EXHIBIT R-2, RDT&E Budget Item Justification					DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE						
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5	0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)						
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total Cost	**774.034**	**835.366**	**834.650**	**246.714**	**184.776**	**143.444**	**97.987**
3020 Multifunctional Information Distribution System (MIDS) JTRS	**159.908**	**80.141**	**27.449**	**3.000**	**0.000**	**0.000**	**0.000**
3073 Airborne/Maritime/Fixed Station (AMF) JTRS	**56.799**	**106.671**	**203.831**	**108.504**	**124.160**	**108.220**	**74.615**
3074 Ground Mobile Radio (GMR) JTRS	**202.944**	**231.643**	**196.320**	**36.559**	**10.803**	**2.262**	**0.000**
3075 Handheld/Manpack/Small Form Fit (HMS) JTRS	**132.884**	**168.359**	**164.766**	**32.239**	**5.246**	**0.000**	**0.000**
3076 JTRS Network Enterprise Domain (JNED)	**221.499**	**248.552**	**242.284**	**66.412**	**44.567**	**32.962**	**23.372**

In FY07-FY09, Program Element (PE) 0604280N represents the total JTRS RDT&E Budget (includes **Multifunctional Information Distribution System (MIDS) JTRS, Airborne/Maritime/Fixed Station (AMF) JTRS, Ground Mobile Radio (GMR) JTRS, Handheld/Manpack/Small Form Fit (HMS) JTRS, and JTRS Network Enterprise Domain (JNED).**

In FY10-FY13, Program Element (PE) 0604280N represents the Navy share (1/3) of the funding associated with all JTRS Development Projects. JTRS Common Development includes funding for: **MIDS JTRS, AMF JTRS, GMR JTRS, HMS JTRS and JNED.** As part of the JTRS joint program budget strategy, each Military Department (MILDEP) budgets for one-third of the total program. Thus in FY10-13 one-third of JTRS Common Development is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(AMF) AMF JTRS is intended to support communications readiness and mission success, in the 2 MegaHertz (MHz) to 2 GigaHertz (GHz) operating frequency range, by providing military commanders with the ability to command, control and communicate with their forces via secure voice/video/data media forms. AMF JTRS will provide the Warfighter with a modernized communications capability for more effective battlefield management and interoperability. AMF JTRS is a key enabler for the transformation of airborne communications toward network-centric operations. AMF JTRS is designed to perform as a reliable and dynamic family of advanced communications systems. As a result, AMF JTRS will be a hardware-configurable and software-programmable radio system that provides increased interoperability, flexibility and adaptability to support varied mission requirements. The system is multi-functional, multi-band, multi-mode, network capable and capable of providing communications through a range of low probability of intercept, low probability of detection and anti-jam waveforms. AMF JTRS will operate with legacy equipment and waveforms currently used by civilian and military airborne, surface, subsurface, and fixed station platforms. AMF JTRS is intended to replace existing legacy radio systems, which are currently facing long-term sustainment issues and diminishing sources of material support. AMF JTRS capabilities will be developed in an incremental approach, with each increment building on the technological achievements of its predecessor, while providing expanded capabilities.

(MIDS) MIDS-LVT is a jam-resistant, secure, digital (voice and data) information distribution system, enabling rapid integrated communications, navigation and identification for tactical and command and control operations. The technical objective of the MIDS JTRS program is to transform the current MIDS-LVT into a four-channel, Software Communications Architecture (SCA) compliant JTRS, while maintaining current Link-16 and tactical air navigation system (TACAN) functionality. MIDS JTRS is designed to be plug-and-play interchangeable for U.S. Navy and U.S. Air Force platforms that use MIDS-LVT, while accommodating future technologies and capabilities. Improvements such as Link-16 enhanced throughput, Link-16 frequency re-mapping, and programmable crypto will also be realized in the MIDS JTRS design. In addition to the Link-16 and TACAN functionality, the MIDS JTRS Core terminal includes three 2 MHz to 2 GHz programmable channels that allow the warfighter to use multiple waveforms currently in development with the JTRS Network Enterprise Domain (JNED). Total Core terminal program requirements include: Terminal development, F/A-18 Level 0 integration, software hosting (Operating Environment/Waveforms) and production transition. The Tactical Targeting Network Technology JTRS Platform Capability Package (TTNT JPCP) involves integration of an advanced low latency, high bandwidth, internet protocol-capable waveform that meets Time Sensitive Targeting Networking Technology requirements. TTNT JPCP program requirements include hardware and software changes, terminal development, qualification, and production transition. The TTNT JPCP is the integration of the TTNT waveform as the specific implementation of the Joint Airborne Networking - Tactical Edge (JAN-TE) waveform.

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5	R-1 ITEM NOMENCLATURE 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION (continued):

(GMR) GMR JTRS is a product line overseen by the JTRS Ground Domain Program Management Office. JTRS is the Department of Defense (DoD) family of common software-defined programmable radios that will form the foundation of information radio frequency transmission for Joint Vision 2020. JTRS will provide transformational communication capabilities for the warfighter. The JTRS GMR will provide networking capability using the Wideband Networking Waveform and Soldier Radio Waveform to connect the unmanned sensors to the decision makers "On-The-Move" (OTM) which will significantly reduce the decision cycle. JTRS GMR will provide the warfighter with mobile Internet-like capabilities such as voice, data, networking and video communications, as well as interoperability with legacy radios across the battlespace.

(HMS) HMS JTRS is a product line overseen by the JTRS Ground Domain Program Management Office. JTRS is the DoD family of common software-defined programmable radios that will form the foundation of information radio frequency transmission for Joint Vision 2020. HMS provides a software re-programmable, networkable, multi-band, multi-mode system capable of simultaneous voice/data/video communication. HMS Increment 1 consists of the following form factors: 2 Channel Handheld, 2 Channel Manpack and Small Form Fit (SFF) embedded applications (SFF-A, B, C, D, I and J).

(JNED) JNED is responsible for the development and delivery of software-defined, legacy radio waveforms and networking waveforms that support Net-Centric operational warfare at sea, air and on the ground. Networking waveforms extend the Global Information Grid (GIG) to the last tactical mile and to the Warfighter. The JNED team is responsible for (1) the overall management and oversight of the JTRS Waveform program, (2) development, validation, and evolution of a common JTRS Software Communications Architecture (SCA), (3) development and evolution of waveform software applications, (4) development of software cryptographic algorithms and equipment applications, (5) testing and certification of JTRS waveforms, network services, network management, and software products, and (6) JTRS networking and network management software components. Service acquisition agencies are responsible for acquiring and fielding host radio hardware and integrating JTRS into Service platforms.

JUSTIFICATION FOR BUDGET ACTIVITY:
This program is funded under ENGINEERING AND MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY	**R-1 ITEM NOMENCLATURE**
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5	0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)

PROGRAM CHANGE SUMMARY:

(U) Funding:	FY 2007	FY 2008	FY 2009
FY08/09 President's Budget	795.340	853.676	274.687
FY09 President's Budget	774.034	835.366	834.650
Total Adjustments	-21.306	-18.310	559.963
Summary of Adjustments			
Small Business Innovative Research (SBIR)	-17.836		
Federal Technology Transfer	-0.020		
JTRS RDT&E to O&M,N Reprogramming	-4.100		
Sec. 8097: Contractor Efficiencies		-1.372	
Sec. 8104: Revised Economic Assumptions		-4.055	
Sec. 8025: FFRDC Reduction		-0.582	
Execution Realignment		-12.301	
Misc. Adjustments	0.650		-1.227
Mobile User Objective System (MUOS) Terminals			27.000
JTRS Transfer from other Services			534.190
	-21.306	-18.310	559.963

(U) Schedule:

(U) Technical:

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5	R-1 ITEM NOMENCLATURE 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)

(U)OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	PY	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
RDTE, Army PE 0604805A, Project 615 (JTRS Cluster 1 / GMR)	641.959									
RDTE, Army PE 0604805A, Project 61A (JTRS Cluster 5 / HMS)	220.683									
0604805A Command, Control, Communications Sys. - Eng Dev Total	862.642	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
RDTE, Army PE 0604280A, Project 162 (AMF JTRS)		0.000	0.000	0.000	107.428	123.485	107.298	73.822	Continuing	Continuing
RDTE, Army PE 0604280A, Project 162 (MIDS JTRS)		0.000	0.000	0.000	2.979	0.000	0.000	0.000	Continuing	Continuing
RDTE, Army PE 0604280A, Project 162 (JNED)	738.567	0.000	0.000	0.000	65.629	44.504	33.127	24.011	Continuing	Continuing
RDTE, Army PE 0604280A, Project 162 (GMR JTRS)		0.000	0.000	0.000	35.727	10.574	2.248	0.000	Continuing	Continuing
RDTE, Army PE 0604280A, Project 162 (HMS JTRS)		0.000	0.000	0.000	31.660	5.139	0.000	0.000	Continuing	Continuing
0604280A Joint Tactical Radio System Total	738.567	0.000	0.000	0.000	243.423	183.702	142.673	97.833	Continuing	Continuing
RDTE, Air Force PE 0604280F, Project 5068 (AMF JTRS)	113.239	0.000	0.000	0.000	109.331	124.795	107.154	75.989	Continuing	Continuing
RDTE, Air Force PE 0604280F, Project 5068 (MIDS JTRS)		0.000	0.000	0.000	2.972	0.000	0.000	0.000	Continuing	Continuing
RDTE, Air Force PE 0604280F, Project 5068 (JNED)		0.000	0.000	0.000	67.178	45.016	35.628	24.174	Continuing	Continuing
RDTE, Air Force PE 0604280F, Project 5068 (GMR JTRS)		0.000	0.000	0.000	36.762	11.024	2.240	0.000	Continuing	Continuing
RDTE, Air Force PE 0604280F, Project 5068 (HMS JTRS)		0.000	0.000	0.000	32.266	5.344	0.000	0.000	Continuing	Continuing
0604280F Joint Tactical Radio Systems Total	113.239	0.000	0.000	0.000	248.509	186.179	145.022	100.163	Continuing	Continuing
O&M, 4A6M - Service Wide Communications (JTRS JPEO)	9.885	9.683	16.897	12.963	13.176	13.430	13.761	13.984	Continuing	Continuing
O&M, 4A6M - Service Wide Communications (JNED)				1.881					Continuing	Continuing
O&M, 4B7N - Space and Electronic Warfare Systems (MIDS JTRS)	3.543	0.461	0.629	3.748	3.811	3.890	3.743	3.820	Continuing	Continuing

(U) ACQUISITION STRATEGY:

In Feb 2005, all JTRS programs were realigned under the JPEO JTRS. In Nov 2005, the DAE and Senior JTRS Leadership selected a re-plan option which restructures JTRS to emphasize cost and schedule performance while executing a moderate technical risk plan.

