Army (Air Force). (Estimating)	(-8.0)	(-10.3)
Increase reflects annual transfer of Operations and Maintenance to Research, Development, Test and Evaluation (Army). (Estimating)	+28.5	+37.1
Adjustment for current and prior escalation. (Estimating)	-2.0	-2.5
Decrease reflects miscellaneous budget adjustments (Air Force). (Estimating)	-0.8	-1.6
Decrease reflects miscellaneous budget adjustments (Navy). (Estimating)	-1.5	-1.7
Decrease reflects miscellaneous budget adjustments (Army). (Estimating)	-1.1	-1.5
RDT&E Subtotal	+66.6	+91.7

Contracts

Appropriation: RDT&E	
Contract Name	**MUOS RRDD**
Contractor	Lockheed Martin Space Systems
Contractor Location	Sunnyvale, CA 94089
Contract Number, Type	N00039-04-C-2009/1, CPAF/CPIF
Award Date	December 05, 2008
Definitization Date	December 28, 2010

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
87.3	N/A	N/A	117.6	N/A	N/A	169.8	171.0

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (2/24/2013)	-58.1	-0.1
Previous Cumulative Variances	-28.4	-0.1
Net Change	-29.7	+0.0

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to greater effort than planned for the Waveform (WF) version 3 (v3.1) Software Integration and Test (SWIT), Program Change Report (PCR) rework and the retention of staff to cover extended integration and test.

General Contract Variance Explanation

An Over Target Schedule (OTS) was implemented in July 2011, which resulted in all cumulative schedule variances being reset to zero (BCWS = BCWP). A similar request from the MUOS contractor for Over Target Baseline (OTB) has been denied. Since an OTB was denied, monthly cost variances will occur through the end of the contract as the remaining budget is approximately 40% of the Estimate to Completion (ETC).

Contract Comments

This contract is more than 90% complete; therefore, this is the final report for this contract.

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the fact that the MUOS contract was undefinitized with an initial Not-to-Exceed (NTE) price of $87.3M in December 2008. The contract was definitized at $117.6M in December 2010.

The JTN PM estimated price at completion is $171.0M, and is based on the 6 month CPI and the weighted value of program level risks. The decrease to the estimated price at completion is a result of a JTN program office assessment of the Contractor's performance and risks since the OTS. The JTN PM EAC exceeds the Contractor's estimated price at completion of $169.8M. This is due to the JTN PM EAC assuming a lower projected performance factor than the Contractor based on the 6 month CPI.

Lockheed Martin briefed in January 2013 that they are discontinuing the Common Load Line (CLL) sharing distribution of costs between CLIN 0001 (PMW 146) and CLIN 0400 (JTN). Now that MUOS WF v3.1 FQT and related testing has been completed, all costs can be segregated between the CLINs without the need for sharing of any costs.

Appropriation: RDT&E

Contract Name	**SINCGARS SwISS**
Contractor	ITT Corporation
Contractor Location	FORT WAYNE, IN 46818
Contract Number, Type	N00039-09-D-0020/1, IDIQ/CPFF/CPIF
Award Date	May 15, 2009
Definitization Date	May 15, 2009

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
62.0	N/A	N/A	62.0	N/A	N/A	62.0	62.0

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this IDIQ/CPFF/CPIF contract.

General Contract Variance Explanation

Contract performance data is not required for this contract, as no active task order exists that exceeds the monetary threshold for earned value metrics reporting.

Contract Comments

The Single Channel Ground and Airborne Radio System (SINCGARS)/Enterprise Network Services (ENS) Phase 1 (Software Internet Controller (SoftINC)) Software In-Service Support (SwISS) contract is a hybrid Indefinite Delivery/Indefinite Quantity (ID/IQ) cost type contract. This contract provides for technical/general support (Cost Plus Fixed Fee (CPFF)), upgrades/maintenance (Cost Plus Incentive Fee (CPIF)) as well as enhancements (CPIF) for the waveform/net services. The contract was awarded to ITT/Exelis in May 2009 with a contract price of $62.0M and a 5 year period of performance. There are 5 Task Orders (TOs) on contract and TOs 1-4 are complete. At time of contract award, TO 1 (SoftINC) was awarded, and because the value was greater than $20M, a monthly Cost Performance Report (CPR) Contract Data Requirements List (CDRL) was required for upload to the Defense Cost and Resource Center (DCARC) Earned Value Metrics (EVM) repository. The SoftINC Formal Qualification Test (FQT) was completed in April 2011 and the TO was closed out in November 2011, eliminating the monthly CPR CDRL requirement.

