Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy											Date: February 2015	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*							
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
Total Program Element	692.187	62.298	60.195	81.553	-	81.553	70.835	71.489	69.666	63.170	Continuing	Continuing
0486.: *Tactical Support Center*	115.493	4.922	4.254	5.016	-	5.016	5.621	5.736	5.764	5.884	Continuing	Continuing
2213: *Mission Planning*	274.164	19.883	26.097	47.733	-	47.733	24.338	22.071	22.282	22.759	Continuing	Continuing
3032: *NTCSS (Naval Tactical Command Spt Sys)*	52.853	16.254	11.250	8.168	-	8.168	14.584	14.846	12.625	4.936	Continuing	Continuing
3320: *TRIDENT Warrior*	6.788	2.299	2.251	2.206	-	2.206	2.284	2.309	2.350	2.399	Continuing	Continuing
3323: *Maritime Tactical Command & Control (MTC2)*	6.919	12.079	11.930	15.265	-	15.265	20.626	22.993	23.311	23.789	Continuing	Continuing
3324: *Navy Air Operations Command and Control (NAOC2)*	6.536	3.960	1.812	0.806	-	0.806	1.063	1.064	1.030	1.052	Continuing	Continuing
9123: *FORCEnet*	229.434	2.901	2.601	2.359	-	2.359	2.319	2.470	2.304	2.351	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Tactical Command System upgrades the Navy's Command, Control, Computer and Intelligence (C3I) systems and processes C3I information for all warfare mission areas including planning, direction and reconstruction of missions for peacetime, wartime and times of crises.

Tactical Support Center: The Tactical Mobile program provides evolutionary systems and equipment upgrades to support the Maritime Component Commanders (Expeditionary Ashore) and Maritime Patrol and Reconnaissance Force Commanders with the capability to plan, direct and control the tactical operations of Joint and Naval Expeditionary Forces and other assigned units within their respective area of responsibility. These operations include littoral, open ocean, and over land surveillance, anti-surface warfare, over-the-horizon targeting, counter-drug operations, power projection, antisubmarine warfare, mining, search and rescue, and special operations. The missions are supported by the Tactical Operations Centers (formerly Tactical Support Centers), the Mobile Tactical Operations Centers (formerly Mobile Operations Control Centers), and the Joint Mobile Ashore Support Terminal. TacMobile C2 systems are based on the Global Command and Control System - Maritime architecture which is Defense Information Infrastructure Common Operating Environment compliant.

Mission Planning: The Joint Mission Planning System (JMPS) is the designated automated mission planning system for the Navy. JMPS enables weapon system employment by providing the information, automated tools, and decision aids needed to rapidly plan aircraft, weapon, or sensor missions, load mission data into aircraft and weapons, and conduct post-mission analysis. JMPS is a mission critical system which is a co-development effort between the United States Navy (USN) and United States Air Force (USAF). Common requirements are identified and capabilities are developed and prioritized in an evolutionary approach. An individual JMPS Mission Planning Environment (MPE) is a combination of the JMPS framework, common components, and the necessary system hardware required to satisfy mission planning objectives. Most Tactical Naval Aviation platforms are dependent solely on JMPS to plan precision guided munitions, sensor systems, tactical data links, secure voice communications, and basic Safety of Flight functions. The following type/model/series (T/M/S) naval aircraft are supported by JMPS: AH-1W, F/A-18 A-F, E-2C, EP-3E,

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EA-6B, AV-8B, S-3, V-22, Chief of Naval Air Training (CNATRA), EA-18G, MV-22, C-2, MH-53E, P-3, Aircraft Carrier Intelligence Center (CVIC), SH-60B/F, HH-60H, CH-53D/E, CH-46E, UH-1N, VH-3/VH-60, AH-1Z, UH-1Y, MH-60R/S and E-2D. All T/M/S are required to transition to Microsoft Windows 7 due to End of Life (EOL) of Microsoft XP (April 2014)using Framework (FW) Version 1.3.5. Custom support for Windows XP is planned to allow remaining naval aircraft to be supported during the transition. Future JMPS platforms include: MQ-4C (Triton) and CH-53K. The re-architecture of JMPS will support net-centric goals by providing route "publish and subscribe" capabilities, transition to 64 bit allows for memory space expansion to accommodate future Microsoft Operating Systems, emerging technologies, and critical Cyber Security vulnerabilities as identified in Operational Test (OT). Funding profile includes JMPS baseline efforts for all existing T/M/S on Windows 7 32 bit framework while concurrently re-architecting to a 64 bit framework. 64-bit development requires complete software restructure to address memory limitations and system errors resulting in JMPS computer crashes. The transition from the current 32-bit architecture (4GB RAM) to a 64-bit architecture (196GB RAM) provides additional memory access, increased planning efficiencies; creating a more stabilized architecture with fewer fleet memory crashes. Delaying JMPS 64-bit transition to the fleet will cause system crashes to continue. It will also delay required mission planning fixes based upon known software obsolescence, and will expose the system to risks based upon architectural weaknesses in regards to cyber security vulnerabilities.

Naval Tactical Command Support System (NTCSS): Enterprise Database and Maritime Logistics Data Network (MLDN): The NTCSS is a multi-function program designed to provide standard tactical support information systems to various afloat and associated shore-based fleet activities. The mission is to provide the Navy and Marine Corps with an integrated, scalable system that supports the management of logistical information, personnel, material and funds required to maintain and operate ships, submarines, and aircraft.

Maritime Tactical Command and Control (MTC2): MTC2 is a software program which will provide tactical Command and Control (C2) capabilities and Maritime unique Operational Level of War capabilities not supported by the joint C2 effort. MTC2 will align with the Navy Tactical Cloud (NTC) when available, and leverage Consolidated Afloat Network Enterprise Service (CANES), Agile Core Services (ACS), and legacy Integrated Shipboard Network System (ISNS). MTC2 will field to all echelons of command (afloat and ashore) within the Navy. The goal is to provide a suite of maritime applications that enable enhanced situational awareness, planning, execution, monitoring, and assessment in support of operational and tactical level of war requirements. MTC2 will field maritime applications designed to provide automated and structured support for tactical and operational planning, decision-making, and execution. Global Force Management - Data Initiative (GFM-DI) is the Department-wide enterprise solution that enables visibility/accessibility/sharing of data applicable to the entire DoD force structure. MTC2 will be the program that fulfills a portion of the Navy's GFM-DI requirements.

Navy Air Operations Command and Control (NAOC2): integrates and tests Air Force produced systems that provide for an integrated and scalable planning system that provides standardized, secure, automated decision support for Air Force, Joint, and Allied commanders worldwide. These programs provide automated air operations planning, execution management and intelligence capabilities at the Force level to include Fleet Commanders, Numbered Fleet Commanders, Commander Carrier Strike Group, Commander Expeditionary Strike Group, Commander Landing Force, and Joint Task Force Commanders. NAOC2 includes Theater Battle Management Core System (TBMCS), Command and Control Air and Space Operations Suite (C2AOS), plus Command, Control and Information Services (C2IS). C2AOS and C2IS are being developed as Service Oriented Architecture (SOA) services to allow for scalability and integration with Common Computing Environments (CCE). Continuation of these efforts will significantly enhance the Joint Force Air Component Commander (JFACC) and Combined Air Operations Center (CAOC) personnel to plan daily air operations including strike, airlift, offensive and defensive air, and tanker missions in support of combat operations, addressing the requirement of war fighter of distributed planning and execution processes and significantly improving Joint interoperability. TBMCS continues a hardware transition to CCEs such as

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Consolidated Afloat Networks and Enterprise Services (CANES). Currently, TBMCS is the key system that is used to conduct real world air planning in the Joint and Navy environment. C2AOS and C2IS will replace TBMCS in a SOA environment while bringing more flexibility to the war fighter, planner, and executor.

FORCEnet: Initiative's mission is to deliver Information Dominance by (a) accelerating the transformation to a Distributed, Networked force; (b) achieve interoperability based on Architectures and Standards; and (c) Experiment with, evaluate and employ the enabling technologies. Effort is a non-acquisition program that is the operational instantiation of FORCEnet. The end-state is a distributed network of weapons, sensors, Command and Control (C2), platforms and warriors.

Trident Warrior (TW): TW enables early delivery of Net-Centric Operation/Warfare (NCO/W) capabilities to the warfighter via Fleet-directed Trident Warrior operational events with an emphasis on delivering Maritime Domain Awareness (MDA) with Maritime Operations Center (MOC) capability.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	63.438	70.248	56.819	-	56.819
Current President's Budget	62.298	60.195	81.553	-	81.553
Total Adjustments	-1.140	-10.053	24.734	-	24.734
• Congressional General Reductions	-	-0.053			
• Congressional Directed Reductions	-	-10.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.140	-			
• Program Adjustments	-	-	32.019	-	32.019
• Rate/Misc Adjustments	-	-	-7.285	-	-7.285

Change Summary Explanation

The FY 2016 funding request was reduced by $6.8 million to account for the availability of prior year execution balances.

Technical: Not applicable.
Schedule:

TACTICAL SUPPORT CENTER (Project 0486):
N/A

Naval Tactical Command Support System (NTCSS) (Project 3032):

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Increasing requirements in information security and functional capability have required shifts in the approach for systems design and development. The updated schedule reflects a more integrated plan to accomplish refined requirements, fact-of-life changes, and modernization of the NTCSS system. As development approaches and build requirements are solidified, changes to the schedule will reflect more accurate time frames for multiple NTCSS system builds.

Maritime Tactical Command and Control (MTC2) (Project 3323):
MTC2 schedule and deliverables re-baselined as required to align efforts towards Navy Tactical Cloud (NTC) testing in FY16. Requirement Definition Package (RDP) moved to Q2; waiting for final approval from Naval Capabilities Board (NCB). MTC2-Release 0 Software Requirement Specification (R0 SRS) removed from Q1FY15; no longer required. Capability Drop 2 (CD 2), Release 2 Request for Proposal Release Decision (R2 RFP RD), Build Decision Release 2 (BD R2), MTC2 Release 1 (R1), and MTC2 Initial Operating Capability (IOC) moved to the right to align with development, testing, and integration of MTC2 Build Decision Release 1 (BD R1).

Navy Air Operations Command and Control (NAOC2)(Project 3324):
Command and Control Air Operations Suite - Command and Control Information Services (C2AOS-C2IS) testing will now be conducted in multiple phases. Capability Package 1 (CP1) and CP2 Operational test has shifted to FY16 with CP3 being tested separately in FY17."

Mission Planning (Project 2213):
Acquisition Milestones:
JMPS FW 64 Bit Initial Operational Capability (IOC) Details added to the schedule- Effort will occur in 2Q FY20 - The transition to a 64 bit system is needed to address current and future memory and processing limitations.
Test and Evaluation:
JMPS FW 64 Bit Mission-Planning Environment (MPE) Integration/Validation- 1Q FY18-4Q FY19 / 1Q FY18-4Q FY20- Continuation of 64 bit MPE integration and test efforts associated with the 43 aircraft T/M/S currently planned to utilize JMPS by FY16. The transition to a 64 bit system is needed to address current and future memory and processing limitations.

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COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
0486.: *Tactical Support Center*	115.493	4.922	4.254	5.016	-	5.016	5.621	5.736	5.764	5.884	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Tactical/Mobile (TacMobile) program provides evolutionary systems and equipment upgrades to support Maritime Patrol and Reconnaissance Force (MPRF) Commanders with the capability to plan, direct, and control the tactical operations of Joint and Naval Expeditionary Forces and other assigned units within their respective area of responsibility. These
operations include littoral, open ocean, and over land all-sensor surveillance, anti-surface warfare, over-the-horizon targeting, counter-drug operations, power projection, antisubmarine warfare, mining, search and rescue, and special operations.

The missions are supported by the Tactical Operations Centers (TOCs), and the Mobile Tactical Operations Centers (MTOCs). Services provided include analysis and correlation of diverse sensor information; data management support; command decision aids; rapid data communication; mission planning, evaluation and dissemination of surveillance data and threat alerts to operational users ashore and afloat. Tactical/Mobile Command and Control systems are based on the Global Command and Control System - Maritime (GCCS-M) architecture, which is Defense Information Infrastructure (DII)Common Operating Environment (COE) compliant.

TOCs and their equivalents provide Command, Control, Communications, Computers and Intelligence (C4I) capability, air-ground, satellite and point-to-point communications systems; sensor analysis capabilities; avionics and weapons system interfaces and facilities equipment. MTOCs and their equivalents are scalable and mobile versions of the TOC for operations from airfields that do not have TOC support. This program assures that existing TOCs and MTOCs are modernized to fulfill their operational requirements. TOC/MTOC will continue to provide the ground Command and Control capabilities and C4I interfaces for the Maritime Patrol and Reconnaissance Force (MPRF) Family of Systems (FOS) aircraft and systems evolution including P-3C aircraft updates to sensors and weapons systems, such as the Anti-Surface Warfare Maritime Improvement Program (AMIP), and the Command Control Communications Computers for Anti-Submarine Warfare (C4 for ASW) P-3C aircraft upgrades, P-8A Multi-mission Maritime Aircraft (MMA) Increment 1, as well as development of emergent, ground C4I support capabilities for the P-8A Poseidon Increment 2, Increment 3, Advanced Airborne Sensor (AAS), and the MQ-4C Triton Unmanned Aerial System.

The TacMobile program was designated as an Acquisition Category (ACAT) III weapons system program July 2004 and is no longer directly associated with the GCCS-M program. The TacMobile program follows an Evolutionary Acquisition approach, which provides a mechanism for adding a series of future capabilities that maintain and enhance the operational
relevance of the systems provided, as well as augments improvements in airborne networking. Transformation of the TOC/MTOC Force to a more mobile, scalable, and Network-centric Services Oriented Architecture (SOA) configuration, convergence of TOC, MTOC to a single configuration, and as an integral component of the Maritime Patrol and Reconnaissance Force (MPRF) Family of Systems (FOS), operational C4I integration support for new and upgraded Maritime Patrol and Reconnaissance Aircraft (MPRA) such as P-8A Poseidon, P-3C Orion AIP, and MQ-4C Triton UAS as primary thresholds and objectives.

