Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	4,239.764	601.347	337.480	3.302	-	3.302	0.000	4.997	1.999	0.000	0.000	5,188.889
3020: *MIDS/JTRS*	416.482	47.204	100.419	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	564.105
3073: *AMF JTRS*	1,181.622	264.373	58.187	3.302	-	3.302	0.000	0.000	0.000	0.000	0.000	1,507.484
3074: *GMR JTRS*	998.328	16.962	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1,015.290
3075: *HMS JTRS*	655.536	117.231	116.030	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	888.797
3076: *JTRS Network Enterprise Domain (JNED)*	987.796	147.190	59.077	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1,194.063
3078: *Digital Modular Radio*	0.000	4.387	3.767	0.000	-	0.000	0.000	4.997	1.999	0.000	0.000	15.150
9999: *Congressional Adds*	0.000	4.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	4.000
MDAP/MAIS Code(s): 284,360,385,421,554												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY12-FY13, Program Element (PE) 0604280N represents the total JTRS RDT&E Budget (includes Multifunctional Information Distribution System (MIDS), Airborne and Maritime/Fixed Station (AMF) JTRS, Ground Mobile Radio (GMR) JTRS, Handheld/Manpack/Small Form Fit (HMS) JTRS, and JTRS Network Enterprise Domain (JNED) and Digital Modular Radios (DMR)).

In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the Acquisition Decision Memorandum (ADM) dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to a Military Department-managed program. AMF JTRS and HMS JTRS transitioned to the Army and can be found under PE 0604280A and MIDS transitioned to the Navy under PE 0205604N. The Joint Tactical Networks (JTN) (formally known as JNED) continues to remain under a joint budget strategy in the three Services in the Army PE 0605030A, the Navy PE 0605030N, and the Air Force PE 0605030F.

A. Mission Description and Budget Item Justification

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. The JTRS family of products will be multifunctional, multiband, multimode, network capable, and capable of providing communications through a range of low probability of intercept, low probability of detection and anti-jam waveforms. JTRS products will provide transformational communication capabilities for the warfighter. 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. JTRS products are hardware-configurable and software-programmable radio systems that provide increased interoperability, flexibility and adaptability to support varied mission requirements.

The Airborne & Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS) radios are software programmable, multi-band, multi-mode, mobile ad hoc networking radios, providing simultaneous voice, data, and video communications. The radios will operate in networks supporting the Common Operational Picture, situational awareness, and interoperability of Mission Command (MC) systems throughout the battlefield. AMF JTRS must ensure the Warfighters' ability to communicate both horizontally and vertically via voice and data within all mission areas and Combat Operational Environments. AMF JTRS helps close capability gaps by extending data networking to company and below echelons, enabling network services to the platform and connecting Army Aviation platforms to Army ground and Joint air network domains. Per Milestone Decision Authority (MDA) direction, the redefined AMF JTRS Program will procure radios as Non-Developmental Items (NDI).

MIDS - Low Volume Terminal (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 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 remapping, and programmable crypto are realized in the MIDS JTRS design. The MIDS JTRS core terminal includes three 2 MHz to 2 GHz programmable channels that allow the warfighter to use multiple waveforms in development by JNED. Total core terminal program requirements include: terminal development, F/A-18 Level 0 integration, software hosting (operating environment/waveforms) and production transition. MIDS JTRS will also provide Concurrent Multi-Netting-4 (CMN-4) and Tactical Targeting Network Technology (TTNT). These capabilities provide Joint Airborne Network-Tactical Edge (JAN-TE) functionality to run advanced mission applications in a cross-platform/cross-domain tactical network enterprise and the ability to simultaneously participate in four Link-16 Nets.

GMR following a critical Nunn McCurdy breach the USD AT&L conducted a reassessment of the GMR program. Conclusions of the reassessment did not support certification of the program, thereby cancelling the program. In accordance with the ADM dated 14 October 2011, the GMR program office was directed to conduct an orderly shutdown of the existing GMR System Development and Demonstration contract which expired on 30 March 2012.

HMS provides the JTRS capability to meet Joint Ground Mounted, Dismounted & Embedded Radio Requirements. Increment 1, Phase 1 developed Small-Form-Fit (SFF) SFF-A (1 and 2 Channel), SFF-D and AN/PRC-154 Rifleman Radio running Soldier Radio Waveform (SRW) for use in a sensitive but unclassified environment (Type 2). Increment 1, Phase 2 will develop the 2 Channel Manpack and SFF-B. Phase 2 radios are all Type 1 compliant for use in a classified environment running Very High Frequency/Ultra High Frequency (V/UHF) Line of Sight (LOS) w/Air Traffic Control (ATC), Satellite Communications (SATCOM), High Frequency (HF), Soldier Radio Waveform (SRW), Mobile User Objective System (MUOS), JTRS Bowman Waveform (JBW) and Single Channel Ground to Air Radio System (SINCGARS) waveforms.

Joint Tactical Networks (JTN) will provide interoperable, secure Joint Tactical Networking applications capable of operating in a variety of radio solutions to maintain and sustain an affordable, government-controlled open architecture, in support of Combatant Commanders', Services' and Coalition mission network requirements. JTN is responsible for the continuous development, delivery, and maintenance of networking waveforms and modified legacy radio waveforms that are Software

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
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Communications Architecture (SCA) compliant. SCA compliant waveforms enable interoperability and 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 Digital Modular Radio (DMR), AN/USC-61(C), is the first software defined radio to have become a communications system standard for the U.S. Military. The compact, multi-channel DMR provides multiple waveforms and multi-level information security for voice and data communications. Digital Modular Radios currently operate aboard U.S. Navy surface and subsurface vessels, fixed-sites and other Department of Defense communication platforms using frequencies ranging from 2 MHz to 2 GHz.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	675.521	337.480	150.372	-	150.372
Current President's Budget	601.347	337.480	3.302	-	3.302
Total Adjustments	-74.174	0.000	-147.070	-	-147.070
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-56.999	0.000			
• SBIR/STTR Transfer	-17.175	0.000			
• Program Adjustments	0.000	0.000	-140.296	-	-140.296
• Rate/Misc Adjustments	0.000	0.000	-6.774	-	-6.774

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2012	FY 2013
Project: 9999: *Congressional Adds*		
Congressional Add: *GMR JTRS (Cong)*	4.000	-
Congressional Add Subtotals for Project: 9999	4.000	0.000
Congressional Add Totals for all Projects	4.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3020: *MIDS/JTRS*	416.482	47.204	100.419	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	564.105
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY12-FY13, Project No. 3020 represents the total Multifunctional Information Distribution System (MIDS) RDT&E budget for those years. All references to MIDS funding includes funding for both MIDS-LVT and MIDS JTRS.

In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to a Military Department-managed program. MIDS transitioned to the Navy under PE 0205604N.

A. Mission Description and Budget Item Justification

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. The JTRS family of products will be multifunctional, multiband, multimode, network capable, capable of providing communications through a range of low probability of intercept, low probability of detection and anti-jam waveforms. JTRS products will provide transformational communication capabilities for the warfighter. 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. JTRS products are hardware-configurable and software-programmable radio systems that provide increased interoperability, flexibility and adaptability to support varied mission requirements.

MIDS-Low Volume Terminal (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 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 frequency remapping and programmable crypto are also realized in the MIDS JTRS design. The MIDS JTRS core terminal includes three 2 MHz to 2 GHz programmable channels that allow the warfighter to use multiple waveforms in development by JNED. Total core terminal program requirements include: terminal development, F/A-18 Level 0 integration, software hosting (operating environment/waveforms) and production transition. MIDS JTRS will also provide Concurrent Multi-Netting-4 (CMN-4) and Tactical Targeting Network Technology (TTNT). These capabilities provide Joint Airborne Network-Tactical Edge (JAN-TE) functionality to run advanced mission applications in a cross-platform/cross-domain tactical network enterprise and the ability to simultaneously participate in four Link-16 Nets.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: MIDS/JTRS	47.204	100.419	0.000
Articles:	0	0	
FY 2012 Accomplishments: Received Full Production and Fielding (FP&F) decision for Core Terminal program (MIDS JTRS) and awarded Lot 1. Began Concurrent Multi-Netting-4 (CMN-4) including LEEP/MIDS Modernization technical analysis to reduce risk for the full development. Awarded MIDS JTRS Block Cycle 2 (BC2) which includes the development, qualification and delivery of the MIDS JTRS Operating Environment software for Platform M, MIDS on Ship (MOS) and Dynamic Network Manager. BC2 incorporates Navy Shipboard Input/Output (NSIO) for the MIDS JTRS terminals. Completed the spec development for MIDS-LVT Crypto Modernization (CM) and Engineering Change Proposal (ECP) Enhancements. Awarded MIDS-LVT Crypto Modernization (LCM), an integral piece of the Block Upgrade 2 (BU2) effort for MIDS-LVT that replaces the crypto chip currently in the MIDS-LVT terminals. Began development of MIDS-LVT CM/BU2 that will replace or update several hardware, software and firmware components within the terminal. Continued MIDS systems engineering, Communications Security (COMSEC), Information Assurance (IA) and program management support.			
FY 2013 Plans: Delivered MIDS JTRS Crypto Modernization (CM) capability. Awarded the development, design and implementation of four (4) nets Concurrent Multi-Netting with Concurrent Contention Receive (CMN-4) for MIDS JTRS. CMN-4 consists of two capabilities, Concurrent Multi-Netting (CMN) and Concurrent Contention Reception (CCR). CMN is the ability of a Link 16 Terminal to receive multiple messages, each in different Link 16 nets, within the same Link 16 time slot. CCR is the ability of a Link 16 Terminal to receive multiple messages in the same Link 16 net within the same Link 16 time slots. Began spec development/technical analysis for Tactical Targeting Network Technology (TTNT) for MIDS JTRS Naval Integrated Fire Control Counter Air (NIFC-CA) and From the Air Advanced Tactical Data Links (FTA ATDL). Assumed responsibility of the TTNT waveform development. These capabilities provide Joint Airborne Network-Tactical Edge (JAN-TE) functionality to run advanced mission applications in a cross-platform/cross-domain tactical network enterprise. Continued on Block Upgrade 2 (BU2) development to include Frequency Remapping (FR), a required Department of Transportation (DOT) mandate to enable the continued use of MIDS Link-16 to remap at least 14 of its 51 data transmission and receipt time slots to frequencies which do not interfere with current and planned Federal Aviation Administration (FAA) safety of flight systems. Began development of Enhanced Throughput (ET) capabilities for MIDS-LVT under BU2. Continued MIDS systems engineering, COMSEC, IA and program management support.			
Accomplishments/Planned Programs Subtotals	47.204	100.419	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/0145: *FA-18E/F*	7.957	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	16.312
• APN/0143: *EA-18G*	11.806	8.401	0.000		0.000	0.000	0.000	0.000	0.000	0.000	32.208