(1) Task Order 1: ENS Phase 1: SoftINC; Value = $25.2M; Period of Performance is Complete; EVMS = Yes.
(2) Task Order 2: Technical Support; Value = $0.133M; Period of Performance is Complete; EVMS = No.
(3) Task Order 3: General Support; Value = $0.319M; Period of Performance is Complete; EVMS = No.
(4) Task Order 4: Packet Mode; Value = $1.7M; Period of Performance is Complete; EVMS = No.
(5) Task Order 5: Technical Support; Value = $1.8M; Period of Performance is through May 2013; EVMS = No.

Option Period 2 has been exercised, which extends the Period of Performance of this contract until May 2013.

Appropriation: RDT&E

Contract Name	**UHF/HF SwISS**
Contractor	Rockwell Collins, Inc.
Contractor Location	CEDAR RAPIDS, IA 52406
Contract Number, Type	N00039-09-D-0021, IDIQ/CPFF/CPIF
Award Date	June 19, 2009
Definitization Date	June 19, 2009

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
45.4	N/A	N/A	45.4	N/A	N/A	45.4	45.4

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this IDIQ/CPFF/CPIF contract.

General Contract Variance Explanation

Contract performance data is not required for this contract, as no active task order exists that exceeds the monetary threshold for earned value metrics reporting.

Contract Comments

The High Frequency/Ultra High Frequency SATCOM (HF/UHF SATCOM)/ Enterprise Network Services (ENS) Phase 1 (Tactical Data Controller (TDC)) Software In-Service Support (SwISS) contract is a hybrid Indefinite Delivery/Indefinite Quantity (ID/IQ) cost type contract. This contract provides for technical/general support (Cost Plus Fixed Fee (CPFF)), upgrades/maintenance (Cost Plus Incentive Fee (CPIF)) as well as enhancements (CPIF) for the waveform/net services. The contract was awarded to Rockwell Collins, Inc. in June 2009 with a contract price of $45.4M and a 5 year period of performance. There are 5 task orders (TOs) on contract, and all 5 are complete. Specifically, at time of contract award, TO 1 Tactical Data Controller (TDC) was awarded, and because the value was greater than $20M, a monthly Cost Performance Report (CPR) Contract Data Requirements List (CDRL) was required for upload to the Defense Cost and Resource Center (DCARC) Earned Value Metrics (EVM) repository. The TDC Formal Qualification Test (FQT) was completed in April 2011 and the TO was closed out in September 2011, eliminating the monthly CPR CDRL requirement.

(1) Task Order 1: ENS Phase 1: TDC; Value = $20.5M; Period of Performance is Complete; EVMS = Yes.
(2) Task Order 2: Technical Support; Value = $0.187M; Period of Performance is Complete; EVMS = No.
(3) Task Order 3: HF Information Assurance (IA) Lean Six Sigma (LSS); Value = $0.136M; Period of Performance is Complete; EVMS = No.
(4) Task Order 4: Full Duplex; Value = $0.325M; Period of Performance is Complete; EVMS = No.
(5) Task Order 5: HF IA Burn-down; Value = $0.143M; Period of Performance is Complete; EVMS = No.

Option Period 2 has been exercised, which extends the Period of Performance of this contract until June 2013.

Appropriation: RDT&E

Contract Name	**Bowman VHF WF**
Contractor	ITT Corporation
Contractor Location	FORT WAYNE, IN 46818
Contract Number, Type	N00039-10-D-0047, IDIQ/CPFF/CPIF
Award Date	September 16, 2010
Definitization Date	September 16, 2010

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
49.5	N/A	N/A	49.5	N/A	N/A	49.5	49.5

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this IDIQ/CPFF/CPIF contract.

General Contract Variance Explanation

Contract performance data is not required for this contract, as no active task order exists that exceeds the monetary threshold for earned value metrics reporting.

