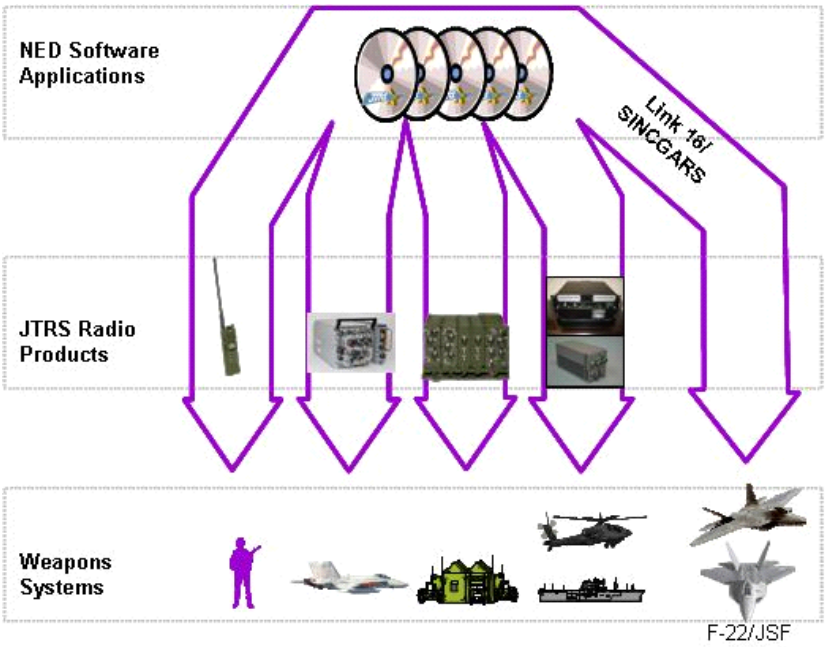
Selected Acquisition Report (SAR)

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



JTRS NED

As of December 31, 2011

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Designation And Nomenclature (Popular Name)

Joint Tactical Radio System Network Enterprise Domain (JTRS NED)

DoD Component

DoD

Joint Participants

Army; Navy; Air Force; Marine Corps.

Army is the lead per SECDEF Memo dated August 31, 2009.

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

The Joint Tactical Radio System (JTRS) Network Enterprise Domain (NED) (formerly Joint Waveform Program) Program Office manages the development and sustainment of three categories of products or software applications: legacy waveforms, networking waveforms, and Network Enterprise Services (NES). These JTRS NED software applications are components of JTRS radios and support net-centric operational warfare at sea, in the air, and on the ground. Legacy waveforms, when instantiated on a JTRS radio, produce radio performance qualities consistent and interoperable with corresponding DoD radio systems. Legacy waveform acquisition is based on developing products that mimic legacy radio performance through software, as defined by increments by the Joint Capabilities Integration and Development System (JCIDS) process in the JTRS Operational Requirements Document (ORD) and follow-on Capability Development Documents. Networking waveforms, when integrated on JTRS radios, provide Internet Protocol (IP) based networked communications that can extend the Global Information Grid (GIG) to the last tactical mile.

Networked radios in the tactical environment will provide the capability to relay and share voice, data and video transmissions. NES software products are those software applications that are essential to networking waveforms to establish and manage IP networks and achieve IP-based interoperability. Networking waveforms with their NES products are new capabilities that will evolve in terms of functionality, performance, and security throughout their life cycle in response to changing warfighter needs for networked voice, video and data communications, changing technology and GIG standards, and new security vulnerabilities or threats.

Executive Summary

The Joint Program Executive Office (JPEO), Joint Tactical Radio System (JTRS), Network Enterprise Domain (NED), is an Acquisition Category (ACAT) ID program responsible for the development and maintenance of waveforms and Network Enterprise Services software applications. These products are developed using an evolutionary, incremental strategy and are instantiated as components/software applications on the JTRS radios as developed by the other JTRS ACAT ID product lines.

JTRS NED products are not systems or end items. They are components of JTRS radios. Accordingly, the JTRS NED Program has no unit quantities and no stand-alone Milestone C decision points. JTRS NED products are altered during integration with the JTRS radios and will not be delivered directly to combat users. Consequently, the fielding decision on each JTRS NED product will be made concurrent with the fielding decision for the first radio containing that product. JTRS NED products are delivered when they complete Formal Qualification Testing (FQT) and they are ready to be integrated with radios. Once a JTRS NED product has completed FQT, maintenance, enhancements or upgrades are achieved via a Software In-Service Support (SwISS) Indefinite Delivery/Indefinite Quantity (ID/IQ) contract that was developed/awarded in accordance with the JTRS Enterprise Business Model.

