Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0205604N: Tactical Data Links

BA 7: Operational Systems Development

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	526.025	62.367	118.818	197.538	-	197.538	147.272	120.670	72.504	48.664	Continuing	Continuing
2126: ATDLS Integration	525.425	50.666	81.912	64.536	-	64.536	68.825	59.299	42.066	38.032	Continuing	Continuing
3020: <i>MIDS/JTRS</i>	0.000	0.000	0.000	119.929	-	119.929	78.447	61.371	30.438	10.632	Continuing	Continuing
3341: Network Tactical Common Data Link	0.000	0.000	14.907	8.104	-	8.104	0.000	0.000	0.000	0.000	0.000	23.011
4022: Other Tactical Data Link Engineering	0.600	11.701	21.999	4.969	-	4.969	0.000	0.000	0.000	0.000	0.000	39.269

MDAP/MAIS Code(s): 554

A. Mission Description and Budget Item Justification

This Program Element develops and improves the Navy's Tactical Data Link (TDL) systems. It includes the Advanced Tactical Data Link Systems (ATDLS) Integration Programs, specifically Link 16 Network, Command and Control Processor (C2P) and Link Monitoring and Management Tool (LMMT) (formerly Air Defense System Integrator (ADSI)); and Network Tactical Common Data Link (NTCDL) Program which provides the ability to transmit/receive real-time Intelligence, Surveillance, and Reconnaissance (ISR) data simultaneously from multiple sources (surface, air, sub-surface), and exchange command and control information (voice, data, imagery, and Full Motion Video) across dissimilar Joint, Service, Coalition, and civil networks. The Program Element also develops and tests tactical data link capability to distribute other data types to new and existing platforms.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under Operational Systems Development because it encompasses engineering and manufacturing development for upgrade of existing operational systems.

The Multifunctional Information Distribution System (MIDS) program consists of two products, MIDS Low Volume Terminal (LVT) and MIDS Joint Tactical Radio System (JTRS). MIDS-LVT provides Link 16 capability to platforms that were unable to employ Joint Tactical Information Distribution System (JTIDS) due to space and weight constraints. The MIDS-LVT effort is multinational (U.S., France, Germany, Italy, and Spain) with joint service participation (Navy, Army, and Air Force). The Department of Defense (DoD) established the program to design, develop, and deliver low volume, lightweight tactical information system terminals for U.S. and Allied fighter aircraft, bombers, helicopters, ships, and ground sites. MIDS-LVT provides interoperability with North Atlantic Treaty Organization (NATO) users, significantly increasing force effectiveness and minimizing hostile actions and friend-on-friend engagements. The terminal design is smaller, lighter, highly reliable, interoperable with JTIDS Class 2 terminal, compatible with all the participants' designated platforms, affordable, and re-configurable to individual user needs and budgets.

MIDS JTRS, designed as a Pre-Planned Product Improvement (P3I) and executed as an Engineering Change Proposal (ECP) to the production MIDS-LVT configuration, completed qualification in the first quarter of fiscal year 2010. It facilitated the Joint Program Executive Office (JPEO) JTRS incremental approach

PE 0205604N: Tactical Data Links

[#] 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

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0205604N: Tactical Data Links

BA 7: Operational Systems Development

for fielding advanced JTRS transformational networking capability and transformed the MIDS-LVT into a 4-channel, Software Communications Architecture (SCA) compliant. Joint Tactical Radio. A form-fit-function replacement to MIDS-LVT, MIDS JTRS also adds three programmable 2 Megahertz (MHz) to 2 Gigahertz (GHz) channels capable of hosting the JTRS legacy and networking waveforms. In addition to the Link 16, Tactical Air Navigation, and voice functionality found in MIDS-LVT, MIDS JTRS has four channels and adds capabilities such as Link 16 Enhanced Throughput, four nets Concurrent Multi-Netting (CMN) with Concurrent Contention Receive (CCR) (CMN-4), Link 16 Frequency Re-mapping (FR), software programmability, and Cryptographic Modernization (CM). With CMN-4, MIDS JTRS also utilizes Tactical Targeting Network Technology for MIDS JTRS Naval Integrated Fire Control Counter Air and From the Air Advanced Tactical Data Links. These capabilities provide Joint Airborne Network-Tactical Edge 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.

B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	69.189	118.818	87.893	-	87.893
Current President's Budget	62.367	118.818	197.538	-	197.538
Total Adjustments	-6.822	0.000	109.645	-	109.645
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-5.092	0.000			
SBIR/STTR Transfer	-1.730	0.000			
Program Adjustments	0.000	0.000	-7.841	-	-7.841
Rate/Misc Adjustments	0.000	0.000	117.486	-	117.486

Change Summary Explanation

Schedule:

ATDLS Integration:

Link 16 Network Increment II Dynamic Network Management (DNM) (2126): The following milestones/events have slipped 2 quarters due to the difficulty in obtaining Developmental Test (DT) and Operational Test (OT) assets: Joint Tactical Information Distribution System (JTIDS) DNM Developmental Test Readiness Review from FY2012Q4 to FY2013Q2; Multifunctional Information Distribution System (MIDS) on Ships (MOS) DNM Developmental Test Readiness Review from FY2012Q4 to FY2013Q2; MOS DNM Operational Test Readiness Review FY2012Q4 to FY2013Q3; MOS DNM Developmental Test from FY2013Q1 to FY2013Q3; and MOS DNM Operational Test from FY2013Q2 to FY2013Q4. The following milestones/events have slipped 1 quarter due to the difficulty in obtaining DT/OT assets: JTIDS DNM Operational Test Readiness Review (OTRR) from FY2013Q1 to FY2013Q2 and JTIDS DNM Developmental Test from FY2013Q1 to FY2013Q2. DNM Full Operational Capability (FOC) has slipped 4 quarters from FY2014Q4 to FY2015Q4 due to slip in MOS DT and OT with resultant need to wait for CNO scheduled availability for installation.

PE 0205604N: Tactical Data Links

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0205604N: Tactical Data Links

BA 7: Operational Systems Development

Link 16 Network Increment II Cryptographic Modernization (CM)/Frequency Remapping (FR) (2126): The following milestones/events have slipped 3 quarters due to delay in MIDS LVT Block Update 2 Schedule: MOS CM/FR Development (Ship) System Requirements Review (SRR)/Preliminary Design Review (PDR) from FY2013Q4 to FY2014Q3; and MOS CM/FR Development (Ship) Critical Design Review (CDR) from FY2014Q1 to FY2014Q4. New events added to reflect split between JTIDS CM/FR DT/OT and MOS CM/FR DT/OT due to MIDS LVT Block Update 2 schedule change: MOS CM/FR DTRR FY2016Q4; MOS CM/FR OTRR FY2017Q1; MOS CM/FR DT FY2017Q1; and MOS CM/FR OT FY2017Q2. The following milestones/events have slipped 1 quarter due to contract strategy revision specifying use of Multifunction Information Distribution System - Joint Tactical Radio System (MIDS-JTRS) Link 16 Terminal for integration: MOS Modernization (MOS Mod) System Functional Review (SFR) from FY2013Q3 to FY2013Q4; MOS Mod Test Readiness Review (TRR) from FY2014Q2 to FY2014Q3; MOS Mod Production Readiness Review (PRR) from FY2015Q1 to FY2015Q2; MOS Mod DTRR from FY2015Q2 to FY2015Q3; MOS Mod OTRR from FY2015Q3 to FY2015Q3 to FY2015Q3 to FY2015Q3 to FY2015Q4; MOS Mod OT from FY2015Q4 to FY2016Q1; and MOS Mod Fielding Decision Review (FDR) from FY2016Q2 to FY2016Q3. The following milestones/events have slipped 2 quarter due to remaining aligned with C2P Tech Refresh: JTIDS/MOS CM/FR Shipboard Integration SRR from FY2013Q2 to FY2014Q2; and JTIDS/MOS CM/FR Shipboard Integration CDR from FY2014Q2 to FY2014Q4.

Command and Control Processor (C2P) (2126): C2P Technology Refresh milestones/events: Added Inc 3 IPR (FY 2018Q3). The following events slipped: Tech Refresh contract award delays caused SRR, PDR and CDR to slip 2 quarters: SRR (FY 2013Q2 to FY 2013Q4), PDR (FY 2013Q4 to FY 2014Q2), and CDR (FY 2014Q2 to FY 2014Q4). Link-22 milestones have slipped 2 quarters due to contract award delays: SRR (FY 2014Q1 to FY 2014Q3), PDR (FY 2014Q3 to FY 2015Q1), Milestone B (FY 2014Q4 to FY 2015Q2), CDR (FY 2015Q1 to FY 2015Q3).

Link Monitoring and Management Tool (LMMT) Increment I (formerly Air Defense System Integrator (ADSI)) (2126) provides Tactical Data Links (TDL) Situational Awareness (SA). LMMT Increment II accelerates engineering efforts in FY 2014 leading to Initial Operational Capability (IOC) in FY 2016. LMMT Increment II provides TDL monitoring and management capabilities not included in Increment I.

In accordance with the Acquisition Decision Memorandum dated 11 July 2012, the Joint Tactical Radio Systems Program of Records (JTRS PORs) transitioned to a Military Department-managed program. MIDS transitioned to the Navy under PE 0205604N beginning in FY14, but was formerly in PE 0604280N. Thus PU 3020 is new to PE 0205604N in this submission.