Remarks

D. Acquisition Strategy

MIDS JTRS development was initiated as a major modification to the MIDS-LVT using an Engineering Change Proposal to the existing production contracts. Development efforts included the Phase 2B Core terminal. The U.S. prime contractors from the MIDS-LVT program, Data Link Solutions (DLS) and ViaSat Inc., cooperatively designed and developed the Core terminal. Each prime contractor built and qualified Production Verification Terminals. The U.S. implemented 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. The FY14 budget supports development and implementation of Crypto Modernization, Frequency Remapping, and Enhanced Throughput capabilities for the MIDS-LVT terminal as well as the initial development to incorporate Concurrent Multi-Netting-4 (CMN-4) and Tactical Targeting Network Technology (TTNT) into MIDS JTRS. MIDS JTRS also takes over the responsibilty of developing the TTNT waveform.

E. Performance Metrics

The JTRS programs are employing mature, software-defined radio technologies and developing more than 10 million lines of code as part of the Increment 1 baseline. Early on, a JTRS enterprise software metrics requirements effort established a baseline of standard software metrics which are monitored on each JTRS contract involving software development. Example metrics are: the number of requirements and the number of use cases required for design are estimated during the requirement and design phase and analyzed for trend-actual vs. scheduled; the software lines of code (SLOC) counts are used to determine progress during the coding phase; and the execution of test cases as well as trouble reports are monitored during the integration and test phase. Further, a software complexity product metric is collected which demonstrates the testability of the code and is an important criterion for software certification. These software metrics are used to quantify the quality and progress of each software product's development over time. Additionally, MIDS employs Earned Value Metrics to monitor contract performance on its Prime Development Contracts, as required.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIDS JTRS HW/SW (Phase 2B Core)1	C/CPIF	DLS:Cedar Rapids, IA	120.134	0.000		0.000		0.000		-		0.000	0.000	120.134	120.134
MIDS JTRS HW/SW (Phase 2B Core)	C/CPIF	ViaSat Inc:Carlsbad, CA	125.570	0.000		0.000		0.000		-		0.000	0.000	125.570	125.570
MIDS JTRS HW/SW (Phase 2C TTNT JPCP) DLS	C/CPFF	DLS:Cedar Rapids, IA	11.667	0.000		0.000		0.000		-		0.000	0.000	11.667	11.667
MIDS JTRS HW/SW (Phase 2C TTNT JPCP) Via	C/CPFF	ViaSat Inc:Carlsbad, CA	5.548	0.000		0.000		0.000		-		0.000	0.000	5.548	5.548
MIDS JTRS Production Transition dls	C/FFP	DLS:Cedar Rapids, IA	18.771	0.000		0.000		0.000		-		0.000	0.000	18.771	18.771
MIDS JTRS Production Transition via	C/FFP	ViaSat Inc.:Carlsbad, CA	2.768	0.000		0.000		0.000		-		0.000	0.000	2.768	2.768
MIDS JTRS Preoperational Support dls	C/CPFF	DLS:Cedar Rapids, IA	0.767	0.000		0.000		0.000		-		0.000	0.000	0.767	0.767
MIDS JTRS Preoperational Support via	C/CPFF	ViaSat Inc.:Carlsbad, CA	0.163	0.000		0.000		0.000		-		0.000	0.000	0.163	0.163
MIDS JTRS Spec. Development (Phase 2A) dls	C/FFP	DLS:Cedar Rapids, IA	1.383	0.000		0.000		0.000		-		0.000	0.000	1.383	1.383
MIDS JTRS Spec. Development (Phase 2A) via	C/FFP	ViaSat Inc.:Carlsbad, CA	0.704	0.000		0.000		0.000		-		0.000	0.000	0.704	0.704
MIDS JTRS Proposal Prep (Phase 2B Core) dls	C/FFP	DLS:Cedar Rapids, IA	0.600	0.000		0.000		0.000		-		0.000	0.000	0.600	0.600
MIDS JTRS Proposal Prep (Phase 2B Core) via	C/FFP	ViaSat Inc.:Carlsbad, CA	1.922	0.000		0.000		0.000		-		0.000	0.000	1.922	1.922
MIDS JTRS Crypto Mod	C/CPFF	ViaSat Inc:Carlsbad, CA	14.187	0.000		0.000		0.000		-		0.000	0.000	14.187	6.575
MIDS JTRS Crypto Mod	C/CPFF	DLS:Cedar Rapids, IA	8.042	0.000		0.000		0.000		-		0.000	0.000	8.042	6.575

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIDS-LVT CM/ECP Spec Dev	C/FFP	BAE:Fort Wayne, NJ	0.581	0.000		0.000		0.000		-		0.000	0.000	0.581	0.581
MIDS-LVT CM/ECP Spec Dev	C/FFP	DLS:Cedar Rapids, IA	1.796	0.000		0.000		0.000		-		0.000	0.000	1.796	1.796
MIDS-LVT CM/ECP Spec Dev	C/FFP	ViaSat:Carlsbad, CA	2.133	0.000		0.000		0.000		-		0.000	0.000	2.133	1.980
MIDS-LVT BU2 CM/FR/ET Development	C/CPIF	DLS:Cedar Rapids, IA	0.000	0.114	Nov 2012	6.550	Aug 2013	0.000		-		0.000	0.000	6.664	Continuing
MIDS-LVT BU2 CM/FR/ET Development	C/CPIF	ViaSat:Carlsbad, CA	0.000	0.054	Jan 2013	6.550	Aug 2013	0.000		-		0.000	0.000	6.604	Continuing
MIDS-LVT CM/FR/ET Software	C/CPIF	BAE:Fort Wayne, NJ	0.000	0.000		3.100	Aug 2013	0.000		-		0.000	0.000	3.100	Continuing
MIDS-LVT LCM	C/FFP	ViaSat:Carlsbad, CA	0.000	5.500	Aug 2012	0.000		0.000		-		0.000	0.000	5.500	
MIDS JTRS CMN-4/LEEP Prework	C/CPFF	DLS:Cedar Rapids, IA	0.000	9.239	Jul 2012	0.000		0.000		-		0.000	0.000	9.239	Continuing
MIDS JTRS CMN-4/LEEP Prework	C/CPFF	ViaSat:Carlsbad, CA	0.000	8.556	Jul 2012	0.000		0.000		-		0.000	0.000	8.556	Continuing
MIDS JTRS CMN-4	C/CPFF	Trellis Technologies:San Diego, CA	0.000	0.612	Aug 2012	0.000		0.000		-		0.000	0.000	0.612	
MIDS JTRS TTNT Waveform Development	C/CPFF	Rockwell Collins:Wayne, NJ	0.000	0.000		6.000	May 2013	0.000		-		0.000	0.000	6.000	Continuing
MIDS JTRS TTNT Spec Development	C/CPFF	DLS:Cedar Rapids, IA	0.000	0.000		7.650	Jun 2013	0.000		-		0.000	0.000	7.650	
MIDS JTRS TTNT Spec Development	C/CPFF	ViaSat:Carlsbad, CA	0.000	0.000		7.650	Jun 2013	0.000		-		0.000	0.000	7.650	
MIDS JTRS RFA	C/FFP	ViaSat:Carlsbad, CA	0.000	0.129	Jan 2013	0.000		0.000		-		0.000	0.000	0.129	
MIDS JTRS Block Cycle 2 MOS	C/CPFF	DLS:Cedar Rapids, IA	0.000	2.500	Feb 2013	0.000		0.000		-		0.000	0.000	2.500	
MIDS JTRS Block Cycle 2 MOS	C/CPFF	ViaSat:Carlsbad, CA	0.000	2.500	Feb 2013	0.000		0.000		-		0.000	0.000	2.500	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIDS JTRS TTNT Training	C/CPFF	Rockwell Collins:Wayne, NJ	0.000	0.025	Sep 2012	0.000		0.000		-		0.000	0.000	0.025	
MIDS JTRS CMN-4 Full Development	C/CPFF	DLS:Cedar Rapids, IA	0.000	8.131	Jun 2013	26.251	Jun 2013	0.000		-		0.000	0.000	34.382	
MIDS JTRS CMN-4 Full Development	C/CPFF	ViaSat:San Diego, Ca	0.000	8.131	Jun 2013	26.251	Jun 2013	0.000		-		0.000	0.000	34.382	
		Subtotal	316.736	45.491		90.002		0.000		0.000		0.000	0.000	452.229	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
F/A-18 Level 0 Development Support (Unique) cl	WR	NAWS, China Lake:Ridgecrest, CA	1.526	0.000		0.000		0.000		-		0.000	0.000	1.526	1.526
F/A-18 Level 0 Integrated Logistics Suppor (Unique) pax	WR	NAWC:Pax River, MD	0.412	0.000		0.000		0.000		-		0.000	0.000	0.412	0.412
		Subtotal	1.938	0.000		0.000		0.000		0.000		0.000	0.000	1.938	1.938