As a result of the schedule breach of the Mobile User Objective System (MUOS) Waveform v3.1 FQT date, the JTRS NED Program Manager (PM) submitted a Program Deviation Report (PDR). The JPEO JTRS endorsed the PDR on September 14, 2011 and forwarded to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology **(**ASA(ALT)). JTRS NED identified the schedule slip in its September 2011 Exception SAR. The MUOS Red Team briefed the Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)) on November 22, 2011. The completion and resolution of the USD(AT&L) assessment is forthcoming and is expected as early as February 2012. Finally, the revised Acquisition Program Baseline (APB) is in the drafting stage and is expected Second Quarter, FY 2012.

Development of the JTRS NED products (legacy/networking waveforms and Network Enterprise Services software applications) remains on track to meet APB cost, schedule, and performance thresholds with the exception of MUOS Waveform v3.1.

Waveform Development Status:

Wideband Networking Waveform (WNW): WNW successfully completed FQT in a laboratory environment in December 2009, transitioning to Software In-Service Support (SwISS). During Network Integration Evaluation (NIE) 12.1 (October/November 2011), WNW was not a System Under Evaluation (SUE), but rather it helped to form the backbone of the Objective Architecture Assessment in support of 1st Battalion, 35th Armored Regiment (1-35 AR). This backbone allowed other SUE's to be evaluated. The WNW SwISS contract was awarded on September 20, 2011, the Post-Award Conference occurred on December 8, 2011 followed by the first Technical Interchange Meeting (TIM), which took place on December 9, 2011. WNW v4.0.5.1 was delivered in January 2012.

Soldier Radio Waveform (SRW): SRW successfully completed FQT in a laboratory environment in January 2009, transitioning to SwISS. At NIE 12.1, SRW supported the bridge and objective architecture assessments as well as the Handheld, Manpack, Small Form Fit (HMS) Rifleman Radio Initial Operational Test and Evaluation (RR IOT&E). The SRW development contract has been extended to August 31, 2012. A follow-on SRW SwISS contract is scheduled to award in the third quarter FY 2012.

Ultra High Frequency (UHF) Satellite Communications (SATCOM): UHF SATCOM successfully completed FQT in a laboratory environment in March 2007, transitioning to SwISS. The UHF SATCOM Full Duplex capability was delivered on April 1, 2011. Additional maintenance updates have been deferred until notification of user need is received.

Enhanced Position Location Reporting System (EPLRS): EPLRS successfully completed FQT in a laboratory environment in December 2007, transitioning to SwISS. In December 2010, a Joint Configuration Steering Board

endorsed the JTRS NED proposal to eliminate planned maintenance and enhancements of the JTRS EPLRS waveform as a requirement for JTRS Increment 1. This endorsement was further supported by a Joint Capabilities Board action and Joint Requirements Oversight Council decision in April 2011. As a result, an EPLRS SwISS contract is not being planned at this time.

Link-16: Link-16 successfully completed FQT in a laboratory environment in April 2009, transitioning to SwISS. The Link-16 crypto modernization enhancement task (CMET) modification/descope task order (TO) was awarded in January 2012. The Link-16 CMET delivery is on schedule for January 2013. Finally, a TO that will correct problem reports (PR) found during operational test is expected to award in February 2012.

Mobile User Objective System (MUOS): MUOS WF v3.1 Waveform Integration Point (WIP)-2 was successfully completed on December 22, 2011, one week ahead of schedule, where it was shown working on an HMS manpack. Further, in December 2011, the MUOS contractor conducted nightly reliability runs of the red/black waveform on Waveform Development Environment (WDE) v1.2, and the results revealed that the waveform demonstrated a call reliability of 97.1%, which exceeded the 95% goal for WIP-2. The WIP-2 Information Assurance (IA) assessment is scheduled for February 2012. The FQT is still on schedule for August 2012.

JTRS BOWMAN Waveform (JBW): JBW successfully completed FQT in a laboratory environment in July 2007, transitioning to SwISS. The JBW Test Readiness Review (TRR) was successfully conducted on December 6, 2011. As a result of the TRR, FQT commenced and was successfully completed on December 14, 2011.

Single Channel Ground and Airborne Radio System (SINCGARS): SINCGARS successfully completed FQT in a laboratory environment in December 2005, transitioning to SwISS. The SINCGARS packet mode upgrade, version 1.5.0, was officially released to the Information Repository (IR) on November 30, 2011. The period of performance for task orders 1-4 is complete and the close out process has commenced.

Very High Frequency (VHF)/Ultra High Frequency (UHF) Line of Sight (VULOS): VULOS successfully completed FQT in a laboratory environment in September 2005. The FQT for VULOS (with Air Traffic Control (ATC)), scheduled to complete on November 30, 2011, completed two (2) weeks ahead of schedule on November 16, 2011. JTRS Test & Evaluation Laboratory (JTEL) completed v2.1 Software Communications Architecture (SCA) and Application Program Interfaces (API) assessments in December 2011, and National Security Agency (NSA) completed the IA Assessment on December 23, 2011.