FY16: Funding supports final core TacMobile systems development and testing to achieve interoperability with P-8A Poseidon Increment 2 and the MQ-4C Triton. Continues technical modernization to achieve increased modularity, and continues core development to enable establishment of additional security enclaves, and

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enhancing flexibility and mobility, to offset the size/weight/cube of additional required aircraft interfaces developed to support P-8A Increment 3, Advanced Airborne Sensor (AAS) and emerging Maritime Patrol and Reconnaissance Aircraft operations. Network-centric Services Oriented Architecture (SOA) and airborne C4I integration efforts continue as improvements to airborne and Intelligence/Surveillance/Reconnaissance (ISR) networking technologies are matured. Will achieve interoperability with emerging MPRF Aircraft and Sensors while reducing TacMobile footprint enhancing Mobility capability.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Net Ready	0.638	0.638	0.938	-	0.938
Articles:	-	-	-	-	-

FY 2014 Accomplishments:

Continued Services oriented Architecture design refinement -- (TR 2.1.1). Continued Family of Systems collaboration on Maritime Patrol and Reconnaissance Force (MPRF)/Air Anti-Submarine Warfare (ASW) Community of Interest data model -- (TR 2.1.1). Commenced Tactical Operations Center /Mobile Tactical Operations Center Content Management Extensible Markup Language (XML) Data Dictionary and XML Schema development in support of the MPRF/Air ASW COI data model -- (Inc 3). Finalized Automated Digital Network System (ADNS) and Full Motion Video designs and commenced test for implementation -- (TR 2.1.1). Continued Increment 3 Department of Defense Architecture Framework product development. Commenced TacMobile Data Strategy, Information Support Plan and Capabilities Production Document for Increment 3. Commenced Wideband Beyond Line of Sight Satellite Communications requirements analysis -- (Inc 3). Began identifying requirements to evolve legacy point to point exchanges of information to utilize Services Oriented Architecture and new technologies in order to down select sustainable technologies -- (TR 2.1.1). Began process to refine Measures of Effectiveness to maintain integrated requirements management with Increment 3 architecture elements -- (Inc 3).

FY 2015 Plans:

Continue Services Oriented Architecture (SOA) design implementation and test leveraging P-8A Applications Based Architecture Best of Breed architecture design. Develop an initial TacMobile Ground Support portal -- (TR 2.1.1). Commence initial Tactical Operations Center Operational Control Prototype SOA fielding in TR 2.1.1. Continue Automated Digital Network System and Full Motion Video implementations -- (TR 2.1.1). Continue Family of Systems (FoS) collaboration on Maritime Patrol and Reconnaissance Force (MPRF)/Air Anti-Submarine Warfare (ASW) Community of Interest (COI) data model development to support SOA environment with Extensible Markup Language (XML) schema and Tactical Operations Center / Mobile Tactical Operations Center Content Management XML Data Dictionary -- (Inc 3). Incorporate Inc 2.1 CPD change memorandum and related changes - (T.R. 2.1.1). Mature TacMobile Data Strategy, Information Support Plan , and Capabilities Production Document for Increment 3, supporting P-8A Poseidon Inc 3 - (Inc 3). Update all required TOC/ MTOC Department of Defense Architecture Framework (DoDAF) products, and integrate to the MPRF/Air ASW COI Family of Systems Department of Defense Architecture Framework products -- (Inc 3). Continue

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Wideband Beyond Line of Sight Satellite Communications requirements analysis -- (Inc 3). Commence review of TacMobile Concept of Operations in alignment with Family of Systems CONOPS - (TR 2.1.1). Continue identifying requirements to evolve legacy point to point exchanges of information to utilize Services Oriented Architecture and new technologies and down select sustainable technologies -- (TR 2.1.1). Mature Measures of Effectiveness to maintain integrated requirements management with Increment 3 architecture elements -- (Inc 3). ***FY 2016 Base Plans:*** Integrate Services Oriented Architecture (SOA) implementations from P8 Applications Based Architecture with TacMobile architecture -- (TR 2.1.1). Leverage Tactical Operations Center Operational Control Prototype SOA development with TacMobile Services Oriented Architecture implementation based on Best of Breed from P8 Applications Based Architecture and leveraged Tactical Operations Center Operational Control Prototype SOA work. Continue Automated Digital Network System and Full Motion Video implementations--(TR 2.1.1). Mature Family of Systems Community of Interest data model development for TacMobile SOA environment instantiation with Extensible Markup Language (XML) schema and Tactical Operations Center Mobile Tactical Operations Center Content Management XML Data Dictionary -- (Inc 3). Continue evolving TacMobile Data Strategy, Information Support Plan, and Capabilities Production Document for Increment 3, supporting P-8A Poseidon Inc 3 - (Inc 3). Finalize TOC/MTOC Operational view and System view Department of Defense Architecture Framework products, and integrate to the Maritime Patrol and Reconnaissance Force /Air Anti-Submarine Warfare Community of Interest Family of Systems Department of Defense Architecture Framework products -- (Inc 3). Continue review of TacMobile Concept of Operations (CONOPS) in alignment with Family of Systems CONOPS - (TR 2.1.1). Mature identifying requirements to evolve legacy point to point exchanges of information to utilize Services Oriented Architecture and new technologies and down select sustainable technologies -- (TR 2.1.1). Refine Measures of Effectiveness to maintain integrated requirements management with Increment 3 architecture elements -- (Inc 3). ***FY 2016 OCO Plans:*** N/A					
Title: Tactical Mobile Acoustic Support System (TACMASS)	0.736	0.736	0.736	-	0.736
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Continued Multistatic Active Coherent, High Altitude ASW, High Altitude Anti Submarine Warfare Weapons Capability, and Automatic Identification System integration system testing to support fielding of P-8A Poseidon Increment 2 -- (TR 2.1.1). Selected alternatives on expeditionary post flight analysis capability -- (TR 2.1.1). Commenced design/development support of P-8A Poseidon Increment 2 Engineering Change Proposal (ECP)					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
3 -- (TR 2.1.1 / Inc 3). Continued requirement analysis and support preliminary Design Review (PDR) of P-8A Poseidon Increment 3 -- (Inc 3). ***FY 2015 Plans:*** Commence implementation of P-8A Poseidon Increment 2 Engineering Change Proposal (ECP) 1 Multistatic Active Coherent Phase 1 -- (FR30). Continue implementing designs, integration and test of P-8A Poseidon Increment 2 (ECP) 2 and 3 -- (FR40 /FR50). Continue requirement analysis and commence design of TacMobile system in support of P-8A Poseidon Increment 3 -- (Inc 3). Commence initial TacMobile system testing of ECP 2 -- (FR40). ***FY 2016 Base Plans:*** Finalize implementation of P-8A Poseidon Increment 2 Engineering Change Proposal (ECP) 2 -- (FR40) and commence implementation of P-8A Poseidon Increment 2 ECP 3 -- (FR50 / Inc 3). Finalize designs and commence development of TacMobile Multistatic Active Coherent Attack system in support of P-8A Poseidon Increment 3 upgrades-- (Inc 3). ***FY 2016 OCO Plans:*** N/A					
Title: Aircraft Interfaces	0.583	0.583	0.883	-	0.883
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Media: Continued development of those interfaces required to support P-8A Poseidon Increment 2 Engineering Change Proposal (ECP) 1 and ECP 2 -- (TR 2.1.1). Commenced P8 Poseidon Increment 2 ECP 3 requirements support -- (TR2.1.1). Continued production support in the form of requirements analysis and design work on TacMobile 1-1 Engineering Development Model for Advanced Airborne Sensor -- (Inc 3). Continued analysis of integration requirements for P-8A Poseidon Increment 3 trading off impacts from Applications Based Architecture architecture -- (Inc 3). Supported P8 Poseidon Increment 3 System Requirements Reviews and Technical Requirements Analysis -- (Inc 3). Began study to support interface design for Net Enabled Weapon and T-Sized Stores -- (Inc 3). Began development of P-8A Poseidon Fly Away Kits, for media grooming and split deployment support -- (Inc 3). ***FY 2015 Plans:*** Commence test and production of P8 Poseidon Increment 2 Engineering Change Proposal (ECP) 1 and ECP 2 required TacMobile support -- (TR 2.1.1). Support all P-8A Poseidon Increment 2 Operational Evaluations -- (TR 2.1.1) Continue refining Advanced Airborne Systems and TacMobile stack integration -- (TR 2.1.1). Support					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
P8 Poseidon Increment 3 Applications Based Architecture System Readiness Review and Test and Evaluation prototyping -- (Inc 3). Continue supporting interface design for Net Enabled Weapon and T-Sized Stores -- (Inc 3). Commence implementation of P-8A Poseidon Fly Away Kits, for media grooming and split deployment support -- (Inc 3). ***FY 2016 Base Plans:*** Continue test and production of P8 Poseidon Increment 2 Engineering Change Proposal (ECP) 1 and ECP 2 required TacMobile support -- (TR 2.1.1). Continue supporting all P-8A Poseidon Increment 2 Operational Evaluations-- (TR 2.1.1). Finish refining Advanced Airborne Systems and TacMobile stack integration -- (TR 2.1.1). Support P8 Poseidon Increment 3 ABA Preliminary Design Review (PDR) 1 and Test and Evaluation prototype development -- (Inc 3). Mature interface design for Net Enabled Weapon and T-Sized Stores -- (Inc 3). Finalize implementation of P-8A Poseidon Fly Away Kits, for media grooming and split deployment support -- (Inc 3). ***FY 2016 OCO Plans:*** N/A					
Title: Tactical Data Links	0.160	0.160	0.160	-	0.160
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Studied LINK-11 sundown plan, impacts on TacMobile, and potential adoption of LINK-22 /NATO Improved Link Eleven -- (Inc 3). Assessed implementation of LINK-16 Concurrent Multi-Netting, adoption of Multifunctional Information Distribution System Joint Tactical Radio System, and adoption of Tactical Targeting Network Technology -- (Inc 3). ***FY 2015 Plans:*** Continue to monitor LINK-11 sundown plan, impacts on TacMobile, and potential adoption of LINK-22 / NATO Improved Link Eleven -- (Inc 3). Commence implementation or recommended assessment of LINK-16 Concurrent Multi-Netting , adoption of Multifunctional Information Distribution System Joint Tactical Radio System, and adoption of Tactical Targeting Network Technology -- (Inc 3). Commence design for selected Tactical Targeting Network Technology and Multifunctional Information Distribution System Joint Tactical Radio System Courses of Action -- (TR 2.1.1). Commence requirements analysis on Common Data Link Upgrade, Broadcast Intelligence Analysis, Joint Range Extension, Third Party Targeting, High Frequency Internet Protocol, LINK 16 updates -- (Inc 3). ***FY 2016 Base Plans:***					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Continue design for selected Tactical Targeting Network Technology and Multifunctional Information Distribution System Joint Tactical Radio System Courses of Action -- (TR 2.1.1) Continue requirements analysis on Common Data Link Upgrade, Broadcast Intelligence Analysis, Joint Range Extension, Third Party Targeting, High Frequency Internet Protocol, Link 16 updates -- (Inc 3). ***FY 2016 OCO Plans:*** N/A					
Title: Enterprise Solutions	0.580	0.580	0.780	-	0.780
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Developed requirements for assessing appropriate Distributed Common Ground System Navy / Intelligence Carry Onboard Program capabilities -- (Inc 3). Continud development of mature Multiple Security level Enclaves (formerly called Multi-level Enclaves) design options -- (Inc 3). Conducted Analysis of Alternatives on Mass Storage requirements for TacMobile including P-8A Poseidon Increment 3 and Advanced Airborne Sensor -- (Inc 3). Continued maturing design of data content management and security requirements for P-8A Poseidon Increment 2 -- (TR 2.1.1). Commenced Applications Based Architecture requirements analysis, Just a Bunch of Disks replacement (Removable Media Consolidation) (renamed to Digital Storage Architecture Upgrade) -- (Inc 3). ***FY 2015 Plans:*** Continue with Applications Based Architecture (ABA) requirements analysis, and commence ABA design and development for TacMobile (TM) systems -- (Inc 3). Continue with Just a Bunch of Disks (now called Data Storage Architecture Upgrade (DSAU)) replacement requirement analysis, and commence DSAU design and development for TacMobile systems - (TR 2.1.1). Continue development of Multiple Security level Enclaves and design of Distributed Common Ground System Navy implementation -- (Inc 3). Commence development of next generation Mass Storage requirement -- (Inc 3). ***FY 2016 Base Plans:*** Continue maturing the Applications Based Architecture (ABA) requirements analysis, and commence ABA design and development for TacMobile systems -- (Inc 3). Continue Data Storage Architecture Upgrade development and implementation - (TR 2.1.1). Continue development of Multiple Security level Enclaves and design of Distributed Common Ground System Navy implementation -- (Inc 3). Continue development of next generation Mass Storage requirement -- (Inc 3). ***FY 2016 OCO Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
N/A					
Title: Command and Control (C2)	0.402	0.402	0.402	-	0.402
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Began implementation of Tactical Operations Center Operational Control Prototype Services Oriented Architecture (SOA) Situational Awareness into TacMobile SOA -- (TR 2.1.1). Began requirements analysis and design for Advanced Airborne Sensor as part of TacMobile Multiple Security level Enclaves (formerly called Multi-level Enclaves) system development -- (TR 2.1.1). Completed Global Command and Control System - Maritime replacement option design analysis -- (TR2.1.1). Began investigation of Maritime Tactical Command and Control in TM architecture -- (Inc 3).					
FY 2015 Plans: Cease Tactical Operations Center Operational Control Prototype Services Oriented Architecture (SOA) implementations thru phase 5 and commence TacMobile SOA design leveraging P-8A Applications Based Architecture into TacMobile SOA requirements analysis and design/development. Leverage Poseidon Data modeling, security, applications and architecture -- (Inc 3). Continue requirements analysis and commence development of Advanced Airborne Sensor system as part of TacMobile Multiple Security level Enclaves -- (Inc 3). Implement Complete Global Command and Control System - Maritime Group Level 4.1 in support of Triton Mission Control System interface and continue to assess next generation Maritime Tactical Command and Control -- (Inc 3).					
FY 2016 Base Plans: Continue Tactical Operations Center Operational Control Prototype Services Oriented Architecture (SOA) design leveraging P-8A Applications Based Architecture into TacMmbile SOA requirements analysis and design/ development. Leverage Poseidon Data modeling, security, applications and architecture -- (Inc 3). Mature requirements analysis, continue development, and commence implementation of Advanced Airborne Sensor system as part of TacMobile (TM) Multiple Independent Levels of Security -- (Inc 3). Evaluate Global Command and Control System - Maritime Group Level 4.1 in support of Triton Mission Control System interface and conduct requirements analysis to assess next generation Maritime Tactical Command and Control -- (TR 2.1.1).					
FY 2016 OCO Plans: N/A					
Title: Maritime Patrol and Reconnaissance Force (MPRF) Interoperability/TacMobile Footprint Reduction	1.823	1.155	1.117	-	1.117
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
FY 2014 Accomplishments: Conducted system integration of P-8A Poseidon Aircraft Increment 2 Mission Planning interoperability upgrades -- (TR 2.1.1). Continued system testing and integration of modular and hardware independent solutions to reduce mobile system architecture footprint -- (TR 2.1.1). Completed developmental Testing for convergence of Tactical Operations Center and Mobile Tactical Operations Center architecture toward common baseline to reduce platform unique training requirements and duplicative life cycle logistics costs -- (TR 2.1.1). Began down selection Analysis of Alternatives of automated TacMobile system functionality to reduce operator workload, to offset increasing Maritime Patrol and Reconnaissance Force Intelligence Surveillance and Reconnaissance Mission/Function/Task growth and develop an engineering design model -- (TR 2.1.1). Completed implementing all hardware design optimizations which reduce and consolidate TacMobile footprint and any Maritime patrol and Reconnaissance Aircraft media changes -- (TR 2.1.1). Utilized current technology that best optimizes data transfer rates -- (Inc 3). Continued with development of Multiple Security level Enclaves (formerly called Multi-level Enclaves) -- (Inc 3).					
FY 2015 Plans: Commence implementation of full system integration of P-8A Poseidon Aircraft Increment 2 Mission Planning interoperability upgrades -- (TR 2.1.1). Commence design model development of automated TacMobile system functionality to reduce operator workload, to offset increasing Maritime Patrol and Reconnaissance Force Intelligence Surveillance and Reconnaissance Mission/Function/Task -- (TR 2.1.1). Commence hardware fielding for convergence of Tactical Operations Center (TOC) and Mobile Tactical Operations Center (MTOC) architecture toward common baseline to reduce platform unique training requirements and duplicative life cycle logistics costs -- (TR 2.1.1). Reduce TOC/MTOC Size, Weight, Power and Cooling footprint via stakeholder requirements analysis (TR 2.1.1). Implement selected Analysis of Alternatives design for automated TacMobile system functionality to reduce operator workload, to offset increasing Maritime Patrol and Reconnaissance Force Intelligence Surveillance and Reconnaissance Mission/Function/Task growth and develop an engineering design model -- (TR 2.1.1). Continue implementing all hardware design optimizations which reduce and consolidate TacMobile footprint and any Maritime Patrol and Reconnaissance Aircraft media changes -- (TR 2.1.1). Utilize technology that continues best optimizes data transfer rates -- (Inc 3). Continue with development of Multiple Security level Enclaves utilizing a Multiple Independent Levels of Security approach and initiate Higher than SECRET enclave's requirements analysis and design for TacMobile -- (Inc 3).					
FY 2016 Base Plans: Continue design model development of automated TacMobile system functionality to reduce operator workload, to offset increasing Maritime Patrol and Reconnaissance Force Intelligence Surveillance and Reconnaissance					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Mission/Function/Task -- (TR 2.1.1). Complete stakeholder Size Weight Power and Cooling requirements analysis and commence TOC/MTOC design -- (TR 2.1.1). Complete implementing all hardware design optimizations which reduce and consolidate TacMobile footprint and any Maritime patrol and Reconnaissance Aircraft media changes -- (TR 2.1.1).Commence Wide Band SatCom requirements analysis and continue utilizing technology that continues best optimizes data transfer rates -- (Inc 3). Continue with development of Multiple Security level Enclaves, mature Higher than SECRET enclave's requirements analysis and design for TacMobile -- (Inc 3). ***FY 2016 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	4.922	4.254	5.016	-	5.016