PE 0205604N: Tactical Data Links

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DATE: April 2013

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APPROPRIATION/BUDGET ACT	TIVITY			R-1 ITEM I	NOMENCL	ATURE		PROJECT				
1319: Research, Development, Te	est & Evaluation, Navy	,		PE 020560)4N: <i>Tactica</i>	il Data Links	3	2126: <i>ATD</i>	LS Integrati	ion		
BA 7: Operational Systems Devel	opment											
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	Total Cost	

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
2126: ATDLS Integration	525.425	50.666	81.912	64.536	-	64.536	68.825	59.299	42.066	38.032	Continuing	Continuing
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

Fxhibit R-24 RDT&F Project Justification: PR 2014 Navy

A. Mission Description and Budget Item Justification

This project develops and improves the Navy's Tactical Data Link (TDL) systems. It includes the Advanced Tactical Data Link Systems (ATDLS) Integration Programs, specifically Link 16 Network, Command and Control Processor (C2P) and Link Monitoring and Management Tool (LMMT) (formerly Air Defense System Integrator (ADSI)).

ATDLS Integration Program develops new and improved capabilities for Navy TDL users. The Navy Link 16 Network Increment II consists of Dynamic Network Management (DNM), Cryptographic Modernization (CM) and Frequency Remapping (FR). C2P Technology Refresh (TR) and C2P Interoperability will modernize legacy C2P processing components to address C2P component obsolescence and fleet interoperability issues. C2P is a critical component in the Aegis Ballistic Missile Defense (BMD) architecture. Modernization is a service life extension program required to sustain C2P support of Naval Integrated Air and Missile Defense (IAMD) and BMD capabilities. Link 22 development and integration into the C2P allows for standard data link communication with Coalition forces. LMMT Increment I (formerly ADSI) will upgrade commercial off-the-shelf hardware and modernize software operating systems. LMMT Increment II will improve TDL performance monitoring and management in support of the Integrated Air & Missile Defense (IAMD) and Ballistic Missile Defense (BMD) missions.

Link 16 Network Increment II funds the DNM capability and the implementation of Link 16 Network DNM on Navy ships, shore sites and airborne Link 16 terminals. DNM will provide automatic reconfiguration of Link 16 networks that respond instantly to emergent war fighter requirements. DNM consists of new terminal protocols that include Time Slot Reallocation and Combined Network Participation Groups. The DNM capabilities will be incorporated into Next Generation Command and Control Processor (NGC2P). Increment II also funds the following activities: (1) development and implementation of CM and FR mandates as a product improvement into Link 16 terminals and integration into shore sites, ship (NGC2P), and current Navy Joint Tactical Information Distribution System (JTIDS) airborne platforms; (2) Developmental Tests / Operational Tests (DT/OT) of Navy platform modifications; (3) implementation of new Link 16 information / data into the shipboard C2P to support Link 16 Network new and improved capabilities; and (4) provide product improvement for continued production capability (MOS Modernization) and extensibility to new Tactical Data Link capabilities of shipboard Link 16 Terminals.

FY 2014 Justification: Funding will provide for JTIDS CM/FR detailed design leading to Test Readiness Review (TRR) and testing of five Engineering and Manufacturing Development units to be used for National Security Agency (NSA) Cryptographic Certification and acceptance testing in FY 2014. Software modifications to the shipboard Command and Control Processor (C2P) will continue to support shipboard integration of the CM/FR capability. Similar software modifications to the E-2C host processing will be initiated through the E-2C Program Office (PMA-231) for the CM/FR capability. Funding will also provide for MOS CM/FR for requirements analysis of MIDS Block Update 2 documentation resulting in design work to support Preliminary Design Review (PDR) and Critical Design Review (CDR). JTIDS and

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^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: Research, Development, Test & Evaluation, Navy	PE 0205604N: Tactical Data Links	2126: ATDLS Integration
BA 7: Operational Systems Development		

MOS CM/FR efforts are in support of NSA (NSA Policy 3-9) and Joint Chiefs of Staff mandates (Chairman of the Joint Chiefs of Staff Instruction Notice 6510.02), for the modernization of the cryptographic algorithm used in Link 16 terminals and the Department of Defense and the Department of Transportation Memorandum of Agreement (Regarding the 960-1215 MHz. Frequency Band, 31 December 2002) for the implementation of a capability to remap any 14 of the existing 51 frequencies in order to remain operable within the United States and its possessions. All Link 16 terminals are required to have this capability to support Link 16 Interoperability. To address continued production capability and extensibility to new Tactical Data Link capabilities, funding will provide for MOS Modernization (MOS Mod) design and development leading to a Test Readiness Review (TRR).

Command and Control Processor (C2P) Technology Refresh (TR) funds a product improvement effort to the legacy C2P hardware components and allows C2P software to execute on modern processors, thereby extending its effective service life. Product improvement efforts will include C2P software development, hardware integration, update of the C2P development environment to promote sustainability and testing to include Developmental Test (DT)/Operational Test (OT) of the C2P TR baseline.

C2P, Phase 3, Increment 3 is planned to include Link 22, which is a modernized replacement for Link-11, providing Beyond Line of Sight (BloS) tactical data communication system utilizing fixed frequency or frequency hopping techniques in the High Frequency (HF) (3-30 Megahertz (MHz)) and/or the Ultra High Frequency (UHF) (225-400 MHz) bands.

FY 2014 Justification: Accomplish C2P TR PDR and CDR. Accomplish Inc 3 Link-22 Software Readiness Review (SRR), and continue efforts leading to Milestone B and CDR in FY 15.

Link Monitoring and Management Tool (LMMT) (formerly Air Defense System Integrator (ADSI)) is a near real-time tactical command and control system delivered on commercial off-the-shelf hardware providing for multiple Tactical Data Link (TDL) interfaces, processing and display of TDL data including Link 16, and Joint Range Extension. LMMT is also capable of performing TDL network planning, monitoring, management, data forwarding between the TDLs and providing tactical data to the Global Command and Control System for establishing the Common Operational Picture.

FY 2014 Justification: Funding will provide for detailed system design efforts including System Requirements Review and Preliminary Design Review (PDR) leading to a Critical Design Review (CDR) in FY 2014 and Operational Testing (OT) in FY 2015. Funding will also provide for software development and development of acquisition, interoperability, test, and logistics products to support testing and system fielding in FY 2016.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Link 16 Network Increment II (Formerly ATDLS Integration) - Dynamic Network Management (DNM)	3.560	1.500	0.000
Articles:	0	0	
FY 2012 Accomplishments: Prepared for JTIDS DNM DT/FOT&E, MOS DNM DT/OT. Conducted JTIDS and MOS Developmental Test Readiness Review (DTRR). Continued Link 16 Network integrated logistics support.			
FY 2013 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: A	April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0205604N: Tactical Data Links	PROJ I 2126:	ECT ATDLS Integr	ration	
B. Accomplishments/Planned Programs (\$ in Millions, Article Qu	uantities in Each)		FY 2012	FY 2013	FY 2014
Conduct JTIDS and MOS DTRR and Operational Test Readiness Reup to DNM Milestone C. Conduct MOS DNM DT and MOS DNM DT Capability (IOC). Correct critical DNM test deficiencies. Continue Li	OT. Achieve DNM Milestone C and DNM Initial Op				
<i>Title:</i> Link 16 Network Increment II (Formerly ATDLS Integration) - C (FR)	Cryptographic Modernization (CM) / Frequency Rem	apping Articles:	33.950 0	39.597 5	28.60
FY 2012 Accomplishments: Conducted JTIDS Preliminary Design Review (PDR) and detailed de integrated logistics support and JTIDS airborne integration study.	esign of the JTIDS CM/FR. Continued Link 16 Netw				
FY 2013 Plans: Conduct JTIDS CM/FR Critical Design Review (CDR) and initiate de Development (EMD) units. Initiate development of MOS Modernizat product availability. Initiate JTIDS/MOS CM/FR shipboard integration	ion (MOS Mod) requirement analysis and design fo	r continued			
FY 2014 Plans: Conduct JTIDS CM/FR Test Readiness Review (TRR) and initiate confirmed FR on Engineering Manufacturing Development (EMD) unit. Conduct and CDR. Complete design and conduct MOS Mod Test Readiness integration effort with C2P and begin JTIDS CM/FR air integration effortwork integration logistics support.	ct MOS CM/FR System Requirements Review SRR Review (TRR). Continue JTIDS/MOS CM/FR shipt	/PDR board			
Title: Command and Control Processor (C2P)		Articles:	13.156 0	37.615 0	30.33
FY 2012 Accomplishments: C2P Interoperability initial software build and developmental testing of Warrior in FY 2012. C2P Technology Refresh (TR) commenced devintegration with modernized data link cryptographic devices and software design reviews.	elopment of Technology Refresh architecture requi	rements,			
FY 2013 Plans: Support C2P Interoperability combat system certification. C2P TR fu	unding will provide for requirements, design, initial				