HAVE QUICK II (HQII): HQII successfully completed FQT in a laboratory environment in August 2006. HQII development has stopped and closeout is scheduled for March 2012.

High Frequency (HF): HF successfully completed FQT in a laboratory environment in December 2009, transitioning to SwISS. An HF interim “Quick Look” Assessment by NSA is scheduled for February 2012 to evaluate corrections from IA findings. The final delivery is anticipated in February 2012; thereafter, NSA will conduct the HF Delta IA Assessment on or about February 22, 2012.

Network Management and Planning Status:

SRW Network Manager (SRWNM): SRWNM successfully completed FQT in January 2011, transitioning to SwISS. At NIE 12.1, SRWNM successfully participated with the HMS RR as a System Under Test (SUT) in the RR IOT&E event. Independent of IOT&E, SRWNM created the NIE SRW master plan, consisting of 12 SRW networks and 184 radios from four (4) different vendors and aerial nodes. To display monitoring at the Network Integration Service Center (NISC) Evaluation Control Center (ECC) on the White Sands Missile Range (WSMR) Main Post, SRWNM monitoring was established on the NIE NISC NetOps server stack. This was accomplished by accessing the remote Harris Network Manager Access Node (NMAN) radio 25 miles away via an encrypted terrestrial data link. An SRWNM monitor at the NISC observed the Apache Airborne, Maritime and Fixed Station (AMF) node joining a 1st Squadron, 1st Cavalry Regiment (1-1 CAV) SRW network. Security Verification Testing (SVT) was performed December 5-9, 2011. The testing of SRWNM was successful and all of the test cases passed.

JTRS Enterprise Network Manager (JENM): JENM Phase 1 system was introduced to soldiers as a SUE at NIE 12.1. JENM created, loaded, and monitored the WNW networks at the 1-35 AR; 4th Battalion, 27th Field Artillery (4-27 FA); 2nd Brigade, 1st Armored Division (2-1 AD); and centrally at the NISC. JENM Phase 1 will be the JTRS network manager to plan, monitor and reconfigure the NIE 12.2 network. The final release of JENM Phase 2 is scheduled for FQT in September 2012 and is aligned to participate in NIE 13.1.

JTRS WNW Network Manager (JWNM): JWNM successfully completed FQT in a laboratory environment in March 2010, transitioning to SwISS. All JWNM Contract Data Requirements Lists (CDRLs) have been delivered to and accepted by the Government and all open Software Anomaly Reports have been transitioned to the JENM Phase 1 effort for resolution.

Enterprise Network Services (ENS): Both ENS Phase 1 (Software Internet Controller (SoftINC)) and ENS Phase 1 (Tactical Data Controller (TDC)) FQTs were successfully completed in April 2011. Both products have successfully completed NSA IA assessments, and JTEL SCA 2.2.2 evaluations. ENS Phase 1 (SoftINC and TDC) have transitioned to SwISS. No maintenance efforts are currently underway.

With the exception of MUOS as discussed in this report, 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	☐
Unit Cost	PAUC	☐
	APUC	☐