Contract Comments

The JTRS Bowman (JBW) Software In-Service Support (SwISS) contract is a hybrid Indefinite Delivery/Indefinite Quantity (ID/IQ) cost type contract. This contract provides for technical/general support (Cost Plus Fixed Fee (CPFF)), upgrades/maintenance (Cost Plus Incentive Fee (CPIF)) as well as enhancements (CPIF) for the waveform. The contract was awarded to ITT/Exelis in September 2010 with a contract price of $49.5M and a 5 year period of performance. There are 5 TOs on the contract and TOs 1-3 are complete. None of these efforts require Earned Value Metrics (EVMS) data be uploaded monthly to the Defense Cost and Resource Center (DCARC) Central Repository.

(1) Task Order 1: SwISS Information Assurance (IA) Standards; Value = $4.5M; Period of Performance is Complete; EVMS = No.
(2) Task Order 2: Test and Evaluation on Technical Support for Communication and Electronic Security Group (CESG); Value = $0.074M; Period of Performance is Complete; EVMS = No.
(3) Task Order 3: Technical Maintenance/Support for Radios; Value = $0.027M; Period of Performance is Complete; EVMS = No.
(4) Task Order 4: Re-port JBW on Soldier Radio Multi-function (SRM); Value = $.051M; Period of Performance is through April 2013; EVMS = No.
(5) Task Order 5: IA Remediation; Value = $.297M; Period of Performance is through April 2013; EVMS = No.

Appropriation: RDT&E

Contract Name	**Wideband Networking Waveform SwISS**
Contractor	General Dynamics C4 Systems
Contractor Location	Scottsdale, AZ 85257
Contract Number, Type	N65236-11-D-4806, IDIQ/CPFF/CPIF
Award Date	September 20, 2011
Definitization Date	September 20, 2011

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
64.6	N/A	N/A	64.6	N/A	N/A	64.6	64.6

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this IDIQ/CPFF/CPIF contract.

General Contract Variance Explanation

Contract performance data is not required for this contract, as no active task order exists that exceeds the monetary threshold for earned value metrics reporting.

Contract Comments

The Wideband Networking Waveform (WNW) Software In-Service Support (SwISS) contract is a hybrid Indefinite Delivery/Indefinite Quantity (ID/IQ) cost type contract. This contract provides for technical/general support (Cost Plus Fixed Fee (CPFF)), upgrades/maintenance (Cost Plus Incentive Fee (CPIF)) as well as enhancements (CPIF) for the waveform/net services. The contract was awarded to General Dynamics C4 Systems in September 2011 with a contract price of $64.6M and a 5 year period of performance. There are 7 TOs on the contract and TOs 1 and 2 are complete. None of these efforts require Earned Value Metrics (EVMS) data be uploaded monthly to the Defense Cost and Resource Center (DCARC) Central Repository.

(1) Task Order 1: Technical Support; Value = $1.3M; Period of Performance is Complete; EVMS = No.
(2) Task Order 2: Network Integration Evaluation (NIE) Support; Value = $0; Period of Performance is Complete; EVMS = No.
(3) Task Order 3: Waveform Development Environment/Waveform Testing Environment (WDE/WTE) Stand up; Value = $0.826; Period of Performance is through April 2013; EVMS = No.
(4) Task Order 4: WNW 4.0.7 Information Assurance (IA) Fixes; Value = $2.7M; Period of Performance through July 2013; EVMS = No.
(5) Task Order 5: Technical Support; Value = $1.3M; Period of Performance through September 2013; EVMS = No.
(6) Task Order 6: Haipe and Manet Updates/Modifications; Value = $6.2M; Period of Performance through January 2014; EVMS = No.
(7) Task Order 7: Critical IA Fixes; Value = $1.2M; Period of Performance through December 2013; EVMS = No.

Appropriation: RDT&E

Contract Name	**JENM**
Contractor	Boeing
Contractor Location	Huntington Beach, CA 92806
Contract Number, Type	N66001-10-D-0069, IDIQ/CPFF/CPIF
Award Date	April 16, 2010
Definitization Date	April 16, 2010

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
21.5	N/A	N/A	41.5	N/A	N/A	41.2	46.8

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2012)	-0.1	-0.1
Previous Cumulative Variances	-2.0	-1.8
Net Change	+1.9	+1.7

Cost And Schedule Variance Explanations

The favorable net change in the cost variance is due to retroactive rate adjustments, retention of staff to complete development work and the use of a more senior engineering labor mix than planned for Integration and Test.