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Exhibit R-2A, RDT&E Project J	ustification: PB	2014 Navy			,			,	DATE: /	April 2013	
APPROPRIATION/BUDGET AC 1319: Research, Development, BA 7: Operational Systems Deve	Test & Evaluation,	Navy			EM NOMEN 05604N: <i>Ta</i>	ICLATURE ctical Data L	inks	PROJE 2126: <i>A</i>	ATDLS Integ	ration	
B. Accomplishments/Planned	Programs (\$ in N	lillions, Art	icle Quantit	ies in Each	1				FY 2012	FY 2013	FY 2014
Preliminary Design Review (PDI FY 2013 to support SRR in FY 2	,	sign Review	(CDR), which	ch will occur	in FY 2014.	Link-22 effo	orts commen	ce in			
FY 2014 Plans: Accomplish C2P TR PDR and Cleading to Milestone B, PDR and			developmen	it. Complete	Inc 3 Link-2	22 SRR, and	continue eff	orts			
Title: Link Monitoring and Mana	gement Tool (LMI	MT) (formerl	y Air Defens	se System In	tegrator (AD	SI))	A	Articles:	0.000	1.000 0	3.400 0
FY 2013 Plans: LMMT Increment I (formerly ADS products to support Developmer hardware and upgraded softwar	ntal Test Readines										
FY 2014 Plans: Conduct LMMT Increment I FDF and combined Preliminary Design development.											
Title: Joint Aerial Layer Network	(JALN)						A	Articles:	0.000	2.200 0	2.200 0
FY 2013 Plans: Joint Aerial Layer Network (JALI ensure adequate tactical network	, , , , , , , , , , , , , , , , , , , ,	•			lay capabilit	y intended to	improve an	d			
FY 2014 Plans: Continue development of a com communications in a jammed en		capability ir	ntended to in	nprove and e	ensure adeq	uate tactical	network				
				Accor	nplishment	s/Planned P	rograms Su	btotals	50.666	81.912	64.536
C. Other Program Funding Sui	mmary (\$ in Milli	ons)	FY 2014	FY 2014	FY 2014					Cost To	
<u>Line Item</u>	FY 2012	FY 2013	Base	OCO	Total	FY 2015	FY 2016	FY 201		8 Complete	
OPN/2614: ATDLS Remarks	1.026	0.000	3.836		3.836	12.179	25.987	44.18	5 48.15	2 Continuing	Continuing
<u>remany</u>											

PE 0205604N: *Tactical Data Links* Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

DATE: April 2013

R-1 ITEM NOMENCLATURE
PE 0205604N: Tactical Data Links

PROJECT
2126: ATDLS Integration

D. Acquisition Strategy

The JTIDS Crypto Modernization (CM)/Frequency Remapping (FR) development and Low Rate Initial Production (LRIP) contract was awarded to Data Link Solutions (DLS). The associated production contract for JTIDS CM/FR will be competitively awarded after Operational Test. The MOS CM/FR contract will be awarded in FY14. Will award a MOS Mod product improvement contract for continued capability in FY13. Link 16 Terminal CM/FR shipboard integration will be accomplished through the C2P contract. Will competitively award a contract for C2P Tech Refresh and Link-22 development in FY 2013. The Link Monitoring and Management Tool (LMMT) Increment II capability will replace LMMT Increment I. LMMT Increment II will leverage existing Government off the Shelf (GOTS) software and Commercial off the Shelf (COTS) hardware. Increment II capabilities are implemented primarily in software and will be developed in capability drops (CDs). Existing GOTS software will be updated to incorporate network performance monitoring and management capabilities by SPAWAR System Center (SSC). Fielding decisions will be accomplished after CD DT/OT.

E. Performance Metrics

Link 16 Network DNM: Successfully achieve Milestone C. Successfully achieve Initial Operational Capability. Successfully conduct Full Deployment Decision Review. Successfully complete Operation Test Readiness Review. Successfully complete Developmental Test / Operational Test.

Link 16 Network Cryptographic Modernization: Successful implementation of updated cryptographic algorithm as specified by National Security Agency (NSA Policy 3-9) Certification in Joint Tactical Information Distribution System (JTIDS), Multifunctional Information Distribution System (MIDS) on Ship (MOS), and MOS Modernization (MOS Mod) Link 16 terminals.

Link 16 Network Frequency Remapping: Successful implementation of a Frequency Remapping capability as specified in Department of Defense/Department of Transportation Memorandum of Agreement regarding the 960-1215 MHz Frequency Band of 31 Dec 02 in Joint Tactical Information Distribution System (JTIDS), Multifunctional Information Distribution System (MIDS) on Ship (MOS) and MOS Modernization (MOS Mod) Link 16 Terminals.

Link 16 Network Production Capability: Production Shipboard Link 16 Terminals available to meet new construction shipboard requirements.

Command and Control Processor (C2P): Successfully achieve C2P Technology Refresh Fielding and thereby maintain operational availability.

Link 22: Successfully achieve Link 22 implementation fielding, meeting operational requirement.

LMMT: Successfully meet operational requirements and achieve Fielding Decision Reviews (FDR) for Increment I and Increment II.

PE 0205604N: Tactical Data Links

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

R-1 ITEM NOMENCLATURE

2126: ATDLS Integration

PROJECT

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

PE 0205604N: Tactical Data Links

FY 2014 FY 2014 FY 2014 **Product Development (\$ in Millions)** FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award **Cost To** Total Value of Cost Category Item & Type Activity & Location Years Cost Date Cost Cost Complete Cost Contract Cost Date Date Date Cost ATDLS Product Development and Various:Various 363.158 0.000 0.000 0.000 0.000 0.000 363.158 363.158 Various Integration DLS (BAE/ Link 16 Network C/CPIF 16.012 Feb 2012 5.200 Continuing Continuing Continuing 26.388 7.384 Mar 2013 5.200 Mar 2014 Development (JTIDS) Rockwell):Wavne, NJ Link 16 Network DLS (BAE/ C/FFP 0.000 0.034 Feb 2012 3.034 Dec 2012 4.400 Dec 2013 4.400 Continuing Continuing Continuing Development (MOS) Rockwell):Wavne, NJ Link 16 Network Development (MIDS LVT/ WR MIDS IPO:MIDS IPO 0.000 1.944 Aug 2012 6.060 Aug 2013 0.800 Aug 2014 0.800 Continuing Continuing Continuing MIDS J) Link 16 Network E-2C WR 0.000 6 900 Oct 2013 6.900 Continuing Continuing Continuing Unknown Unknown 0.000 0.000 Integration WR 2.200 Mar 2013 2.200 Continuing Continuing Continuing Link 16 Network JALN Unknown:Unknown 0.000 0.000 2.200 Mar 2014 Link 16 Network C/FPIF Unknown:Unknown 0.000 0.000 15.000 Jul 2013 0.000 0.000 Continuing Continuing Continuing Development (MOS MOD) **SPAWARSYSCEN** Link 16 Network Software WR 2.496 0.000 0.500 Oct 2012 2.200 Oct 2013 2.200 Continuing Continuing Continuing PAC:San Diego, CA Link 16 Network Integrated SeaPort-E:San C/CPFF Oct 2012 Oct 2013 0.390 Continuing Continuing Continuing 1.100 0.390 Oct 2011 0.390 0.390 Logistics Support Diego, CA Link 16 Network Systems **SPAWARSYSCEN** WR 35.991 Oct 2011 1.930 Oct 2012 1.512 Oct 2013 1.512 Continuing Continuing Continuing 2.781 PAC:San Diego, CA Engineering **SPAWARSYSCEN** Link 16 Network IV&V WR 0.000 1.426 Oct 2011 0.234 Oct 2012 0.300 Oct 2013 0.300 Continuing Continuing Continuing PAC:San Diego, CA Northrop 21.336 Continuing Continuing Continuing C2P Development C/IDIQ Grumman:San 0.000 3.329 Mar 2012 15.481 May 2013 21.336 May 2014 Diego, CA C2P Development **SPAWARSYSCEN** WR 0.000 3.899 Oct 2011 4.125 Oct 2012 0.000 0.000 Continuing Continuing Continuing (Interoperability) PAC:San Diego, CA **SPAWARSYSCEN** C2P Systems Engineering WR 0.000 2.441 Dec 2011 7.184 Oct 2012 6.000 Oct 2013 6.000 Continuing Continuing Continuing PAC:San Diego, CA LMMT Inc I Integrated SeaPort-E:San C/CPFF 0.000 0.000 0.250 Feb 2013 0.275 Oct 2013 0.275 Continuing Continuing Continuing Logistics Support Diego, CA

PE 0205604N: Tactical Data Links

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0205604N: Tactical Data Links

PROJECT

2126: ATDLS Integration

DATE: April 2013

Product Developmen	nt (\$ in Mi	illions)		FY 2	2012	FY 2	2013	FY 2 Ba		FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
LMMT Inc II (Development)	WR	SPAWARSYSCEN PAC:San Diego, CA	0.000	0.000		0.000		1.900	Oct 2013	-		1.900	Continuing	Continuing	Continuing
LMMT Inc II Systems Engineering	WR	SPAWARSYSCEN PAC:San Diego, CA	0.000	0.000		0.000		0.500	Oct 2013	-		0.500	Continuing	Continuing	Continuing
		Subtotal	429.133	32.256		63.772		53.913		0.000		53.913			

Test and Evaluation	(\$ in Milli	ons)		FY	2012	FY 2	2013	FY 2 Ba	2014 ise		2014 CO	FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
ATDLS Test and Evaluation	Various	Various:Various	65.171	0.000		0.000		0.000		-		0.000	0.000	65.171	65.171
Link 16 Network Developmental T&E	WR	SPAWARSYSCEN PAC:San Diego, CA	3.038	1.467	Oct 2011	0.252	Oct 2012	0.000	Oct 2013	-		0.000	Continuing	Continuing	Continuing
Link 16 Network Operational T&E	WR	SPAWARSYSCEN PAC:San Diego, CA	2.164	0.709	Oct 2011	0.397	Oct 2012	0.000	Oct 2013	-		0.000	Continuing	Continuing	Continuing
C2P T&E	WR	SPAWARSYSCEN PAC:San Diego, CA	0.000	1.771	Oct 2011	7.859	Oct 2012	0.000	Oct 2013	-		0.000	Continuing	Continuing	Continuing
LMMT (Inc I & II) Developmental T&E	WR	SPAWARSYSCEN PAC:San Diego, CA	0.000	0.000		0.750	Feb 2013	0.450	Oct 2013	-		0.450	Continuing	Continuing	Continuing
		Subtotal	70.373	3.947		9.258		0.450		0.000		0.450			

Management Service	es (\$ in M	illions)		FY 2	2012	FY 2	2013		2014 ase		2014 CO	FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
ATDLS System Engineering Support	Various	Various:Various	20.177	0.000		0.000		0.000		-		0.000	0.000	20.177	20.177
Link 16 Network Contractor Engineering Support	C/CPFF	SeaPort-E:San Diego, CA	3.409	6.124	Oct 2011	0.000		3.221	Oct 2013	-		3.221	Continuing	Continuing	Continuing