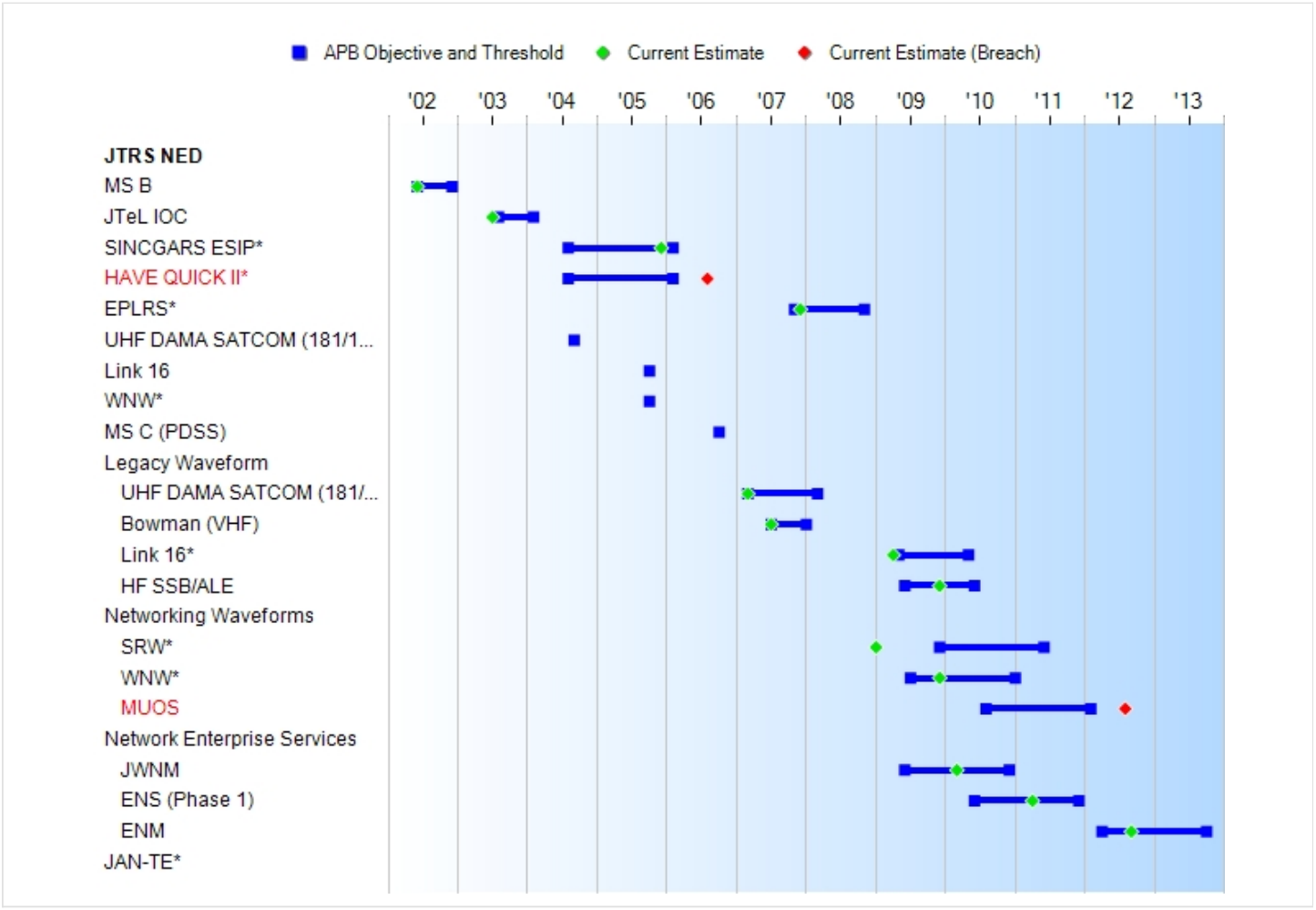
Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Explanation of Breach

The Have Quick II Formal Qualification Testing (FQT) was completed on August 22, 2006 which was beyond the Acquisition Program Baseline (APB) Threshold. This breach was reported in the December 2006 SAR.

The Mobile User Objective System (MUOS) FQT breach was previously reported in the September 2011 SAR.

Schedule


APB Objective and Threshold
Current Estimate
Current Estimate (Breach)
'02
'03
'04
'05
'06
'07
'08
'09
'10
'11
'12
'13
JTRS NED
MS B
JTeL IOC
SINCGARS ESIP*
HAVE QUICK II*
EPLRS*
UHF DAMA SATCOM (181/1...
Link 16
WNW*
MS C (PDSS)
Legacy Waveform
UHF DAMA SATCOM (181/...
Bowman (VHF)
Link 16*
HF SSB/ALE
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
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
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
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	**AUG 2012**[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	SEP 2012 (Ch-1)
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
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) Enterprise Network Manager (ENM) Current Estimate changed from April 2012 to September 2012 due to the rebaseline of the Phase 2 development task order. The five (5) month extension of the period of performance for the rebaseline effort is due to efforts to complete software design maturity, changes in Joint ENM Phase 2 development to align with bi-annual Army Network Integration Evaluations (NIEs), failure to achieve anticipated software efficiencies, and the delay in providing Government Furnished Equipment (GFE) radios to the contractor.

Memo

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

Performance

Characteristics	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
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
UHF DAMA SATCOM (181/182/183)*	225-400 MHz 5 and 25KHz 64Kbps	N/A	N/A	N/A	N/A
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)
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					
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;	960MHz - 1215MHz;	960MHz- 1215MHz ;	960MHz- 1215MHz ;

		3MHz; 118/1137Kbps, w/FEC	3MHz; 118/1137Kbps, w/FEC	3MHz; 118/ 1137K bps, w/FEC	3MHz; 118/ 1137K bps, 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 minutes
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) SATCOM DAMA R/R IP data w/all applicable Increment 1	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 MANPACK; WNW R/R IP data with HF and UHF SATCOM	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 data with HF and UHF SATCOM DAMA on the GMR

		waveforms and form factors	DAMA on the GMR		
JAN-TE (Network Throughput)*	N/A	TBD	TBD	TBD	TBD

Requirements Source: JTRS 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
MUOS - Mobile User Objective System
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
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). The JTRS Increment 1 focuses on initial near-term waveform software capability development of the KPP waveforms.

Track To Budget

General Memo

The total JTRS development funding is managed out of three Military Department (MILDEP) Program Elements (PEs) [0604280A (shared), 0604280F (shared), and 0604280N] across the Future Years Defense Program (FYDP), but realigned in the budget year for execution under the Navy RDT&E PE [0604280N].