(AMF JTRS) A joint AF/Navy/Army team manages the development of a common core radio design that will be the basis for satisfying the AMF requirements. AMF completed Pre-System Development and Demonstration (SDD) contracts in FY06, which were awarded to two, competing vendors in late FY04. These efforts included System and Software Development reviews, Preliminary Design Reviews and technical risk reduction activities. The AMF program plans to award an SDD contract, using a full and open competition acquisition strategy and a Cost Plus Incentive Fee (CPIF) contract in Feb 2008. This effort is expected to leverage technical solutions derived from efforts resulting from the Pre-SDD contracts. A Critical Design Review (CDR) is planned for Feb 2009. SDD development continues in FY09 for the AMF JTRS system Engineering Development Models (EDMs), associated testing and integration, development engineering and management support for associated JTR system components.

(MIDS JTRS) MIDS JTRS development will be initiated as a major modification to the MIDS-LVT using an Engineering Change Proposal to the existing production contracts. Development efforts include the Phase 2B Core terminal and the Phase 2C/2D Tactical Targeting Network Technology JTRS Platform Capability Package (TTNT JPCP). The U.S. prime contractors from the MIDS-LVT program (Data Link Solutions and ViaSat, Inc.) will cooperatively design and develop the Core terminal and TTNT JPCP. Each prime contactor will build and qualify Production Verification Terminals. The U.S. will implement a continuous competition strategy between DLS and ViaSat that will be maintained throughout the MIDS JTRS production phase. This strategy was successfully used on MIDS-LVT production.

(JNED) JNED, formerly Joint Waveforms Program Office, is responsible for common core activities including developing and evolving the software-defined legacy and networking waveforms that operate on multiple hardware sets and in all operational environments that support network-centric operational warfare, as well as common networking services solutions. Waveform developments will be procured through full and open contract competitions, except when special circumstances support sole source acquisition. The JNED program is developing Waveforms and Cryptographic Equipment applications (CEAs) for use within the JTRS community. The module developer will develop CEAs. The FY09 Budget supports continued development of waveforms, supporting software, and testing support, as well as the NSA evaluation of the aforementioned software crypto libraries.

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5	R-1 ITEM NOMENCLATURE 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)

(U) ACQUISITION STRATEGY (Cont.):

(GMR JTRS) This project supports the JTRS GMR SDD efforts. After a Milestone (MS) B Decision in 3QFY02, the GMR development effort was awarded to develop multi-channel ground and airborne configurations (airborne is now re-aligned under AMF). The JTRS GMR supports an evolutionary acquisition strategy and was based on an aggressive acquisition schedule. In June 2002, a Cost Plus Award Fee (CPAF) contract was competitively awarded to develop and/or acquire numerous SCA compliant waveforms, define common form-fit-function configurations for vehicular versions of the JTRS hardware, and successfully port the waveforms to JTRS hardware produced by two different developers. Although Waveform development is part of the contract, the Waveform development is funded and managed under the JTRS Network Enterprise Domain (JNED). Under GMR, a software reprogrammable radio providing the Warfighter with the multi-band and multi-mode capability, networkable radio system which provides simultaneous voice, data and video communications to increase interoperability, flexibility, and adaptability in support of varied mission requirements for vehicular platforms is being developed as a product under the PM JTRS Ground Domain. In FY05, the program underwent preliminary testing of hardware capabilities along with the program restructuring and on-going development of the operating system. The pre-Engineering Development Models (EDM) design is complete. The FY09 budget supports continued development and support for the GMR sets to include the operating environment, design of ground vehicular A-kits (installation kits) for platforms required for testing for System Integration Test (SIT)/Limited User Test (LUT), deliveries of EDM units and the start of SIT/LUT.

(HMS JTRS) This project supports the JTRS HMS SDD efforts. A MS B was achieved in Apr 2004 to begin the development of the HMS sets. Following full and open competition, a single CPAF contract was awarded in July 2004. The evolutionary acquisition strategy is based on incremental development, reduced requirements, and better reuse/teaming with other product lines and NSA. The contract is structured to address Increment 1, consisting of Phases 1 and 2. Increment 1, Phase 1 will develop Type 2 Small Form Fit-A (SFF-A), 1 and 2 channel, running SRW waveform for use in a sensitive but unclassified environment (Type 2). Increment 1, Phase 2 will develop 2 Channel Handhelds, 2 Channel Manpacks and 1 and 2 Channel Type 1 and Type 2 Small Form Fits (SFFs) B, C, D, I and J. The FY09 budget supports continued development of breadboards, Engineering Development Models (EDMs) and Phase 2 Contractor and Government Developmental Testing.

(U)MAJOR PERFORMERS:

Prime Contractors: AMF JTRS: SDD Contractor is TBD; MIDS JTRS: Data Link Solutions and ViaSat Inc.;
JNED: Boeing, Rockwell Collins, and ITT; GMR JTRS: Boeing; HMS JTRS: General Dynamics Decision Systems

(U)METRICS:

Earned Value Management (EVM) is used for metrics reporting and risk management.

EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)			PROJECT NUMBER AND NAME 3020 MIDS JTRS			
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total Project Cost	**159.908**	**80.141**	**27.449**	**3.000**	**0.000**	**0.000**	**0.000**
3020 Multifunctional Information Distribution System (MIDS) JTRS	**159.908**	**80.141**	**27.449**	**3.000**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty							

In FY07-FY09, Project No. 3020 represents the total Multifunctional Information Distribution System (MIDS) JTRS RDT&E budget for those years.

In FY10, Project No. 3020 represents the Navy share (1/3) of the funding associated with MIDS JTRS. As part of the JTRS joint program acquisition strategy, each Military Department (MILDEP) budgets for one-third of the total program. Thus, one-third of JTRS Common Development is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

MIDS-LVT is a jam-resistant, secure, digital (voice and data) information distribution system, enabling rapid integrated communications, navigation and identification for tactical and command and control operations. The technical objective of the MIDS JTRS program is to transform the current MIDS-LVT into a four-channel, Software Communications Architecture (SCA) compliant JTRS, while maintaining current Link-16 and tactical air navigation system (TACAN) functionality. MIDS JTRS is designed to be plug-and-play interchangeable for U.S. Navy and U.S. Air Force platforms that use MIDS-LVT, while accommodating future technologies and capabilities. Improvements such as Link-16 enhanced throughput, Link-16 frequency re-mapping, and programmable crypto will also be realized in the MIDS JTRS design. In addition to the Link-16 and TACAN functionality, the MIDS JTRS Core terminal includes three 2 MHz to 2 GHz programmable channels that allow the warfighter to use multiple waveforms currently in development with the JTRS Network Enterprise Domain (JNED). Total Core terminal program requirements include: Terminal development, F/A-18 Level 0 integration, software hosting (Operating Environment/Waveforms) and production transition. The Tactical Targeting Network Technology JTRS Platform Capability Package (TTNT JPCP) involves integration of an advanced low latency, high bandwidth, internet protocol-capable waveform that meets Time Sensitive Targeting Networking Technology requirements. TTNT JPCP program requirements include hardware and software changes, terminal development, qualification, and production transition. The TTNT JPCP is the integration of the TTNT waveform as the specific implementation of the Joint Airborne Networking - Tactical Edge (JAN-TE) waveform.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)	PROJECT NUMBER AND NAME 3020 MIDS JTRS

(U) B. Accomplishments/Planned Program

	FY 07	FY 08	FY 09
MIDS JTRS	159.908	80.141	27.449
RDT&E Articles Quantity			

FY07: Continued MIDS JTRS Phase 2B development and qualification of the Core terminal program. Conducted Test Readiness Review. Began contractor First Article Qualification Testing (FAQT). Awarded production transition efforts. Continued MIDS JTRS TTNT JPCP Phase 2C activities. Provided MIDS JTRS support in systems engineering, hardware, software, Communications Security (COMSEC), logistics, airborne networking, configuration and data management and program management. Continued F/A-18 Level 0 platform integration, test and evaluation. Procured additional F/A-18 Test Assets for Developmental and Operational test. Began F/A-18 integrated logistics support planning.

FY08: Complete MIDS JTRS Phase 2B development and qualification of the Core terminal program. Obtain Core terminal certifications for Communications Security (COMSEC), Electromagnetic Compatibility (EMC) Features, Air Worthiness, SCA compliance and joint interoperability. Conduct Government testing. Achieve MS C. Award MIDS JTRS TTNT JPCP Phase 2D for full development. Provide MIDS JTRS support in systems engineering, hardware, software, Communications Security (COMSEC), logistics, airborne networking, configuration and data management and program management. Continue F/A-18 Level 0 platform integration, test and evaluation including developmental and operational test and support equipment development.

FY09: Continue MIDS JTRS Phase 2D development and qualification of the TTNT JPCP terminal. Provide MIDS JTRS support in systems engineering, hardware, software, COMSEC, logistics, airborne networking, configuration and data management and program management. Complete F/A-18 Level 0 platform integration, test and evaluation and support equipment development.

Note:
In FY07-FY09, Project No. 3020 represents the total MIDS JTRS RDT&E budget for those years.
In FY10, Project No. 3020 represents the Navy share (1/3) of the funding associated with MIDS JTRS. As part of the JTRS joint program acquisition strategy, each Military Department (MILDEP) budgets for one-third of the total program. Thus, one-third of JTRS Common Development is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

Exhibit R-3 Cost Analysis (MIDS JTRS page 1)									DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)							PROJECT NUMBER AND NAME 3020 MIDS JTRS			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost	FY07 Cost	FY07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Product Development												
MIDS JTRS HW/SW (Phase 2B Core)	CPIF	DLS Cedar Rapids, IA	47.842	42.412	Nov-06	7.434	Nov-07			0.000	97.688	
MIDS JTRS HW/SW (Phase 2B Core)	CPIF	ViaSat Inc. Carlsbad, CA	43.198	51.047	Nov-06	7.416	Nov-07			0.000	101.661	
MIDS JTRS HW/SW (Phase 2C TTNT JPCP)	CPFF	DLS Cedar Rapids, IA	5.251	6.416	Feb-07					0.000	11.667	
MIDS JTRS HW/SW (Phase 2C TTNT JPCP)	CPFF	ViaSat Inc. Carlsbad, CA	3.071	2.478	Feb-07					0.000	5.548	
MIDS JTRS HW/SW (Phase 2D TTNT JPCP)	CPIF	DLS Cedar Rapids, IA				17.167	Feb-08	7.396	Nov-08	0.000	24.563	
MIDS JTRS HW/SW (Phase 2D TTNT JPCP)	CPIF	ViaSat Inc. Carlsbad, CA				14.767	Feb-08	7.396	Nov-08	0.000	22.163	
MIDS JTRS Production Transition	FFP	DLS Cedar Rapids, IA		13.548	Apr-07	5.223	Jan-08			0.000	18.771	
MIDS JTRS Production Transition	FFP	ViaSat Inc. Carlsbad, CA		2.768	Apr-07					0.000	2.768	
MIDS JTRS Preoperational Support	CPFF	DLS Cedar Rapids, IA				1.500	Jan-08	1.200	Nov-08	0.000	2.700	
MIDS JTRS Preoperational Support	CPFF	ViaSat Inc. Carlsbad, CA				1.500	Jan-08	1.200	Nov-08	0.000	2.700	
MIDS JTRS Spec. Development (Phase 2A)	FFP	DLS Cedar Rapids, IA	1.383							0.000	1.383	
MIDS JTRS Spec. Development (Phase 2A)	FFP	ViaSat Inc. Carlsbad, CA	0.704							0.000	0.704	
MIDS JTRS Proposal Prep (Phase 2B Core)	FFP	DLS Cedar Rapids, IA	0.600							0.000	0.600	
MIDS JTRS Proposal Prep (Phase 2B Core)	FFP	ViaSat Inc. Carlsbad, CA	1.774	0.148	Sep-07					0.000	1.922	
Subtotal Product Development			103.823	118.816		55.008		17.191		0.000	294.838	

Remarks:
The Phase 2C TTNT JPCP original award occurred in Mar 2006 to DLS and ViaSat. Contract modifications to extend the Phase 2C TTNT JPCP effort were awarded in Feb 2007.