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
F/A-18 Level 0 Developmental Test & Evaluation (Unique)	WR	NAWC:Pax River, MD	5.409	0.000		0.000		0.000		-		0.000	0.000	5.409	5.409
F/A-18 Level 0 OperationalTest & Evaluation (Unique)	WR	NAWS China Lake:Ridgecrest, CA	1.028	0.000		0.000		0.000		-		0.000	0.000	1.028	1.028
F/A-18 Test Assets dls	C/FFP	DLS:Cedar Rapids, IA	8.850	0.000		0.000		0.000		-		0.000	0.000	8.850	8.850

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
F/A-18 Test Assets via	C/FFP	ViaSat, Inc:Carlsbad, CA	7.365	0.000		0.000		0.000		-		0.000	0.000	7.365	7.365
* F/A-18 EDMs dls	C/FFP	DLS:Cedar Rapids, IA	2.740	0.000		0.000		0.000		-		0.000	0.000	2.740	2.740
* F/A-18 EDMs via	C/FFP	ViaSat, Inc.:Carlsbad, CA	2.475	0.000		0.000		0.000		-		0.000	0.000	2.475	2.475
Engineering Support and Labor/SCS Changes	WR	NAWS China Lake:Ridgecrest, CA	10.519	0.000		0.000		0.000		-		0.000	0.000	10.519	10.519
Government Testing	WR	SSC:San Diego, CA	1.745	0.000		0.000		0.000		-		0.000	0.000	1.745	1.745
NAVAIR Labor	WR	NAWC:Pax River, MD	4.231	0.000		0.000		0.000		-		0.000	0.000	4.231	4.231
ECP 6277 Preparation	WR	NAWC:Pax River, MD	1.963	0.000		0.000		0.000		-		0.000	0.000	1.963	1.963
JTRS CM Test Assets (DLS)	C/FFP	DLS:Cedar Rapids, IA	0.633	0.000		0.000		0.000		-		0.000	0.000	0.633	
JTRS CM Test Assets (ViaSat)	C/FFP	ViaSat:Carlsbad, Ca	0.853	0.000		0.000		0.000		-		0.000	0.000	0.853	
MIDS JTRS CMN-4 Test Assets	C/FP	DLS:Cedar Rapids, IA	0.000	0.000		3.033	May 2013	0.000		-		0.000	0.000	3.033	
MIDS JTRS CMN-4 Test Assets	C/FP	ViaSat:San Diego, Ca	0.000	0.000		4.265	May 2013	0.000		-		0.000	0.000	4.265	
		Subtotal	47.811	0.000		7.298		0.000		0.000		0.000	0.000	55.109	

Remarks

Items marked with an asterisk (*) designate Navy unique tasks.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPFF	General Dynamics/ Sentek:San Diego, Ca	15.145	0.000		0.000		0.000		-		0.000	0.000	15.145	15.145
Workforce Acquisition Fund	C/FP	Not Specified:Not Specified	0.135	0.000		0.000		0.000		-		0.000	0.000	0.135	0.135
Travel	WR	Travel:Pax River, MD/DC	1.027	0.008	Dec 2011	0.036	Oct 2012	0.000		-		0.000	0.000	1.071	1.020
Government Engineering	WR	SSC:San Diego, Ca	23.901	0.254	Nov 2011	1.119	Oct 2012	0.000		-		0.000	0.000	25.274	23.745
Airborne Networking Support	WR	SSC:San Diego, Ca	1.313	0.000		0.000		0.000		-		0.000	0.000	1.313	1.313
Program Management Support	C/CPFF	Booz Allen Hamilton/ SSC:San Diego, Ca	8.273	1.092	Jan 2012	0.000		0.000		-		0.000	0.000	9.365	8.511
Information Assurance Support	MIPR	NSA:Fort George Meade, MD	0.203	0.158	Nov 2011	0.185	Oct 2012	0.000		-		0.000	0.000	0.546	0.610
Systems Engineering Support	MIPR	MITRE:Bedford, Ma	0.000	0.201	Jan 2012	0.769	Oct 2012	0.000		-		0.000	0.000	0.970	
Contractor Engineering Services	C/CPFF	Sentek:San Diego, Ca	0.000	0.000		0.297	Oct 2012	0.000		-		0.000	0.000	0.297	
Contractor Prog. Man. Support NIFCA	C/CPFF	TBD (Competition):TBD	0.000	0.000		0.308	Apr 2013	0.000		-		0.000	0.000	0.308	
NAVAIR PMA 298 (NIFCA) Support	WR	NAVAIR 4.0:Pax River, MD	0.000	0.000		0.405	Feb 2013	0.000		-		0.000	0.000	0.405	
		Subtotal	49.997	1.713		3.119		0.000		0.000		0.000	0.000	54.829	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	416.482	47.204		100.419		0.000		0.000		0.000	0.000	564.105	

Remarks

In PYs-FY13, Project No. 3020 represents the total MIDS RDT&E budget for those years. In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to a Military Department-managed program. MIDS transitioned to the Navy under PE 0205604N.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3073: *AMF JTRS*	1,181.622	264.373	58.187	3.302	-	3.302	0.000	0.000	0.000	0.000	0.000	1,507.484
Quantity of RDT&E Articles	0	1	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY12-FY13, Project No. 3073 represents the total Airborne Maritime/Fixed Station Joint Tactical Radio Systems (AMF JTRS) RDT&E budget for those years. In FY14, RDT&E funding for AMF JTRS will transition to an Army Program Element (PE).

In FY12-FY14, Project No. 3073 includes funding associated with system and shipboard integration planning/design and OPEVAL planning and coordination of Mobile User Objective Systems (MUOS) terminals on Navy platforms and shore locations.

A. Mission Description and Budget Item Justification

The Airborne & Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS) radios are software programmable, multi-band, multi-mode, mobile ad hoc networking radios, providing simultaneous voice, data, and video communications. The radios will operate in networks supporting the Common Operational Picture, situational awareness, and interoperability of Mission Command (MC) systems throughout the battlefield. AMF JTRS must ensure the Warfighter's ability to communicate both horizontally and vertically via voice and data within all mission areas and Combat Operational Environments. AMF JTRS helps close capability gaps by extending data networking to company and below echelons, enabling network services to the platform and connecting Army Aviation platforms to Army ground and Joint air network domains. Per Milestone Decision Authority (MDA) direction, the redefined AMF JTRS Program will procure radios as Non-Developmental Items (NDI).

AMF JTRS will operate networking waveforms and select waveforms that are widely deployed by Joint Forces today, enable interoperability between different types of platforms, and transport operational and MC information through the tactical network to joint network member nodes. The system will also reach back to access Global Information Grid (GIG) services, where required. The need for interoperable systems, including common waveforms, software applications, and network operations is critical to the mobile tactical network capability. AMF JTRS is relevant to the Joint Functional Concept (Net-Centric Environment), Joint Integrating Concept (Net-Centric Operational Environment), Joint Operating Concept (Major Combat Operations, Stability Operations), and JTRS Concept of Operations (Tactical Wireless Joint Networks). AMF JTRS shall support and enhance three principal Warfighter outcomes: Information Superiority, Joint Force Interoperability, and Networking.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: AMF JTRS	257.023	57.456	0.000
Articles:	0	0	
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Restructured program due to schedule delays, technical challenges, increased costs, budget decisions and changing Service priorities. Conducted market research to support Non-Developmental Item (NDI) acquisition planning. Modified materiel solutions focused on using NDI to meet user needs. Rephased delivery of waveform capabilities aligned with Army battlefield network implementation and maturity. Received an Acquisition Decision Memorandum (ADM) on 7 May 2012 directing the close out of the existing System Development and Design (SDD) contract. On 11 July 2012, the Milestone Decision Authority (MDA) via ADM directed a restructured approach to acquire modified Non-Developmental Items (NDIs) that "leverage the Department's prior investment in the AMF JTRS Program to the maximum extent practical. The Program will include opportunities for Government testing to support competition and future fielding decisions." Commenced development of an RFI/RFP, conducted market research, and prepared contract documents for a networking waveform capability in Army Aviation platforms (e.g., Apache, Black Hawk, and Chinook). ***FY 2013 Plans:*** Continue development and issue of Request for Proposals (RFP). Complete market research. Continue preparation of contract documents, as well as Source Selection for Link 16 and a networking waveform capability in Army Aviation platforms (e.g. Apache, Black Hawk, and Chinook). Set up government lab facilities and equipment to support Source Selection. Fund external agencies (e.g., Army Test and Evaluation Command [ATEC], Joint Interoperability Test Command [JITC], and Training and Doctrine Command [TRADOC]) to support program test & evaluation and requirements efforts. Will complete closeout of current SDD Prime contract.			
Title: DMR HF DAG ***Articles:*** ***Description:*** Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion. ***FY 2012 Accomplishments:*** Developed the 8 channel (DDG) and 16 channel (LPD/LHA/CVN) basic HFDAG design; the Power Amplifier Control Unit (PACU) prototype to support the HFDAG system; and produced the Environment test system.	7.115 1	0.000	0.000
Title: Moblie User Objective System (MUOS) Shipboard/Submarine Terminals (SST) ***Articles:*** ***Description:*** Formerly included in JTRS AMF for Navy integration efforts. ***FY 2012 Accomplishments:*** Began research to determine a new acquisition path forward for the Navy's MUOS requirements. ***FY 2013 Plans:***	0.235 0	0.731 0	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Researching a techinical solution for Navy's MUOS requirement.			
Title: DMR Mobile Users Objective System (MUOS)	0.000	0.000	3.302
Articles:			0
Description: Formerly included in JTRS AMF for Navy integration and porting efforts.			
FY 2014 Plans: Continue development effort on technical solution for Navy's MUOS requirement including integration and porting the MUOS waveform into the DMR.			
Accomplishments/Planned Programs Subtotals	264.373	58.187	3.302