PE 0205604N: *Tactical Data Links* Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

R-1 ITEM NOMENCLATURE

DATE: April 2013
PROJECT

APPROPRIATION/BUDGET ACTIVITY

BA 7: Operational Systems Development

1319: Research, Development, Test & Evaluation, Navy

Years

525.425

Project Cost Totals

FY 2012

50.666

PE 0205604N: Tactical Data Links

2126: ATDLS Integration

Total

64.536

Complete

Contract

Cost

Management Service	es (\$ in M	illions)		FY 2	2012	FY 2	2013		2014 ise	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Link 16 Network Government Engineering Support	WR	SPAWARSYSCEN PAC:San Diego, CA	1.613	4.665	Oct 2011	5.916	Oct 2012	1.600	Oct 2013	-		1.600	Continuing	Continuing	Continuing
Link 16 Network Program Management Support	C/CPFF	SeaPort-E:San Diego, CA	0.700	1.958	Oct 2011	0.000		2.077	Oct 2013	-		2.077	Continuing	Continuing	Continuing
C2P Program Management Support	C/CPFF	SeaPort-E:San Diego, CA	0.000	1.716	Oct 2011	2.966	Oct 2012	3.000	Oct 2013	-		3.000	Continuing	Continuing	Continuing
Acquisition Workforce Fund	Various	Unknown:Unknown	0.020	0.000		0.000		0.000		-		0.000	0.000	0.020	0.020
LMMT Program Management Support	C/CPFF	SeaPort-E:San Diego, CA	0.000	0.000		0.000		0.275	Oct 2013	-		0.275	0.000	0.275	
		Subtotal	25.919	14.463		8.882		10.173		0.000		10.173			
			All Prior					FY 2	2014	FY 2	014	FY 2014	Cost To	Total	Target Value of

FY 2013

81.912

Base

64.536

Remarks

PE 0205604N: *Tactical Data Links* Navy

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R-1 Line #182

oco

0.000

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0205604N: Tactical Data Links

PROJECT

2126: ATDLS Integration

		20	12			2013			20	14			201	15			201	6			201	17			201	18	
Fiscal Year	1	2	3	4	1	2 3	4	1	1 2	3	,	1	2	3	4	1			,	4		3		4	2	3	_
Program Milestones ink 16 Network		2	3	4	1	DNM MS C	FDDR		2	3	4		2		NM FO		МС	S MO		CI CM/FF	2 M/FR IO		MOS	1 CM/FF	FDR	3	
ngineering Milestones ink 16 Network			PDR	CM/FR	DEVE	CDR	SFR SRR	N S CM/F	SR IOS MO	M/FR DI R/PDR JTIDS SRR DDERNI TRR	CDR CM/FR CM/FR PDR ZATIO	PMENT INTEG	RATIO CDR	N (AIF]							
est & Evaluation filestones ink 16 Network					JТ DТ	DTRR OTR DTRR OTRR JTIDS DNM DT IOT&E MO	S DNM							DTRR MOS DTRR	MOD	OTRR	R)		Δ	OTRR MOS	CMFR OT						

Legend:

CDR - Critical Design Review CM - Cryptographic Modernization DT - Developmental Test DTRR - Developmental Test Readiness Review

DNM - Dynamic Network Management FDR - Fielding Decision Review

FDDR - Full Dev. Decision Review FOT&E - Follow-on Operational Test & Evaluation FOC - Full Operating Capability FR - Frequency Remapping

FRPDR - Full Rate Production Decision Review IOC - Initial Operating Capability

JTIDS - Joint Tactical Information Distribution System MOS - Multifunctional Info. Distribution Sys. (MIDS) On Ship (MOS) MOS MOD - MOS Modernization

MS - Milestone OT - Operational Test

OTRR - Operational Test Readiness Review

PDR - Preliminary Design Review PRR - Production Readiness Review

SFR - System Functional Review SRR - System Requirements Review

TRR - Test Readiness Review

PE 0205604N: Tactical Data Links

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy DATE: April 2013 APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 1319: Research, Development, Test & Evaluation, Navy PE 0205604N: Tactical Data Links 2126: ATDLS Integration BA 7: Operational Systems Development 2012 2013 2014 2015 2016 2017 2018 Fiscal Year 3 2 2 3 2 3 2 NGC2P INC II Program LINK-22 Inc III LINK 22 LINK 22 LINK 22 Milestones MS B IPR IPR MS C FOC TECH REFRESH C2P INTEROPERABILITY FDR IPR **Engineering Milestones** TECH REFRESH C2P INTEROPERABILITY PDR SRR CDR Software Software Software Initial Software Build 2 Build 3 Build 1 Build LINK 22 PDR SRR CDR Test & Evaluation TECH REFRESH Milestones LINK 22 C2P LINK-22 C2P INTEROPERABILITY DTRR TECH REFRESH Combat System Certification DT DT ОТ Production Milestones C2P INTEROPERABILITY TECH REFRESH PRR Software Delivery Legend: MS C - Milestone C C2P - Command and Control Processor FDR - Fielding Decision Review PDR - Preliminary Design Review CDR - Critical Design Review FOC - Full Operating Capability PRR - Production Readiness Review OA - Operational Assessment DT - Developmental Test IPR - In Progress Review OT - Operational Test SRR - System Requirements Review MS B - Milestone B OTRR - Operational Test Readiness Review TW - Trident Warrior DTRR - Developmental Test Readiness Review

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0205604N: Tactical Data Links

PROJECT

2126: ATDLS Integration

Fiscal Year		20	12		2013				201	4			20	15			20	16		2017					201	18		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Program Milestones LMMT										Field	Inc I	eview						DC/FD						EDR)2			FC
Engineering Milestones LMMT								Inc I		SRR	Pí	Inc II	CD1		TRR	SRR	PI	Inc II	CD2		TRR							
Test & Evaluation Milestones LMMT									Inc I							C II CE)1				ln	C C [

Legend:

CD - Capability Drop CDR - Critical Design Review DT - Developmental Test FDR - Fielding Decision Review FOC - Full Operational Capability IOC - Initial Operating Capability OT - Operational Test PDR - Preliminary Design Review SRR - System Requirements Review TRR - Test Readiness Review

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0205604N: Tactical Data Links

2126: ATDLS Integration

BA 7: Operational Systems Development

Schedule Details

	Sta	art	En	d
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 2126	,			
C2P Interoperability Initial Software Build	1	2012	1	2012
NGC2P Increment II Full Operating Capability	2	2012	2	2012
C2P Interoperability Developmental Test	2	2012	2	2012
Link 16 Network JTIDS CM/FR Development Preliminary Design Review	3	2012	3	2012
C2P Interoperability In Progress Review	3	2012	3	2012
C2P Trident Warrior-12	4	2012	4	2012
Link 16 Network MOS DNM Developmental Test Readiness Review	2	2013	2	2013
Link 16 Network JTIDS DNM Developmental Test Readiness Review	2	2013	2	2013
Link 16 Network JTIDS DNM Operational Test Readiness Review	2	2013	2	2013
Link 16 Network JTIDS DNM Developmental Test	2	2013	2	2013
Link 16 Network JTIDS DNM Follow-on Operational Test & Evaluation	2	2013	2	2013
Link 16 Network DNM Milestone C/Full Development Decision Review	3	2013	3	2013
Link 16 Network DNM Initial Operating Capability	3	2013	3	2013
Link 16 Network JTIDS CM/FR Development Critical Design Review	3	2013	3	2013
Link 16 Network MOS DNM Operational Test Readiness Review	3	2013	3	2013
Link 16 Network MOS DNM Developmental Test	3	2013	3	2013
C2P Interoperability Software Delivery	3	2013	3	2013
Link 16 Network MOS MODERNIZATION System Functional Review	4	2013	4	2013
Link 16 Network JTIDS/MOS CM/FR Integration (Ship) System Requirements Review	4	2013	4	2013
Link 16 Network MOS DNM Follow-on Operational Test and Evaluation	4	2013	4	2013
C2P Tech Refresh System Requirements Review	4	2013	4	2013

PE 0205604N: *Tactical Data Links* Navy

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

R-1 ITEM NOMENCLATURE

DATE: April 2013 **PROJECT**

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

PE 0205604N: Tactical Data Links

2126: ATDLS Integration

	Sta	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
C2P Interoperability Combat System Certification	4	2013	4	2013	
LMMT Inc I Test Readiness Review	4	2013	4	2013	
LMMT Inc I Test	1	2014	1	2014	
Link 16 Network JTIDS/MOS CM/FR Integration (Ship) Preliminary Design Review	2	2014	2	2014	
C2P Tech Refresh Preliminary Design Review	2	2014	2	2014	
LMMT Inc II CD I System Requirements Review	2	2014	2	2014	
Link 16 Network MOS CM/FR Development (Ship) System Requirements review	3	2014	3	2014	
Link 16 Network MOS CM/FR Development (Ship) Preliminary Design Review	3	2014	3	2014	
Link 16 Network JTIDS CM/FR Integration (Air) Sysyem requirements Review	3	2014	3	2014	
Link 16 Network MOS MODERNIZATION Test Readiness Review	3	2014	3	2014	
C2P Link 22 System Requirements Review	3	2014	3	2014	
LMMT Inc I Fielding Review	3	2014	3	2014	
Link 16 Network JTIDS CM/FR Test Readiness Review	4	2014	4	2014	
Link 16 Network MOS CM/FR Development (Ship) Critical Design Review	4	2014	4	2014	
Link 16 Network JTIDS CM/FR Integration (Air) Preliminary Design Review	4	2014	4	2014	
Link 16 Network JTIDS/MOS CM/FR Development (Ship) Critical Design Review	4	2014	4	2014	
C2P Tech Refresh Critical Design Review	4	2014	4	2014	
LMMT Inc II CD I Preliminary Design Review	4	2014	4	2014	
LMMT Inc II CD I Critical Design Review	4	2014	4	2014	
C2P Link 22 Preliminary Design Review	1	2015	1	2015	
Link 16 Network JTIDS CM/FR Integration (Air) Critical Design Review	2	2015	2	2015	
Link 16 Network MOS MODERNIZATION Production Readiness Review	2	2015	2	2015	
C2P Link 22 Increment III Milestone B	2	2015	2	2015	
Link 16 Network JTIDS CM/FR (Ship/Air) Developmental Test Readiness Review	3	2015	3	2015	
Link 16 Network MOS MOD Developmental Test Readiness Review	3	2015	3	2015	