Development Support												
* F/A-18 Level 0 Development Support (Unique)	WX	China Lake	1.471			0.056				0.000	1.527	
* F/A-18 Level 0 Integrated Logistics Support (Unique)	WX	Pax River	0.412					2.472	Nov-08	0.000	2.884	
Subtotal Support			1.882	0.000		0.056		2.472		0.000	4.410	

Remarks:
In PYs-FY09, Project No. 3020 represents the total MIDS JTRS RDT&E budget for those years.
In FY10, Project No. 3020 represents the Navy share (1/3) of the funding associated with MIDS JTRS. As part of the JTRS joint program acquisition strategy, each Military Department (MILDEP) budgets for one-third of the total program. Thus one-third of JTRS Common Development is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

Exhibit R-3 Cost Analysis (MIDS JTRS page 2)									DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)							PROJECT NUMBER AND NAME 3020 MIDS JTRS			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY's Cost	FY07 Cost	FY07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Test and Evaluation												
* F/A-18 Level 0 Developmental Test & Evaluation (Unique)	WX	Pax River				4.376	Dec-07	0.450	Nov-08		4.826	
* F/A-18 Level 0 Operational Test & Evaluation (Unique)	WX	China Lake				1.095	Feb-08	0.243	Nov-08		1.338	
* F/A-18 Test Assets	FFP	DLS Cedar Rapids, IA		8.850	Apr-07						8.850	
* F/A-18 Test Assets	FFP	ViaSat Inc. Carlsbad, CA		7.365	Apr-07						7.365	
* F/A-18 EDMs	FFP	DLS Cedar Rapids, IA		2.740	Jul-07						2.740	
* F/A-18 EDMs	FFP	ViaSat Inc. Carlsbad, CA		2.475	Jul-07						2.475	
Government Testing	WX	SSC San Diego	0.340	0.405	Nov-06	0.790	Oct-07	0.201	Oct-08		1.736	
Engineering Support and Labor/SCS Changes	WX	China Lake		3.963	Various	4.042	Various	0.510	Various		8.515	
NAVAIR Labor	WX	Pax River		1.172	Various	2.053	Jan-08	1.500	Various		4.725	
ECP 6277 Preparation	WX	Boeing		1.563	Jun-07						1.563	
Subtotal T&E			0.340	28.533		12.356		2.904		0.000	44.133	
Remarks: * Items marked with an asterisk (*) designate Navy unique tasks.												
Management Support												
Contractor Engineering Support	CPFF	Various	4.236	3.531	Oct-06	3.917	Oct-07	1.206	Oct-08		12.890	
Government Engineering Support	WX	Various	6.612	5.157	Oct-06	5.702	Oct-07	2.160	Oct-08		19.631	
Program Management Support	CPFF	Various	1.215	3.226	Oct-06	2.628	Oct-07	1.266	Oct-08		8.334	
Airborne Networking Support	WX	SSC San Diego	0.634	0.454	Jul-07	0.225	Oct-07				1.313	
Travel			0.415	0.192		0.250		0.250			1.106	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			13.112	12.559		12.721		4.881		0.000	43.273	
Total Cost			119.157	159.908		80.141		27.449		0.000	386.654	
Remarks: In PYs-FY09, Project No. 3020 represents the total MIDS JTRS RDT&E budget for those years. In FY10, Project No. 3020 represents the Navy share (1/3) of the funding associated with MIDS JTRS. As part of the JTRS joint program acquisition strategy, each Military Department (MILDEP) budgets for one-third of the total program. Thus, one-third of JTRS Common Development is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.												

EXHIBIT R4, Schedule Profile			DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)	PROJECT NUMBER AND NAME 3020 MIDS JTRS	

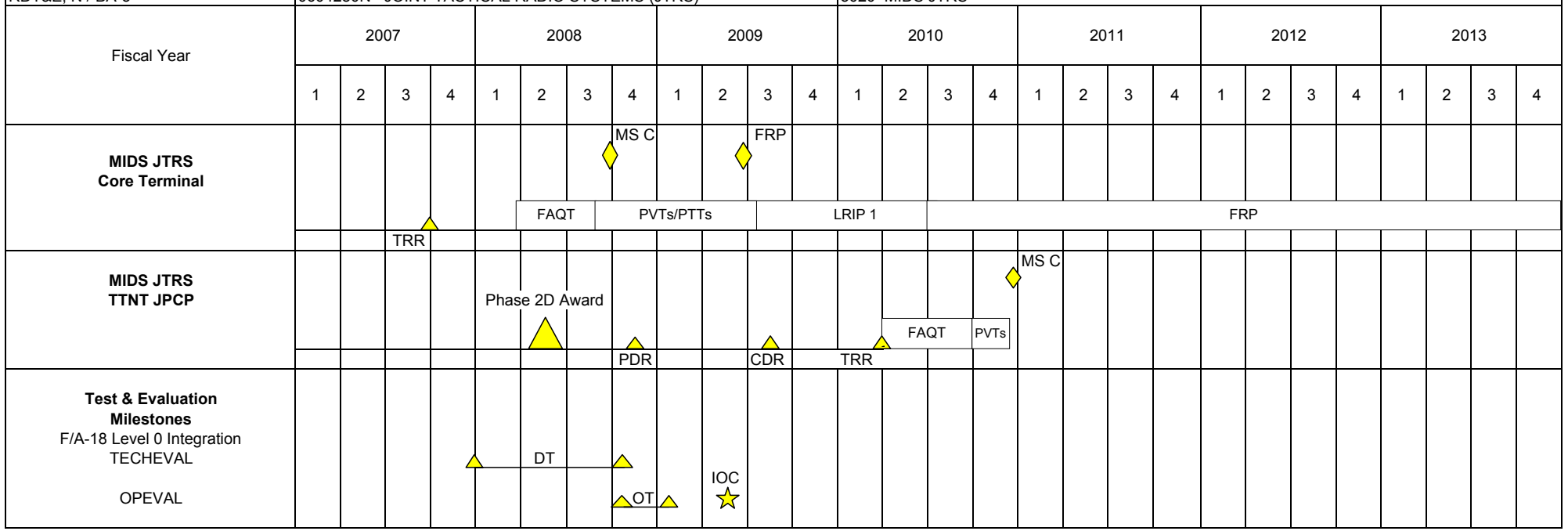

Exhibit R-4, Schedule Profile

Exhibit R-4a, Schedule Detail					DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)			PROJECT NUMBER AND NAME 3020 MIDS JTRS			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
MIDS JTRS Migration Core Terminal							
Phase 2B: Design, Development, Fabrication and Qualification							
System Development		4Q					
Preliminary Design Review (PDR)							
Critical Design Review (CDR)							
Quality Design and Build	3Q						
Test Readiness Review (TRR)	3Q						
Contractor Testing (FAQT)		1Q, 3Q					
Milestone C		3Q					
Government Testing		3Q					
Production Verification Terminal Delivery (PVT)		3Q, 4Q					
Production Transition Terminal Delivery (PTT)		3Q	3Q				
Test and Evaluation							
F/A-18 Level 0 Integration							
Technical Evaluation (TECHEVAL)		1Q, 4Q					
Operational Evaluation (OPEVAL)		4Q	1Q				
Initial Operating Capability			2Q				
Full Rate Production Decision			2Q				
MIDS JTRS TTNT JPCP							
Phase 2C: Specification Development	4Q						
Phase 2D: Design, Development, Fabrication and Qualification							
System Development		2Q		4Q			
Preliminary Design Review (PDR)		4Q					
Critical Design Review (CDR)			3Q				
Quality Design and Build			3Q	1Q			
Test Readiness Review (TRR)				1Q			
Contractor Testing (FAQT)				2Q, 3Q			
Government Testing				3Q, 4Q			
Production Verification Terminal Delivery (PVT)				4Q			
Fielding Decision				4Q			

Exhibit R-4a, Schedule Detail

Exhibit R-5, Termination Liability Funding for Major Defense Acquisition Programs, RDT&E Funding						DATE: February 2008	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3020 MIDS JTRS		
Program Title	**FY 2007**	**FY 2008**	**FY 2009**	**FY2010**	**FY2011**	**FY2012**	**FY2013**
X3020 Multifunctional Information Distribution System (MIDS JTRS)	0.000	4.692	4.500	0.500	0.000	0.000	0.000

Note: In FY07-FY09, MIDS JTRS represents the total termination liability (TL) funding profile. In FY10 MIDS JTRS represents one-third of the total termination liability (TL) funding profile. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of TL is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

Instructions:

1. For all ACAT 1 programs with RDT&E funding, indicate the funds by year budgeted for termination liability.
2. If not budgeted, provide the appropriate waiver authority.
3. For programs with waiver authority, identify the amounts on the contract by year.

Exhibit R-5 Termination Liability in Major Acquisition Programs RDTEN

EXHIBIT R-2a, RDT&E Project Justification				DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)			PROJECT NUMBER AND NAME 3073 Airborne/Maritime/Fixed Station (AMF) JTRS			
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total Project Cost	**56.799**	**106.671**	**203.831**	**108.504**	**124.160**	**108.220**	**74.615**
3073 Airborne/Maritime/Fixed Station (AMF) JTRS	**56.799**	**106.671**	**203.831**	**108.504**	**124.160**	**108.220**	**74.615**

In FY07-FY09, Project No. 3073 represents the total AMF JTRS RDT&E budget for those years.