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• OPN/2246: *MPRF Mission Support*	18.130	14.390	13.847	-	13.847	13.646	13.978	14.330	14.628	Continuing	Continuing
• OPN/2906: *TacMobile*	22.817	16.766	13.741	-	13.741	14.708	14.917	14.996	15.308	Continuing	Continuing

Remarks

D. Acquisition Strategy

Evolutionary Acquisition - Increment 2.0 provided enhanced Beyond Line of Sight (BLOS) Global Information Grid (GIG) reach back capability, and supports Maritime Situational Awareness connectivity enhancements for data exchange with Maritime Patrol and Reconnaissance Force (MPRF) aircraft and with Coalition data networks. It incorporated Anti Submarine Warfare (ASW) acoustical analysis improvements and new P-3C aircraft ASW interfaces. Increment 2.1 supported migration to follow on Global Command and Control System - Maritime (GCCS-M) version 4.0.3 and introduction of the P-8A Poseidon. Tech Refresh 2.1.1 supports technical engineering changes associated with the introduction of P-8A Poseidon Increment 2, MQ-4C Triton, Advanced Airborne Sensor (AAS), migration to GCCS-M 4.1 Group Level, and transition to WIN7 baselines. Increment 3 will incorporate support for other Maritime Patrol and Reconnaissance Force (MPRF) Family of Systems (FOS) Aircraft Systems, as they transition to a Services Oriented Architecture (SOA).

E. Performance Metrics

The primary metrics utilized by the TacMobile program development process, include achieving/maintaining all required Interface Exchange Requirements (IER's) and successful achievement of 100% of Key Performance Parameters for incremental upgrade threshold capabilities, as observed by Commander Operational Test Force representatives during Operational Evaluation. TacMobile Inc 2.1 development supported increased IER requirements of 486% from 112 to 544. Development to support these new IER's tapered off in FY-12 as the Increment entered the Operational Evaluation Phase. Development focus then shifted to efforts required to retain fielded IER's and update IER's to comply with emerging and evolving standards associated with P-8A Poseidon Increment 2, and the MQ-4C Triton Unmanned

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
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Aerial System (UAS), other Maritime Patrol and Reconnaissance Force (MPRF) Family of Systems (FOS) Aircraft and Systems, and evolving operational employment concepts. Increment 3 development will increase IER's by extending the TacMobile core to extend integrated capabilities into higher than SECRET enclaves and Services Oriented Architecture (SOA). The quantification of the increase in IER's will be dependent upon final requirements which are still being defined.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	C/CPFF	SSC LANT; Northrop Grumman; SAIC : Charleston; SC; Pax River, MD	7.139	1.141	Dec 2013	1.046	Dec 2014	1.188	Dec 2015	-		1.188	Continuing	Continuing	Continuing
Systems Engineering	C/CPFF	SSC LANT; Northrop Grumman, SAIC, BAH, Sentek : Charleston, SC; Pax River, MD; San Diego, CA	29.917	1.136	Dec 2013	0.978	Dec 2014	1.398	Dec 2015	-		1.398	Continuing	Continuing	Continuing
Training Development	C/CPFF	SSC LANT; SAIC; Sentek : Charleston, SC; Pax River, MD; San Diego, CA	2.161	0.400	Dec 2013	0.300	Dec 2014	0.300	Dec 2015	-		0.300	Continuing	Continuing	Continuing
Software Development	C/CPFF	SSC LANT, Northrop Grumman, SAIC, BAH, Sentek : Charleston, SC; Pax River, MD; San Diego, CA	46.900	0.302	Dec 2013	0.302	Dec 2014	0.402	Dec 2015	-		0.402	Continuing	Continuing	Continuing
Integrated Logistics Support	C/CPFF	SSC LANT, SAIC : Charleston, SC; Pax River, MD	1.025	0.225	Dec 2013	0.225	Dec 2014	0.225	Dec 2015	-		0.225	Continuing	Continuing	Continuing
Configuration Management	C/CPFF	SSC LANT, SAIC : Charleston, SC; Pax River, MD	0.800	0.175	Dec 2013	0.175	Dec 2014	0.175	Dec 2015	-		0.175	Continuing	Continuing	Continuing
Technical Data	C/CPFF	SSC LANT, Northrop Grumman, SAIC : Charleston, SC; Pax River, MD	1.040	0.220	Dec 2013	0.220	Dec 2014	0.220	Dec 2015	-		0.220	Continuing	Continuing	Continuing
Studies & Analyses	C/CPFF	SSC LANT, Northrop Grumman, SAIC, Sentek : Pax River, MD; San Diego CA	0.725	0.100	Dec 2013	0.100	Dec 2014	0.100	Dec 2015	-		0.100	Continuing	Continuing	Continuing
		Subtotal	89.707	3.699		3.346		4.008		-		4.008	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
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Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	C/CPIF	SSC LANT; SAIC : Charleston, NC; Pax River, MD	2.096	0.440	Dec 2013	0.240	Dec 2014	0.340	Dec 2015	-		0.340	Continuing	Continuing	Continuing
Operational Test & Evaluation	MIPR	OPTEVFOR; SSC LANT; SAIC : Jacksonville, FL	5.549	0.157	Mar 2014	0.157	Dec 2014	0.157	Dec 2015	-		0.157	Continuing	Continuing	Continuing
		Subtotal	7.645	0.597		0.397		0.497		-		0.497	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPIF	Northrop Grumman; SAIC; BAH; Sentek : Pax River, MD; Charleston, SC; San Diego, CA	2.451	0.303	Dec 2013	0.236	Dec 2014	0.215	Dec 2015	-		0.215	Continuing	Continuing	Continuing
Government Engineering Support	WR	SSC LANT : Charleston, NC	1.805	0.127	Dec 2013	0.127	Dec 2014	0.134	Dec 2015	-		0.134	Continuing	Continuing	Continuing
Program Management Support	C/CPIF	SSC LANT; PMW750; BAH; SAIC; Sentek : Charleston, NC; San Diego, CA	13.690	0.163	Dec 2013	0.130	Dec 2014	0.144	Dec 2015	-		0.144	Continuing	Continuing	Continuing
Travel	WR	PMW750 : San Diego, CA	0.195	0.033	Dec 2013	0.018	Dec 2014	0.018	Dec 2015	-		0.018	Continuing	Continuing	Continuing
		Subtotal	18.141	0.626		0.511		0.511		-		0.511	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	115.493	4.922		4.254		5.016		-		5.016	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
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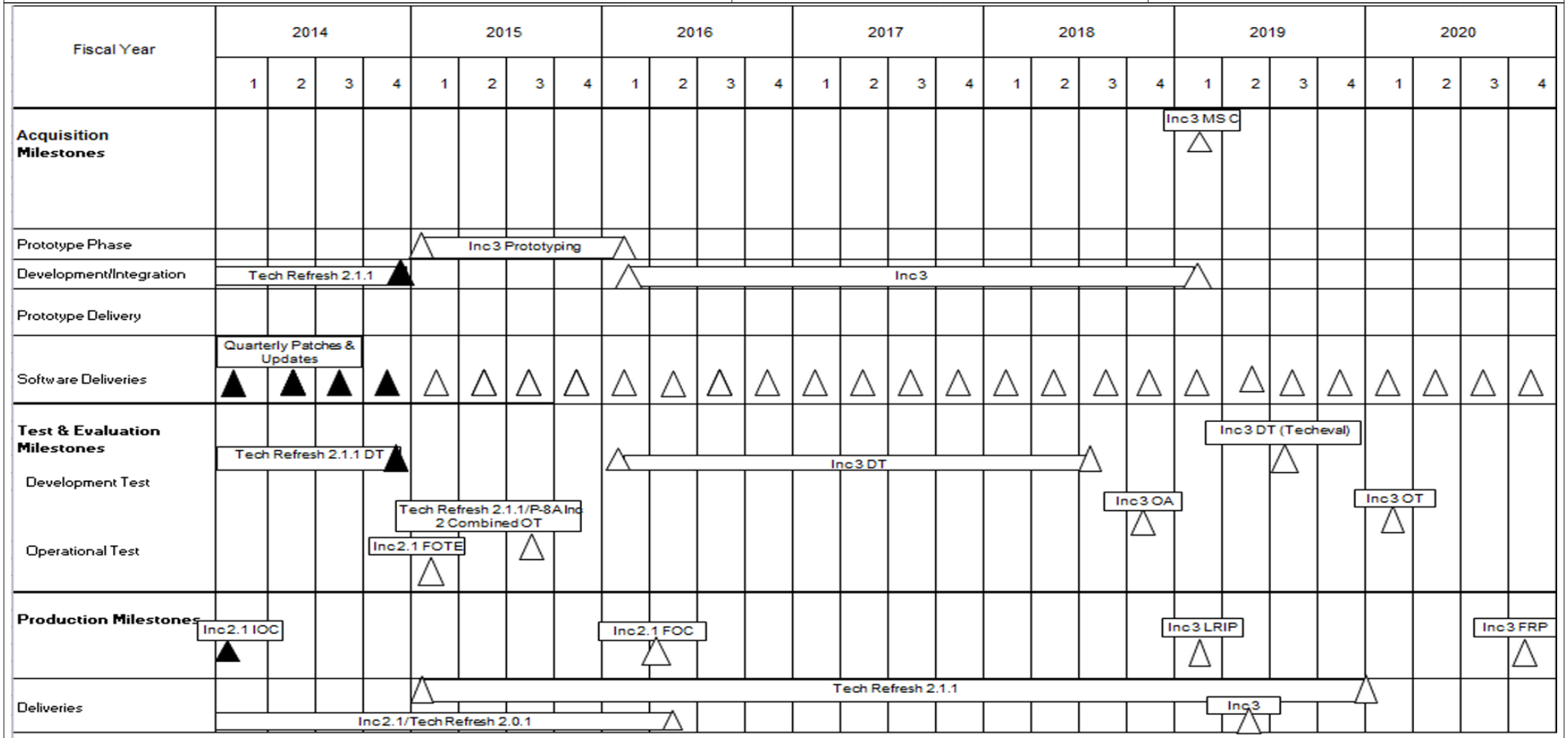