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/3010: *DMR*	1.494	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	1.494
• RDTEA/0605380A: *AMF JTRS*	0.000	0.000	33.219		33.219	64.574	21.415	5.100	0.000	0.000	124.308
• RDTEF/0604280F: *AMF JTRS*	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	154.189

Remarks

D. Acquisition Strategy

AMF JTRS underwent a program restructure in accordance with Milestone Decision Authority (MDA) direction. The program is revising its material solution strategy to leverage commercially available Non-Developmental Item (NDI) tactical radios in order to rapidly deliver AMF JTRS capabilities to the warfighter. The strategy will support a concept in which NDI radios can be selected from the vendor base and tailored to platform needs. The current strategy is to procure two variations of NDI radios for Airborne platforms. Maritime/Fixed Station sites will not be part of the revised procurement.

E. Performance Metrics

Acquisition Decision Memorandum (ADM) received on 11 July 2012 directing a restructure of the AMF JTRS Program. Performance metrics will be evaluated after the program Acquisition Strategy has been finalized and the new Acquisition Program Baseline approved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIDS JTRS HW/SW (Phase 2A/2B Core)	C/CPIF	DLS:Cedar Rapids, IA	8.563	0.000		0.000		0.000		-		0.000	0.000	8.563	
MIDS JTRS HW/SW (Phase 2A/2B Core)	C/CPIF	ViaSat Inc:Carlsbad, CA	4.078	0.000		0.000		0.000		-		0.000	0.000	4.078	
AMF JTRS Development-JTR System (Pre-SDD)	C/CPFF	The Boeing Co:Anaheim, CA	45.603	0.000		0.000		0.000		-		0.000	0.000	45.603	
AMF JTRS Development-JTR System (Pre-SDD)	C/CPFF	Lockheed Martin:Manassas, VA	45.335	0.000		0.000		0.000		-		0.000	0.000	45.335	
AMF JTRS Development-JTR SET (SDD)	C/CPIF	Lockheed Martin:Manassas, VA	799.132	91.000	Oct 2011	0.000		0.000		-		0.000	0.000	890.132	
AMF JTRS- Systems Engineering	WR	Various:Various	115.745	8.775	Oct 2011	12.163	Aug 2013	0.000		-		0.000	0.000	136.683	
AMF JTRS- NDI Integration and Certification	TBD	Various:Various	0.000	33.620	Jul 2013	18.625	Aug 2013	0.000		-		0.000	0.000	52.245	
Systems Engineering-JTRS Implementation-Navy Unique	WR	Various:Various	15.634	0.000		0.000		0.000		-		0.000	0.000	15.634	
DMR HF DAG Power Amplifier H/W Development	C/FFP	GDDS:Various	0.000	4.962	Apr 2013	0.000		0.000		-		0.000	0.000	4.962	
Systems Engineering- JTF WARNET	WR	Various:Various	7.481	0.000		0.000		0.000		-		0.000	0.000	7.481	
JTRS HMS Design, Development and Manufacture of Engineering Development Models (EDMs)	C/CPAF	General Dynamics C4 Systems:Scottsdale, AZ	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
DMR HF DAG- System Integration	WR	SSC PAC:San Diego, CA	0.000	0.545	Apr 2013	0.000		0.000		-		0.000	0.000	0.545	
DMR HF DAG- Design	WR	SSC PAC:San Diego, CA	0.566	1.619	Jan 2013	0.000		0.000		-		0.000	0.000	2.185	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Engineering DMR HFDAG	C/CPFF	CECOM MITRE:San Diego, CA	0.000	0.100	Oct 2012	0.000		0.000		-		0.000	0.000	0.100	
Software Development DMR MUOS	C/CPFF	General Dynamics:Scottsdale, AZ	0.000	0.000		0.000		1.802	Oct 2013	-		1.802	0.000	1.802	
Software Development DMR MUOS	WR	SSC PAC:San Diego, GA	0.000	0.000		0.000		1.200	Oct 2013	-		1.200	0.000	1.200	
Software Engineering DMR MUOS	C/CPFF	CECOM MITRE:San Diego, CA	0.000	0.000		0.000		0.300	Oct 2013	-		0.300	0.000	0.300	
Software Development DMR MUOS	C/CPFF	Various:Various	0.000	20.347	Feb 2013	0.000		0.000		-		0.000	0.000	20.347	
		Subtotal	1,042.137	160.968		30.788		3.302		0.000		3.302	0.000	1,237.195	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AMF JTRS- Acquisition, and ILS Support	WR	Various:Various	32.295	7.547	Oct 2011	2.518	Aug 2013	0.000		-		0.000	0.000	42.360	
Software Dev: DMR Build 6.4	C/FFP	GDDS:Various	12.861	0.000		0.000		0.000		-		0.000	0.000	12.861	
DMF HF DAG- ILS	C/CPFF	CSA:San Diego	0.000	0.125	Jan 2013	0.000		0.000		-		0.000	0.000	0.125	
MUOS SST - Acquisition Support	C/CPFF	BAH:San Diego	0.000	0.000		0.709	Apr 2013	0.000		-		0.000	0.000	0.709	
		Subtotal	45.156	7.672		3.227		0.000		0.000		0.000	0.000	56.055	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AMF JTRS- Test and Evaluation and Test Support	WR	Various:Various	51.860	30.380	Oct 2011	20.100	Aug 2013	0.000		-		0.000	0.000	102.340	
DMR T&E (FOTE) SD	WR	SSC:San Diego, CA	7.093	0.000		0.000		0.000		-		0.000	0.000	7.093	
DMR T&E (FOTE) CHARL	WR	SSC:Charleston, SC	1.732	0.000		0.000		0.000		-		0.000	0.000	1.732	
MUOS SST- Navy Specific Integration	WR	Various:San Diego, CA	0.000	0.000		0.022	Apr 2013	0.000		-		0.000	0.000	0.022	
DMR HF DAG- T&E	WR	SSC PAC:San Diego, CA	0.230	0.000		0.000		0.000		-		0.000	0.000	0.230	
JTNC Waveform Alignment	WR	Various:San Diego, CA	0.000	23.545	Mar 2013	0.000		0.000		-		0.000	0.000	23.545	
MUOS - Air Force Specific	WR	Various:San Diego, CA	0.000	20.500	Feb 2013	0.000		0.000		-		0.000	0.000	20.500	
		Subtotal	60.915	74.425		20.122		0.000		0.000		0.000	0.000	155.462	

Remarks

MUOS Shipboard/Submarine Terminals (MUOS SST)- Navy Specific Integration for Navy to complete system and shipboard integration planning/design and OPEVAL of MUOS terminals on Navy platforms and shore locations.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AMF Business Operations Management and Support	WR	Various:Various	32.375	21.308	Oct 2011	4.050	Aug 2013	0.000		-		0.000	0.000	57.733	
Acquisition Workforce Fund- 2009	C/FP	Various:Various	1.039	0.000		0.000		0.000		-		0.000	0.000	1.039	
		Subtotal	33.414	21.308		4.050		0.000		0.000		0.000	0.000	58.772	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,181.622	264.373		58.187		3.302		0.000		3.302	0.000	1,507.484	

Remarks

AMF JTRS underwent a program restructure in accordance with Milestone Decision Authority (MDA) direction. The program is revising its material solution strategy to leverage commercially available Non-Developmental Item (NDI) tactical radios in order to rapidly deliver AMF JTRS capabilities to the warfighter. The strategy will support a concept in which NDI radios can be selected from the vendor base and tailored to platform needs. The current strategy is to procure two variations of NDI radios for Airborne platforms. Maritime/Fixed Station sites will not be part of the revised procurement.

Prior Year (PY) column only includes the Navy portion of the budget for AMF JTRS; prior to FY07, Air Force AMF JTRS funding resided in Air Force PE 0604280F, Project 5068. FY07-FY11 PYs represent the total AMF JTRS RDT&E budget for those years. In FY12-13, Project No. 3073 represents the total AMF JTRS RDT&E budget.