In FY10-FY13, Project No. 3073 represents the Navy share (1/3) of the funding associated with AMF JTRS. As part of the JTRS joint program acquisition strategy, each Military Department (MILDEP) budgets for one-third of the total program. Thus, one-third of JTRS Common Development is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

AMF JTRS is intended to support communications readiness and mission success, in the 2MHz to 2GHz operating frequency range, by providing military commanders with the ability to command, control and communicate with their Forces via secure voice/video/data media forms. AMF JTRS will provide the Warfighter with a modernized communications capability for more effective battlefield management and interoperability. AMF JTRS is a key enabler for the transformation of airborne communications toward network-centric operations. AMF JTRS is designed to perform as a reliable and dynamic family of advanced communications systems. As a result, AMF JTRS will be a hardware-configurable and software-programmable radio system that provides increased interoperability, flexibility and adaptability to support varied mission requirements. The system is multi-functional, multi-band, multi-mode, network capable and capable of providing communications through a range of low probability of intercept, low probability of detection and anti-jam waveforms. AMF JTRS will operate with legacy equipment and waveforms currently used by civilian and military airborne, surface, subsurface, and fixed station platforms. AMF JTRS is intended to replace existing legacy radio systems, which are currently facing long-term sustainment issues and diminishing sources of material support. AMF JTRS capabilities will be developed in an incremental approach, with each increment building on the technological achievements of its predecessor, while providing expanded capabilities.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)	PROJECT NUMBER AND NAME 3073 Airborne/Maritime/Fixed Station (AMF) JTRS

(U) B. Accomplishments/Planned Program

	FY 07	FY 08	FY 09
AMF JTRS	56.799	106.671	203.831
RDT&E Articles Quantity			

FY07: Request for Proposal (RFP) for the System Development and Demonstration (SDD) contract released Jan 2007. Source selection began in Mar 2007 with anticipated SDD contract award in 2nd quarter FY08. Continued engineering and management support for Navy specific JTRS implementation efforts.

FY08: Received Milestone B approval in 1st quarter FY08. System Development & Demonstration (SDD) contract award in 2nd Quarter FY08. Begin development efforts including hardware and software designs. Continue systems engineering and management support for associated JTR system components.

FY09: Continue SDD development for the AMF JTRS system including testing and integration activities leading to Critical Design Review (CDR) planned for Feb 09; hardware and non-waveform software development; platform integration development for AMF test program; NSA information assurance activities and verification of design; and waveform porting. Continue development engineering and management support for associated JTR system components.

Note:
In FY07-FY09, Project No. 3073 represents the total AMF JTRS RDT&E budget for those years.
In FY10-13, Project No. 3073 represents one-third of the total AMF JTRS RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of AMF is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

Exhibit R-3 Cost Analysis (AMF JTRS page 1)								DATE: February 2008				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		**PROGRAM ELEMENT** 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				**PROJECT NUMBER AND NAME** 3073 Airborne/Maritime/Fixed Station (AMF) JTRS						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Product Development												
MIDS JTRS HW/SW (Phase 2A/2B Core)	CPIF	DLS Cedar Rapids, IA	8.563									
MIDS JTRS HW/SW (Phase 2A/2B Core)	CPIF	ViaSat Inc. Carlsbad, CA	2.559									
AMF JTRS Development - JTR System (Pre-SDD)	CPFF	The Boeing Company, Anaheim, CA/ Lockheed Martin, Manassas, VA	90.937							Cont.	Cont.	
AMF JTRS Development - JTR SET (SDD)	CPAF/IF	TBD		26.929	2Q08	76.120	2Q08	157.503	1Q09	Cont.	Cont.	
AMF JTRS - Requirements Planning and Risk Reduction	Various	Various	1.490	1.566	1-3Q07	1.540	1Q08			Cont.	Cont.	
AMF JTRS - Systems Engineering	Various	Various	16.302	15.037	1-4Q07	16.144	1-3Q08	21.442	1-2Q09	Cont.	Cont.	
Systems Engineering - JTRS Implementation-Navy Unique	Various	Various	13.538	2.096	1-4Q07					Cont.	Cont.	
H/W Development: DMR HF Power Amplifier	FFP	GDDS	2.800								2.800	
Systems Engineering - JTF WARNET	Various	Various	7.481								7.482	
Subtotal Product Development			143.670	45.628		93.804		178.945		Cont.	Cont.	
Remarks:												
Development Support												
AMF JTRS - Acquisition, and ILS Support	Various	Various	19.239	3.791	1-4Q07	3.204	1-2Q08	5.290	1-2Q09	Cont.	Cont.	
Software Dev: DMR Build 6.4	FFP	GDDS	12.861							Cont.	Cont.	
Subtotal Support			32.100	3.791		3.204		5.290		Cont.	Cont.	

Remarks:
In PYs, Air Force AMF JTRS funding resides in Air Force PE 0604280F, Project 5068. In PYs, Navy AMF JTRS funding resides in this PE, Project 3073.
In FY07-FY09, Project No. 3073 represents the total AMF JTRS RDT&E budget for those years.
In FY10-13, Project No. 3073 represents one-third of the total AMF JTRS RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of AMF is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

Exhibit R-3 Cost Analysis (AMF JTRS page 2)								DATE: February 2008				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3073 Airborne/Maritime/Fixed Station (AMF) JTRS						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation												
AMF JTRS - Test and Evaluation and Test Support	Various	Various	3.860	3.661	1-4Q07	5.774	1-2Q08	14.880	1-2Q09	Continuing	Continuing	
DMR T&E (FOTE)	WX	SSC-SD	1.724								1.724	
DMR T&E (FOTE)	WX	SSC-CH	1.732								1.732	
Subtotal T&E			7.316	3.661		5.774		14.880		Continuing	Continuing	
Remarks:												
Management Services												
AMF Business Operations Management and Support	Various	Various	14.710	3.719	1-4Q07	3.889	1-4Q08	4.716	1-4Q09	Continuing	Continuing	
Subtotal Management			14.710	3.719		3.889		4.716		Continuing	Continuing	
Remarks:												
Total Cost			197.796	56.799		106.671		203.831		Continuing	Continuing	

Remarks:
In PYs, Air Force AMF JTRS funding resides in Air Force PE 0604280F, Project 5068. In PYs, Navy AMF JTRS funding resides in this PE, Project 3073.
In FY07-FY09, Project No. 3073 represents the total AMF JTRS RDT&E budget for those years.
In FY10-13, Project No. 3073 represents one-third of the total AMF JTRS RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of AMF is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

EXHIBIT R4, Schedule Profile																									DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)																							PROJECT NUMBER AND NAME 3073 Airborne/Maritime/Fixed Station (AMF) JTRS			
Fiscal Year	2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
AMF JTRS Acquisition Milestone Schedule					MS B ▼															MS C ▼								
AMF JTRS Product Development Schedule						Contract Award ▼				CDR ▼						EDM Delivery ▼						LRIP Deliveries ▼						

Exhibit R-4a, Schedule Detail						DATE: February 2008	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)					PROJECT NUMBER AND NAME 3073 Airborne/Maritime/Fixed Station (AMF) JTRS	
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Milestone B (MS-B)		1Q					
Contract Award SDD		2Q					
Critical Design Review (CDR)			2Q				
Eng Dev Model (EDM) Deliveries				4Q			
Milestone C (MS C)					4Q		
Low-Rate Initial Production I Delivery						2Q	

Exhibit R-4a, Schedule Detail

Exhibit R-5, Termination Liability Funding for Major Defense Acquisition Programs, RDT&E Funding						DATE: February 2008	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3073 Airborne/Maritime/Fixed Station (AMF) JTRS		
Program Title	**FY 2007**	**FY 2008**	**FY 2009**	**FY2010**	**FY2011**	**FY2012**	**FY2013**
X3073 Airborne, Maritime, Fixed Site JTRS (AMF JTRS)	0.000	23.300	29.375	14.097	14.792	7.639	3.542

Note: FY07-09 amounts represent the total termination liability (TL) funding. FY10-13 amounts represent one-third of the total termination liability (TL) funding. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of AMF is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

Instructions:

1. For all ACAT 1 programs with RDT&E funding, indicate the funds by year budgeted for termination liability.
2. If not budgeted, provide the appropriate waiver authority.
3. For programs with waiver authority, identify the amounts on the contract by year.

Exhibit R-5 Termination Liability in Major Acquisition Programs RDTEN

EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3074 Ground Mobile Radio (GMR JTRS)		
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total Project Cost	**202.944**	**231.643**	**196.320**	**36.559**	**10.803**	**2.262**	**0.000**
3074 Ground Mobile Radio (GMR) JTRS	**202.944**	**231.643**	**196.320**	**36.559**	**10.803**	**2.262**	**0.000**

In FY07-FY09, Project No. 3074 represents the total Ground Mobile Radio (GMR) JTRS RDT&E budget for those years.

In FY10-FY13, Project No. 3074 represents the Navy share (1/3) of the funding associated with GMR JTRS. As part of the JTRS joint program acquisition strategy, each Military Department (MILDEP) budgets for one-third of the total program. Thus, one-third of JTRS Common Development is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

GMR is a product line overseen by the JTRS Ground Domain Program Management Office. JTRS is the Department of Defense (DoD) family of common software-defined programmable radios that will form the foundation of information radio frequency transmission for Joint Vision 2020. JTRS will provide transformational communication capabilities for the warfighter. The JTRS GMR will provide networking capability using the Wideband Networking Waveform and Soldier Radio Waveform to connect the unmanned sensors to the decision makers "On-The-Move" (OTM) which will significantly reduce the decision cycle. JTRS GMR will provide the warfighter with mobile Internet-like capabilities such as voice, data, networking and video communications, as well as interoperability with legacy radios across the battlespace.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)	PROJECT NUMBER AND NAME 3074 Ground Mobile Radio (GMR JTRS)

(U) B. Accomplishments/Planned Program

	FY 07	FY 08	FY 09
Ground Mobile Radio (Common)	202.944	231.643	196.320
RDT&E Articles Quantity			

FY07: In FY07, GMR JTRS efforts were transferred from PE 0604280A to PE 0604280N to support the revised JTRS joint program acquisition strategy. Continued Product Development including GMR JTRS Vehicular Hardware design and development of prototypes and technical engineering support. Continued Test and Evaluation including JTRS EPG test bed and test planning, test support, Electronic and Information Warfare Test and Evaluation, and labor. Continued JTRS Program Management Office support, and Systems Engineering and Technical support.

FY08: FY08 GMR JTRS funding supports the design, development and manufacture of Engineering Development Models (EDMs) for Ground Mobile Radio (GMR), technical support, Radio Application SW Functional Qualification Test, and Program Management Office support.

FY09: FY09 GMR JTRS funding will support the design, development, manufacture and delivery of EDMs for Ground Mobile Radio (GMR), technical support, Production Qualification Test (PQT), and Project Management Office support.

Note:
In FY07-FY09, Project No. 3074 represents the total GMR JTRS RDT&E budget for those years.
In FY10-FY13, Project No. 3074 represents the Navy share (1/3) of the funding associated with GMR JTRS. As part of the JTRS joint program acquisition strategy, each Military Department (MILDEP) budgets for one-third of the total program. Thus, one-third of JTRS Common Development is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

Exhibit R-3 Cost Analysis (JTRS GMR page 1)								DATE: February 2008				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3074 Ground Mobile Radio (GMR JTRS)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Product Development												
JTRS GMR GFE	Various	Various	0.000	2.000	3Q	2.000	1-4Q			Cont.	Cont.	
JTRS GMR 1 SDD	C/CPAF	BOEING, Anaheim, CA	0.000	182.644	1-4Q	199.413	1-4Q	162.444	1-3Q	Cont.	Cont.	
JTRS DEVELOPMENT - System Engineering Support	Various	Various	0.000	1.420	1-2Q	1.728	1-2Q	1.575	1-2Q	Cont.	Cont.	
Technology Development efforts			0.000	0.000		5.100	2Q	7.092	2Q	Cont.	Cont.	
Subtotal Product Development			0.000	186.064		208.241		171.111		Cont.	Cont.	
Remarks:												
Development Support												
NTDRS			0.000	0.000						Cont.	Cont.	
JTRS Antenna Study			0.000	0.000		2.025	1-2Q			Cont.	Cont.	
JTRS Tech Support	Various	Various	0.000	1.940	1-2Q			1.716	1-2Q	Cont.	Cont.	
ABCS SE&I Effort			0.000	0.000						Cont.	Cont.	
										Cont.	Cont.	
										Cont.	Cont.	
Subtotal Support			0.000	1.940		2.025		1.716		Cont.	Cont.	