Note:
None

Exhibit R-4, Schedule Profile

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 0486. / *Tactical Support Center*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0486.L39				
Software Delivery (Quarterly)	1	2014	4	2020
Tech Refresh Delivery (TR 2.0.1)	1	2014	2	2016
Tech Refresh Delivery (TR 2.1.1)	1	2015	4	2019
Initial Operational Capability (Increment 2.1) (TOC/MTOC)	1	2014	1	2014
Follow On Test and Evaluation (Increment 2.1)	1	2015	1	2015
Increment 2.1 FOC	2	2016	2	2016
Increment 2.1 Delivery	1	2014	2	2016
Tech Refresh 2.1.1 Development	1	2014	4	2014
Developmental Test (Tech Refresh 2.1.1)	1	2014	4	2014
Combined Operational Test (Tech Refresh 2.1.1)	3	2015	3	2015
Prototyping (Increment 3)	1	2015	1	2016
Development (Increment 3)	1	2016	1	2019
Developmental Test (Increment 3)	1	2016	3	2018
Operational Assessment (Increment 3)	4	2018	4	2018
Milestone C (Increment 3)	1	2019	1	2019
Low Rate Initial Production (Increment 3)	1	2019	1	2019
Developmental Test (Increment 3 Tech Eval)	3	2019	3	2019
Operational Test (Increment 3)	1	2020	1	2020
Full Rate Production (Increment 3)	4	2020	4	2020
Increment 3 Delivery (First LRIP unit)	2	2019	2	2019

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
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COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
2213: *Mission Planning*	274.164	19.883	26.097	47.733	-	47.733	24.338	22.071	22.282	22.759	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Mission Planning: The Joint Mission Planning System (JMPS) is the designated automated mission planning system for the Navy. JMPS enables weapon system employment by providing the information, automated tools, and decision aids needed to rapidly plan aircraft, weapon, or sensor missions, load mission data into aircraft and weapons, and conduct post-mission analysis. JMPS is a mission critical system which is a co-development effort between the United States Navy (USN) and United States Air Force (USAF). Common requirements are identified and capabilities are developed and prioritized in an evolutionary approach. An individual JMPS Mission Planning Environment (MPE) is a combination of the JMPS framework, common components, and the necessary system hardware required to satisfy mission planning objectives. Most Tactical Naval Aviation platforms are dependent solely on JMPS to plan precision guided munitions, sensor systems, tactical data links, secure voice communications, and basic Safety of Flight functions. The following type/model/series (T/M/S) naval aircraft are supported by JMPS: AH-1W, F/A-18 A-F, E-2C, EP-3E, EA-6B, AV-8B, S-3, V-22, Chief of Naval Air Training (CNATRA), EA-18G, MV-22, C-2, MH-53E, P-3, Aircraft Carrier Intelligence Center (CVIC), SH-60B/F, HH-60H, CH-53D/E, CH-46E, UH-1N, VH-3/VH-60, AH-1Z, UH-1Y, MH-60R/S and E-2D. All T/M/S are required to transition to Microsoft Windows 7 due to End of Life (EOL) of Microsoft XP (April 2014) using Framework (FW) Version 1.3.5. Custom support for Windows XP is planned to allow remaining naval aircraft to be supported during the transition. Future JMPS platforms include: MQ-4C (Triton) and CH-53K. The re-architecture of JMPS will support net-centric goals by providing route "publish and subscribe" capabilities, transition to 64 bit allows for memory space expansion to accommodate future Microsoft Operating Systems, emerging technologies, and critical Cyber Security vulnerabilities as identified in Operational Test (OT). Funding profile includes JMPS baseline efforts for all existing T/M/S on Windows 7 32 bit framework while concurrently re-architecting to a 64 bit framework. 64-bit development requires complete software restructure to address memory limitations and system errors resulting in JMPS computer crashes. The transition from the current 32-bit architecture (4GB RAM) to a 64-bit architecture (196GB RAM) provides additional memory access, increased planning efficiencies; creating a more stabilized architecture with fewer fleet memory crashes. Delaying JMPS 64-bit transition to the fleet will cause system crashes to continue. It will also delay required mission planning fixes based upon known software obsolescence, and will expose the system to risks based upon architectural weaknesses in regards to cyber security vulnerabilities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: JMPS Framework (FW) & Common Components (CC) Development	1.400	8.094	26.358	-	26.358
Articles:	-	-	-	-	-
Description: Due to the end of Microsoft support for Windows XP in April 2014, JMPS framework (FW) is required to transition to Windows Operating System (OS) 7. FW Version 1.3.5 incorporates Windows OS 7 and provides additional capabilities for all naval aircraft to include air drop, air refueling and enhanced installation. Funding for FW will be used to support system engineering processes, management interface controls, software architectural analysis, requirements management and a centralized website for Mission Planning Environment (MPE) developers. FW 1.x will be incorporated in future FW versions to address migration to .NET environment					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
and to enable interoperability improvements through utilization of services. FW 64 bit development efforts commenced in FY14. If a transition to 64-Bit architecture is delayed or minimized, the fleet will experience increased mission planning interruptions (crashes) with future Mission Planning Environments (MPE) as a result of legacy and new 32-Bit applications shared utilization of the 4G RAM limitation associated with 32-bit operating system (64-Bit provides 192GB RAM). Additionally, as platform(s) requirements emerge for new and enhanced mission planning capabilities, the demand for more complex integrated applications and software products increases. Without this planned transition to a 64-Bit architecture, the volume of integrated mission planning capability for the fleet will be limited and restricted. Common Components software updates augment core mission planning capabilities across multiple T/M/S. ***FY 2014 Accomplishments:*** Start Framework 64 bit transition. ***FY 2015 Plans:*** Full initiation and implementation of the Joint Mission Planning System (JMPS) Framework 64-Bit transition development activities. The goal of this critical activity is to leverage the technical advantages of 64-bit technology in an effort to address current physical memory access and utilization limitations associated with the fielded Mission Planning Environment (MPE); thus eliminating systems interruptions (crashes) while increasing mission planning performance for the fleet. This effort will also specifically address continued obsolescence maintenance and cost issues associated with legacy 32-bit JMPS software and applications. The major events initiated under this activity include the re-coding of 2.38 million Single Lines of Logical Code (SLOLC) for the JMPS Framework Core (Basic Flight Planning Capabilities) and JMPS Framework Common Components for MPE/UPCs, including significant efforts for the F/A-18 A-F platforms. ***FY 2016 Base Plans:*** Continue implementation of the JMPS Framework Core 64-bit transition development activities. Major events include development of cyber security safeguards to address existing and emerging vulnerabilities, development of additional JMPS help features, and complex conversion of Single Lines of Logical Code (SLOLC) from Visual Basic to a newer .NET language for the JMPS Framework Core (Basic Flight Planning Capabilities) and JMPS Framework Common Components for MPE/UPCs, including significant efforts for the F/A-18 A-F platforms. In addition, efforts include initiation of 64-bit transition development for JMPS Common Components used by multiple platforms. Common Components include Close-Air Support (CAS), Air Refueling, Air Drop, Intervisibility Mask (IVM), Global Positioning System (GPS) Crypto, and GPS Predictor capabilities. The transition of these Common Components is aligned to meet the platform(s) requirements for new and enhanced mission planning capabilities in a 64-bit environment. The 64-bit transition is required to address current physical memory access					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
and utilization limitations associated with the fielded Mission Planning Environment (MPE); thus eliminating system interruptions (crashes) while improving mission planning performance for the fleet. ***FY 2016 OCO Plans:*** N/A					
Title: Joint Mission Planning System Expeditionary (JMPS-E) ***Articles:*** ***Description:*** JMPS Expeditionary (JMPS-E): The goal of the JMPS-E team is to produce a scalable, tailorable, mission planning and execution monitoring tool for Amphibious Squadron staffs. The primary focus of this system is to provide an automated capability to assist planners with mission analysis, course of action development and automated creation of doctrinal orders based on planning data in the system. Current expeditionary planning is done manually on paper charts. JMPS-E will provide a digital map enabling better response times to changing plans, easier distribution of planning artifacts and a reduction in human error during the planning process. The variety and geographically separated nature of forces involved with Ship to Shore Maneuver amplifies the need for web-based technologies to enable collaborative planning, improve overall situational awareness and enable the monitoring of mission execution from different locations. The primary outputs are tasking orders, route plans, battlespace geometries and decision briefs. The system will also incorporate modeling and simulation tools to rehearse and deconflict mission plans. ***FY 2014 Accomplishments:*** Complete development and intermediate testing of JMPS-E Mission Planning Environment (MPE) Version 2.0.0 to satisfy Windows 7 requirement. ***FY 2015 Plans:*** Develop, integrate and test JMPS-E MPE Version 2.0.1. ***FY 2016 Base Plans:*** Complete development and intermediate testing of JMPS-E MPE Version 2.0.1. Development of JMPS-E MPE Version 2.1 (64-bit OS) ***FY 2016 OCO Plans:*** N/A	1.084 -	0.740 -	0.660 -	- -	0.660 -
Title: Mission Planning Environment (MPE) Integration and Test ***Articles:***	17.399 -	17.263 -	20.715 -	- -	20.715 -

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Description: Mission Planning Environment (MPE) Integration and Test efforts support the Navy's developmental testing/operational testing, integration and system of system testing for MPE fielding. Efforts consist of integration of components provided by various developers into a platform-centric MPE and testing of the integrated MPE. MPE integration and testing results in a consistent and repeatable system configuration that enables stability and reliability. Due to the end of Microsoft support for Windows XP in April 2014, there is a Mission Planning Environment (MPE) requirement to change to Windows Operating System (OS) 7. ***FY 2014 Accomplishments:*** Integration and test of Mission Planning Environments (MPEs) in support of 36 aircraft Type/Model/Series (T/M/S). ***FY 2015 Plans:*** Integration and test of MPEs in support of 43 aircraft T/M/S and increased efforts associated with platform integration to meet Initial Operational Capability (IOC) which include Triton and CH-53K. ***FY 2016 Base Plans:*** Integration and test of MPEs in support of 43 aircraft T/M/S. Triton and CH-53K platform integration to meet IOC. Initiation of efforts associated with JMPS 64-bit Framework segmentation efforts. Complete Joint Mission Planning System Windows 7 operating system transition for all platforms. ***FY 2016 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	19.883	26.097	47.733	-	47.733

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• OPN/287600: *Naval Mission Plng System*	14.131	13.950	13.737	-	13.737	9.881	9.775	10.004	10.217	Continuing	Continuing
• RDTE/3858,5302,5380: *Air Force Mission Plng Systems*	62.432	60.679	65.701	-	65.701	83.246	82.894	84.798	-	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 2213 / *Mission Planning*

D. Acquisition Strategy

Engineering Manufacturing Development efforts: The strategy entails a two-phased evolutionary approach to acquire the initial Joint Mission Planning System (JMPS) development effort. Phase I was a combined United States Air Force (USAF) / United States Navy (USN) effort that obtained various studies, extensive joint requirements analysis, design to cost estimates, an architecture concept, and development statement of work. The Program's Phase I was planned to identify reduced costs strategies through software reuse from both USN Tactical Automated Mission Planning Systems and USAF Air Force Mission Support Systems (AFMSS) legacy mission planning programs. Additionally, this phase provided a risk reduction plan by identifying the most effective migration of existing mission planning systems. Phase I was awarded to two contractors, Post Phase I during the down select process, one contractor was selected to develop the JMPS architecture work and Version 1.0 basic flight planning components. Phase II focused on strike planning requirements (i.e., support Precision Guided Missions and other tactical data load intensive missions) in order to migrate platforms from legacy mission planning systems to JMPS. The USAF continued development of JMPS Version 1.3 and has contractual control of the program which is facilitated via a Mission Planning Enterprise Contract. The USN continued limited development in Joint Mission Planning System (JMPS) Version 1.2 which was focused on helicopter platform migrations. USN integration and fielding strategy changed to support a Mission Planning Environment focus, where framework and common components are integrated as bundled packages and fielded by airwings. The completion of Phase II is targeted for JMPS Version 1.3.5, which focuses on a transition to Windows 7 that both the USAF and USN will use. As platforms plan their migration to JMPS, the acquisition strategy, plan, and baseline will be updated in order to drive the retirement of legacy mission planning systems.

E. Performance Metrics

Average time to plan a flight: Threshold value is < 1 hour average time to plan a flight that includes a Military Training Route (MTR), routing to and from the MTR, kneeboard card production, Instrument Flight Rules (IFR) flight planning materials and a Data Transfer Device (DTD) Load.
Objective value is < 30 minutes average time to plan a flight that includes a MTR, routing to and from the MTR, kneeboard card production, IFR flight planning materials and a DTD Load.