PE 0205604N: Tactical Data Links

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

R-1 ITEM NOMENCLATURE

DATE: April 2013 **PROJECT**

End

1319: Research, Development, Test & Evaluation, Navy

PE 0205604N: Tactical Data Links

Start

2126: ATDLS Integration

BA 7: Operational Systems Development

APPROPRIATION/BUDGET ACTIVITY

	Sta	art	Er	nd
Events by Sub Project	Quarter	Year	Quarter	Year
C2P Link 22 Critical Design Review	3	2015	3	2015
LMMT Inc II CD I Test Readiness Review	3	2015	3	2015
Link 16 Network DNM Full Operating Capability	4	2015	4	2015
Link 16 Network MOS MOD Operational Test Readiness Review	4	2015	4	2015
Link 16 Network JTIDS CM/FR (Ship/Air) Developmental Test	4	2015	4	2015
Link 16 Network MOS MOD Developmental Test	4	2015	4	2015
LMMT Inc II CD II System Requirements Review	4	2015	4	2015
LMMT Inc II CD I Development Test	4	2015	4	2015
LMMT Inc II CD I Operational Test	4	2015	4	2015
Link 16 Network JTIDS CM/FR (Ship/Air) Operational Test Readiness Review	1	2016	1	2016
Link 16 MOS MOD Operational Test	1	2016	1	2016
Link 16 Network JTIDS CM/FR (Ship/Air) Follow-On Operational Test and Evaluation	2	2016	2	2016
C2P Tech Refresh Developmental Test Readiness Review	2	2016	2	2016
LMMT Inc II CD I Initial Operating Capability	2	2016	2	2016
LMMT Inc II CD I Fielding Decision Review	2	2016	2	2016
LMMT Inc II CD II Prelimniary Design Review	2	2016	2	2016
LMMT Inc II CD II Critical Design Review	2	2016	2	2016
Link 16 MOS MOD Fielding Decision Review	3	2016	3	2016
C2P Link 22 In Progress Review I	3	2016	3	2016
C2P Tech Refresh Developmental Test	3	2016	3	2016
Link 16 Network MOS CM/FR Developmental Test Readiness Review	4	2016	4	2016
C2P Link 22 Software Build I	4	2016	4	2016
C2P Tech Refresh Operational Test Readiness Review	4	2016	4	2016
C2P Tech Refresh Operational Test	4	2016	4	2016
Link 16 Network JTIDS CM/FR Full Rate Production Decision Review	1	2017	1	2017

PE 0205604N: Tactical Data Links

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

R-1 ITEM NOMENCLATURE

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

PROJECT PE 0205604N: Tactical Data Links

2126: ATDLS Integration

	Sta	art	E	nd
Events by Sub Project	Quarter	Year	Quarter	Year
Link 16 Network MOS CM/FR Operational Test Readiness Review	1	2017	1	2017
Link 16 Network MOS CM/FR Developmental Test	1	2017	1	2017
LMMT Inc II CD II Test Readiness Review	1	2017	1	2017
Link 16 Network JTIDS CM/FR Initial Operating Capability	2	2017	2	2017
Link 16 Network MOS CM/FR Operational Test	2	2017	2	2017
C2P Tech Refresh Fielding Decision Review	2	2017	2	2017
C2P Link 22 Software Build II	2	2017	2	2017
LMMT Inc II CD II Developmental Test	2	2017	2	2017
LMMT Inc II CD II Operational Test	2	2017	2	2017
C2P Link 22 In Progress Review	3	2017	3	2017
C2P Link 22 Software Build III	4	2017	4	2017
C2P Tech Refresh Production Readiness Review	4	2017	4	2017
LMMT Inc II CD II Fielding Decision Review	4	2017	4	2017
Link 16 Network MOS CM/FR Fielding Decision Review	1	2018	1	2018
C2P Link 22 Operational Assessment	1	2018	1	2018
C2P Link 22 Milestone C	2	2018	2	2018
C2P Link 22 Developmental Test Readiness Review	3	2018	3	2018
C2P Link 22 Developmental Test	4	2018	4	2018
LMMT Inc II Full Operational Capability	4	2018	4	2018

PE 0205604N: Tactical Data Links Navy

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EXHIBIT K-ZA, KDT&E PTOJECT 3	ustilication	. PD 2014 I	navy							DATE. Api	11 2013	
APPROPRIATION/BUDGET AC 1319: Research, Development, 7 BA 7: Operational Systems Deve		NOMENCL 04N: <i>Tactica</i>			PROJECT 3020: MID	DJECT 0: 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: <i>MIDS/JTRS</i>	0.000	0.000	0.000	119.929	-	119.929	78.447	61.371	30.438	10.632	Continuing	Continuing
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

Exhibit P 24 PDT8 E Project Justification: DR 2014 Navy

Note

In accordance with the Acquisition Decision Memorandum dated 11 July 2012, the Joint Tactical Radio Systems Program of Records (JTRS PORs) transitioned to a Military Department-managed program. MIDS transitioned to the Navy under PE 0205604N but was formerly in PE 0604280N.

A. Mission Description and Budget Item Justification

The Multifunctional Information Distribution System (MIDS) program consists of two products, MIDS Low Volume Terminal (LVT) and MIDS Joint Tactical Radio System (JTRS), MIDS-LVT provides Link 16 capability to platforms that were unable to employ Joint Tactical Information Distribution System due to space and weight constraints. The MIDS-LVT effort is multinational (U.S., France, Germany, Italy, and Spain) with joint service participation (Navy, Army, and Air Force). The Department of Defense (DoD) established the program to design, develop, and deliver low volume, lightweight tactical information system terminals for U.S. and Allied fighter aircraft, bombers, helicopters, ships, and ground sites. MIDS-LVT provides interoperability with North Atlantic Treaty Organization (NATO) users, significantly increasing force effectiveness and minimizing hostile actions and friend-on-friend engagements. The terminal design is smaller, lighter, highly reliable, interoperable with JTIDS Class 2 terminal, compatible with all the participants' designated platforms, affordable, and re-configurable to individual user needs and budgets. MIDS JTRS, designed as a Pre-Planned Product Improvement (P3I) and executed as an Engineering Change Proposal (ECP) to the production MIDS-LVT configuration, completed qualification in the first quarter of fiscal year 2010. It facilitated the Joint Program Executive Office (JPEO) JTRS incremental approach for fielding advanced JTRS transformational networking capability and transformed the MIDS-LVT into a 4-channel, Software Communications Architecture (SCA) compliant, Joint Tactical Radio. A form-fit-function replacement to MIDS-LVT, MIDS JTRS also adds three programmable 2 Megahertz (MHz) to 2 Gigahertz (GHz) channels capable of hosting the JTRS legacy and networking waveforms. In addition to the Link 16, Tactical Air Navigation, and voice functionality found in MIDS-LVT, MIDS JTRS has four channels and adds capabilities such as Link 16 Enhanced Throughput, four nets Concurrent Multi-Netting (CMN) with Concurrent Contention Receive (CCR) (CMN-4), Link 16 Frequency Re-mapping, software programmability, and Cryptographic Modernization. With CMN-4, MIDS JTRS also utilizes Tactical Targeting Network Technology for MIDS JTRS Naval Integrated Fire Control Counter Air and From the Air Advanced Tactical Data Links. These capabilities provide Joint Airborne Network-Tactical Edge 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.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014	
Title: MIDS	0.000	0.000	119.929	
Articles:			0	
FY 2014 Plans:				

PE 0205604N: Tactical Data Links

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DATE: April 2013

^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0205604N: Tactical Data Links	3020: MIDS	S/JTRS
BA 7: Operational Systems Development			

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue the development and implementation of four nets CNM-4 with CCR for MIDS JTRS. Conduct Critical Design Review and			
Technical Readiness Review. Begin hardware and software terminal integration. Begin Contractor First Article Qualification Test and Information Assurance (IA) Certification for the CMN-4 MIDS JTRS Terminal.			
and miormation Assurance (IA) Certification for the Civin-4 MiDS 311/3 Terminal.			
Award full development effort for Tactical Targeting Network Technology (TTNT) for MIDS JTRS Naval Integrated Fire Control			
Counter Air and From the Air Advanced Tactical Data Links. Conduct Preliminary Design Review (PDR) and Initial Baseline			
Review. Continue TTNT waveform development to incorporate version 7.0.4 into the detailed hardware design at PDR.			
Continue the Crypto Modernization (CM)/Block Upgrade 2 capability and enhancement efforts for MIDS-LVT to include finalizing			
the detailed technical and interface information in the Item Performance Specification and the Interface Control Document. Define the performance and interface requirements and provide engineering analysis to finalize interface with the Signal Message			
Processor (SMP) design. Continue Link 16 CM efforts to replace the current Communications Security/Transmission Security on			
the SMP to extend the operational lifetime of currently fielded MIDS-LVT terminals.			
Continue MIDC Moderning tion offerts to include Constitute Include Con			
Continue MIDS Modernization efforts to include Small Business Innovation Research transition opportunities. Continue MIDS systems engineering, Communication Security, IA and program management support.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	119.929
Accomplishments/Planned Programs Subtotals	0.000	0.000	119.929

C. Other Program Funding Summary (\$ in Millions)

N/A

Navy

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 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.