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*

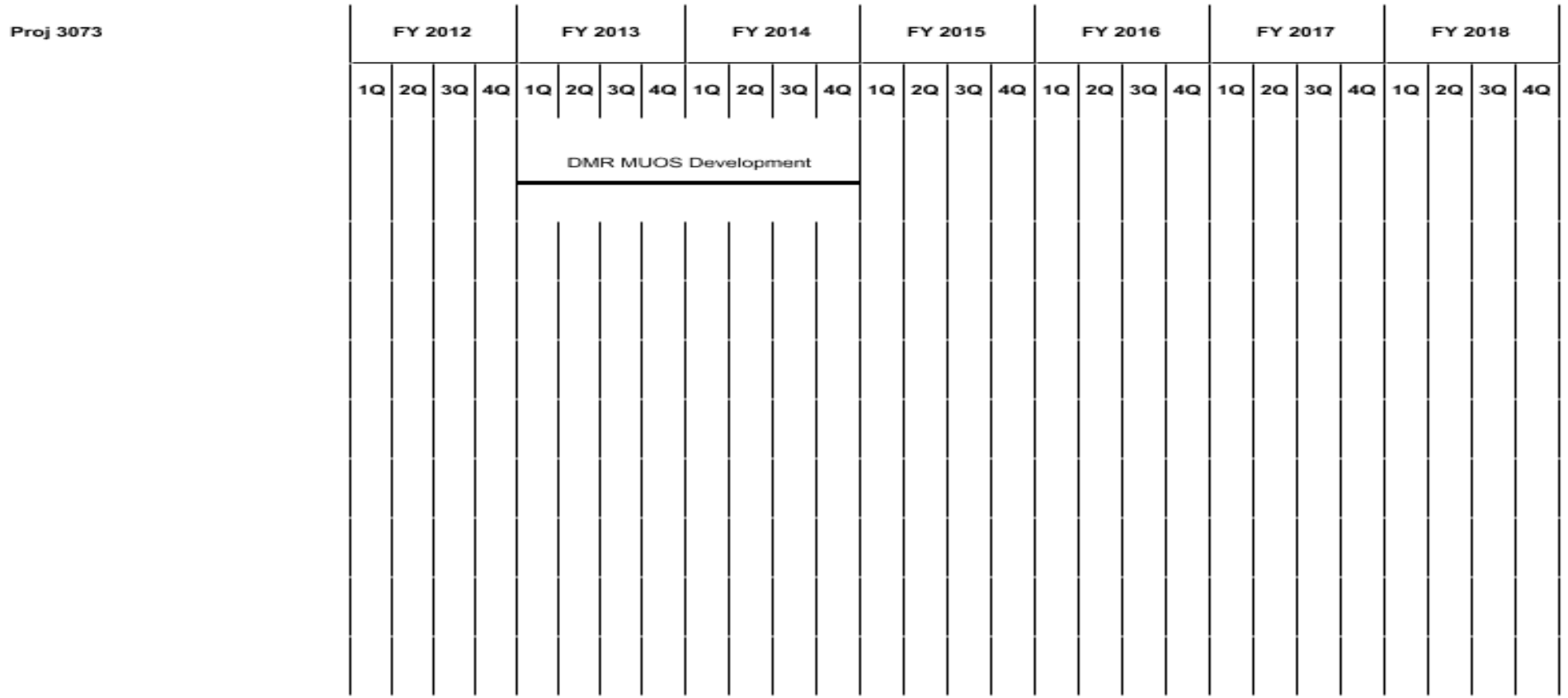

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604280N: *JT Tact Radio Sys (JTRS)*	**PROJECT** 3073: *AMF JTRS*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3073				
DMR MUOS Development	1	2013	4	2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3074: *GMR JTRS*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3074: *GMR JTRS*	998.328	16.962	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1,015.290
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY12, Project No. 3074 represents the total Joint Tactical Radio System (JTRS) Ground Mobile Radio (GMR) RDT&E budget.

A. Mission Description and Budget Item Justification

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. The JTRS family of products will be multifunctional, multiband, multimode, network capable, capable of providing communications through a range of low probability of intercept, low probability of detection and anti-jam waveforms. JTRS products will provide transformational communication capabilities for the warfighter. 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. JTRS products are hardware-configurable and software-programmable radio systems that provide increased interoperability, flexibility and adaptability to support varied mission requirements.

Following a Critical Nunn McCurdy breach the USD AT&L conducted a reassessment of the GMR program. Conclusions of the reassessment did not support certification of the program, thereby cancelling the program. In accordance with the ADM dated 14 October 2011, the GMR program office was directed to conduct an orderly shutdown of the existing GMR System Development and Demonstration contract which expired on 30 March 2012.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: GMR JTRS	16.962	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: Conducted close out of the System Development and Demonstration (SDD) contract. Activities included: identifying critical deliverables such as hardware, design specifications, instrumentation, modeling tools, simulators, etc. for delivery to the Government. Continued support to the GMR PMO (travel, training, payroll, etc.). Achieved National Security Agency (NSA) Type 1 Certification.			
Accomplishments/Planned Programs Subtotals	16.962	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3074: *GMR JTRS*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Following a Critical Nunn McCurdy breach the USD AT&L conducted a reassessment of the GMR program. Conclusions of the reassessment did not support certification of the program, thereby cancelling the program. In accordance with the ADM dated 14 October 2011, the GMR program office was directed to conduct an orderly shutdown of the existing GMR System Development and Demonstration contract which expired on 30 March 2012.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3074: *GMR JTRS*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS GMR GFE	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	4.000	0.000		0.000		0.000		-		0.000	0.000	4.000	4.000
JTRS GMR GFE	C/CPAF	General Dynamics:Scottsdale, AZ	0.702	0.000		0.000		0.000		-		0.000	0.000	0.702	0.702
JTRS GMR SDD	C/CPAF	Boeing:Huntington Beach, CA	846.719	10.278	Oct 2011	0.000		0.000		-		0.000	0.000	856.997	856.997
JTRS DEVELOPMENT - System Engineering Support	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	16.738	0.000		0.000		0.000		-		0.000	0.000	16.738	16.738
Technology Development Efforts	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	20.966	0.000		0.000		0.000		-		0.000	0.000	20.966	20.966
		Subtotal	889.125	10.278		0.000		0.000		0.000		0.000	0.000	899.403	899.403

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS Antenna Study	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	2.025	0.000		0.000		0.000		-		0.000	0.000	2.025	2.025
JTRS Tech Support	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	9.344	0.000		0.000		0.000		-		0.000	0.000	9.344	9.344
JTRS MUOS Support	C/CPFF	Johns Hopkins University:Laurel, MD	0.623	0.000		0.000		0.000		-		0.000	0.000	0.623	0.623
DIACAP Support	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	0.960	0.000		0.000		0.000		-		0.000	0.000	0.960	0.960
		Subtotal	12.952	0.000		0.000		0.000		0.000		0.000	0.000	12.952	12.952

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3074: *GMR JTRS*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS EPG test bed & test planning	MIPR	EPG:Fort Huachuca, AZ	18.297	0.000		0.000		0.000		-		0.000	0.000	18.297	18.297
JTRS M&S	MIPR	USAIC:Fort Huachuca, AZ	7.384	0.000		0.000		0.000		-		0.000	0.000	7.384	7.384
JTRS Test In-house Spt & Gov activities	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	11.380	0.000		0.000		0.000		-		0.000	0.000	11.380	11.380
JTRS EOA/CLUT/NIR/NIE Dev. Field Test Activity	MIPR	EPG:Fort Huachuca, AZ	17.024	0.000		0.000		0.000		-		0.000	0.000	17.024	17.024
		Subtotal	54.085	0.000		0.000		0.000		0.000		0.000	0.000	54.085	54.085

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS Business Engineering Mgmt	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	16.191	0.000		0.000		0.000		-		0.000	0.000	16.191	16.191
PMO Support	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	24.295	6.684	Dec 2011	0.000		0.000		-		0.000	0.000	30.979	30.979
JTRS MITRE Support	MIPR	MITRE:Aberdeen Proving Grounds, MD	0.513	0.000		0.000		0.000		-		0.000	0.000	0.513	0.513
Acquisition Workforce Fund	C/FP	Not Specified:Not Specified	1.167	0.000		0.000		0.000		-		0.000	0.000	1.167	1.167
		Subtotal	42.166	6.684		0.000		0.000		0.000		0.000	0.000	48.850	48.850

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	998.328	16.962		0.000		0.000		0.000		0.000	0.000	1,015.290	1,015.290

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3074: *GMR JTRS*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Prior Years (PY) column only reflects prior year Navy Joint Tactical Radio System (JTRS) Ground Mobile Radio (GMR) costs for FY07-11. Prior to FY07, JTRS GMR funding resided in Army Program Element (PE) 0604805A, Project 615. In FY12 Project No. 3074 represents the total JTRS GMR RDT&E budget.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3075: *HMS JTRS*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3075: *HMS JTRS*	655.536	117.231	116.030	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	888.797
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY12-FY13, Project No. 3075 represents the total HMS JTRS RDT&E budget for those years.

Prior to FY14, Project Unit 3075 JTRS HMS was funded under Program Element (PE) 0604280N aligned under the Navy Joint Tactical Radio System (JTRS) Programs. In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to a Military Department-managed program. HMS JTRS is now associated with Program Executive Office Command, Control and Communications-Tactical (PEO C3T) under Project Manager Tactical Radios (PM TR) PE 0604280A.