Remarks:
In PYs, GMR JTRS funding resides in Army PE 0604805A, Project 615.
In FY07-FY09, Project No. 3074 represents the total GMR JTRS RDT&E budget for those years.
In FY10-13, Project No. 3074 represents one-third of the total GMR JTRS RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of GMR is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

Exhibit R-3, Project Cost Analysis

Exhibit R-3 Cost Analysis (JTRS GMR page 2)													DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)			PROJECT NUMBER AND NAME 3074 Ground Mobile Radio (GMR JTRS)							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Developmental Test & Evaluation													
JTRS EPG test bed & test planning	MIPR	EPG, Fort Huachuca, AZ	0.000	1.917	1-4Q	4.059	1-4Q	4.299	1-4Q	Cont.	Cont.		
JTRS M&S	MIPR	USAIC, Ft. Huachuca, AZ	0.000	0.500	2Q	2.000	2Q	0.870	2Q	Cont.	Cont.		
JTRS Test Inhouse Spt & Gov activities	Various	Various	0.000	2.237	1-2Q	2.336	1-2Q	3.075	1-2Q	Cont.	Cont.		
JTRS EOA/SIT/LUT/MOTE Test Activity	Various	EPG, Fort Huachuca, AZ/Various	0.000	0.105	1-3Q	0.720	1-3Q	4.674	1-3Q	Cont.	Cont.		
			0.000	0.000						Cont.	Cont.		
			0.000	0.000						Cont.	Cont.		
			0.000	0.000						Cont.	Cont.		
Subtotal T&E			0.000	4.759		9.115		12.918		Cont.	Cont.		
Remarks:													
Contractor Engineering Support													
JTRS Business Engineering Mgmt	Various	Various	0.000	3.911	1-4Q	3.984	1-4Q	3.984	1-4Q	Cont.	Cont.		
PMO Support	Various	Various	0.000	6.043	1-4Q	7.992	1-4Q	6.591	1-4Q	Cont.	Cont.		
JTRS Mitre support	MIPR	MITRE, Ft. Monmouth, NJ	0.000	0.227	2Q	0.286	2Q	0.000		Cont.	Cont.		
Subtotal Management			0.000	10.181		12.262		10.575		Cont.	Cont.		
Total Cost			0.000	202.944		231.643		196.320		Continuing	Continuing		

Remarks:
In PYs, GMR JTRS funding resides in Army PE 0604805A, Project 615.
In FY07-FY09, Project No. 3074 represents the total GMR JTRS RDT&E budget for those years.
In FY10-13, Project No. 3074 represents one-third of the total GMR JTRS RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of GMR is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

EXHIBIT R4, Schedule Profile		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)	PROJECT NUMBER AND NAME 3074 Ground Mobile Radio (GMR JTRS)

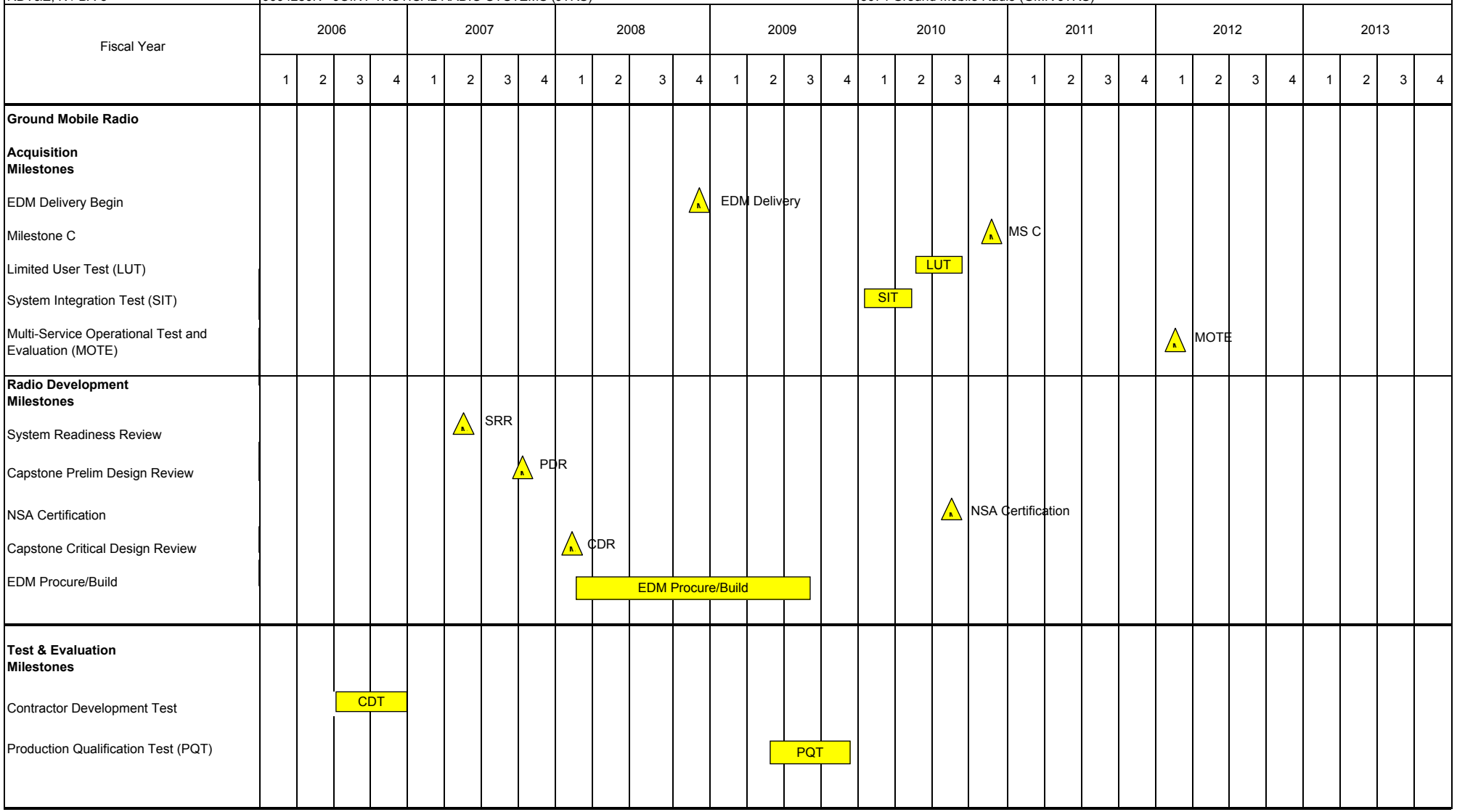

Exhibit R-4, Schedule Profile

Exhibit R-4a, Schedule Detail					DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3074 Ground Mobile Radio (GMR JTRS)		
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
System Readiness Review (SRR)	2Q						
Capstone Preliminary Design Review (PDR)	4Q						
Capstone Critical Design Review (CDR)		1Q					
EDM Procure/Build		1-4Q	1-3Q				
EDM Delivery Begin		4Q					
Production Qualification Test (PQT)			2-4Q				
JTRS - Army GMR System Integration Test (SIT)				1-2Q			
Limited User Test				2-3Q			
JTRS GMR Milestone C				4Q			
JTRS - Multi-Service Operational Test and Evaluation						1Q	
NSA Certification				3Q			

Exhibit R-4a, Schedule Detail

Exhibit R-5, Termination Liability Funding for Major Defense Acquisition Programs, RDT&E Funding					DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3074 Ground Mobile Radio (GMR JTRS)		
Program Title	**FY 2007**	**FY 2008**	**FY 2009**	**FY2010**	**FY2011**	**FY2012**	**FY2013**
X3074 Ground Mobile Radio (GMR JTRS)	28.499	25.170	12.183	8.418	6.037	0.000	0.000

Note:
In FY07-FY09 GMR JTRS represents the total termination liability (TL) funding profile. In FY010-11, GMR JTRS represents one-third of the total termination liability (TL) funding profile. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of TL is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

Instructions:

1. For all ACAT 1 programs with RDT&E funding, indicate the funds by year budgeted for termination liability.
2. If not budgeted, provide the appropriate waiver authority.
3. For programs with waiver authority, identify the amounts on the contract by year.

EXHIBIT R-2a, RDT&E Project Justification				DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)			PROJECT NUMBER AND NAME 3075 Handheld/Manpack/Small Form Fit (HMS JTRS)			
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total Project Cost	**132.884**	**168.359**	**164.766**	**32.239**	**5.246**	**0.000**	**0.000**
3075 Handheld, Manpack, Small Form Fit (HMS) JTRS	**132.884**	**168.359**	**164.766**	**32.239**	**5.246**	**0.000**	**0.000**

In FY07-FY09, Project No. 3075 represents the total HMS JTRS RDT&E budget for those years.

In FY10-FY13, Project No. 3075 represents the Navy share (1/3) of the funding associated with HMS JTRS. As part of the JTRS joint program acquisition strategy, each Military Department (MILDEP) budgets for one-third of the total program. Thus, one-third of JTRS Common Development is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

HMS is a product line overseen by the JTRS Ground Domain Program Management Office. JTRS is the DoD family of common software-defined programmable radios that will form the foundation of information radio frequency transmission for Joint Vision 2020. HMS provides a software re-programmable, networkable, multi-band, multi-mode system capable of simultaneous voice/data/video communication. HMS Increment 1 consists of the following form factors: 2 Channel Handheld, 2 Channel Manpack and Small Form Fit (SFF) embedded applications (SFF-A, B, C, D, I and J).

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS	PROJECT NUMBER AND NAME 3075 Handheld/Manpack/Small Form Fit (HMS JTRS)

(U) B. Accomplishments/Planned Program

	FY 07	FY 08	FY 09
Handheld/Manpack/Small Form Fit (Common)	132.884	168.359	164.766
RDT&E Articles Quantity			

FY07: In FY07, JTRS HMS efforts were transferred from PE 0604280A to PE 0604280N to support the revised JTRS joint program acquisition strategy. Continued HMS Product Development of HMS sets, HMS Test and Evaluation, Program Management Office support, and Technical support.

FY08: FY08 HMS JTRS funding will support the design, development and manufacture of Engineering Development Models (EDMs) for Small Form Fit D (SFF-D); Technical support; Increment 1, Phase 1 Contractor Development Test (CDT) and Government Development Test (GDT); and Program Management Office support.

FY09: FY09 HMS JTRS funding will support the design, development and manufacture of EDMs for SFF-B, I, and J, as well as the 2 channel Handheld and Manpack; technica support; Increment 1, Phase 2 Government Development Test (GDT); and Program Management Office support.