Interoperability: Threshold value is 100% of top level Interoperability Exchange Requirements (IERs) designated critical will be satisfied.
Objective value is 100% of top level IERs will be satisfied.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 2213 / *Mission Planning*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Software Development/Framework and Common Components (FW/CC 64 bit)	C/CPFF	TBD : TBD	0.000	-		8.094	Jan 2015	26.358	Jan 2016	-		26.358	Continuing	Continuing	Continuing
Primary Software Development/Framework (FW 32/64 bit)	C/CPFF	American Electronic Warfare Associates : California, MD	1.499	1.400	Feb 2014	-		-		-		-	-	2.899	2.899
Primary Software Development/Joint Mission Planning System Expeditionary (JMPS-E)	MIPR	USAF : Hanscom AFB, MA	5.262	0.500	Feb 2014	0.150	Feb 2015	0.050	Feb 2016	-		0.050	Continuing	Continuing	Continuing
Award Fees	MIPR	Various : Various	1.776	0.152	Feb 2014	0.050	Feb 2015	0.019	Jan 2016	-		0.019	Continuing	Continuing	Continuing
Primary Software Development	Various	Various : Various	23.586	2.281	Jan 2014	2.101	Jan 2015	1.515	Jan 2016	-		1.515	Continuing	Continuing	Continuing
Prior years Prod Dev No Longer Funded in FYDP	Various	Various : Various	105.870	-		-		-		-		-	-	105.870	-
		Subtotal	137.993	4.333		10.395		27.942		-		27.942	-	-	-

Remarks

FY14 Primary Software Development/Framework (FW 32/64 bit) contract in preparation for 32 to 64 bit transition. FY15-16 Primary Software Development/Framework (FW/CC 64 bit) full initiation and implementation of the JMPS Framework Core and Common Components 64-bit transition development activities. This contract will be a competitive award in FY15 so the performing activity and location are currently TBD due to the competitive contracting strategy.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	WR	NAWCWD : Point Mugu, CA	1.400	0.452	Nov 2013	0.454	Nov 2014	0.461	Nov 2015	-		0.461	Continuing	Continuing	Continuing
Prior Years Support No Longer Funded FYDP	Various	Various : Various	13.514	-		-		-		-		-	-	13.514	-
		Subtotal	14.914	0.452		0.454		0.461		-		0.461	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 2213 / *Mission Planning*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Eng Integration & Test	WR	NAWCWD : Point Mugu, CA	83.036	11.420	Nov 2013	10.866	Nov 2014	15.536	Nov 2015	-		15.536	Continuing	Continuing	Continuing
Test & Evaluation	WR	COMOPTEVFOR : Norfolk, VA	3.166	1.301	Nov 2013	1.634	Nov 2014	1.347	Nov 2015	-		1.347	Continuing	Continuing	Continuing
		Subtotal	86.202	12.721		12.500		16.883		-		16.883	-	-	-

Remarks

System Eng Integration & Test (NAWCWD) increase in FY15-16 to meet new platform (CH-53K and Triton) Initial Operational Capability (IOCs) and 64 bit development efforts.
Test and Evaluation (COTF) FY15 increase due to Independent Operational Test events for Mission Planning Environment (MPEs) during Windows 7 transition.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support and Travel	WR	NAWCAD : Patuxent River, MD	35.055	2.377	Nov 2013	2.748	Nov 2014	2.447	Nov 2015	-		2.447	Continuing	Continuing	Continuing
		Subtotal	35.055	2.377		2.748		2.447		-		2.447	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	274.164	19.883		26.097		47.733		-		47.733	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 2213 / *Mission Planning*

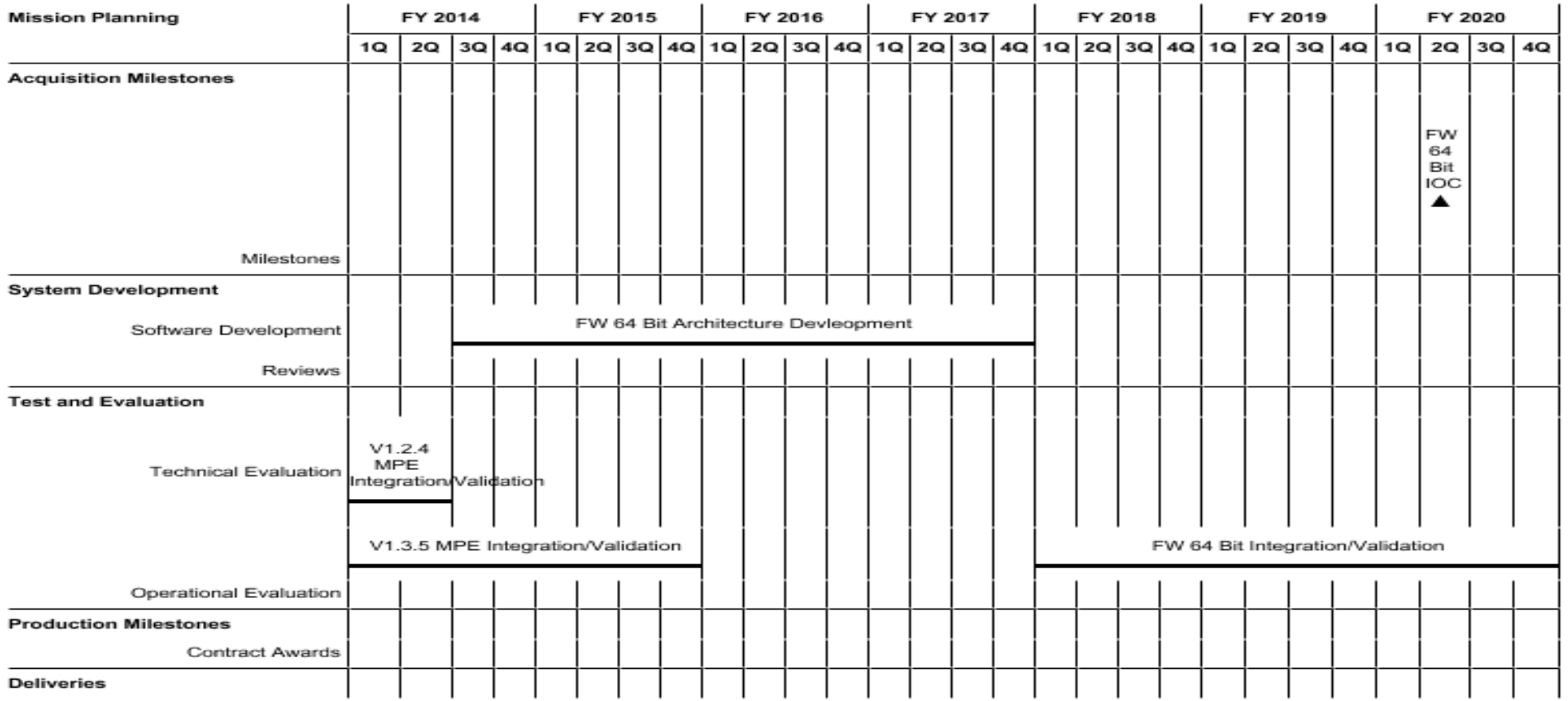

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 2213 / *Mission Planning*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Mission Planning				
Acquisition Milestones: JMPS FW 64 Bit Initial Operational Capability (IOC)	2	2020	2	2020
System Development: Software Development: JMPS FW 64 Bit Architecture Development	3	2014	4	2017
Test and Evaluation: Technical Evaluation: JMPS V1.2.4 MPE Integration/Validation	1	2014	2	2014
Test and Evaluation: Technical Evaluation: JMPS V1.3.5 Mission-Planning Environment (MPE) Integration/Validation	1	2014	4	2015
Test and Evaluation: Technical Evaluation: JMPS FW 64 Bit Integration/Validation	1	2018	4	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 3032 / *NTCSS (Naval Tactical Command Spt Sys)*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
3032: *NTCSS (Naval Tactical Command Spt Sys)*	52.853	16.254	11.250	8.168	-	8.168	14.584	14.846	12.625	4.936	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Naval Tactical Command Support System (NTCSS) is a multi-function program designed to provide standard tactical support information systems to various afloat and associated shore-based fleet activities. The mission is to provide the Navy and Marine Corps with an integrated, scalable system that supports the management of logistical information, personnel, material and funds required to maintain and operate ships, submarines, and aircraft. FY2016 Funding:

(1) Provides for the design, development, and testing of NTCSS OA development efforts to include: Global Individual Component Repair List (Global-ICRL); Beyond Capability of Maintenance Interdiction (BCM-I); Operational Supply (O-Supply) to include Table Of Allowance & Personal Gear Issue TOA/PGI; and Total Material Visibility & Requisition Management (TMV/RM).
(2) Provides for the transition of the current, client-server architecture to a service-oriented architecture (SOA) and web-based services (NTCSS OA). This will align with the initiative to bring Navy systems into a common computing environment afloat, interface with Navy Enterprise Resource Planning (ERP) ashore, and provide a more flexible system platform with greater responsiveness to security, information assurance, functional, and system requirements and with greater speed to capability.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: NTCSS (Naval Tactical Command Spt Sys)	16.254	11.250	8.168	-	8.168
Articles:	-	-	-	-	-
Description: Maintenance and Supply Management Capability					
FY 2014 Accomplishments: Continued design, development, and testing efforts for NTCSS Open Architecture (OA), to include Global Individual Component Repair List (Global-ICRL); Beyond Capability of Maintenance (BCM) Interdiction; Operational Supply (O-Supply) to include Table Of Allowance & Personal Gear Issue TOA/PGI; and Total Material Visibility & Recquisition Management (TMV/RM). Software code conversion of NTCSS legacy software code to a modern JAVA-based system is also planned.					
FY 2015 Plans: Continue design, development, and testing efforts for NTCSS Open Architecture (OA), to include Global Individual Component Repair List (Global-ICRL); Beyond Capability of Maintenance (BCM) Interdiction; Operational Supply (O-Supply) to include Table Of Allowance & Personal Gear Issue TOA/PGI; and Total					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3032 / *NTCSS (Naval Tactical Command Spt Sys)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Material Visibility & Requisition Management (TMV/RM), and software code conversion of NTCSS legacy software code to a modern JAVA-based system. Conduct pre-acquisition activities for open architecture follow-on efforts. ***FY 2016 Base Plans:*** Deliver Beyond Capability of Maintenance (BCM) Interdiction design, continue design, development, and testing efforts for NTCSS Open Architecture (OA), to include Global Individual Component Repair List (Global-ICRL); Operational Supply (O-Supply) to include Table Of Allowance & Personal Gear Issue TOA/PGI; and Total Material Visibility & Recquisition Management (TMV/RM), and software code conversion of NTCSS legacy software code to a modern JAVA-based system. Conduct pre-acquisition activities for open architecture follow-on efforts. ***FY 2016 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	16.254	11.250	8.168	-	8.168

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• OPN/2611: *Naval Tactical Command Support System*	14.302	18.192	14.416	-	14.416	13.240	10.911	10.157	17.958	Continuing	Continuing

Remarks

D. Acquisition Strategy

NTCSS Open Architecture (OA) Interim Solutions (Global Individual Component Repair List (G-ICRL), Beyond Capability of Maintenance Interdiction (BCM-I), Table Of Allowance (TOA), Personal Gear Issue (PGI), Total Material Visibility (TMV), and Requisition Management (RM) serve as the initial steps toward achieving the NTCSS OA "End-State" by introducing web-enabled technology, promoting data sharing with operational fleet forces, and utilization of Navy Data Centers to expose data and move workload ashore. Additionaly, the software code conversion efforts will start the modernization of legacy code-based applications into a more modern JAVA code-base incorporating current Information Technology (IT) best practices and eliminating current IA vulnerabilities experienced with a client/server system. This strategy provides the foundation for NTCSS programs to migrate to a full Service Oriented Architecture (SOA) based enterprise system.