A. Mission Description and Budget Item Justification

HMS is the Department of Defense (DoD) family of common software-defined programmable radios that will form the foundation of information radio frequency transmission for JointVision 2020. The HMS products will be multifunctional, multiband, multimode, network capable, capable of providing communications through a range of low probability of intercept, low probability of detection and anti-jam waveforms. HMS products will provide transformational communication capabilities for the warfighter. HMS 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. HMS products are hardware-configurable and software-programmable radio systems that provide increased interoperability, flexibility and adaptability to support varied mission requirements.

HMS provides the capability to meet Joint Ground Mounted, Dismounted & Embedded Radio Requirements. Increment 1, Phase 1 developed Small-Form-Fit (SFF) SFF-A, SFF-D and AN/PRC-154 Rifleman Radio running Soldier Radio Waveform (SRW) for use in a sensitive but unclassified environment (Type 2). Increment 1, Phase 2 will develop the 2 Channel Manpack and SFF-B. Phase 2 radios are all Type 1 compliant for use in a classified environment running Satellite Communications (SATCOM), Soldier Radio Waveform (SRW), Mobile User Objective System (MUOS), and Single Channel Ground to Air Radio System (SINCGARS) waveforms.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: HMS JTRS	117.231	116.030	0.000
Articles:	0	0	
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3075: *HMS JTRS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Performed Phase 1 Initial Operational Test & Evaluation (IOT&E); Obtained Phase 1 and Phase 2 Information Assurance certification; Received Phase 2 Information Assurance certification; Completed Phase 2 Governmental Development Test (GDT) 2, Phase 2 Multi-Service Operational Test & Evaluation (MOTE) and Phase 2 GDT3; Continued Porting efforts for Mobile User Objective System (MUOS) waveform; Started Small Form Fit (SFF)-B Contractor Demonstration Test (CDT); Initiated redesign of SFF-B capabilities; Provided technical and engineering support for development efforts including the preparation of a Low Rate Initial Production (LRIP) decision for Phase 1 and Phase 2. ***FY 2013 Plans:*** Participate in Phase 2 Customer Test Event; Continue redesign of SFF-B capabilities; Test redesigned SFF-B in a radio-specific development test and combined vendor development test; Perform Follow-On Operational Test & Evaluation (FOTE) of redesigned SFF-B radio; Continued MUOS porting and testing activities to include Public Key Information (PKI) updates on the Manpack; Complete SFF-B CDT and all related development efforts; Obtain Information Assurance certification for the SFF-B; Provide technical and engineering support for development efforts including preparing for a Full Rate Production (FRP) decision for Phase 1 and a Low Rate Initial Production (LRIP) Competition decision for Phase 2. Perform additional testing events to include Mobile User Objective System (MUOS) Government Developmental Test, Phase 1 Qualification Test (QT) and Phase 2 Qualification Test (QT).			
Accomplishments/Planned Programs Subtotals	117.231	116.030	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/3057: *COMMUNICATION ITEMS UNDER $5M*	0.000	3.102	0.000		0.000	0.905	0.859	0.874	0.890	Continuing	Continuing
• RDTEA/0604280A: *HMS JTRS*	0.000	0.000	28.217		28.217	4.712	4.615	0.000	0.000	0.000	38.299
• RDTEAF/0604280F: *HMS JTRS*	0.000	0.000	2.857		2.857	0.334	0.000	0.000	0.000	0.000	3.191
• RDTEA/0604805A: *JTRS Cluster 5 / HMS*	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	242.657

Remarks

D. Acquisition Strategy

This project supports the HMS Engineering and Manufacturing Development phase efforts. The HMS Program began with the development of the HMS Radios following Milestone (MS) B approval on April 26, 2004. HMS uses an evolutionary acquisition strategy and will deliver NSA certified capabilities. Following full and open competition, a single Cost-Plus-Award Fee (CPAF) contract was awarded on July 16, 2004. The contract is structured to address Increment 1. JTRS HMS Increment 1 consists of two phases of development. Increment 1, Phase 1 developed SFF-A, SFF-D and AN/PRC-154 Rifleman Radio running Soldier Radio Waveform (SRW) for

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3075: *HMS JTRS*

use in a sensitive but unclassified environment (Type 2). Increment 1, Phase 2 is developing the 2 Channel Manpack and SFF-B which are Type 1 compliant for use in a classified environment running Satellite Communications (SATCOM), Soldier Radio Waveform (SRW), Mobile User Objective System (MUOS), and Single Channel Ground to Air Radio System (SINCGARS) waveforms.

E. Performance Metrics

HMS employs mature, software-defined radio technology. JTRS enterprise software metrics requirements established a baseline of standard software metrics which are monitored on the HMS contract. Further, a software complexity product metric is collected which demonstrates the testability of the code and is an important criterion for software certification. These software metrics are used to quantify the quality and progress of each software product's development over time. Additionally, HMS employs Earned Value Metrics to monitor contract performance on the Prime Development Contract.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3075: *HMS JTRS*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS HMS Design, Development and Manufacture of Engineering Development Models (EDMs)	C/CPAF	General Dynamics C4 Systems:Scottsdale, AZ	492.894	92.950	Oct 2011	89.235	Oct 2012	0.000		-		0.000	0.000	675.079	679.032
JTRS HMS Development System Engineering Support	MIPR	PEO C3T:Ft. Monmouth, NJ/APG, MD	24.964	0.000		0.000		0.000		-		0.000	0.000	24.964	24.964
Technology Development efforts	MIPR	PEO C3T:Ft. Monmouth, NJ/APG, MD	8.317	0.000		0.000		0.000		-		0.000	0.000	8.317	8.317
		Subtotal	526.175	92.950		89.235		0.000		0.000		0.000	0.000	708.360	712.313

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS Engineering/ Technical Support	MIPR	PEO C3T, ARL, CACI, CECOM, CERDEC, LCMC, DSCI:Ft. Monmouth, NJ/APG, MD; San Diego, CA	39.720	8.037	Oct 2011	7.870	Oct 2012	0.000		-		0.000	0.000	55.627	55.126
		Subtotal	39.720	8.037		7.870		0.000		0.000		0.000	0.000	55.627	55.126

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS EPG test bed and planning	MIPR	EPG:Ft. Huachuca, AZ	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	0.300
JTRS Modeling and Simulation.	MIPR	USAIC:Ft. Huachuca, AZ	0.650	0.000		0.000		0.000		-		0.000	0.000	0.650	0.650

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3075: *HMS JTRS*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS Test In-house Support & Government	MIPR	PEO C3T:Ft. Monmouth, NJ/APG, MD; SSC PAC: San Diego, CA	11.924	0.289	Oct 2011	0.238	Oct 2012	0.000		-		0.000	0.000	12.451	12.502
Phase1 T&E (CDT, GDT, LUT, OT)	MIPR	PEO C3T:Ft. Monmouth, NJ/APG, MD	14.994	0.592	Oct 2011	3.250	Oct 2012	0.000		-		0.000	0.000	18.836	18.847
Phase2 T&E (CDT, GDT, LUT, OT)	MIPR	PEO C3T:Ft. Monmouth, NJ/ APG,MD	9.871	10.028	Oct 2011	12.645	Oct 2012	0.000		-		0.000	0.000	32.544	32.031
Follow on Delta Development & Testing	MIPR	EPG, ATEC, AEC, MBL, ARLSLAD, CERDEC:Ft. Huachuca, AZ; Ft. Benning, GA; Ft. Monmouth,AP	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	0.171
		Subtotal	37.739	10.909		16.133		0.000		0.000		0.000	0.000	64.781	64.501

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Office Support	MIPR	PEO C3T:Ft. Monmouth, NJ/APG, MD	36.844	4.393	Oct 2011	1.926	Oct 2012	0.000		-		0.000	0.000	43.163	42.828
JTRS Business/ Management	MIPR	PEO C3T:Ft. Monmouth, NJ/APG, MD	14.424	0.942	Oct 2011	0.866	Oct 2012	0.000		-		0.000	0.000	16.232	16.460
Acquisition Workforce Fund	C/FP	Not Specified:Not Specified	0.634	0.000		0.000		0.000		-		0.000	0.000	0.634	0.634
		Subtotal	51.902	5.335		2.792		0.000		0.000		0.000	0.000	60.029	59.922

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3075: *HMS JTRS*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	655.536	117.231		116.030		0.000		0.000		0.000	0.000	888.797	891.862

Remarks

PYs column only reflects prior year Navy HMS costs for FY07-11. Prior to FY07, HMS JTRS funding resided in Army PE 0604805A, Project 61A. In FY12 and FY13, Project No. 3075 represents the total HMS JTRS RDT&E budget. In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to a Military Department-managed program. HMS JTRS is now associated with Program Executive Office Command, Control and Communications-Tactical (PEO C3T) under Project Manager Tactical Radios (PM TR) PE 0604280A."

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3076: *JTRS Network Enterprise Domain (JNED)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3076: *JTRS Network Enterprise Domain (JNED)*	987.796	147.190	59.077	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1,194.063
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY12-FY13, Project No. 3076 represents the total JNED RDT&E budget.

In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to Military Department-managed programs. The continuing Joint Tactical Networks (JTN) (formally known as JNED) will remain under a joint budget strategy in the three Services in new PEs (Army PE 0605030A, the Navy PE 0605030N, and the Air Force PE 0605030F). As part of the JTRS joint program budget strategy, each Military Department (MILDEP) budgets for approximately one-third of the total program RDT&E funds. Prior to the year of execution, the funding is consolidated in the Army PE.