Note:
In FY07-FY09, Project No. 3075 represents the total HMS JTRS RDT&E budget for those years.
In FY10-13, Project No. 3075 represents one-third of the total HMS JTRS RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of HMS is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

Exhibit R-3 Cost Analysis (JTRS HMS page 1)								DATE: February 2008				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		**PROGRAM ELEMENT** 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				**PROJECT NUMBER AND NAME** 3075 Handheld/Manpack/Small Form Fit (HMS JTRS)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Product Development												
JTRS HMS Design, Development and Manufacture of Engineering Development Models (EDMs)	C/CPAF	General Dynamics C4 Systems, Scottsdale, AZ	0.000	100.880	4Q	133.495	1Q	120.525	1Q	Cont.	Cont.	
JTRS HMS Development System Engineering Support	Various	Various	0.000	10.829	1-4Q	6.722	1-2Q	6.485	1-2Q	Cont.	Cont.	
Technology Development efforts	Various	Various	0.000	1.700	2Q	1.219	2Q	5.100	2Q	Cont.	Cont.	
										Cont.	Cont.	
Subtotal Product Development			0.000	113.409		141.435		132.110		Cont.	Cont.	
Remarks:												
Development Support												
JTRS Technical Support	Various	Various	0.000	5.584	1-4Q	5.215	1-4Q	5.474	1-3Q	Cont.	Cont.	
										Cont.	Cont.	
Subtotal Support			0.000	5.584		5.215		5.474		Cont.	Cont.	

Remarks:
In PYs, HMS JTRS funding resides in Army PE 0604805A, Project 61A.
In FY07-FY09, Project No. 3075 represents the total HMS JTRS RDT&E budget for those years.
In FY10-13, Project No. 3075 represents one-third of the total HMS JTRS RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of HMS is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

Exhibit R-3, Project Cost Analysis

Exhibit R-3 Cost Analysis (JTRS HMS page 2)													DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)			PROJECT NUMBER AND NAME 3075 Handheld/Manpack/Small Form Fit (HMS JTRS)							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Developmental Test & Evaluation													
JTRS EPG test bed and planning	MIPR	EPG, Ft. Huachuca, AZ	0.000	0.100	4Q	0.100	2-4Q	0.700	1Q	Cont.	Cont.		
JTRS Modeling and Simulation	MIPR	USAIC, Ft. Huachuca, AZ	0.000	0.300	4Q	0.250	4Q	0.263	4Q	Cont.	Cont.		
JTRS Test In-house Support & Government Activities	Various	Various	0.000	2.413	1-4Q	8.891	1-4Q	12.569	1-3Q	Cont.	Cont.		
Phase 1 LUT	Various	Various	0.000	0.150	4Q	0.000	1-4Q	0.000	1Q	Cont.	Cont.		
Phase 1 IOTE	Various	Various	0.000	0.000		0.000		0.000	1-4Q	Cont.	Cont.		
Subtotal T&E			0.000	2.963		9.241		13.531		Cont.	Cont.		
Remarks:													
Contractor Engineering Support													
Project Management Office Support	Various	Various	0.000	7.797	1-4Q	9.072	1-4Q	10.355	1-4Q	Cont.	Cont.		
JTRS Business/ Engineering Management	Various	Various	0.000	3.130	1-4Q	3.395	1-4Q	3.296	1-4Q	Cont.	Cont.		
Subtotal Management			0.000	10.927		12.467		13.651		Cont.	Cont.		
Remarks:													
Total Cost			0.000	132.884		168.359		164.766		Continuing	Continuing		

Remarks:
In PYs, HMS JTRS funding resides in Army PE 0604805A, Project 61A.
In FY07-FY09, Project No. 3075 represents the total HMS JTRS RDT&E budget for those years.
In FY10-13, Project No. 3075 represents one-third of the total HMS JTRS RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of HMS is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

Exhibit R-3, Project Cost Analysis

EXHIBIT R4, Schedule Profile			DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)		PROJECT NUMBER AND NAME 3075 Handheld/Manpack/Small Form Fit (HMS JTRS)

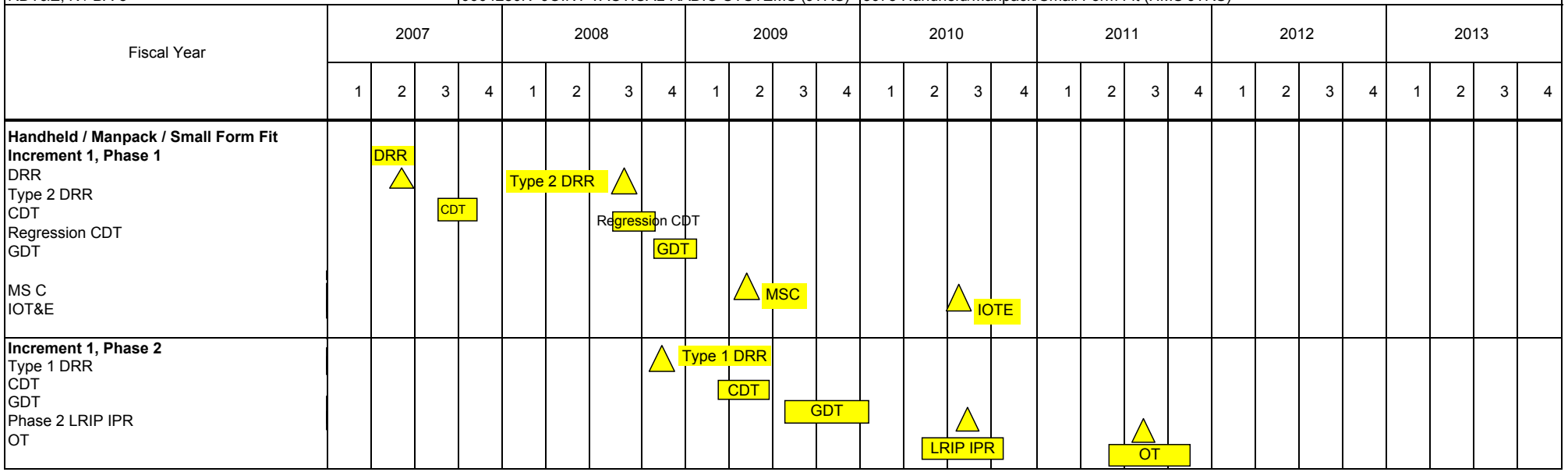

Exhibit R-4, Schedule Profile

Exhibit R-4a, Schedule Detail					DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3075 Handheld/Manpack/Small Form Fit (HMS JTRS)		
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Increment 1, Phase 1							
DRR	2Q						
Type 2 DRR		3Q					
CDT	3-4Q						
Regression CDT		3-4Q					
GDT		4Q	1Q				
MS C			2Q				
IOT&E				3Q			
Increment 1, Phase 2							
Type 1 DRR		4Q					
CDT			1-2Q				
GDT			3-4Q	1Q			
LRIP IPR				3Q			
OT					3Q		

Exhibit R-4a, Schedule Detail

Exhibit R-5, Termination Liability Funding for Major Defense Acquisition Programs, RDT&E Funding						DATE: February 2008	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	**PROGRAM ELEMENT NUMBER AND NAME** 0604280N JOINT TACTICAL RADIO SYSTEMS				**PROJECT NUMBER AND NAME** 3075 Handheld/Manpack/Small Form Fit (HMS JTRS)		
Program Title	**FY 2007**	**FY 2008**	**FY 2009**	**FY2010**	**FY2011**	**FY2012**	**FY2013**
X3075 JTRS Handheld / Manpack / Small Form Fit (HMS)	18.000	10.000	0.666	0.000	0.000	0.000	0.000

Note: In FY07-FY09, HMS JTRS represents the total termination liability (TL) funding profile. In FY10-13, HMS JTRS represents one-third of the total termination liability (TL) funding profile. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of TL is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

Instructions:

1. For all ACAT 1 programs with RDT&E funding, indicate the funds by year budgeted for termination liability.
2. If not budgeted, provide the appropriate waiver authority.
3. For programs with waiver authority, identify the amounts on the contract by year.

Exhibit R-5 Termination Liability in Major Acquisition Programs RDTEN

EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3076 JTRS Network Enterprise Domain (JNED)		
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total Project Cost	**221.499**	**248.552**	**242.284**	**66.412**	**44.567**	**32.962**	**23.372**
3076 JTRS Network Enterprise Domain (JNED)	**221.499**	**248.552**	**242.284**	**66.412**	**44.567**	**32.962**	**23.372**

In FY07-FY09, Project No. 3076 represents the total JNED RDT&E budget for those years.

In FY10-FY13, Project No. 3076 represents the Navy share (1/3) of the funding associated with the JNED program. As part of the JTRS joint program acquisition strategy, each Military Department (MILDEP) budgets for one-third of the total program. Thus, one-third of JTRS Common Development is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

JNED is responsible for the development and delivery of software-defined, legacy radio waveforms and networking waveforms that support Net-Centric operational warfare at sea, air and on the ground. Networking waveforms extend the Global Information Grid (GIG) to the last tactical mile and to the Warfighter. The JNED team is responsible for (1) the overall management and oversight of the JTRS Waveform program, (2) development, validation, and evolution of a common JTRS Software Communications Architecture (SCA), (3) development and evolution of waveform software applications, (4) development of software cryptographic algorithms and equipment applications, (5) testing and certification of JTRS waveforms, network services, network management, and software products, and (6) JTRS networking and network management software components. Service acquisition agencies are responsible for acquiring and fielding host radio hardware and integrating JTRS into Service platforms.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-5	0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)	3076 JTRS Network Enterprise Domain (JNED)

(U) B. Accomplishments/Planned Program

	FY 07	FY 08	FY 09
JTRS Network Enterprise Domain (JNED)	221.499	248.552	242.284
RDT&E Articles Quantity			

FY07 ($221.499): In FY07, JNED efforts were transferred from PE 0604280A to PE 0604280N to support the revised JTRS joint program acquisition strategy. Continued development and acquisition of Increment 1 networking waveforms that support Net-Centric operational warfare at sea, air and on the ground to extend the GIG to the last tactical mile and the warfighter. Continued JNED program support and other related activities to support the networking waveform development.

Networking Waveforms:

- **Wideband Networking Waveform (WNW)** ($56.056) is a high data rate networking waveform application that provides the lower tactical Internet backbone and connects tactical forces across the battle sphere. WNW will feature two signals-in-space (SiS), which are the Orthogonal Frequency Division Multiplexing (OFDM) and Anti-Jam (AJ). WNW will provide high throughput, dynamically adaptable connectivity for the exchange of Internet Protocol (IP) based voice, data, and video traffic. WNW will support network nodes on mobile, airborne, and maritime platforms. WNW includes networking services, security, High Assurance IP Equipment (HAIPE) capabilities, red-black switching, and internal routing of other WNW signals. Completed the development of Version 2.0 in 2Q FY07 and version 2.5 in 4Q FY07 to support FCS test events. Platforms included: GMR and AMF.