RDT&E

APPN 1319	BA 05	PE 0604280N	(Navy)
	Project 3076	JTRS Network Enterprise Domain (JNED)	
APPN 2040	BA 05	PE 0604280A	(Army)
	Project 162	Joint Tactical Radio System/Network Enterprise Domain (NED)	(Shared)
APPN 3600	BA 05	PE 0604280F	(Air Force)
	Project 655068	Joint Tactical Radio System (JTRS)	(Shared)

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

	BY2002 $M			BY2002 $M	TY $M		
Appropriation	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	1714.5	914.4	1961.8	1992.6
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	1714.5	914.4	1961.8	1992.6

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

The JTRS NED program has no unit quantities.

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2013 President's Budget / December 2011 SAR (TY$ M)

Appropriation	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
RDT&E	1618.7	94.0	59.1	30.9	15.6	8.4	8.4	157.5	1992.6
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 2013 Total	1618.7	94.0	59.1	30.9	15.6	8.4	8.4	157.5	1992.6
PB 2012 Total	1619.1	94.2	56.0	29.4	15.6	8.1	8.4	157.6	1988.4
Delta	-0.4	-0.2	3.1	1.5	0.0	0.3	0.0	-0.1	4.2

Quantity	Undistributed	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	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 2013 Total	0	0	0	0	0	0	0	0	0	0
PB 2012 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	--	--	--	--	--	--	114.5
2012	--	--	--	--	--	--	94.0
2013	--	--	--	--	--	--	59.1
2014	--	--	--	--	--	--	10.3
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	**--**	**--**	**--**	**--**	**--**	**--**	**1212.5**

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	--	--	--	--	--	--	76.0
2013	--	--	--	--	--	--	47.0
2014	--	--	--	--	--	--	8.0
2015	--	--	--	--	--	--	4.0
2016	--	--	--	--	--	--	2.1
2017	--	--	--	--	--	--	2.1
2018	--	--	--	--	--	--	2.1
2019	--	--	--	--	--	--	2.1
2020	--	--	--	--	--	--	2.0
2021	--	--	--	--	--	--	2.1
2022	--	--	--	--	--	--	2.0
2023	--	--	--	--	--	--	2.1
2024	--	--	--	--	--	--	2.0
2025	--	--	--	--	--	--	2.1
2026	--	--	--	--	--	--	2.1
2027	--	--	--	--	--	--	2.1
2028	--	--	--	--	--	--	2.1
2029	--	--	--	--	--	--	2.1
2030	--	--	--	--	--	--	2.1
2031	--	--	--	--	--	--	2.1
2032	--	--	--	--	--	--	2.1
2033	--	--	--	--	--	--	2.1
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**1014.0**

The total JTRS developmental funding is managed out of three Military Department (MILDEP) Program Elements (PEs) [0604289A (shared), 0604280F (shared), and 0604280N] across the Future Years Defense Program (FYDP), but realigned in the budget year for execution under the Navy RDT&E PE [0604280N].

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	--	--	--	--	--	--	10.3
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	**--**	**--**	**--**	**--**	**--**	**--**	**706.5**

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	--	--	--	--	--	--	8.0
2015	--	--	--	--	--	--	4.0
2016	--	--	--	--	--	--	2.1
2017	--	--	--	--	--	--	2.1
2018	--	--	--	--	--	--	2.1
2019	--	--	--	--	--	--	2.1
2020	--	--	--	--	--	--	2.0
2021	--	--	--	--	--	--	2.1
2022	--	--	--	--	--	--	2.0
2023	--	--	--	--	--	--	2.0
2024	--	--	--	--	--	--	2.0
2025	--	--	--	--	--	--	2.1
2026	--	--	--	--	--	--	2.1
2027	--	--	--	--	--	--	2.1
2028	--	--	--	--	--	--	2.1
2029	--	--	--	--	--	--	2.1
2030	--	--	--	--	--	--	2.1
2031	--	--	--	--	--	--	2.1
2032	--	--	--	--	--	--	2.1
2033	--	--	--	--	--	--	2.0
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**650.9**

The total JTRS developmental funding is managed out of three Military Department (MILDEP) Program Elements (PEs) [0604289A (shared), 0604280F (shared), and 0604280N] across the Future Years Defense Program

(FYDP), but realigned in the budget year for execution under the Navy RDT&E PE [0604280N].