A. Mission Description and Budget Item Justification

Joint Tactical Networks (JTN) will provide interoperable, secure Joint Tactical Networking applications capable of operating in a variety of radio solutions to maintain and sustain an affordable, government-controlled open architecture, in support of Combatant Commanders', Services' and Coalition mission network requirements. JTN is responsible for the continuous development, delivery, and maintenance of networking waveforms and modified legacy radio waveforms that are Software Communications Architecture (SCA) compliant. SCA compliant waveforms enable interoperability and 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.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Mobile User Objective System (MUOS)	46.648	2.125	0.000
Articles:	0	0	
Description: Mobile User Objective System (MUOS) Waveform will enable MUOS satellites to provide worldwide communication satellite coverage for DoD requirements. MUOS will provide functionality comparable to commercial mobile phone systems. MUOS offers secure streaming video, netted communications, and voice/data in real time to provide essential connectivity. The JTN program will modify this waveform, making it compatible and certifiable with DoD security requirements while enabling porting to tactical radio sets. MUOS is currently being ported by 5 vendors on 6 different platforms.			
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3076: *JTRS Network Enterprise Domain (JNED)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continued development of MUOS v3.1. ***FY 2013 Plans:*** Completed development of MUOS v3.1 in 1Q FY13. Begin Software In Service Support for the MUOS waveform.			
Title: Joint Airborne Networking -Tactical Edge (JAN-TE) ***Articles:*** ***Description:*** Joint Airborne Networking - Tactical Edge (JAN-TE) will operate on JTRS 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. USD(AT&L) directed that the development of the JAN-TE waveform be discontinued after Critical Design Review in October 2008, but allowed the Navy and/or Air Force to continue funding its development independently, if desired. In FY2011, the Navy began to budget and execute funding for continuation of JAN-TE's development. ***FY 2012 Accomplishments:*** Continued development of the JAN-TE waveform.	24.755 0	0.000	0.000
Title: Network Enterprise Services (NES) ***Articles:*** ***Description:*** JTRS Network Enterprise Services (JNES)/JTRS Enterprise Network Manager (JENM): Prior to FY13, JTRS Network Enterprise Services (JNES) included the development and acquisition of JTRS WNW Network Manager (JWNM), JTRS Enterprise Network Manager (JENM), Soldier Radio Waveform Network Manager (SRWNM), and Enterprise Network Services (ENS). In FY13 and out, JENM provides consolidated communications planning, network configuration, network activation, position reporting, fault management, security management, and network health and status reporting needed to establish and maintain a mobile wireless network comprised of JTN network waveforms. JENM can interface with other external network managers, mission planning systems, network planning systems, key management systems, and spectrum planning systems. JENM is considered a mission essential system. JENM is also considered a critical element within the JTN configuration management tool kit. ***FY 2012 Accomplishments:*** Continued development for JENM Phase 2 enhancement effort. Began Software In Service Support for Network Services and Network Managers. Continued to provide JTN technical support, including waveform development, systems engineering,	29.064 0	13.679 0	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3076: *JTRS Network Enterprise Domain (JNED)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
spectrum allocation, system security engineering, problem resolution and support of Software Communications Architecture (SCA) activities. ***FY 2013 Plans:*** Complete development and perform FQT for JENM Phase 2 enhancement effort in 1Q FY13. Continue Software In Service Support for Network Services and Network Managers. Continue to provide JTN technical support, including waveform development, systems engineering, spectrum allocation, system security engineering, problem resolution and support of Software Communications Architecture (SCA) activities.			
Title: Legacy Radio Waveforms ***Articles:*** ***Description:*** Legacy Radio Waveforms/Program Management: Includes the continued development, incremental upgrades, and software efficiencies of legacy software and other related activities to support the legacy waveform integration into hardware solutions in the field. ***FY 2012 Accomplishments:*** Continued to support waveform integration, test and evaluation to include hardware and Software Waveform Certification Process (SCA compliance testing) to meet program requirements. Continued JTN program management office support. Continued Software In Service Support for Legacy waveforms. ***FY 2013 Plans:*** Continue to support waveform integration, test and evaluation to include hardware and Software Waveform Certification Process (SCA compliance testing) to meet program requirements. Continue JTN program management office support. Continue Software In Service Support for Legacy waveforms.	46.723 0	43.273 0	0.000
Accomplishments/Planned Programs Subtotals	147.190	59.077	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTEF/0605030F: *JTN*	0.000	0.000	0.000		0.000	20.088	22.346	22.255	22.656	Continuing	Continuing
• RDTEA/0605030A: *JTN*	0.000	0.000	68.148		68.148	19.909	21.788	26.849	25.000	Continuing	Continuing
• RDTEN/0605030N: *JTN*	0.000	0.000	0.000		0.000	16.911	14.039	14.274	14.536	0.000	59.760

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3076: *JTRS Network Enterprise Domain (JNED)*

D. Acquisition Strategy

JTN is responsible for common core activities including developing and updating the SCA compliant 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 (interface standards, network managers, etc). Waveform developments (upgrading, developing, and maintaining) will generally be procured through full and open contract competitions. The JTN program is developing waveforms and Cryptographic Equipment Applications (CEAs) for use within the software-defined radio community.

The FY14 Budget supports continued development of waveforms/supporting software, testing support, and the National Security Agency (NSA) evaluation of software Information Assurance (IA) compliance.

E. Performance Metrics

The JTN programs are employing mature, software-defined radio technologies and developing more than 10 million lines of code as part of the Increment 1 baseline. Early on, a JTN enterprise software metrics requirements effort established a baseline of standard software metrics which are monitored on each JTN contract involving software development. Example metrics are: the number of requirements and the number of use cases required for design are estimated during the requirement and design phase and analyzed for trend-actual vs. scheduled; the software lines of code (SLOC) counts are used to determine progress during the coding phase; and the execution of test cases as well as trouble reports are monitored during the integration and test phase. Further, a software complexity product metric is collected which demonstrates the testability of the code and is an important criterion for software certification. These software metrics are used to quantify the quality and progress of each software product's development over time. Additionally, JTN employs Earned Value Metrics to monitor contract performance on its Prime Development Contracts.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3076: *JTRS Network Enterprise Domain (JNED)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Architecture Development and Validation, Evolve and Provide CM Mgmt of SCA	WR	Johns Hopkins:Laurel, MD	2.350	0.325	Dec 2012	0.000		0.000		-		0.000	0.000	2.675	Continuing
Wideband Networking Waveform (WNW)	C/CPAF	BOEING:Huntington Beach, CA	104.094	0.000		0.000		0.000		-		0.000	0.000	104.094	104.094
Soldier Radio Waveform (SRW)	C/CPIF	ITT:Clifton, NJ	92.669	0.000		0.000		0.000		-		0.000	0.000	92.669	91.470
Mobile User Objective System (MUOS)	C/CPIF	Lockheed Martin:Sunnyvale, CA	132.235	46.648	Aug 2012	0.000	Mar 2013	0.000		-		0.000	0.000	178.883	149.159
Joint Airborne Networking -Tactical Edge (JAN-TE) Development	C/CPFF	Rockwell Collins:Cedar Rapids, IA	42.464	23.705	Sep 2012	0.000		0.000		-		0.000	0.000	66.169	Continuing
Legacy Software-Defined Radio Waveforms	Various	Various:Various	51.422	5.055	Oct 2011	5.368	Dec 2012	0.000		-		0.000	0.000	61.845	Continuing
Network Enterprise Services Development	C/CPIF	ITT:Clifton, NJ	61.335	0.000		0.000		0.000		-		0.000	0.000	61.335	61.072
Network Enterprise Services Development	Various	BOEING:Huntington Beach, CA	218.878	29.064	Oct 2011	13.679	Mar 2013	0.000		-		0.000	0.000	261.621	Continuing
Network Enterprise Services Development	Various	RCI:Cedar Rapids, IA	21.798	0.000		0.000		0.000		-		0.000	0.000	21.798	32.287
Post FQT / Software Sustainment	Various	ITT:Clifton, NJ	0.332	0.044	Mar 2012	0.000		0.000		-		0.000	0.000	0.376	6.148
Post FQT / Software Sustainment	Various	RCI:Cedar Rapids, IA	0.716	0.000		0.000		0.000		-		0.000	0.000	0.716	1.297
Post FQT / Software Sustainment	Various	BAE:Wayne, NJ	0.000	0.305	Mar 2012	0.000		0.000		-		0.000	0.000	0.305	Continuing
Post FQT / Software Sustainment	Various	BAH:McLean, VA	0.000	0.000		1.146	Dec 2012	0.000		-		0.000	0.000	1.146	9.991
Post FQT / Software Sustainment	Various	LANT:Charleston, SC	2.172	0.000		0.000		0.000		-		0.000	0.000	2.172	4.805
Certification (Interim SCA Compliance Testing)	MIPR	NSA:Ft. Meade, MD	16.004	2.715	Jan 2012	1.035	Dec 2012	0.000		-		0.000	0.000	19.754	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3076: *JTRS Network Enterprise Domain (JNED)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Post FQT/ Software Sustainment	WR	PAC:San Diego, CA	0.000	2.000	Jul 2012	16.107	Oct 2012	0.000		-		0.000	0.000	18.107	
Post FQT/ Software Sustainment	MIPR	JITC:Fort Huachuca, AZ	0.000	0.000		0.063	Oct 2012	0.000		-		0.000	0.000	0.063	
Post FQT/ Software Sustainment	MIPR	CERDEC:APG, MD	0.000	0.000		0.125	Oct 2012	0.000		-		0.000	0.000	0.125	
Technology Development Efforts	Various	Various:Various	0.000	0.000		4.606	Dec 2012	0.000		-		0.000	0.000	4.606	
		Subtotal	746.469	109.861		42.129		0.000		0.000		0.000	0.000	898.459	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC - MITRE Technical Support	MIPR	MITRE:Ft. Monmouth, NJ	7.930	0.415	Oct 2011	0.000	Oct 2012	0.000		-		0.000	0.000	8.345	Continuing
JTN Engineering/Technical Support	Various	Various:Various	0.000	25.544	Oct 2011	12.114	Oct 2012	0.000		-		0.000	0.000	37.658	Continuing
		Subtotal	7.930	25.959		12.114		0.000		0.000		0.000	0.000	46.003	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	SRA / SSC PAC / SSC LANT:San Diego, CA / San Diego, CA / Charleston, SC	232.367	10.320	Nov 2012	4.834	Mar 2013	0.000		-		0.000	0.000	247.521	Continuing
Joint Airborne Networking -Tactical Edge (JAN-TE) PMO	C/CPFF	RCI:Cedar Rapids, IA	0.000	1.050	Dec 2012	0.000		0.000		-		0.000	0.000	1.050	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3076: *JTRS Network Enterprise Domain (JNED)*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Acquisition Workforce Fund	C/FP	Not Specified:Not Specified	1.030	0.000		0.000		0.000		-		0.000	0.000	1.030	1.030
		Subtotal	233.397	11.370		4.834		0.000		0.000		0.000	0.000	249.601	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	987.796	147.190		59.077		0.000		0.000		0.000	0.000	1,194.063	