PE 0205604N: Tactical Data Links

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0205604N: Tactical Data Links	3020: MIDS	S/JTRS
BA 7: Operational Systems Development			

E. Performance Metrics

The MIDS-LVT and MIDS JTRS programs are employing mature, software-defined radio technologies and developing hundreds of thousands of lines of code. These software metrics are used to quantify the quality and progress of each software product's development over time. MIDS employs earned value metrics to monitor contract performance on it's prime development contracts, as required.

MIDS-LVT: The 11 performance measures are: L16 Waveform Compatibility, L16 Message Standards, L16 IER; Interoperability, L16 Coded Error Message Probability, Weight/Volume, L16 JAM Resistance, L16 Voice Channels, L16 Communication Range Data, L16 Communications Range Voice, L16 Relay.

MIDS JTRS: The 15 performance measures are: L16 Waveform Compatibility, L16 Waveform Standards, L16 Coded Error Message Probability, L16 Jamming Resistance, L16 Communication Range-Data, L16 Communications Range-Voice, L16 Relay, Start-up (Terminal Single Channel), Operational Communications

- Passive Synchronization, Operational Communications - Automatic Message Acknowledgement, Operational Communications - Multi-Net, Operational Communications, Crypto Control, Navigation.

PE 0205604N: Tactical Data Links

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

R-1 ITEM NOMENCLATURE

DATE: April 2013 **PROJECT**

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

PE 0205604N: Tactical Data Links 3020: MIDS/JTRS

Product Developmer	nt (\$ in Mi	illions)		FY 2	012	FY 2	013	FY 2 Ba	-	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
MIDS JTRS CMN-4 Development	C/CPFF	DLS:Cedar Rapids, IA	0.000	0.000		0.000		0.608	Feb 2014	-		0.608	0.000	0.608	
MIDS JTRS CMN-4 Development	C/CPFF	ViaSat:San Diego, CA	0.000	0.000		0.000		0.609	Feb 2014	-		0.609	0.000	0.609	
MIDS JTRS NIFCA TTNT Full Development	C/CPFF	DLS:Cedar Rapids, IA	0.000	0.000		0.000		25.250	Dec 2013	-		25.250	Continuing	Continuing	Continuing
MIDS JTRS NIFCA TTNT Full Development	C/CPFF	ViaSat:San Diego, CA	0.000	0.000		0.000		25.250	Dec 2013	-		25.250	Continuing	Continuing	Continuing
MIDS JTRS NIFCA TTNT Waveform Development	C/CPFF	Rockwell Collins:Wayne, NJ	0.000	0.000		0.000		20.200	Feb 2014	-		20.200	Continuing	Continuing	Continuing
MIDS-LVT BU2 Full Development	C/CPFF	DLS:Cedar Rapids, IA	0.000	0.000		0.000		15.831	Jan 2014	-		15.831	Continuing	Continuing	Continuing
MIDS-LVT BU2 Full Development	C/CPFF	ViaSat:San Diego, CA	0.000	0.000		0.000		15.831	Jan 2014	-		15.831	Continuing	Continuing	Continuing
MIDS-LVT BU2 Software Full Development	C/CPFF	BAE:Wayne, NJ	0.000	0.000		0.000		12.400	Jan 2014	-		12.400	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		115.979		0.000		115.979			

Management Services (\$ in Millions)		FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering Support	MIPR	MITRE:Bedford, MA	0.000	0.000		0.000		0.792	Oct 2013	-		0.792	0.000	0.792	
Government Engineering Support TTNT	WR	SSC:San Diego, CA	0.000	0.000		0.000		0.634	Oct 2013	-		0.634	0.000	0.634	
Govt Engineering Support BU2	WR	SSC:San Diego, CA	0.000	0.000		0.000		0.619	Oct 2013	-		0.619	0.000	0.619	
IA Cert Support	MIPR	NSA:Fort George Meade, MD	0.000	0.000		0.000		0.191	Oct 2013	-		0.191	0.000	0.191	
Contractor Eng Support	TBD	TBD/Source Selection:TBD	0.000	0.000		0.000		0.906	Feb 2014	-		0.906	0.000	0.906	

PE 0205604N: Tactical Data Links

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

R-1 ITEM NOMENCLATURE

PROJECT

APPROPRIATION/BUDGET ACTIVITY
1319: Research, Development, Test & Evaluation, Navy

PE 0205604N: Tactical Data Links

3020: MIDS/JTRS

DATE: April 2013

BA 7: Operational Systems Development

Management Servic	lanagement Services (\$ in Millions)			FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	WR	Travel:Pax River, MD /DC	0.000	0.000		0.000		0.035	Oct 2013	-		0.035	0.000	0.035	
Govt Program Support NIFCA	WR	NAVAIR:Pax River, MD	0.000	0.000		0.000		0.773	Oct 2013	-		0.773	0.000	0.773	
		Subtotal	0.000	0.000		0.000		3.950		0.000		3.950	0.000	3.950	

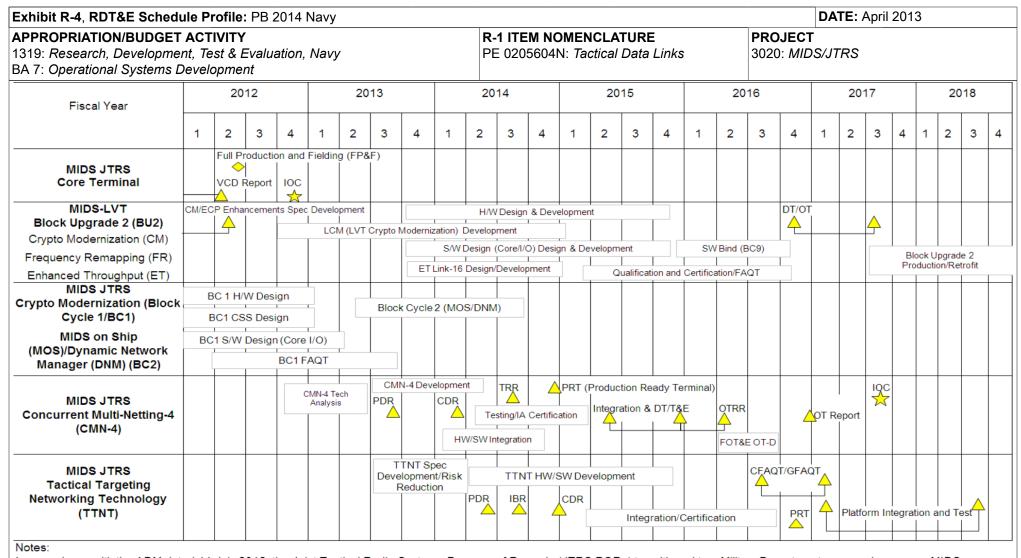
	All Prior	EV 2	042	EV 2	0042	FY 2		Y 2014	FY 2014	Cost To	Total	Target Value of
	Years	FY 2	012	FY 2	2013	Ba	se	oco	Total	Complete	Cost	Contract
Project Cost Totals	0.000	0.000		0.000		119.929	0.00	00	119.929			

Remarks

In accordance with the ADM dated 11 July 2012, the Joint Tactical Radio Systems Program of Records (JTRS PORs) transitioned to a Military Department-managed program. MIDS transitioned to the Navy under PE 0205604N but was formerly in PE 0604280N.

PE 0205604N: *Tactical Data Links* Navy

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In accordance with the ADM dated 11 July 2012, the Joint Tactical Radio Systems Program of Records (JTRS PORs) transitioned to a Military Department-managed program. MIDS transitioned to the Navy under PE 0205604N for FY14-out but was formerly in PE 0604280N.

PE 0205604N: Tactical Data Links

Navy

UNCLASSIFIED
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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

R-1 ITEM NOMENCLATURE

PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0205604N: Tactical Data Links

3020: MIDS/JTRS

DATE: April 2013

BA 7: Operational Systems Development

APPROPRIATION/BUDGET ACTIVITY

Schedule Details

	Sta	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
MIDS					
MIDS JTRS Core Terminal: VCD Report	2	2012	2	2012	
MIDS JTRS Core Terminal: Full Production Fielding Decision (FPF)	2	2012	2	2012	
MIDS JTRS Core Terminal: IOC (Initial Operational Capability)	4	2012	4	2012	
MIDS-LVT Block Upgrade 2 (BU2/CM/FR/ET): CM/ECP Enhancements Spec Development	2	2012	2	2012	
MIDS-LVT Block Upgrade 2 (BU2/CM/FR/ET): LCM (LVT Crypto Modernizatoin) Development	4	2012	1	2015	
MIDS-LVT Block Upgrade 2 (BU2/CM/FR/ET): Hardware (HW) Design and Development	4	2013	4	2015	
MIDS-LVT Block Upgrade 2 (BU2/CM/FR/ET): Software (SW) Design and Development	4	2013	4	2015	
MIDS-LVT Block Upgrade 2 (BU2/CM/FR/ET): Enhanced Throughput (ET) Link-16 Design and Development	4	2013	1	2015	
MIDS-LVT Block Upgrade 2 (BU2/CM/FR/ET): Qualification and Certification/FAQT	1	2015	4	2016	
MIDS-LVT Block Upgrade 2 (BU2/CM/FR/ET): Software Bind (SW)	4	2015	4	2016	
MIDS-LVT Block Upgrade 2 (BU2/CM/FR/ET): Developmental Test/Operational Test (DT/OT)	4	2016	3	2017	
MIDS-LVT Block Upgrade 2 (BU2/CM/FR/ET): Block Upgrade 2 Production/Retrofit	3	2017	4	2018	
MIDS JTRS Crypto Modernization (Block Cycle 1/BC1): BC1 Hardware Design	1	2012	1	2013	
MIDS JTRS Crypto Modernization (Block Cycle 1/BC1): BC1 CSS Design	1	2012	1	2013	
MIDS JTRS Crypto Modernization (Block Cycle 1/BC1): BC1 Software Design (Core I/O)	1	2012	2	2013	
MIDS JTRS Crypto Modernization (Block Cycle 1/BC1): BC1 FAQT	1	2012	3	2013	