E. Performance Metrics

NTCSS Open Architecture (OA) Interim Solutions (G-ICRL/BCM-I) eliminate documentation inefficiencies at the Fleet Readiness Centers (FRCs). Interim Solutions (TOA/PGI & TMV/RM) provide centralized and standardized management of PGI and TOA material through the utilization of Navy Data Centers, while at the same time

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3032 / *NTCSS (Naval Tactical Command Spt Sys)*

preventing millions of dollars in Operational Forces obligation losses through improved Requisition Management. Additionally the software code conversion efforts will lay the foundation for migration to a Service-Oriented Architecture (SOA) for NTCSS lowering system maintenance costs when compared to maintaining the current, client-server architecture.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3032 / *NTCSS (Naval Tactical Command Spt Sys)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	WR	SSC : North Charleston, SC	0.668	-		-		-		-		-	-	0.668	0.668
Systems Engineering	C/CPFF	SeaPort : San Diego, CA	2.357	0.406	May 2014	0.275	Nov 2014	0.280	Nov 2015	-		0.280	Continuing	Continuing	Continuing
Licenses	Various	SSC : San Diego, CA	0.700	-		-		-		-		-	-	0.700	0.700
Software Development	C/CPFF	SSC : SSC: Norfolk, CA	43.749	15.038	Apr 2014	10.253	Jan 2015	2.396	Feb 2016	-		2.396	Continuing	Continuing	Continuing
Software Development	C/CPFF	TBD : San Diego, CA	0.000	-		-		4.724	Feb 2016	-		4.724	Continuing	Continuing	Continuing
Integrated Logistics Support	C/CPFF	SeaPort : San Diego, CA	0.743	0.243	May 2014	0.165	Nov 2014	0.204	Nov 2015	-		0.204	Continuing	Continuing	Continuing
Configuration Management	WR	SSC : San Diego, CA	0.460	-		-		-		-		-	-	0.460	0.460
Technical Data	WR	SSC : San Diego, CA	0.200	-		-		-		-		-	-	0.200	0.200
		Subtotal	48.877	15.687		10.693		7.604		-		7.604	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWC : Patuxent River, MD	0.853	0.150	Nov 2013	0.132	Jan 2015	0.120	Nov 2015	-		0.120	Continuing	Continuing	Continuing
Operational Test & Evaluation	C/CPIF	COTF : Norfolk, VA	0.785	0.150	Nov 2013	0.244	Jan 2015	0.244	Nov 2015	-		0.244	Continuing	Continuing	Continuing
		Subtotal	1.638	0.300		0.376		0.364		-		0.364	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPFF	SeaPort : San Diego, CA	0.896	-		-		-		-		-	-	0.896	0.896

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3032 / *NTCSS (Naval Tactical Command Spt Sys)*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	SSC : San Diego, CA	0.279	-		-		-		-		-	-	0.279	0.279
Program Management Support	C/CPFF	SeaPort : San Diego, CA	1.163	0.267	Nov 2013	0.181	Nov 2014	0.200	Nov 2015	-		0.200	Continuing	Continuing	Continuing
		Subtotal	2.338	0.267		0.181		0.200		-		0.200	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	52.853	16.254		11.250		8.168		-		8.168	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3032 / *NTCSS (Naval Tactical Command Spt Sys)*

Fiscal Year	2014				2015				2016				2017				2018				2019				2020			
	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
Acquisition Milestones NTCSS Open Architecture (OA)															Rel 1&3 FD △	Rel 2&4 FD △												
Engineering Milestones																												
NTCSS OA Release 1 BCM-Interdiction		SRR △		SFR △		PDR/CDR △		TRR △		RRR △																		
NTCSS OA Release 2 Global ICRL		SRR △		SFR △		PDR/CDR △					TRR △	RRR △																
NTCSS OA Release 3 Operational Supply (TOA/PGI)			SRR △		SFR △		PDR/CDR △		TRR △	RRR △																		
NTCSS OA Release 4 Operational Supply (TMV/RM)			SRR △				SFR △		PDR/CDR △		TRR △	RRR △																
Test & Evaluation Milestones NTCSS OA												Rel 1&3 DT △	Rel 2 DT △	Rel 4 DT △														
Software Deliveries NTCSS OA																Rel 1&3 △	Rel 2&4 △											

SRR: System Requirements Review; SFR System Functional Review; PDR/CDR Preliminary Design & Critical Design Review; TRR Test Readiness Review; RRR Release Readiness Review; DT Developmental Test; OT Operational Test

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3032 / *NTCSS (Naval Tactical Command Spt Sys)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3032				
NTCSS OA Build 1 - System Requirements Review (SRR)	2	2014	2	2014
NTCSS OA Build 1 - System Functional Review (SFR)	4	2014	4	2014
NTCSS OA Build 1 - Preliminary Technical Review (PDR) / Critical Design Review (CDR)	2	2015	2	2015
NTCSS OA Build 1 - Test Readiness Review (TRR)	4	2015	4	2015
NTCSS OA Build 1 - Release Readiness Review (RRR)	2	2016	2	2016
NTCSS OA Build 1 - Development Test (DT)	4	2016	4	2016
NTCSS OA Build 1 - Software Delivery	4	2017	4	2017
NTCSS OA Build 2 - System Requirements Review (SRR)	2	2014	2	2014
NTCSS OA Build 2 - System Functional Review (SFR)	4	2014	4	2014
NTCSS OA Build 2 - Preliminary Technical Review (PDR) / Critical Design Review (CDR)	2	2015	2	2015
NTCSS OA Build 2 - Test Readiness Review (TRR)	3	2016	3	2016
NTCSS OA Build 2 - Release Readiness Review (RRR)	3	2016	3	2016
NTCSS OA Build 2 - Development Test (DT)	1	2017	1	2017
NTCSS OA Build 2 - Software Delivery	1	2018	1	2018
NTCSS OA Build 3 - System Requirements Review (SRR)	3	2014	3	2014
NTCSS OA Build 3 - System Functional Review (SFR)	1	2015	1	2015
NTCSS OA Build 3 - Preliminary Technical Review (PDR) / Critical Design Review (CDR)	3	2015	3	2015
NTCSS OA Build 3 - Test Readiness Review (TRR)	1	2016	1	2016
NTCSS OA Build 3 - Release Readiness Review (RRR)	2	2016	2	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3032 / *NTCSS (Naval Tactical Command Spt Sys)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NTCSS OA Build 3 - Development Test (DT)	4	2016	4	2016
NTCSS OA Build 3 - Software Delivery	4	2017	4	2017
NTCSS OA Build 4 - System Requirements Review (SRR)	3	2014	3	2014
NTCSS OA Build 4 - System Functional Review (SFR)	3	2015	3	2015
NTCSS OA Build 4 - Preliminary Technical Review (PDR) / Critical Design Review (CDR)	1	2016	1	2016
NTCSS OA Build 4 - Test Readiness Review (TRR)	3	2016	3	2016
NTCSS OA Build 4 - Release Readiness Review (RRR)	4	2016	4	2016
NTCSS OA Build 4 - Development Test (DT)	2	2017	2	2017
NTCSS OA Build 4 - Software Delivery	1	2018	1	2018

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 3320 / *TRIDENT Warrior*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
3320: *TRIDENT Warrior*	6.788	2.299	2.251	2.206	-	2.206	2.284	2.309	2.350	2.399	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Trident Warrior (TW) enables early delivery of Information Dominance (ID) capabilities to the warfighter via Fleet-directed TW operational events. Integrates stand-alone systems and efforts to achieve substantially enhanced capability, demonstrates/tests these capabilities in both laboratory and operational environments, and evaluates their effectiveness. Develops supporting concepts and Concept of Operations to improve warfighting effectiveness. Coordinates ID efforts with other Service/Joint/ Department of Defense/National efforts to ensure Joint/Interagency/Allied/Coalition applicability and interoperability.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Trident Warrior	2.299	2.251	2.206	-	2.206
Articles:	-	-	-	-	-

FY 2014 Accomplishments:

-Finalized analysis of TW 13 experiment to result in recommendations by United States Fleet Forces Command (USFFC) on experiment initiatives.

-Explored TW 14 in Commander Third Fleet (C3F)/Commander Seventh Fleet (C7F) Area of Responsibility (AOR) using Carrier Strike Group/Expeditionary Strike Group (CSG/ESG) units with possible Allied/Coalition presence.

-Directed, coordinated, assisted and supervised primarily non-Systems Command (SYSCOM) participants, and SYSCOM participants as able with specific goal identification, risk identification, and experiment plan including data requirements and collection on schedule and in accordance with standardized procedures derived from experimentation best practices.

-Assisted participants to achieve required installation and security certifications, accreditations and approvals.

-Provided subject matter experts (SMEs) to maintain core ship services during the experimentation period.

-Provided independent experts in experimentation to coordinate the establishment of, and compliance with, experiment plans and to lead analysis effort and provide unbiased assessment to decision makers for initiatives designated by USFFC.

-Provided results to government sponsors to support the program's Planning, Programming, Budgeting, and Execution Process (PPBE) and engineering decisions.

-Planned and executed TW 14 operational events to accelerate the transition of ID capability to the Fleet.

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3320 / *TRIDENT Warrior*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
-Solicited participation for TW 15 of government sponsored and industry sponsored technologies responsive to identified Naval capability gaps. Selected technologies for participation in numbers supportable within resources.					
FY 2015 Plans: -Finalize analysis of TW 14 executed experiment in order to determine recommended next steps for Naval Warfare Development Center (NWDC). -Explore Trident Warrior (TW) 15 in Fleet Forces Command Area of Responsibility (AOR) using Carrier Strike Group/Expeditionary Strike Group (CSG/ESG) units with possible Allied/Coalition presence. -Coordinate TW participant efforts with specific goal identification, risk identification, and experiment plans to include data requirements and collection, on schedule and in accordance with standardized procedures derived from experimentation best practices. -Coordinate TW participant efforts to achieve required installation and security certifications, accreditations and approvals. -Provide subject matter experts (SMEs) for core ship services during the experimentation period. -Provide independent experts to coordinate the establishment of, and compliance with, experiment plans and to lead analysis effort and provide unbiased assessment to decision makers for initiatives designated by Naval Warfare Development Center (NWDC). -Provide results to government sponsors to support the program's Planning, Programming, Budgeting, and Execution Process (PPBE) and engineering recommendations. -Plan and execute TW 15 operational events to accelerate the transition of Information Dominance (ID) capability to the Fleet. -Solicit participation for TW 16 and recommend inclusion of technologies responsive to identified Naval Capability Gaps. Select technologies for participation in numbers supportable within resources.					
FY 2016 Base Plans: -Conduct analysis of TW 15 executed experiments in order to determine recommended next steps for NWDC. -In accordance with standardized procedures derived from experimentation best practices, coordinate TW participant efforts with specific goal identification, risk identification, and experiment plans to include data requirements and collection. -Coordinate TW participant efforts to achieve required installation and security certifications, accreditations and approvals. -Provide SMEs for core ship services during the experimentation period. -Provide independent experts to coordinate the establishment of, and compliance with, experiment plans and to lead analysis effort and provide unbiased assessment to decision makers for initiatives designated by NWDC. -Provide results to government sponsors to support the program's PPBE and engineering recommendations.					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3320 / *TRIDENT Warrior*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
-Plan and execute TW 16 operational events to accelerate the transition of ID capability to the Fleet. -Solicit participation for TW 17 and recommend inclusion of technologies responsive to identified Naval Capability Gaps. -Provide subject matter expertise, analysis, and recommendations in order help select technologies for participation in numbers supportable within resources. ***FY 2016 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	2.299	2.251	2.206	-	2.206

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Trident Warrior (TW) is an annual operational experiment covering an 18-month process and is not associated with acquisition efforts.

E. Performance Metrics

Confirmation of Fleet and Joint Interoperability with technology candidates, Information Assurance Certification and Accreditation, and alignment with United States Fleet Forces (USFF) Commander's Guidance, and Systems Command (SYSCOM) Chief Engineer (CHENG) as well as related Program Executive Office (PEO) objectives and projected architectures.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 3320 / *TRIDENT Warrior*	

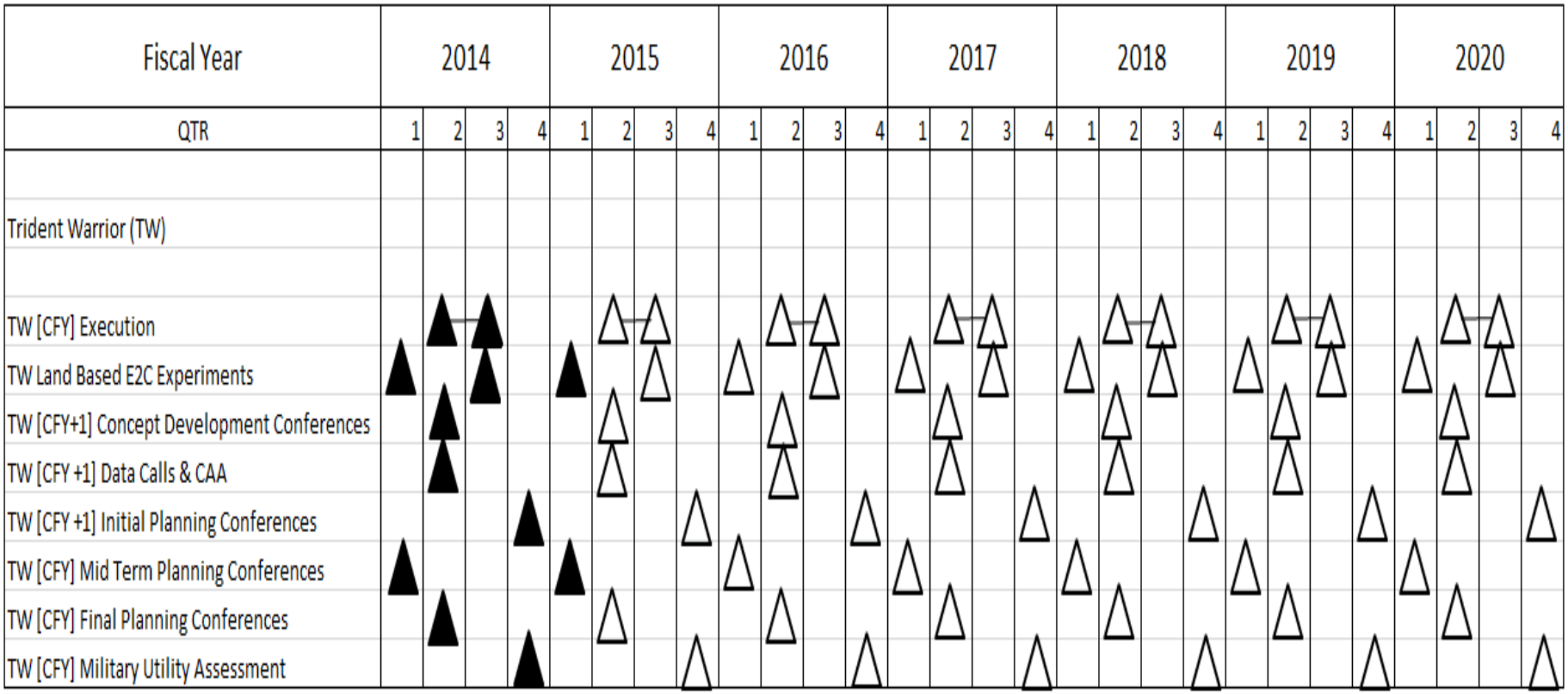
Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Trident Warrior (TW)	WR	Fleet Forces Command : San Diego, CA	0.122	-		-		-		-		-	-	0.122	-
Trident Warrior (TW)	WR	Naval Postgraduate School : Monterey, CA	2.083	0.955	Nov 2013	0.923	Nov 2014	-		-		-	-	3.961	-
Trident Warrior (TW)	WR	SSC Atlantic : Charleston, SC	0.694	0.042	Jan 2014	0.045	Jan 2015	-		-		-	-	0.781	-
Trident Warrior (TW)	WR	SSC Pacific : San Diego, CA	1.001	0.341	Nov 2013	0.338	Nov 2014	0.331	Nov 2015	-		0.331	Continuing	Continuing	Continuing
Trident Warrior (TW)	C/CPFF	AUSGAR Technologies Inc. : San Diego, CA	2.888	0.961	Apr 2014	0.945	Apr 2015	1.302	Apr 2016	-		1.302	Continuing	Continuing	Continuing
Trident Warrior (TW)	WR	NSWC Corona : Corona, CA	0.000	-		-		0.295	Nov 2015	-		0.295	Continuing	Continuing	Continuing
Trident Warrior (TW)	C/CPFF	Pacific Science & Engineering Group, Inc. : San Diego, CA	0.000	-		-		0.108	Nov 2015	-		0.108	Continuing	Continuing	Continuing
Trident Warrior (TW)	C/CPFF	Science Applications International Corp : McLean, VA	0.000	-		-		0.170	Dec 2015	-		0.170	Continuing	Continuing	Continuing
		Subtotal	6.788	2.299		2.251		2.206		-		2.206	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.788	2.299		2.251		2.206		-		2.206	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3320 / *TRIDENT Warrior*