Remarks

Remarks: PYs column only reflects prior year Navy JNED costs for FY07-FY11. Prior to FY07, funding for JNED resided in Army PE 0604280A, Project 162. In FY12-FY13, Project No. 3076 represents the total JTRS NED RDT&E budget. In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to Military Department-managed programs. The continuing Joint Tactical Networks (JTN) (formally known as JNED) will remain under a joint budget strategy in the three Services in new PEs (Army PE 0605030A, the Navy PE 0605030N, and the Air Force PE 0605030F). As part of the JTRS joint program budget strategy, each Military Department (MILDEP) budgets for approximately one-third of the total program RDT&E funds. Prior to the year of execution the funding is consolidated in the Army PE.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3078: *Digital Modular Radio*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3078: *Digital Modular Radio*	0.000	4.387	3.767	0.000	-	0.000	0.000	4.997	1.999	0.000	0.000	15.150
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Digital Modular Radio (including DMR High Frequency Distributed Amplifier Group (HF DAG) previously funded under Project 3073.
FY16-17 funding added for the development of DMR High Frequency Automatic Link Establishment (HF ALE).

A. Mission Description and Budget Item Justification

The Digital Modular Radio (DMR), AN/USC-61(C), is the first software defined radio to have become a communications system standard for the U.S. Military. The compact, multi-channel DMR provides multiple waveforms and multi-level information security for voice and data communications. Digital Modular Radios currently operate aboard U.S. Navy surface and subsurface vessels, fixed-sites and other Department of Defense communication platforms using frequencies ranging from 2 MHz to 2 GHz. Certified to pass secure voice and data at Multiple Independent Levels of Security (MILS) over High Frequency (HF), Very High Frequecy (VHF), Ultra High Frequency (UHF), and Satellite Communications (SATCOM) channels, the DMR system was developed to the U.S. Navy's specifications and meets all the stringent environmental, Electromagnetic Interference (EMI) and performance requirements for use in the U.S. Fleet.
This task is to develop Integrated Waveform (IW) capability for the Digital Modular Radio (DMR) in accordance with Military Standards 188-181,2,3. IW uses a Time Division Multiple Access (TDMA) communication system in an attempt to improve satellite bandwidth utilization over legacy SATCOM waveforms. This enables demand assigned services on UHF SATCOM networks to support new applications that require better performance and higher channel throughput. Funding in FY16-17 is to provide DMR with HF Automatic Link Establishment (ALE) Generation 3.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: DMR	4.387	3.767	0.000
Articles:	0	0	
Description: Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion.			
FY 2012 Accomplishments: Conducted DMR Integrated Waveform (IW) capability development and testing.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3078: *Digital Modular Radio*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Complete DMR Integrated Waveform (IW) capability development and testing.			
Accomplishments/Planned Programs Subtotals	4.387	3.767	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/3010: *Shipboard Tactial Comms*	1.494	0.000	0.000		0.000	3.973	6.050	9.007	17.918	0.000	38.442

Remarks

D. Acquisition Strategy

The evolutionary acquisition strategy for the DMR program commenced in November 1996 with a Sources Sought Synopsis being released.

After the evaluation of industry proposals by the Space and Naval Warfare Systems Command (SPAWAR) Technical Evaluation Board (TEB), two multiple award FFP/IDIQ contracts were awarded. One contract was awarded to Raytheon E-Systems Incorporated and the other to Motorola Wireless Information Transfer Systems (now General Dynamics C4 Systems (GDC4S)).

Two delivery orders, one to each vendor, were issued to deliver four Service Test Models (STMs) from each vendor. Extensive Government laboratory Developmental Testing (DT) was conducted on the STMs to determine which vendor proposed the superior DMR product. The Government concluded that, based on the results from the DT, the Motorola DMR was the best value for the Navy and an order for DMR production quantities was issued to Motorola.

Due to the fact that GDC4S owns the technical data rights to the DMR, they are the only contractor with the unique capabilities and technical know how to perform the required IW upgrade work. This scope will be issued to GDC4S as an option under the sole source contract, N00039-10-C-0069, as authorized by SPAWAR J&A No. 16,351, signed 5 January 2010 by the Assistant Secretary of the Navy (ASN), Research, Development and Acquisition (RD&A).

E. Performance Metrics

MIL-STD conformance to meet JITC Certification for IW/UHF SATCOM waveform.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3078: *Digital Modular Radio*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IW Development	C/CPIF	GDC4S:Scottsdate, AZ	0.000	4.387	Sep 2012	3.767	Nov 2012	0.000		-		0.000	0.000	8.154	
		Subtotal	0.000	4.387		3.767		0.000		0.000		0.000	0.000	8.154	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	4.387		3.767		0.000		0.000		0.000	0.000	8.154	

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 9999: *Congressional Adds*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9999: *Congressional Adds*	0.000	4.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	4.000
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

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. The JTRS family of products will be multifunctional, multiband, multimode, network capable, capable of providing communications through a range of low probability of intercept, low probability of detection and anti-jam waveforms. JTRS products will provide transformational communication capabilities for the warfighter. 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. JTRS products are hardware-configurable and software-programmable radio systems that provide increased interoperability, flexibility and adaptability to support varied mission requirements.

Following a Critical Nunn McCurdy breach the USD AT&L conducted a reassessment of the GMR program. Conclusions of the reassessment did not support certification of the program, thereby cancelling the program. In accordance with the ADM dated 14 October 2011, the GMR program office was directed to conduct an orderly shutdown of the existing GMR System Development and Demonstration contract which expired on 30 March 2012.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2012	FY 2013
Congressional Add: GMR JTRS (Cong)	4.000	-
FY 2012 Accomplishments: Conducted close out of the System Development and Demonstration (SDD) contract. Activities include: identifying critical deliverables such as hardware, design specifications, instrumentation, modeling tools, simulators, etc. for delivery to the Government. Achieved National Security Agency (NSA) Type 1 Certification.		
Congressional Adds Subtotals	4.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 9999: *Congressional Adds*

D. Acquisition Strategy

This is Congressional transfer funding associated with Project 3074, GMR JTRS. Acquisition strategy is the same as that project. Following a Critical Nunn McCurdy breach the USD AT&L conducted a reassessment of the GMR program. Conclusions of the reassessment did not support certification of the program, thereby cancelling the program. In accordance with the ADM dated 14 October 2011, the GMR program office was directed to conduct an orderly shutdown of the existing GMR System Development and Demonstration contract which expired on 30 March 2012.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 9999: *Congressional Adds*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS GMR SDD	C/CPAF	BOEING:Huntington Beach, CA	0.000	4.000	Mar 2012	0.000		0.000		-		0.000	0.000	4.000	4.000
		Subtotal	0.000	4.000		0.000		0.000		0.000		0.000	0.000	4.000	4.000

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	4.000		0.000		0.000		0.000		0.000	0.000	4.000	4.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 9999: *Congressional Adds*	

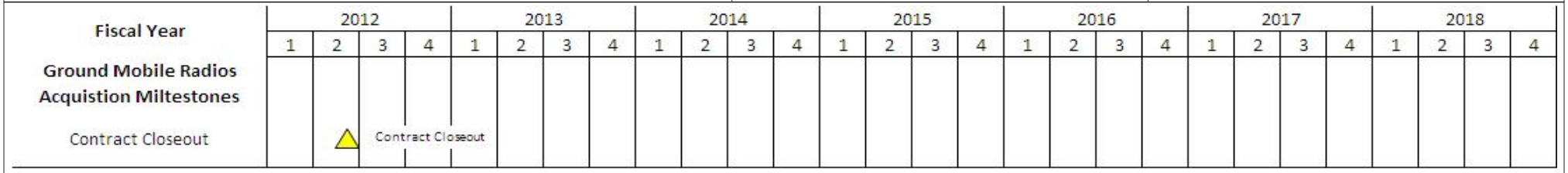

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 9999: *Congressional Adds*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 9999				
Contract Closeout	2	2012	2	2012