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R-1 Line #182

PE 0205604N: Tactical Data Links Navy

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

R-1 ITEM NOMENCLATURE

DATE: April 2013
PROJECT

End

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

PE 0205604N: Tactical Data Links

Start

3020: MIDS/JTRS

	Sta	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
MIDS JTRS MIDS on Ship (MOS)/Dynamic Network Manager (DNM) (BC2): Block Cycle 2	2	2013	3	2014	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): CMN-4 Tech Analysis	4	2012	2	2013	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): CMN-4 Development	3	2013	2	2014	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): Preliminary Design Review	3	2013	3	2013	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): Critical Design Review	1	2014	1	2014	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): Hardware/Software Integration	1	2014	4	2014	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): Testing/IA Certification	2	2014	1	2015	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): Technical Readiness Review	3	2014	3	2014	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): Production Ready Terminal	4	2014	4	2014	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): Integration and DT/T&E	2	2015	4	2015	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): DT&T&E to OTRR	4	2015	2	2016	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): Full Operational Test and Eval OT-D	2	2016	3	2016	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): OT Report	4	2016	4	2016	
MIDS JTRS Concurrent Multi-Netting-4 (CMN-4): IOC (Initial Operational Capability)	3	2017	3	2017	
MIDS JTRS Tactical Targeting Networking Technology (TTNT): TTNT Spec Development/Risk Reduction	3	2013	2	2014	
MIDS JTRS Tactical Targeting Networking Technology (TTNT): TTNT Hardware/ Software Development	2	2014	4	2015	
MIDS JTRS Tactical Targeting Networking Technology (TTNT): Preliminary Design Review	2	2014	2	2014	
MIDS JTRS Tactical Targeting Networking Technology (TTNT): Initial Baseline Review	3	2014	3	2014	
MIDS JTRS Tactical Targeting Networking Technology (TTNT): Critical Design Review	4	2014	4	2014	
MIDS JTRS Tactical Targeting Networking Technology (TTNT): Integration/ Certification	1	2015	3	2016	
MIDS JTRS Tactical Targeting Networking Technology (TTNT): CFAQT/GFAQT	3	2016	1	2017	

PE 0205604N: *Tactical Data Links* Navy

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE **PROJECT**

1319: Research, Development, Test & Evaluation, Navy PE 0205604N: Tactical Data Links

BA 7: Operational Systems Development

3020: MIDS/JTRS

	Start		Eı	nd
Events by Sub Project	Quarter	Year	Quarter	Year
MIDS JTRS Tactical Targeting Networking Technology (TTNT): Production Ready Terminal	4	2016	4	2016
MIDS JTRS Tactical Targeting Networking Technology (TTNT): Platform Integration and Test	1	2017	3	2018

PE 0205604N: Tactical Data Links

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy
BA 7: Operational Systems Development

COST (\$ in Millions)

All Prior Years FY 2012 FY 2013 FY 2014 Base

R-1 ITEM NOMENCLATURE
PE 0205604N: Tactical Data Links

3341: Network Tactical Common Data Link
FY 2014 FY 2014 FY 2014 FY 2015 FY 2016 FY 2017 FY 2018 Complete Cost

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
3341: Network Tactical Common Data Link	0.000	0.000	14.907	8.104	-	8.104	0.000	0.000	0.000	0.000	0.000	23.011
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

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy

A. Mission Description and Budget Item Justification

Network Tactical Common Data Link (NTCDL) provides the ability to transmit/receive real-time Intelligence, Surveillance, and Reconnaissance (ISR) data simultaneously from multiple sources (air, surface, sub-surface, portable), and exchange command and control information (voice, data, imagery, and Full Motion Video) across dissimilar Joint, Service, Coalition, and civil networks. NTCDL provides warfighters with the capability to support multiple, simultaneous, networked operations with currently fielded CDL-equipped platforms (e.g., F/A-18, P-3, and MH-60R), in addition to next generation manned and unmanned platforms (e.g., P-8, Broad Area Maritime Surveillance (BAMS), UCLASS, and Fire Scout). NTCDL is a tiered capability (air, surface, sub-surface, portable) providing a modular, scalable, multiple-link networked communications. NTCDL benefits the fleet by providing horizon extension for line-of-sight sensor systems for use in time critical strike missions. NTCDL supports Anti-Access/Area of Denial (A2AD) through its relay capability, and supports Tasking Collection Processing Exploitation Dissemination (TCPED) through its ISR networking capability. Additionally, NTCDL supports Humanitarian Assistance/Disaster Relief (HA/DR) efforts through its ability to share ISR data across dissimilar Joint, Service, Coalition, and Civil organizations.

FY14: Funding enables continued program acquisition; engineering, manufacturing and development activities in support of NTCDL surface CDL variant. The threshold requirement is for five (5) simultaneous off-ship CDL missions, with limited topside footprint as a design priority.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) FY 2012 FY 2013 FY 2014 Title: Network Tactical Common Data Link (NTCDL) 0.000 8.104 14.907 Articles: Description: Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion. FY 2013 Plans: FY13 funds will be used for Acquisition documentation (Capability Development Document (CDD), System Performance Specification (SPS), Test and Evaluation Master Plan (TEMP), Integrated Master Schedule (IMS), etc). Also, contract to design/ develop an NTCDL system appropriate to support Aircraft Carrier (CVN) CDL operations. FY 2014 Plans:

PE 0205604N: Tactical Data Links

Navy

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^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0205604N: Tactical Data Links

3341: Network Tactical Common Data Link

FY 2013

Cost To

FY 2014

FY 2012

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

FY14 funding will be used to continue program acquisition, and engineering, manufacturing and development activities, as well as conduct critical design reviews and testing in support of the NTCDL surface CDL variant.

Accomplishments/Planned Programs Subtotals 0.000 14.907 8.104

C. Other Program Funding Summary (\$ in Millions)

FY 2014 FY 2014 FY 2014

Line Item FY 2012 FY 2017 FY 2018 Complete Total Cost FY 2013 **Base** OCO Total FY 2015 FY 2016 OPN/2950: Network Tactical 0.000 0.000 0.000 0.000 27.299 19.400 6.999 7.125 Continuing Continuing

Common Data Link .

Remarks

D. Acquisition Strategy

NTCDL will utilize the evolutionary acquisition approach for each defined tiers (air, surface, sub-surface, portable).

E. Performance Metrics

Joint Interoperability Test Command (JITC) certification of CDL waveforms

Number of simultaneous links: Threshold (T)= 5, Objective (O) = 12

Data rate - Minimum one 274 Megabit per second (Mbps) link (T), additional links must be 45Mbps or greater

PE 0205604N: Tactical Data Links

Navy

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DATE: April 2013 Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 1319: Research, Development, Test & Evaluation, Navy PE 0205604N: Tactical Data Links 3341: Network Tactical Common Data Link BA 7: Operational Systems Development FY 2014 FY 2014 FY 2014 **Product Development (\$ in Millions)** oco FY 2012 FY 2013 Base Total Contract Target Method Performing All Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Date Cost Date Cost Date Complete Cost Contract Cost Cost NTCDL Product C/CPIF UNKNOWN:UNKNOWN 0.000 0.000 12.004 Sep 2013 6.907 Oct 2013 6.907 0.000 18.911 Development Subtotal 0.000 0.000 12.004 6.907 0.000 6.907 0.000 18.911 FY 2014 FY 2014 FY 2014 Support (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Award Method Performing All Prior Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract NTCDL Systems SPAWARSYSCTR:San WR 0.000 0.000 0.700 Apr 2013 0.500 Oct 2013 0.500 0.000 1.200 Engineering Diego, CA Subtotal 0.000 0.000 0.700 0.500 0.000 0.500 0.000 1.200 FY 2014 FY 2014 FY 2014 Test and Evaluation (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award Cost To Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract NTCDL Test and SPAWARSYSCTR:San WR 0.000 0.000 1.000 Apr 2013 Oct 2013 0.000 0.050 0.050 1.050 Evaluation Diego, CA JITC:Fort Huachuca, **MIPR** 0.000 0.250 NTCDL Test and Review 0.000 0.200 Apr 2013 0.050 Oct 2013 0.050 0.000 ΑZ NTCDL Waveform COMOPTEVFOR: Norfolk, 0.000 **MIPR** 0.000 0.200 Apr 2013 0.050 Oct 2013 0.050 0.000 0.250 certification 0.000 0.000 0.150 0.000 0.150 0.000 Subtotal 1.400 1.550 FY 2014 FY 2014 FY 2014 Management Services (\$ in Millions) oco FY 2012 FY 2013 Base Total Contract **Target** Method Performing All Prior Award Award Award Award Cost To Total Value of **Cost Category Item** Activity & Location Cost Cost Cost & Type Years Date Cost Date Date Date Cost Complete Cost Contract SPAWARSYSCTR:San Program Management WR 0.000 0.000 0.500 Apr 2013 0.200 Oct 2013 0.200 0.000 0.700 Diego, CA