Note: CFY: Current Fiscal Year

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3320 / *TRIDENT Warrior*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3320				
Trident Warrior (TW) Execution 2014	2	2014	3	2014
Trident Warrior (TW) Execution 2015	2	2015	3	2015
Trident Warrior (TW) Execution 2016	2	2016	3	2016
Trident Warrior (TW) Execution 2017	2	2017	3	2017
Trident Warrior (TW) Execution 2018	2	2018	3	2018
Trident Warrior (TW) Execution 2019	2	2019	3	2019
Trident Warrior (TW) Execution 2020	2	2020	3	2020
TW Land Based E2C Experiments 2014 Q1	1	2014	1	2014
TW Land Based E2C Experiments 2014 Q3	3	2014	3	2014
TW Land Based E2C Experiments 2015 Q1	1	2015	1	2015
TW Land Based E2C Experiments 2015 Q3	3	2015	3	2015
TW Land Based E2C Experiments 2016 Q1	1	2016	1	2016
TW Land Based E2C Experiments 2016 Q3	3	2016	3	2016
TW Land Based E2C Experiments 2017 Q1	1	2017	1	2017
TW Land Based E2C Experiments 2017 Q3	3	2017	3	2017
TW Land Based E2C Experiments 2018 Q1	1	2018	1	2018
TW Land Based E2C Experiments 2018 Q3	3	2018	3	2018
TW Land Based E2C Experiments 2019 Q1	1	2019	1	2019
TW Land Based E2C Experiments 2019 Q3	3	2019	3	2019
TW Land Based E2C Experiments 2020 Q1	1	2020	1	2020
TW Land Based E2C Experiments 2020 Q3	3	2020	3	2020
TW Concept Development Conferences 2014	2	2014	2	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3320 / *TRIDENT Warrior*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
TW Concept Development Conferences 2015	2	2015	2	2015
TW Concept Development Conferences 2016	2	2016	2	2016
TW Concept Development Conferences 2017	2	2017	2	2017
TW Concept Development Conferences 2018	2	2018	2	2018
TW Concept Development Conferences 2019	2	2019	2	2019
TW Concept Development Conferences 2020	2	2020	2	2020
TW Data Calls & CAA 2014	2	2014	2	2014
TW Data Calls & CAA 2015	2	2015	2	2015
TW Data Calls & CAA 2016	2	2016	2	2016
TW Data Calls & CAA 2017	2	2017	2	2017
TW Data Calls & CAA 2018	2	2018	2	2018
TW Data Calls & CAA 2019	2	2019	2	2019
TW Data Calls & CAA 2020	2	2020	2	2020
TW Initial Planning Conferences 2014	4	2014	4	2014
TW Initial Planning Conferences 2015	4	2015	4	2015
TW Initial Planning Conferences 2016	4	2016	4	2016
TW Initial Planning Conferences 2017	4	2017	4	2017
TW Initial Planning Conferences 2018	4	2018	4	2018
TW Initial Planning Conferences 2019	4	2019	4	2019
TW Initial Planning Conferences 2020	4	2020	4	2020
TW Mid-Term Planning Conferences 2014	1	2014	1	2014
TW Mid-Term Planning Conferences 2015	1	2015	1	2015
TW Mid-Term Planning Conferences 2016	1	2016	1	2016
TW Mid-Term Planning Conferences 2017	1	2017	1	2017
TW Mid-Term Planning Conferences 2018	1	2018	1	2018
TW Mid-Term Planning Conferences 2019	1	2019	1	2019

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3320 / *TRIDENT Warrior*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
TW Mid-Term Planning Conferences 2020	1	2020	1	2020
TW Final Planning Conferences 2014	2	2014	2	2014
TW Final Planning Conferences 2015	2	2015	2	2015
TW Final Planning Conferences 2016	2	2016	2	2016
TW Final Planning Conferences 2017	2	2017	2	2017
TW Final Planning Conferences 2018	2	2018	2	2018
TW Final Planning Conferences 2019	2	2019	2	2019
TW Final Planning Conferences 2020	2	2020	2	2020
TW Military Utility Assessment 2014	4	2014	4	2014
TW Military Utility Assessment 2015	4	2015	4	2015
TW Military Utility Assessment 2016	4	2016	4	2016
TW Military Utility Assessment 2017	4	2017	4	2017
TW Military Utility Assessment 2018	4	2018	4	2018
TW Military Utility Assessment 2019	4	2019	4	2019
TW Military Utility Assessment 2020	4	2020	4	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 3323 / *Maritime Tactical Command & Control (MTC2)*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
3323: *Maritime Tactical Command & Control (MTC2)*	6.919	12.079	11.930	15.265	-	15.265	20.626	22.993	23.311	23.789	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Maritime Tactical Command and Control (MTC2) is a software program which will provide tactical Command and Control (C2) capabilities and Maritime unique Operational Level of War capabilities not supported by the joint C2 effort. MTC2 will align with the Navy Tactical Cloud (NTC) when available, and leverage Consolidated Afloat Network Enterprise Service (CANES), Agile Core Services (ACS), and legacy Integrated Shipboard Network System (ISNS). MTC2 will field to all echelons of command (afloat and ashore) within the Navy. The goal is to provide a suite of maritime applications that enable enhanced situational awareness, planning, execution, monitoring, and assessment in support of operational and tactical level of war requirements. MTC2 will field maritime applications designed to provide automated and structured support for tactical and operational planning, decision-making, and execution. In FY16 MTC2 will test its software and will also begin development of the first production release of software (Release 1).

Global Force Management - Data Initiative (GFM-DI) is the Department-wide enterprise solution that enables visibility/accessibility/sharing of data applicable to the entire DoD force structure. MTC2 will be the program that fulfills a portion of the Navy's GFM-DI requirements. In FY16 MTC2 will conduct integration and testing of designated GFM-DI capabilities set for transition into MTC2 Release 1 software baseline.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Maritime Tactical Command and Control (MTC2)	11.579	10.069	13.385	-	13.385
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Supported OPNAV N2/N6 in the development of the MTC2 Requirements Definition Package (RDP) and a schedule supporting alignment to the Navy Tactical Cloud (NTC). Coordinated MTC2 requirements, design and architecture to ensure alignment with Navy Tactical Cloud Reference Implementation (NTC RI). Performed assessment of NTC RI to develop and align to MTC2 processes. Continued engineering analysis, integration, and testing to transition from C2RPC S&T efforts into MTC2 Program of Record. Released Request for Proposal (RFP) for developing software capabilities for MTC2 Release 0 (R0) including capabilities designed to support the NTC test event.					
FY 2015 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3323 / *Maritime Tactical Command & Control (MTC2)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Complete RDP and Capability Drop 1 requirements documents (capabilities defined in Capability Drop 1 will be fielded in FY18 as MTC2 Release 1). Complete MTC2 R0 software development for alignment to the FY16 NTC test event. ***FY 2016 Base Plans:*** Complete Build Decision (BD) for MTC2 Release 1 (R1) and award the R1 development contract. Complete Information Assurance (IA) certification and accreditation to support NTC test event. Conduct testing in support of MTC2-NTC test event. ***FY 2016 OCO Plans:*** N/A					
Title: Global Force Management - Data Initiative (GFM-DI) ***Articles:*** ***FY 2014 Accomplishments:*** Conducted design activity, systems engineering analysis and design review to identify integration of GFM-DI data into MTC2 objective architecture based on Navy Tactical Cloud (NTC) and Consolidated Afloat Network Enterprise Services (CANES). Evaluated NTC to determine how GFM DI will be ingested by NTC. ***FY 2015 Plans:*** Provide engineering plan for ingestion of GFM-DI data into MTC2 architecture that aligns with the NTC and/or CANES. Develop the GFM-DI Implementation plan for MTC2. Determine criteria for and develop the plan for integration of scheduling tool (Slider/Websked) capabilities into MTC2. Design and develop GFM-DI interfaces for integration into MTC2 and align to the joint command and control objective architecture. ***FY 2016 Base Plans:*** Conduct integration and testing of designated GFM-DI capabilities set for transition into the MTC2 Release 1 software baseline. ***FY 2016 OCO Plans:*** N/A	0.500 -	1.861 -	1.880 -	- -	1.880 -
Accomplishments/Planned Programs Subtotals	12.079	11.930	15.265	-	15.265

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3323 / *Maritime Tactical Command & Control (MTC2)*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

MTC2 is planning to execute a rapid software development acquisition strategy that is responsive to the fleet needs. Software development will be comprised of multiple releases of increasing levels of net-centric services capability. Technology Maturation and Risk Reduction (TMRR) will occur during the Prototype phase and continue until MTC2 conducts at least one Build Decision (BD) currently scheduled for FY16. MTC2 will be software only requiring the information technology infrastructure network and hardware provided by other network centric programs. MTC2's primary contracting method for software development will utilize SPAWARSYSCOM contracts with SPAWAR Systems Center - Pacific (SSC-PAC), San Diego, CA acting as the Lead Integrator as the designated Software Support Activity (SSA).

E. Performance Metrics

MTC2 performance metrics will be defined and approved in the first Capability Drop 1 document (CD 1) scheduled for completion in FY15.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 3323 / *Maritime Tactical Command & Control (MTC2)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	SSC : San Diego, CA	2.692	1.117	Nov 2013	1.265	Dec 2014	1.618	Dec 2015	-		1.618	Continuing	Continuing	Continuing
Training Development	WR	SSC : San Diego, CA	0.000	0.828	Dec 2013	0.424	Dec 2014	0.543	Dec 2015	-		0.543	Continuing	Continuing	Continuing
Software Development	WR	SSC : San Diego, CA	1.755	6.657	Nov 2013	5.588	Dec 2014	7.149	Dec 2015	-		7.149	Continuing	Continuing	Continuing
Studies & Design	MIPR	Various : Various	0.811	0.953	Jan 2014	-		-		-		-	Continuing	Continuing	Continuing
Systems Engineering	C/CPFF	Various : San Diego, CA	0.000	1.523	Feb 2014	3.516	Mar 2015	4.504	Mar 2016	-		4.504	Continuing	Continuing	Continuing
		Subtotal	5.258	11.078		10.793		13.814		-		13.814	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	WR	SSC : Norfolk, VA/ San Diego, CA	0.022	0.025	Dec 2013	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.022	0.025		-		-		-		-	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Navy Working Capital Fund Rate Adjustment	WR	WCF : TBD	0.003	-		-		-		-		-	-	0.003	0.003
Government Engineering Support	WR	SSC : San Diego, CA	0.000	0.459	Nov 2013	0.226	Dec 2014	0.289	Dec 2015	-		0.289	-	0.974	0.900
Contractor Engineering Support	C/CPFF	SeaPort : San Diego, CA	0.476	-		-		-		-		-	-	0.476	0.476
Program Management Support	C/CPFF	SeaPort : San Diego, CA	1.146	0.496	Feb 2014	0.911	Dec 2014	1.162	Dec 2015	-		1.162	Continuing	Continuing	Continuing
Travel	Various	Various : Various	0.014	0.021	Dec 2013	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	1.639	0.976		1.137		1.451		-		1.451	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 3323 / *Maritime Tactical Command & Control (MTC2)*	

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.919	12.079		11.930		15.265		-		15.265	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3323 / *Maritime Tactical Command & Control (MTC2)*