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
2014	--	--	--	--	--	--	10.3
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	**--**	**--**	**--**	**--**	**--**	**--**	**73.6**

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
2014	--	--	--	--	--	--	8.1
2015	--	--	--	--	--	--	4.0
2016	--	--	--	--	--	--	2.1
2017	--	--	--	--	--	--	2.1
2018	--	--	--	--	--	--	2.1
2019	--	--	--	--	--	--	2.1
2020	--	--	--	--	--	--	2.0
2021	--	--	--	--	--	--	2.1
2022	--	--	--	--	--	--	2.0
2023	--	--	--	--	--	--	2.1
2024	--	--	--	--	--	--	2.0
2025	--	--	--	--	--	--	2.1
2026	--	--	--	--	--	--	2.1
2027	--	--	--	--	--	--	2.1
2028	--	--	--	--	--	--	2.1
2029	--	--	--	--	--	--	2.1
2030	--	--	--	--	--	--	2.1
2031	--	--	--	--	--	--	2.1
2032	--	--	--	--	--	--	2.1
2033	--	--	--	--	--	--	2.1
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**49.6**

The total JTRS developmental funding is managed out of three Military Department (MILDEP) Program Elements (PEs) [0604289A (shared), 0604280F (shared), and 0604280N] across the Future Years Defense Program (FYDP), but realigned in the budget year for execution under the Navy RDT&E PE [0604280N].

Low Rate Initial Production

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

Foreign Military Sales

None

Nuclear Cost

None

Unit Cost

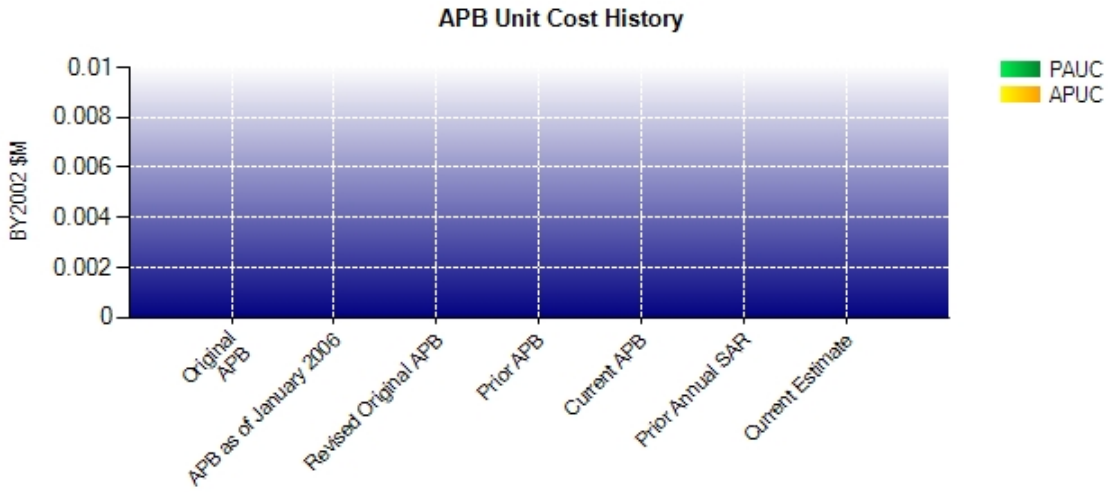
Unit Cost Report

Unit Cost	BY2002 $M Current UCR Baseline (DEC 2009 APB)	BY2002 $M Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	1743.2	1714.5	
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 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	812.9	1714.5	
Quantity	0	0	
Unit Cost	--	--	--
Average Procurement Unit Cost (APUC)			
Cost	--	0.0	
Quantity	--	0	
Unit Cost	--	--	--

JTRS NED products are not systems or end items. They are components of JTRS radios. Accordingly, the JTRS NED 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 2010	N/A	N/A	N/A	N/A
Current Estimate	DEC 2011	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	1992.6
Total Quantity	N/A	0	N/A	0
Prog. Acq. Unit Cost (PAUC)	N/A	N/A	N/A	N/A

JTRS NED products are not systems or end items. They are components of JTRS radios. Therefore, the JTRS NED program has no Milestone C.

Cost Variance

Cost Variance Summary

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	914.4	--	--	914.4
Previous Changes				
Economic	+15.9	--	--	+15.9
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	+725.3	--	--	+725.3
Estimating	+332.8	--	--	+332.8
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+1074.0	--	--	+1074.0
Current Changes				
Economic	+9.5	--	--	+9.5
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-5.3	--	--	-5.3
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+4.2	--	--	+4.2
Total Changes	+1078.2	--	--	+1078.2
CE - Cost Variance	1992.6	--	--	1992.6
CE - Cost & Funding	1992.6	--	--	1992.6

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	+257.2	--	--	+257.2
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+905.3	--	--	+905.3
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-3.7	--	--	-3.7
Other	--	--	--	--
Support	--	--	--	--
Subtotal	-3.7	--	--	-3.7
Total Changes	+901.6	--	--	+901.6
CE - Cost Variance	1714.5	--	--	1714.5
CE - Cost & Funding	1714.5	--	--	1714.5