The favorable net change in the schedule variance is due to completion of the JENM 2.5 Formal Qualification Test (FQT).

Contract Comments

This contract is more than 90% complete; therefore, this is the final report for this contract.

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to Boeing having to address security and technical requirements, adding Mobile User Objective System (MUOS) capabilities, correcting ineffective software efficiency efforts, and accommodating the late receipt of government furnished equipment.

The JTRS Enterprise Network Manager (JENM) Software In-Service Support (SwISS) contract is a hybrid Indefinite Delivery/Indefinite Quantity (ID/IQ) cost type contract. This contract provides for technical support (Cost Plus Fixed Fee (CPFF)), upgrades/maintenance (Cost Plus Incentive Fee (CPIF)) and enhancements (CPIF). The contract was awarded to Boeing in April 2010 with a value of $54.9M, and in February 2012, a Justification and Approval was approved raising the contract ceiling to $75.4M. The contract has a 5 year period of performance. At time of contract award, a CPIF task order (TO) for development of the Phase 2 enhancement task was awarded with a target price of $21.5M (which has subsequently risen to $41.5M), requiring a monthly Cost Performance Report be provided to the Defense Cost and Resource Center (DCARC) Earned Value Metrics repository.

While there are fourteen TOs on contract, only 4 are ongoing:

(1) Task Order 1: JENM Phase 2; Value = $41.5; Period of Performance is through December 2012; EVMS = Yes. A modification is pending to extend the Period of Performance to accommodate acceptance of late Contract Data Requirements List (CDRL) deliveries.
(2) Task Order 9: Technical Support; Value = $1.8M; Period of Performance is through April 2013; EVMS = No.
(3) Task Order 13: Joint Reference Implementation Laboratory (JRIL) Technical Support and Fielding Support; Value = $2.1M; Period of Performance is through August 2013; EVMS = No.
(4) Task Order 14 Test Event and Technical Support; Value = $2.5; Period of Performance is through June 2013; EVMS = No.

TOs 2-8 and 10-12 are complete.

The JTN's allocation of the total JENM Phase 2 contract cost established a Negotiated Contract Cost of $38.5M and a Contract Target Price of $41.5M through Contract Modification P00010.

The $19.5M price increase since the last SAR report in December 2011 was due to Contract Modification P00010 issued to the JENM contract to incorporate changes based on the replan of Task Order 1.

The JTN estimate price at completion of $46.8M is based on the Negotiated Contract Cost (NCC) and the weighted value of program level risks. The increase to the estimated price at completion is a result of a JTN program office assessment of outstanding contract requirements and the weighted value of program level risks. The JTN EAC exceeds the Contractor’s estimated price at completion of $41.2M. This is due to the JTN assessment of outstanding contract requirements and the weighted value of program level risks.

Appropriation: RDT&E

Contract Name	**Soldier Radio Waveform SwISS**
Contractor	Harris Corporation
Contractor Location	Rochester, NY 14610
Contract Number, Type	N66001-12-D-0043, IDIQ/CPFF/CPIF
Award Date	April 30, 2012
Definitization Date	April 30, 2012

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
25.8	N/A	N/A	25.8	N/A	N/A	25.8	25.8

Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this IDIQ/CPFF/CPIF contract.

General Contract Variance Explanation

Contract performance data is not required for this contract, as no active task order exists that exceeds the monetary threshold for earned value metrics reporting.

Contract Comments

This is the first time this contract is being reported.

The Soldier Radio Waveform (SRW) Software In-Service Support (SwISS) contract is a hybrid Indefinite Delivery/Indefinite Quantity (ID/IQ) cost type contract. This contract provides for technical/general support (Cost Plus Fixed Fee (CPFF)), upgrades/maintenance (Cost Plus Incentive Fee (CPIF)) as well as enhancements (CPIF) for the waveform. The contract was awarded to Harris in April 2012 with a contract price of $25.8M and a 5 year period of performance. There are 3 TOs on the contract. This effort does not require Earned Value Metrics (EVMS) data be uploaded monthly to the Defense Cost and Resource Center (DCARC) Central Repository.