- **Soldier Radio Waveform (SRW)** ($27.533) will operate on JTR sets to provide a networked battlefield communications capability for disadvantaged users engaged in land combat operations and will support voice, data, and video communications on and over the immediate battlefield. These forces include vehicles, rotary wing, dismounted soldiers, munitions, sensors, and unmanned air vehicles (UAV). Functional software applications will use SRW enabled JTR sets over IP capable networks and sub-networks. SRW will be interoperable with higher throughput, IP-based network waveforms, such as WNW. As applicable, these IP-based networking waveforms will enable information exchanges through the GIG to the soldier and provide entirely new capabilities for battlefield communications and information sharing. Completed development of SLICE Version 2.1 in 1Q FY07 to support Future Combat Systems test events. Platforms included: GMR, AMF and HMS.

- **Mobile User Objective System (MUOS)** ($9.511) will enable MUOS satellites to provide worldwide communication satellite coverage for DoD requirements. MUOS will provide functionality comparable to commercial mobile phone systems. MUOS offers secure streaming video, netted communications, and voice/data in real time to provide essential connectivity. JNED program continued to modify this waveform, making it compatible and certifiable to meet DoD security requirements plus enable porting to JTR sets. Platforms included: AMF.

- Joint Airborne Networking - Tactical Edge (JAN-TE) ($17.000) will operate on JTR airborne sets to provide a networked tactical communications capability for tactical aircraft. JAN-TE will provide increased throughput, highly responsive connectivity, and ad hoc mobile networking for fighters engaged in air operations. This networking waveform is uniquely designed and engineered for highly maneuverable, fast moving aircraft for rapidly establishing networks to share high value data communications. Continued development of the JAN-TE waveform during this year. Platform included: MIDS.

Network Enterprise Services ($41.142): Continued development and acquisition of JTRS Network Enterprise Services (JNES) to include Enterprise Network Manager (ENM) and Enterprise Network Services (ENS). Continued to provide JNED technical support, including waveform development, systems engineering, spectrum allocation, system security engineering, problem resolution and support of Software Communications Architecture (SCA) activities. Completed and submitted a formal ENS and ENM Performance Requirements Document (PRD) 3.2.1 .

Legacy Radio Waveforms ($70.257) Continued the development and acquisition of legacy software and other related activities to support the legacy waveform development of High Frequency (HF) and Link 16. Continued to develop Build 2.2 of the Enhanced Position Location and Reporting System (EPLRS) development. Performed FQT for UHF SATCOM DAMA version 3.1 in 2Q FY07. Performed FQT for the Single-Channel Ground and Airborne Radio System (SINCGARS) version 1.3 in 3Q FY07 and version 1.4 in 4Q FY07. Completed FQT for JTRS Bowman Waveform in 3Q FY07. Provide technical guidance to Platform Program Management offices (PMO). Continued to support Waveform integration, test and evaluation to include hardware and software waveform certification process (SCA compliance testing) to meet program requirements. Continued JNED program management office support. Began Software Trouble Report (STR) correction to both software-defined legacy radio and networking waveforms.

Note:
In FY07-FY09, Project No. 3076 represents the total JNED RDT&E budget for those years.
In FY10-FY13, Project No. 3076 represents one-third of the total JNED RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of JNED is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)	PROJECT NUMBER AND NAME 3076 JTRS Network Enterprise Domain (JNED)

(U) B. Accomplishments/Planned Program

	FY 07	FY 08	FY 09
JTRS Network Enterprise Domain (JNED)	221.499	248.552	242.284
RDT&E Articles Quantity			

FY08 ($248.552): Continue development and acquisition of Increment 1 networking waveforms that support Net-Centric operational warfare at sea, air and on the ground to extend the GIG to the last tactical mile and the warfighter. Continue JNED program support and other related activities to support the networking waveform development.

Networking Waveforms:
- **Wideband Networking Waveform (WNW)** ($46.050) is a high data rate networking waveform application that provides the lower tactical Internet backbone and connects tactical forces across the battle sphere. WNW will feature two signals-in-space (SiS), which are the Orthogonal Frequency Division Multiplexing (OFDM) and Anti-Jam (AJ). WNW will provide high throughput, dynamically adaptable connectivity for the exchange of Internet Protocol (IP) based voice, data, and video traffic. WNW will support network nodes on mobile, airborne, and maritime platforms. WNW includes networking services, security, High Assurance IP Equipment (HAIPE) capabilities, red-black switching, and internal routing of other WNW signals. Complete development for version 3.0 in 2Q FY08. Platforms include: GMR and AMF.

- **Soldier Radio Waveform (SRW)** ($54.382) will operate on JTR sets to provide a networked battlefield communications capability for disadvantaged users engaged in land combat operations and will support voice, data, and video communications on and over the immediate battlefield. These forces include vehicles, rotary wing, dismounted soldiers, munitions, sensors, and unmanned air vehicles (UAV). Functional software applications will use SRW enabled JTR sets over IP capable networks and sub-networks. SRW will be interoperable with higher throughput, IP-based network waveforms, such as WNW. As applicable, these IP-based networking waveforms will enable information exchanges through the GIG to the soldier and provide entirely new capabilities for battlefield communications and information sharing. Complete development and perform FQT for version 1.0 in 3Q FY08. Platforms include: GMR, AMF and HMS.

- **Mobile User Objective System (MUOS)** ($26.518) will enable MUOS satellites to provide worldwide communication satellite coverage for DoD requirements. MUOS will provide functionality comparable to commercial mobile phone systems. MUOS offers secure streaming video, netted communications, and voice/data in real time to provide essential connectivity. JNED program will modif this waveform, making it compatible and certifiable to meet DoD security requirements plus enable porting to JTR sets. Platforms include: AMF.

- **Joint Airborne Networking -Tactical Edge (JAN-TE)** ($42.049) will operate on JTR airborne sets to provide a networked tactical communications capability for tactical aircraft. JAN-TE will provide increased throughput, highly responsive connectivity, and ad hoc mobile networking for fighters engaged in air operations. This networking waveform is uniquely designed and engineered for highly maneuverable, fast moving aircraft for rapidly establishing networks to share high value data communications. Platform include: MIDS.

Network Enterprise Services ($49.880)**:** Continue development and acquisition of JTRS Network Enterprise Services (JNES) to include Enterprise Network Manager (ENM) and Enterprise Network Services (ENS). Continue to provide JNED technical support, including waveform development, systems engineering, spectrum allocation, system security engineering and problem resolution and support of Software Communications Architecture (SCA) activities. Complete development of JTRS WNW Network Manager (JWNM) Version 3.0 in 3Q Fy08.

Legacy Radio Waveforms ($29.673) Continue the development and acquisition of legacy software and other related activities to support the legacy waveform development of High Frequency (HF). Complete Build 2.2 of the Enhanced Position Location and Reporting System (EPLRS) development and perform FQT in 1Q FY08. Complete the development and perform FQT for Link 16 in 2QFY08 Provide technical guidance to Platform Program Management offices (PMO). Continue to support Waveform integration, test and evaluation to include hardware and software waveform certification process (SCA compliance testing) to meet program requirements. Continue JNED program management office support. Continue Software Trouble Report (STR) correction to both software-defined legacy radio and networking waveforms.

Note:
In FY07-FY09, Project No. 3076 represents the total JNED RDT&E budget for those years.
In FY10-FY13, Project No. 3076 represents one-third of the total JNED RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program Thus, one-third of JNED is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-5	0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)	3076 JTRS Network Enterprise Domain (JNED)

(U) B. Accomplishments/Planned Program

	FY 07	FY 08	FY 09
JTRS Network Enterprise Domain (JNED)	221.499	248.552	242.284
RDT&E Articles Quantity			

FY09 ($242.284): Continue development and acquisition of Increment 1 networking waveforms that support Net-Centric operational warfare at sea, air and on the ground to extend the GIG to the last tactical mile and the warfighter. Continue JNED program support and other related activities to support the networking waveform development.

Networking Waveforms:
- **Wideband Networking Waveform (WNW)** ($16.937) is a high data rate networking waveform application that provides the lower tactical Internet backbone and connects tactical forces across the battle sphere. WNW will feature two signals-in-space (SiS), which are the Orthogonal Frequency Division Multiplexing (OFDM) and Anti-Jam (AJ). WNW will provide high throughput, dynamically adaptable connectivity for the exchange of Internet Protocol (IP) based voice, data, and video traffic. WNW will support network nodes on mobile, airborne, and maritime platforms. WNW includes networking services, security, High Assurance IP Equipment (HAIPE) capabilities, red-black switching, and internal routing of other WNW signals. Complete development and perform FQT for version 4.0 in 2Q FY09. Platforms include: GMR and AMF.

- **Soldier Radio Waveform (SRW)** ($30.031) will operate on JTR sets to provide a networked battlefield communications capability for disadvantaged users engaged in land combat operations and will support voice, data, and video communications on and over the immediate battlefield. These forces include vehicles, rotary wing, dismounted soldiers, munitions, sensors, and unmanned air vehicles (UAV). Functional software applications will use SRW enabled JTR sets over IP capable networks and sub-networks. SRW will be interoperable with higher throughput, IP-based network waveforms, such as WNW. As applicable, these IP-based networking waveforms will enable information exchanges through the GIG to the soldier and provide entirely new capabilities for battlefield communications and information sharing. Continue development of version 1.1. Platforms include: GMR, AMF and HMS.

- **Mobile User Objective System (MUOS)** ($53.537) will enable MUOS satellites to provide worldwide communication satellite coverage for DoD requirements. MUOS will provide functionality comparable to commercial mobile phone systems. MUOS offers secure streaming video, netted communications, and voice/data in real time to provide essential connectivity. JNED program will modify this waveform, making it compatible and certifiable to meet DoD security requirements plus enable porting to JTR sets. Platforms include: AMF.

- **Joint Airborne Networking -Tactical Edge (JAN-TE)** ($35.187) will operate on JTR airborne sets to provide a networked tactical communications capability for tactical aircraft. JAN-TE will provide increased throughput, highly responsive connectivity, and ad hoc mobile networking for fighters engaged in air operations. This networking waveform is uniquely designed and engineered for highly maneuverable, fast moving aircraft for rapidly establishing networks to share high value data communications. Complete development and perform FQT for Phase 1 in 4Q FY09. Platform include: MIDS.

Network Enterprise Services ($671.315): Continue development and acquisition of JTRS Network Enterprise Services (JNES) to include Enterprise Network Manager (ENM) and Enterprise Network Services (ENS). Continue to provide JNED technical support, including waveform development, systems engineering, spectrum allocation, system security engineering and problem resolution and support of Software Communications Architecture (SCA) activities. Complete development of JTRS WNW Network Manager (JWNM) Version 4.0 in 3Q Fy09.

Legacy Radio Waveforms ($35.277) Continue the development and acquisition of legacy software and other related activities to support the legacy waveform development of High Frequency (HF). Complete development and perform FQT for HF Spiral 1 in 2Q FY09. Continue to provide JNED technical support, including waveform development, systems engineering, spectrum allocation, system security engineering and problem resolution and support of Software Communications Architecture (SCA) activities. Provide technical guidance to the Platform Program Management offices (PMO). Continue to support Waveform integration, test and evaluation to include hardware and software waveform certification process (SCA compliance testing) to meet program requirements. Continue JNED program management office support. Continue Software Trouble Report (STR) correction to both software-defined legacy radio and networking waveforms.