Previous Estimate: September 2011

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+9.5
Increase reflects Below Threshold Reprogramming (BTR) funding for Tactical Targeting Network Technology (TTNT) Development (Navy) (Estimating)	+3.6	+4.2
Decrease reflects Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Assessment (Navy) (Estimating)	-2.5	-3.1
Decrease reflects Federally Funded Research and Development Centers (FFRDC) Rate Reduction (Navy) (Estimating)	-0.2	-0.2
Increase reflects restoration of FY 2013-2015 funds for waveform software maintenance (Navy) (Estimating)	+2.4	+3.1
The total JTRS developmental funding is managed out of three Military Department (MILDEP) Program Elements (PEs) across the Future Years Defense Program (FYDP), but realigned in the budget year for execution under the Navy RDT&E PE. (Subtotal)	+0.1	0.0
Increase reflects annual transfer of Army & Air Force RDT&E to Navy (Navy) (Estimating)	(+29.8)	(+37.4)
Decrease reflects annual transfer of Army RDT&E to Navy (Army) (Estimating)	(-14.8)	(-18.7)
Decrease reflects annual transfer of Air Force RDT&E to Navy (Air Force) (Estimating)	(-14.9)	(-18.7)
Increase reflects miscellaneous budget adjustments within the FYDP (Navy) (Estimating)	+0.5	+0.1
Decrease reflects miscellaneous budget adjustments within the FYDP (Navy) (Estimating)	-2.2	-3.2
Increase reflects miscellaneous budget adjustments within the FYDP (Army) (Estimating)	-1.1	-1.3
Increase reflects miscellaneous budget adjustments within the FYDP (Air Force) (Estimating)	-1.2	-1.3
Adjustment for current and prior escalation. (Estimating)	-3.1	-3.6
RDT&E Subtotal	-3.7	+4.2

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	161.3	176.5

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2011)	-28.4	-0.1
Previous Cumulative Variances	-15.7	+0.4
Net Change	-12.7	-0.5

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to greater effort than planned for the WFv3 systems architecture, WFv3 code and unit test, WFv3 software integration, and Waveform Development Environment (WDE) software design.

The unfavorable net change in the schedule variance is due to the reallocation of resources to complete Waveform Integration Point 2 (WIP-2).

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 Mobile User Objective System (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 25% of the Estimate to Completion (ETC).

Contract Comments

The difference between the initial contract price target and the current contract price target is due to 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 JTRS NED Program Manager (PM) estimated price at completion is $176.5M, and is based on the cumulative cost performance index (CPI) since the OTS and the weighted value of program level risks. Growth to the estimated price at completion is a result of a JTRS NED program office assessment of the Contractor’s performance and risks since the OTS. The JTRS NED PM estimated price at completion exceeds the Contractor’s estimated price at completion of $161.3M. This is due to the JTRS NED PM estimated price at completionassuming a lower projected performance factor than the Contractor based on cumulative cost performance index (CPI) since the OTS.

Appropriation: RDT&E

Contract Name	**SINCGARS SwISS**
Contractor	ITT Corp.
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

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	0.0	0.0
Previous Cumulative Variances	--	--
Net Change	+0.0	+0.0

Cost And Schedule Variance Explanations

None

Contract Comments

At time of contract award, Delivery Order (DO) 1 (Software Internet Controller (SoftINC)) was also 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 thus the monthly CPR CDRL is no longer required.

The Single Channel Ground and Airborne Radio System (SINCGARS)/Enterprise Network Services Phase 1 (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 in May 2009 with a contract price of $62.0M and a five (5) year period of performance. Furthermore, DO's 2, 3 and 4 have also been completed.

Delivery Order	Effort	Value	Period Of Performance	EVMS
1	ENS Phase 1: SoftINC	$26.0M	Complete	Yes
2	Technical Support	$0.133M	Complete	No
3	General Support	$0.530M	Complete	No
4	Packet Mode	$1.6M	Complete	No

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

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	0.0	0.0
Previous Cumulative Variances	--	--
Net Change	+0.0	+0.0

Cost And Schedule Variance Explanations

None

Contract Comments

At time of contract award, Delivery Order (DO) 1 Tactical Data Controller (TDC) was also 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 thus the monthly CPR CDRL is no longer required.

The High Frequency/Ultra High Frequency Satellite Communications (HF/UHF SATCOM) 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 five (5) year period of performance. Furthermore, DO’s 2, 3 and 4 are complete, and DO 5 will be completed early 2012.

Delivery Order	Effort	Value	Period Of Performance	EVMS
1	ENS Phase 1: TDC	$22.8M	Complete	Yes
2	Technical Support	$0.549M	Complete	No
3	HF IA LSS	$0.361M	Complete	No
4	Full Duplex	$0.351M	Complete	No
5	HF IA Burn-down	$0.153M	Incomplete	No

Appropriation: RDT&E

Contract Name	**Bowman VHF WF**
Contractor	ITT Corp.
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

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	0.0	0.0
Previous Cumulative Variances	--	--
Net Change	+0.0	+0.0

Cost And Schedule Variance Explanations

None

Contract Comments

This is a hybrid Indefinite Delivery Indefinite Quantity (IDIQ) contract. This contract provides technical support (Cost Plus Fixed Fee (CPFF)) as well as software enhancements, upgrades and maintenance of the Bowman waveform (Cost Plus Incentive Fee (CPIF)), e.g., post-production software support (also known as Software In-Service Support (SwISS)). The contract value is $49.5M. There is one delivery order on the contract, valued at $4.3M.