(1) Task Order 1: Technical Support; Value = $1.0M; Period of Performance is through June 2013; EVMS = No.
(2) Task Order 2: Combat Network Radio (CNR) Pre-emption Implementation; Value = $1.0M; Period of Performance is through January 2014; EVMS = No.
(3) Task Order 3: Waveform Development Environment/Waveform Testing Environment (WDE/WTE) Stand-up; Value = $1.9M; Period of Performance is through February 2014; EVMS = No.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	0	0	0	--
Total Program Quantities Delivered	0	0	0	--

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	2084.3	Years Appropriated	16
Expenditures To Date	1718.5	Percent Years Appropriated	44.44%
Percent Expended	82.45%	Appropriated to Date	1826.3
Total Funding Years	36	Percent Appropriated	87.62%

The above data is current as of 4/22/2013.

Operating and Support Cost

JTN

Assumptions and Ground Rules

Cost Estimate Reference:

Based on service position (Cost Analysis Improvement Group (CAIG) approved) as depicted in the January 16, 2008 Acquisition Program Baseline (APB), plus updates for actuals and budget adjustments.

Sustainment Strategy:

The JTN program office maintains software only and does not have any hardware (no quantities). JTN products are integrated (ported) onto radios and net managers that are maintained by hardware programs. Software Maintenance will continue from FY09 through FY33. The sustainment cost methodology begins at the end of each waveform's Formal Qualification Test (FQT) and is applied as a declining percentage of initially-estimated development cost. This costing methodology was established per the Office of the Deputy Assistant Secretary of the Army for Cost and Economics (ODASA-CE) recommendation (IAW CAIG-accepted National Aeronautics and Space Administration (NASA) Standard for expected software maintenance levels) and as approved by USD (AT&L) (including the CAIG) during NED's 2008 APB reset. Sustainment support for the waveforms and net managers is accomplished via the Software In-Service Support (SwISS) contracts. These contracts provide for both the waveforms and net managers technical support, maintenance, and upgrades. JTN software is in initial fielding. Software modifications and upgrades include repair of deficiencies reported by the user, preplanned product improvements based on emerging requirements and other types of system change packages. After testing of the modified code, updates will be released to the field as integrated builds. Major changes to the code will be released as a new version. The hardware platforms will be responsible for updating fielded system.

Antecedent Information:

Antecedent Information is not applicable for this program.

Unitized O&S Costs BY2002 $M		
Cost Element	**JTN Average Annual Cost (All Waveforms)**	**Network Enterprise Domain (Antecedent) N/A**
Unit-Level Manpower	0.000	0.000
Unit Operations	0.000	0.000
Maintenance	0.000	0.000
Sustaining Support	28.256	0.000
Continuing System Improvements	0.000	0.000
Indirect Support	0.000	0.000
Other	0.000	0.000
Total	28.256	--

Unitized Cost Comments:

Unitized Cost Information is not applicable for this program.

	Total O&S Cost $M			
	Current Development APB Objective/Threshold		Current Estimate	
	JTN		JTN	Network Enterprise Domain (Antecedent)
Base Year	739.0	812.9	682.6	N/A
Then Year	1221.0	N/A	1163.9	N/A

Total O&S Costs Comments:
Demilitarization is not applicable for this program.

(1) Current Estimates are lower than expected at the time of the APB due to the change in acquisition strategy in FY14, which will have $30M of funding being executed out of the Army RDT&E PE in FY14 vice the Navy OM,N PE. There was a decrease of $22M due to PR-11 ISO Multifunctional Information Distribution System's (MIDS) OM,N and Advanced Tactical Data Link Systems (ATDLS) reduction by the Data Analysis Working Group (DAWG). Additionally, there was a decrease of $4M due to miscellaneous budget adjustments.

(2) Current Estimate has decreased since the 2011 SAR due to the change in acquisition strategy in FY14, which will have $30M of funding being executed out of the Army RDT&E PE in FY14 vice the Navy OM,N PE.

Disposal Costs

Disposal Costs are not applicable for this program.