PE 0205604N: Tactical Data Links

Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

Diego, CA

R-1 ITEM NOMENCLATURE

DATE: April 2013 **PROJECT**

0.547

APPROPRIATION/BUDGET ACTIVITY

BA 7: Operational Systems Development

1319: Research, Development, Test & Evaluation, Navy

Subtotal

0.000

0.000

PE 0205604N: Tactical Data Links

0.547

3341: Network Tactical Common Data Link

0.000

1.350

Management Service	es (\$ in M	lillions)		FY 2	2012	FY 2	2013	FY 2 Ba	-	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	C/CPFF	SEAPORT-E:San	0.000	0.000		0.303	Apr 2013	0.347	Oct 2013	_		0.347	0.000	0.650	

_										
	All Prior				FY 2	014 FY 2014	FY 2014	Cost To	Total	Target Value of
	Years	FY 201	12 EV	2013	Bas		Total	Complete	Cost	Contract
	Itais	F 1 20 1	12 [1	2013	Das		IUlai	Complete	CUST	Contract
Project Cost Totals	0.000	0.000	14.90	7	8.104	0.000	8.104	0.000	23.011	

0.803

Remarks

Support

PE 0205604N: Tactical Data Links Navy

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R-1 Line #182

0.000

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy PE 0205604N: Tactical Data Links 3341: Network Tactical Common Data Link

BA 7: Operational Systems Development

Tasks	The second secon	FY 14 22 Q3 Q4 Q1	FY 15 Q2 Q3 Q4 Q1	FY 16 Q2 Q3 Q4	FY 17 Q1 Q2 Q3 Q4	FY 18 Q1 Q2 Q3 Q4
Major Milestones and Reviews	⇒Pre-EMD ⇒MSB	⇒cDR >pDR	M C		FRP DR	
Documentation	CDD AS(Pre-EMD)		PD		AS(FRP)	
NTCDL Contract	⇒Sys Spec/SQV	W Ward	Order	LRIP Deliver	RP Orders FRP Deliverie	3
NTCDL Development and Testing		⇒"T		DT/OT		

1

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0205604N: Tactical Data Links

3341: Network Tactical Common Data Link

BA 7: Operational Systems Development

Schedule Details

	Sta	End		
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 3341				
NTCDL- Capabilities Development Document (CDD)	3	2013	3	2013
NTCDL- System Spec/Statement of Work	3	2013	4	2013
NTCDL- Acquistion Strategy (Pre-EMD)	3	2013	3	2013
NTCDL- Pre-Engineering and Manufacturing Development (EMD)	3	2013	3	2013
NTCDL- Request for Proposal (Contract)	3	2013	3	2013
NTCDL- Milestone B	4	2013	4	2013
NTCDL- Contract Award	1	2014	1	2014
NTCDL- Preliminary Design Review (PDR)	2	2013	2	2014
NTCDL- Critical Design Review (CDR)	3	2014	3	2014
NTCDL- Capability Production Document (CPD)	1	2015	1	2015
NTCDL- First Test Article	1	2015	1	2015
NTCDL- Shock Testing	2	2015	2	2015
NTCDL- Test and Evaluation Master Plan (TEMP) (OA)	2	2015	2	2015
NTCDL- Development Test (DT) and Operational Assessment (OA)	2	2015	2	2015
NTCDL- Acquistion Strategy (MS C)	2	2015	2	2015
NTCDL- Milestone C	3	2015	3	2015
NTCDL- Low Rate Initial Production (LRIP) Contract Award	3	2015	3	2015
NTCDL- LRIP Deliveries	3	2016	4	2016
NTCDL- Developmental Test/Operational Test Installs	1	2016	1	2016
NTCDL- Test and Evaluation Master Plan (TEMP) (OT)	2	2016	2	2016
NTCDL- Development Test (DT) and Operational Test (OT)	2	2016	2	2016

PE 0205604N: *Tactical Data Links* Navy

DATE: April 2013 Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE **PROJECT**

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

PE 0205604N: Tactical Data Links 3341: Network Tactical Common Data Link

	St	Start		nd
Events by Sub Project	Quarter	Year	Quarter	Year
NTCDL- Initial Operating Capability (IOC)	4	2016	4	2016
NTCDL- Acquistion Strategy (FRP)	4	2016	4	2016
NTCDL-Full Rate Production Descision Review (FPR-DR)	4	2016	4	2016
NTCDL- Full Rate Production Contract Award	4	2016	4	2016

PE 0205604N: Tactical Data Links Navy

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0205604N: Tactical Data Links

4022: Other Tactical Data Link Engineering

BA 7: Operational Systems Development

Bit it operational cyclomic Boto												
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
4022: Other Tactical Data Link Engineering	0.600	11.701	21.999	4.969	-	4.969	0.000	0.000	0.000	0.000	0.000	39.269
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

A. Mission Description and Budget Item Justification

See Classified Annex for details of this project.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014	
Title: Other Tactical Data Link Engineering		11.701	21.999	4.969	
	Articles:	0	0	0	
FY 2012 Accomplishments: See Classified Annex for details of this project.					
FY 2013 Plans: See Classified Annex for details of this project.					
FY 2014 Plans: See Classified Annex for details of this project.					
Accomplishments/Planned P	rograms Subtotals	11.701	21.999	4.969	

C. Other Program Funding Summary (\$ in Millions)

N/A

Navy

Remarks

D. Acquisition Strategy

See Classified Annex for details of this project.

E. Performance Metrics

See Classified Annex for details of this project.

PE 0205604N: Tactical Data Links

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^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

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DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0205604N: Tactical Data Links

PROJECT

4022: Other Tactical Data Link Engineering

Product Development (\$ in Millions)			FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO						
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ACD Development and Integration	SS/CPFF	Raytheon:Sudbury, MA	0.500	10.388	Apr 2012	15.798	Jan 2013	1.372	Jan 2014	-		1.372	0.000	28.058	27.529
ACD Development and Integration	WR	SPAWAR:San Diego, CA	0.000	0.580	Aug 2012	2.683	Jan 2013	0.140	Feb 2014	-		0.140	0.000	3.403	
		Subtotal	0.500	10.968		18.481		1.512		0.000		1.512	0.000	31.461	

Remarks

See Classified Annex for details of this project.

Support (\$ in Millions)		FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering Support	C/CPFF	JHU/APL:Laurel, MD	0.065	0.250	Feb 2012	0.100	Mar 2013	0.012	Nov 2013	-		0.012	0.000	0.427	
Systems Engineering Support	WR	SPAWAR:San Diego, CA	0.000	0.235	Jul 2012	0.474	Feb 2013	0.660	Feb 2014	-		0.660	0.000	1.369	
Systems Engineering Support	MIPR	MIT/LL:Hanscom, MA	0.000	0.050	Feb 2012	0.025	Dec 2012	0.150	Dec 2013	-		0.150	0.000	0.225	
Systems Engineering Support	C/CPAF	Systems, Planning and Analysis:Alexandria, VA	0.000	0.170	Jul 2012	0.600	Mar 2013	0.300	Dec 2013	-		0.300	0.000	1.070	
		Subtotal	0.065	0.705		1.199		1.122		0.000		1.122	0.000	3.091	

Test and Evaluation (\$ in Millions)		FY 2	012	FY 2	2013	FY 2 Ba	2014 ise	FY 2	2014 CO	FY 2014 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ACD Test	I SS/CPFF	Raytheon:Subury, MA	0.000	0.000		2.000	Mar 2013	2.000	Dec 2013	-		2.000	0.000	4.000	4.000

PE 0205604N: Tactical Data Links

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R-1 Line #182

Navy

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

R-1 ITEM NOMENCLATURE

PROJECT

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

PE 0205604N: Tactical Data Links

4022: Other Tactical Data Link Engineering

DATE: April 2013

Test and Evaluation (\$ in Millions)		FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ACD Test	WR	SPAWAR:San Diego, CA	0.016	0.000		0.284	Feb 2013	0.300	Dec 2013	-		0.300	0.000	0.600	
		Subtotal	0.016	0.000		2.284		2.300		0.000		2.300	0.000	4.600	

Remarks

See Classified Annex for details of this project.

Management Servic	es (\$ in M	illions)		FY:	2012	FY 2	2013		2014 ise	FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Program Management Support	C/CPAF	Systems, Planning and Analysis:Alexandria, VA	0.019	0.018	Feb 2012	0.025	Dec 2012	0.025	Jan 2014	-		0.025	0.000	0.087	
TRAVEL	Allot	PEOIWS2I:Washingto	n, 0.000	0.010	Aug 2012	0.010	Dec 2012	0.010	Dec 2013	-		0.010	0.000	0.030	
		Subtotal	0.019	0.028		0.035		0.035		0.000		0.035	0.000	0.117	

Remarks

See Classified Annex for details of this project.

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	0.600	11.701	21.999	4.969	0.000	4.969	0.000	39.269	

Remarks

PE 0205604N: Tactical Data Links

Navy

DATE: April 2013 Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE **PROJECT** 1319: Research, Development, Test & Evaluation, Navy PE 0205604N: Tactical Data Links 4022: Other Tactical Data Link Engineering BA 7: Operational Systems Development FY 2012 FY 2014 FY 2018 FY 2013 FY 2015 FY 2016 FY 2017 3 4 2 3 3 2 3 1 2 4 1 4

PE 0205604N: Tactical Data Links

Proj 4022

See Classified Annex for Details.

DATE: April 2013 Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE **PROJECT**

PE 0205604N: Tactical Data Links

1319: Research, Development, Test & Evaluation, Navy 4022: Other Tactical Data Link Engineering BA 7: Operational Systems Development

Schedule Details

	St	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
Proj 4022					
See Classified Annex for Details.	1	2012	1	2016	

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