This effort does not require Earned Value Metrics (EVMS) data be uploaded to the Defense Cost and Resource Center (DCARC) Central Repository monthly.

Appropriation: RDT&E

Contract Name	**Wideband Networking Waveform**
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

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	0.0	0.0
Previous Cumulative Variances	--	--
Net Change	+0.0	+0.0

Cost And Schedule Variance Explanations

None

Contract Comments

This is a hybrid Indefinite Delivery Indefinite Quantity (IDIQ) contract. This contract provides technical support (Cost Plus Fixed Fee (CPFF)) as well as software enhancements, upgrades and maintenance of the Wideband Networking Waveform (Cost Plus Incentive Fee (CPIF)), e.g., post-production software support (also known as Software In-Service Support (SwISS)). The contract value is $64.6M. There is one delivery order for technical support on the contract, valued at $1.3M.

This effort does not require Earned Value Metrics (EVMS) data be uploaded to the Defense Cost and Resource Center (DCARC) Central Repository monthly.

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	22.0	N/A	N/A	40.1	41.5

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2011)	-2.0	-1.8
Previous Cumulative Variances	-0.7	-0.7
Net Change	-1.3	-1.1

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to Information Assurance complexities, extensive efforts to achieve MUOS capabilities, efforts to complete software design maturity, and failure to achieve anticipated software efficiencies.

The unfavorable net change in the schedule variance is due to efforts to complete software design maturity, changes in JENM Phase 2 development to align with bi-annual Army Network Integration Evaluations (NIEs), failure to achieve anticipated software efficiencies, and the delay in providing Government Furnished Equipment (GFE) radios to the contractor.

Contract Comments

The difference between the initial contract price target and the current contract price target is due to Delivery Order (DO) 1 Mod 6, which provided an equitable adjustment in the amount of $466k to the contractor due to costs resulting from the DO1 Mod 1 stop work order.

The difference between the current contract price of $22.0M and the Program Manager's (PM) estimated price at completion of $41.5M is due to a DO1 Mod 10 which awarded in January 2012 and rebaselined JENM Phase 2 development efforts. As a result of this contract modification, the total price of DO1 increased by $19.5M, from $22.0M to $41.5M.

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/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 Boeing in April 2010, and as a result of P00009, which realigned contract ceiling from the Option Years into the Base Period to allow for DO1 Mod 10, the current base contract price increased by $21.9M from $33.5M to $55.4M. The contract has a five (5) year period of performance. At time of contract award, DO1 Phase 2 was also awarded, and because the value was greater than $20M, a monthlyCost Performance Report (CPR) Contract Data Requirements List (CDRL) is required for upload to the Defense Cost and Resource Center (DCARC) Earned Value Metrics (EVM) repository. This requirement will expire in December 2012 (the end date of the period of performance for this DO). Furthermore, DOs 2, 4, 5, 6 and 7 are incomplete, but will be completed in 2012.

Delivery Order	Effort	Value	Period Of Performance	EVMS
1	Phase 2	$41.5M	Incomplete	Yes
2	Technical Support	$1.6M	Incomplete	No
3	Phase 1	$7.3M	Complete	No
4	NIE Test Event Support	$0.808M	Incomplete	No
5	Maintenance	$0.988M	Incomplete	No
6	Phase 1 Upgrade for NIE 12.2	$2.6	Incomplete	No
7	HMS Manpack MOT&E Support	$.500	Incomplete	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	1992.6	Years Appropriated	15
Expenditures To Date	1582.1	Percent Years Appropriated	41.67%
Percent Expended	79.40%	Appropriated to Date	1712.7
Total Funding Years	36	Percent Appropriated	85.95%

The Deliveries and Expenditures are as of January 4, 2012.

Operating and Support Cost

Assumptions And Ground Rules
There is no antecedent for the JTRS NED program. JTRS NED products are not systems or end items. They are components of JTRS radios. The JTRS NED O&S funding is for Software In-Service Support (SwISS) of JTRS NED products and is based on a cost estimate of January 2008. This cost estimate defines software in-service support from FY 2009-2033 (25 years).

Costs BY2002 $M		
Cost Element	**JTRS NED Average Annual Cost (All Waveforms)**	**No Antecedent**
Unit-Level Manpower	--	--
Unit Operations	--	--
Maintenance	--	--
Sustaining Support	28.256	--
Continuing System Improvements	--	--
Indirect Support	--	--
Other	--	--
Total Unitized Cost (Base Year 2002 $)	28.256	--

Total O&S Costs $M	JTRS NED	No Antecedent
Base Year	706.4	--
Then Year	1193.9	--

Demilitarization is not applicable for this program.