Note:
In FY07-FY09, Project No. 3076 represents the total JNED RDT&E budget for those years.
In FY10- FY13, Project No. 3076 represents one-third of the total JNED RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of JNED is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

Exhibit R-3 Cost Analysis (JTRS NED page 1)								DATE: February 2008				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3076 JTRS Network Enterprise Domain (JNED)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Product Development												
Architecture Development and Validation, Evolve and Provide CM Mgmt of SCA	Various	Various	0.000	1.035	2Q	1.060	2Q	0.655	2Q	Cont.	Cont.	Cont.
Waveform Development:												
Wideband Networking Waveform (WNW)	CPAF	Boeing, Anaheim CA	0.000	56.056	1-2Q	46.050	1-2Q	16.937	1-2Q	Cont.	Cont.	Cont.
Soldier Radio Waveform (SRW)	Various	Various	0.000	27.533	1Q	54.382	1Q	30.031	1-2Q	Cont.	Cont.	Cont.
Mobile User Objective System (MUOS)	Various	Various	0.000	9.511	1Q	26.518	2Q	53.537	1-2Q	Cont.	Cont.	Cont.
Joint Airborne Networking -Tactical Edge (JAN-TE)	Various	Various	0.000	17.000	1-2Q	42.049	2Q	35.187	1-2Q	Cont.	Cont.	Cont.
Legacy Software-Defined Radio Waveforms	Various	Various	0.000	29.168	1-2Q	4.211	1-2Q	4.934	1-2Q	Cont.	Cont.	Cont.
Network Enterprise Services Development	Various	Various	0.000	41.142	2-3Q	49.880	1-2Q	71.315	1-2Q	Cont.	Cont.	Cont.
Software Sustainment And STR Engineering	Various	Various	0.000	21.866	2-3Q	3.332	1-2Q	9.323	1-2Q	Cont.	Cont.	Cont.
Certification (interim SCA Compliance Testing)	Various	Various	0.000	6.030	1-2Q	1.500	1-2Q	2.000	1-2Q	Cont.	Cont.	Cont.
Subtotal Product Development			0.000	209.341		228.982		223.919		Cont.	Cont.	Cont.
Remarks:												
Development Support												
FFRDC - MITRE Technical Support	MIPR	MITRE, Ft. Monmouth, NJ	0.000	4.186	1-2Q	11.342	1-2Q	10.589	1-2Q	Cont.	Cont.	Cont.
Subtotal Support			0.000	4.186		11.342		10.589		Cont.	Cont.	Cont.

Remarks: In PYs, funding for JNED resides in Army PE 0604280A, Project 162.
In FY07-FY09, Project No. 3076 represents the total JNED RDT&E budget for those years.
In FY10-FY13, Project No. 3076 represents one-third of the total JNED RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of JNED is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

Exhibit R-3 Cost Analysis (JTRS NED page 2)												DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3076 JTRS Network Enterprise Domain (JNED)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation												
N/A	N/A	N/A	0.000	0.000		0.000		0.000		0.000	0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		Cont.	Cont.	Cont.
Remarks:												
Contractor Engineering Support												
Program Management Support	Various	Various	0.000	7.972	1-2Q	8.228	1-2Q	7.776	1-2Q	Cont.	Cont.	Cont.
Subtotal Management			0.000	7.972		8.228		7.776		Cont.	Cont.	Cont.
Remarks:												
Total Cost			0.000	221.499		248.552		242.284		Continuing	Continuing	

Remarks: In PYs, funding for JNED resides in Army PE 0604280A, Project 162.
In FY07-FY09, Project No. 3076 represents the total JNED RDT&E budget for those years.
In FY10-FY13, Project No. 3076 represents one-third of the total JNED RDT&E budget. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, one-third of JNED is represented in this PE, one-third is represented in Army PE 0604280A, and one-third in Air Force PE 0604280F.

Exhibit R-3, Project Cost Analysis

EXHIBIT R4, Schedule Profile

DATE: February 2008

APPROPRIATION/BUDGET ACTIVITY
RDT&E, N /

PROGRAM ELEMENT NUMBER AND NAME
0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)

PROJECT NUMBER AND NAME
3076 JTRS Network Enterprise Domain (JNED)

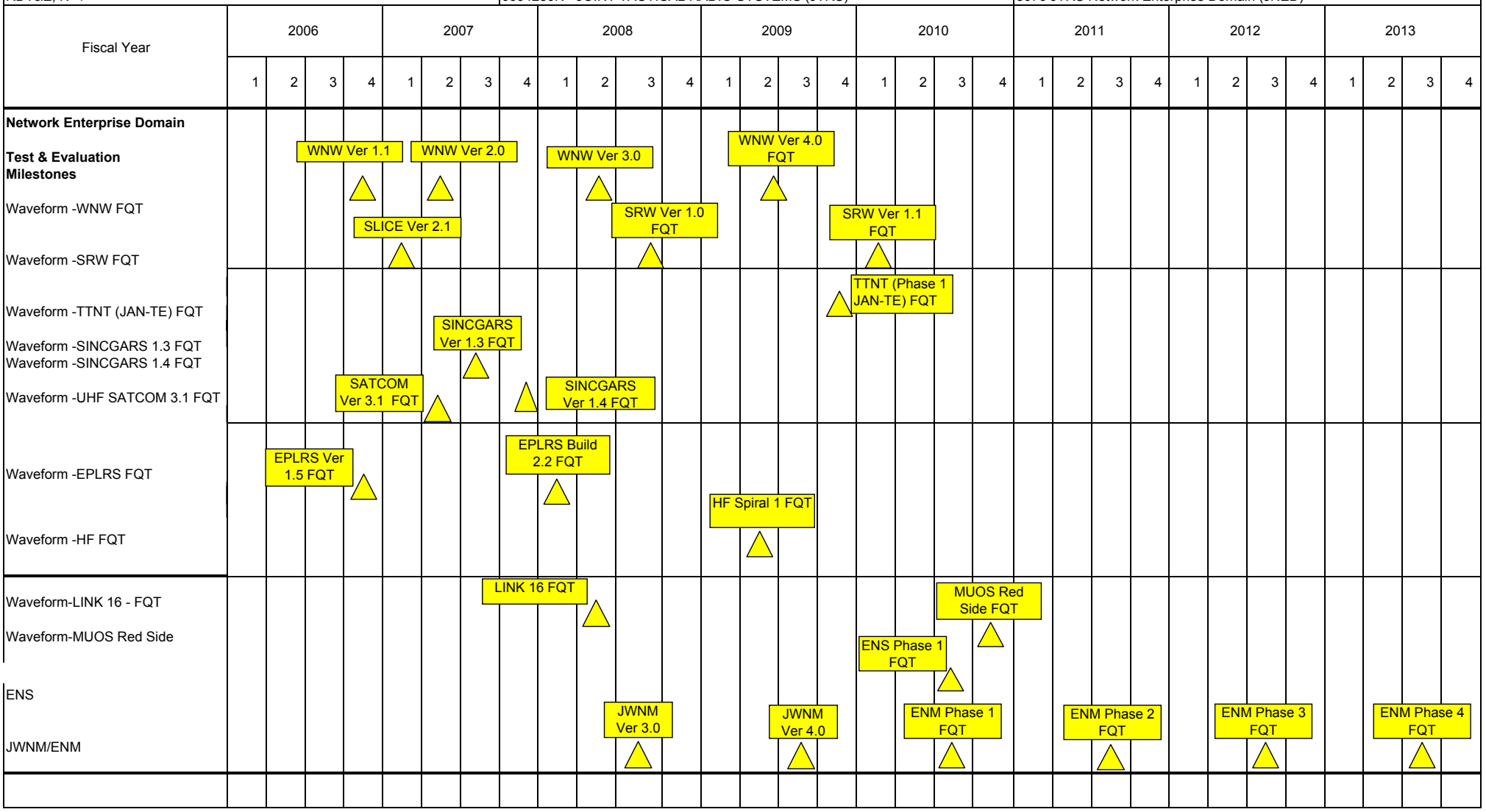

Exhibit R-4, Schedule Profile

Exhibit R-4a, Schedule Detail					DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3076 JTRS Network Enterprise Domain (JNED)			
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Waveform WNW								
WNW Version 1.1	4Q							
WNW Version 2.0		2Q						
WNW Version 3.0			2Q					
WNW FQT Version 4.0				2Q				
Waveform SRW								
SLICE Version 2.1		1Q						
SRW FQT Version 1.0			3Q					
SRW FQT Version 1.1					1Q			
Waveform TTNT (Phase 1 JAN-TE) FQT				4Q				
Waveform SINCGARS INC								
SINCGARS Version 1.3		3Q						
SINCGARS Version 1.4		4Q						
Waveform UHF SATCOM V3.1 FQT		2Q						
Waveform EPLRS								
EPLRS Version 1.5	4Q							
EPLRS Build 2.2 FQT			1Q					
Waveform HF FQT Spiral 1				2Q				
Waveform- Link 16 FQT			2Q					
Waveform - MUOS Red Side					4Q			
Enterprise Networking Services (ENS)								
Phase 1 FQT					3Q			
JTRS WNW Network Manager (JWNM) Version 3.0			3Q					
JTRS WNW Network Manager (JWNM) Version 4.0				3Q				
Enterprise Network Management (ENM)								
Phase 1 FQT					3Q			
Phase 2 FQT						3Q		
Phase 3 FQT							3Q	
Phase 4 FQT								3Q

Exhibit R-4a, Schedule Detail

Exhibit R-5, Termination Liability Funding for Major Defense Acquisition Programs, RDT&E Funding					DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604280N JOINT TACTICAL RADIO SYSTEMS (JTRS)				PROJECT NUMBER AND NAME 3076 JTRS Network Enterprise Domain (JNED)		
Program Title	**FY 2007**	**FY 2008**	**FY 2009**	**FY2010**	**FY2011**	**FY2012**	**FY2013**
X3076 JTRS Network Enterprise Domain (JNED)	15.976	13.115	17.211	0.000	0.000	0.000	0.000

Note:
FY07-FY09 funding above represents the total JNED termination liability (TL) funding profile. FY10-FY13 funding above represents one-third of the total JNED termination liability (TL) funding profile. As part of the JTRS joint program acquisition strategy, each MILDEP budgets for one-third of the total program. Thus, for FY09 and beyond, one-third of TL is represented in this PE, one-third is represented in Army PE 0604280A and one-third in Air Force PE 0604280F.

Instructions:

1. For all ACAT 1 programs with RDT&E funding, indicate the funds by year budgeted for termination liability.
2. If not budgeted, provide the appropriate waiver authority.
3. For programs with waiver authority, identify the amounts on the contract by year.

Exhibit R-5, Termination Liability Funding for Major Defense Acquisition Programs, RDT&E Funding