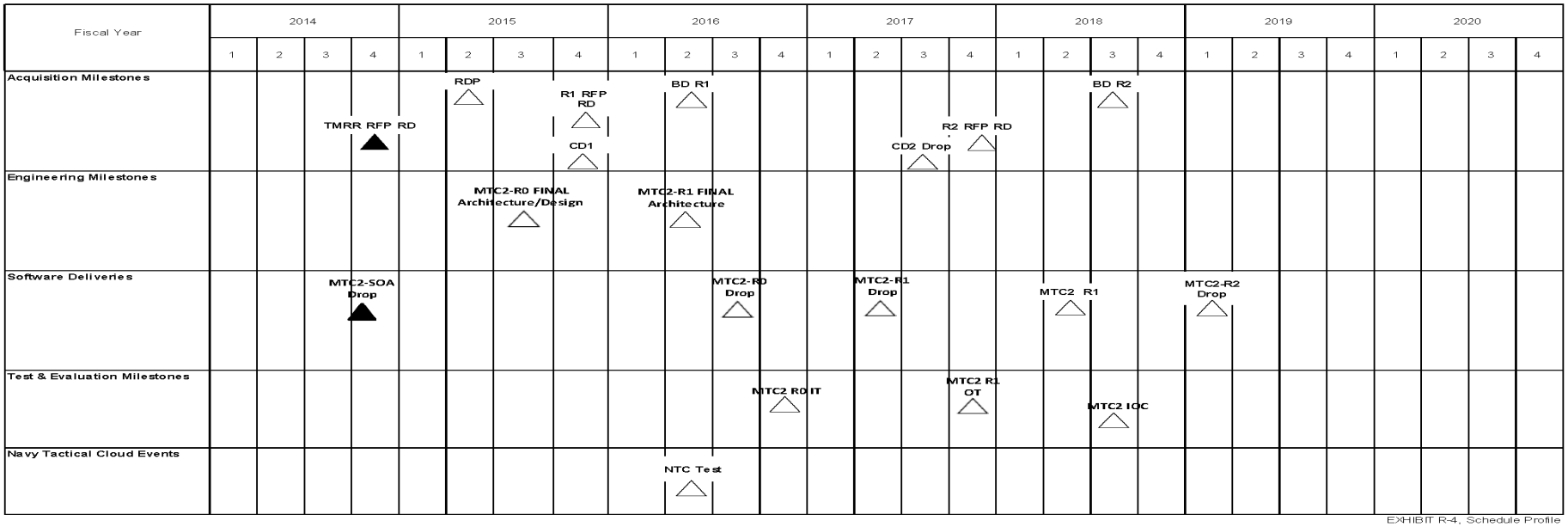


EXHIBIT R-4, Schedule Profile

Legend:

BD - Build Decision	OT - Operational Test
CD - Capability Drop	RD - Release Decision
IOC - Initial Operating Capability	RDP - Requirement Definition Package
IT - Integrated Test	RFP - Request for Proposal
MTC2 - Maritime Tactical Command and Control	R0 - Release Zero
MTC2 R0 - NTC Software	R1 - Release One
MTC2 R1 - Production Software for NTC	SOA - Service Oriented Architecture
NTC - Navy Tactical Cloud	TMRR - Technology Maturity Risk Reduction

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3323 / *Maritime Tactical Command & Control (MTC2)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3323				
Technology Maturity Risk Reduction Request for Proposal Release Decision (TMRR RFP RD)	4	2014	4	2014
MTC2 Service Oriented Architecture (SOA) Drop	4	2014	4	2014
Requirement Definition Package (RDP)	2	2015	2	2015
MTC2-R0 Final Architecture	3	2015	3	2015
Capability Drop (CD1)	4	2015	4	2015
Release 1 Request for Proposal Release Decision (R1 RFP RD)	4	2015	4	2015
MTC2 R1 Final Architecture	2	2016	2	2016
Build Decision Release 1 (BD R1)	2	2016	2	2016
Naval Tactical Cloud (NTC) Test	2	2016	2	2016
MTC2 R0 Drop	3	2016	3	2016
MTC2 R0 Integrated Test (IT)	4	2016	4	2016
MTC2 Release 1 (R1) Drop	2	2017	2	2017
Capability Drop 2 (CD2)	3	2017	3	2017
Release 2 Request for Proposal Release Decision (R2 RFP RD)	4	2017	4	2017
MTC2 R1 Operational Test (OT)	4	2017	4	2017
MTC2 Release 1 (R1)	2	2018	2	2018
Build Decision Release 2 (BD R2)	3	2018	3	2018
MTC2 Initial Operational Capability (IOC)	3	2018	3	2018
MTC2 Release 2 (R2)	1	2019	1	2019

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 3324 / *Navy Air Operations Command and Control (NAOC2)*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
3324: *Navy Air Operations Command and Control (NAOC2)*	6.536	3.960	1.812	0.806	-	0.806	1.063	1.064	1.030	1.052	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Navy Air Operations Command and Control (NAOC2) integrates and tests Air Force program of record systems that provide an integrated and scalable planning system for standardized, secure, and automated decision support for Air Force, Joint, and Allied commanders worldwide. These programs provide automated air operations planning, execution management and intelligence capabilities at the Force level to include fleet commanders, numbered fleet commanders, Commander Carrier Strike Groups, Commander Expeditionary Strike Groups, Commander Landing Forces, and Joint Task Force Commanders. NAOC2 includes Theater Battle Management Core System (TBMCS) and Command and Control Air and Space Operations Suite - Command and Control Information Services (C2AOS-C2IS). C2AOS-C2IS is being developed as a Service Oriented Architecture (SOA) service to allow for scalability and integration with Common Computing Environments (CCE). Continuation of these efforts will significantly enhance the Joint Force Air Component Commander and Combined Air Operations Center personnel to plan daily air operations including strike, airlift, offensive/defensive air, and refueling missions in support of combat operations, addressing the requirement of war fighter distributed planning and execution processes along with significantly improving Joint interoperability. TBMCS continues a hardware transition to CCEs such as Consolidated Afloat Networks and Enterprise Services (CANES). Currently, TBMCS is the key system that is used to conduct real world air planning in the Joint and Navy environments. C2AOS-C2IS will replace TBMCS in a SOA environment while bringing more flexibility to the war fighter. In FY2016, the program will continue Navy integration and testing for Air Force developed C2AOS-C2IS, with focus on testing of two planned Capability Packages.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: TBMCS CANES Migration	1.383	-	-	-	-
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Completed migration of Air Force designed, developed, and delivered Theater Battle Management Core System (TBMCS) software to the Navy unique Consolidated Afloat Networks and Enterprise Services (CANES) Common Computing Environment. Conducted integrated TBMCS/CANES integration tests.					
FY 2015 Plans: N/A					
FY 2016 Base Plans: N/A					
FY 2016 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3324 / *Navy Air Operations Command and Control (NAOC2)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
N/A					
Title: Command and Control Air and Space Operations Suite (C2AOS) / Command, Control and Information Services (C2IS) Integration and Testing	2.577	1.812	0.806	-	0.806
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Continued integration and testing of Capability Package 1 (CP1) Air Tasking Order Management System (ATOMS) along with initial integration and testing of CP1 Request Information Services for Command and Control (RISC2), and CP2 Airspace Management Application/Airspace Information Service (ASMA/ASIS) as part of Air Force developed Command and Control Air Operations Suite - Command and Control Information Services (C2AOS-C2IS) to confirm full functionality on Navy infrastructure to include Consolidated Afloat Networks and Enterprise Services (CANES) ensuring increased Joint interoperability and enhanced capability including theater level air planning with distributed re-planning and execution processes.					
FY 2015 Plans: Conduct continued integration and testing of CP1 Air Tasking Order Management System (ATOMS), Capability Package 1 (CP1) Request Information Services for Command and Control (RISC2), CP2 Airspace Management Application/Airspace Information Service (ASMA/ASIS) and initial integration and testing of CP2 Integrated Air and Missile Defense (IAMD) Planner and other Capability Package 3 (CP3) capabilities as part of Air Force developed Command and Control Air Operations Suite - Command and Control Information Services (C2AOS-C2IS) to confirm full functionality on Navy infrastructure to include Consolidated Afloat Networks and Enterprise Services (CANES) ensuring increased Joint interoperability and enhanced capability including theater level air planning with distributed re-planning and execution processes.					
FY 2016 Base Plans: Conduct final integration, Developmental Test, and Operational Test of initial Command and Control Air Operations Suite - Command and Control Information Services (C2AOS-C2IS) modules to include Capability Package (CP1) Air Tasking Order Management System (ATOMS), CP1 Request Information Services for Command and Control (RISC2), CP2 Airspace Management Application/Airspace Information Service (ASMA/ASIS), and CP2 Integrated Air and Missile Defense (IAMD) Planner, while starting integration and testing of CP3 capabilities to confirm full functionality on Navy infrastructure to include Consolidated Afloat Networks and Enterprise Services (CANES) ensuring increased Joint interoperability and enhanced capability including theater level air planning with distributed re-planning and execution processes.					
FY 2016 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3324 / *Navy Air Operations Command and Control (NAOC2)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
N/A					
Accomplishments/Planned Programs Subtotals	3.960	1.812	0.806	-	0.806

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Theater Battle Management Core System (TBMCS) is designed, developed, and delivered by the Air Force and will be integrated for a Navy Common Computing Environment (CCE) such as Consolidated Afloat Networks and Enterprise Services (CANES). As a Joint interest program, this approach satisfies the current validated requirements, supports the accelerated retirement of legacy hardware, and reduces overall risk to the program.

Command and Control Air Operations Suite and Command and Control Information Services (C2AOS-C2IS) is designed, developed, and delivered by the Air Force and will be integrated for a Navy CCE and Service Oriented Architecture environment such as CANES). As a Joint interest program, this approach satisfies the current validated requirements and reduces overall risk to the program.

E. Performance Metrics

TBMCS and C2AOS-C2IS are designed, developed, and delivered by the Air Force. This leverage greatly reduces the integration and testing costs associated with each capability module. The solutions will reside on CCE/CANES architecture. These software-only solutions eliminate hardware procurement, installation, and sustainment costs.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3324 / *Navy Air Operations Command and Control (NAOC2)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	SSC : San Diego, CA	2.255	1.107	Apr 2014	-		-		-		-	Continuing	Continuing	Continuing
Licenses	WR	SSC : Charleston, SC/San Diego, CA	0.122	0.366	Jan 2014	-		-		-		-	Continuing	Continuing	Continuing
Government Furnished Equipment (GFE)	WR	SSC : Charleston, SC/San Diego, CA	0.916	0.395	Jan 2014	-		-		-		-	Continuing	Continuing	Continuing
Training DevelopmentText	WR	SSC Pacific : San Diego, CA	0.000	0.150	Apr 2014	-		-		-		-	Continuing	Continuing	Continuing
Configuration Management	WR	SSC Pacific : San Diego, CA	0.126	0.128	Apr 2014	-		-		-		-	Continuing	Continuing	Continuing
Technical Data	WR	SSC : Charleston, SC/San Diego, CA	0.299	0.244	Feb 2014	-		-		-		-	Continuing	Continuing	Continuing
Systems Engineering	MIPR	MITRE : San Diego, CA	0.000	-		0.170	Dec 2014	-		-		-	-	0.170	-
		Subtotal	3.718	2.390		0.170		-		-		-	-	-	-

Remarks

GFE supports integration efforts, not for fielding.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	SSC Pacific : San Diego,CA	0.119	0.061	Apr 2014	-		-		-		-	Continuing	Continuing	Continuing
Integrated Logistics Support	WR	SSC LANT : Charleston, SC	0.358	-		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.477	0.061		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3324 / *Navy Air Operations Command and Control (NAOC2)*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation	MIPR	COMOPTEVFOR : Norfolk, VA	0.216	0.078	Jul 2014	-		0.075	Mar 2016	-		0.075	Continuing	Continuing	Continuing
Developmental Test & Evaluation	WR	SSC PAC : San Diego, CA	1.604	1.047	Apr 2014	-		-		-		-	Continuing	Continuing	Continuing
Integration and Testing	WR	SSC PAC : San Diego, CA	0.000	-		1.642	Jul 2015	0.731	Jul 2016	-		0.731	Continuing	Continuing	Continuing
		Subtotal	1.820	1.125		1.642		0.806		-		0.806	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPFF	Sentek : San Diego, CA	0.395	0.256	Apr 2014	-		-		-		-	Continuing	Continuing	Continuing
Program Management Support	C/CPFF	Booz Allen : San Diego, CA	0.126	0.128	Apr 2014	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.521	0.384		-		-		-		-	-	-	-

	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.536	3.960		1.812		0.806		-		0.806	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3324 / *Navy Air Operations Command and Control (NAOC2)*

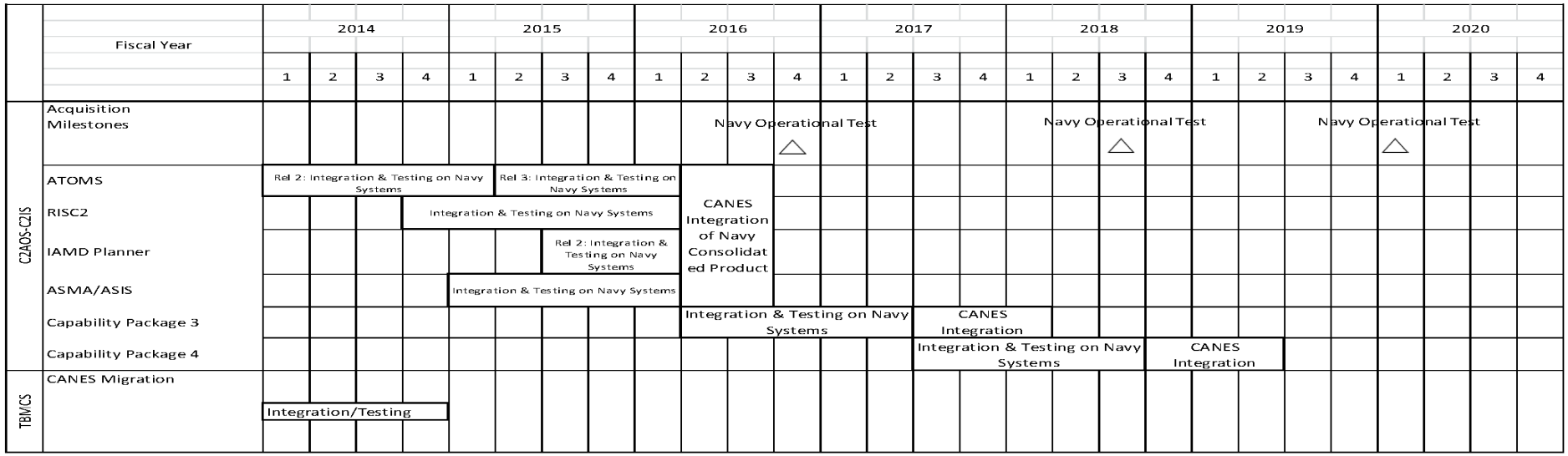


Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3324 / *Navy Air Operations Command and Control (NAOC2)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3324				
Air Tasking Order Management System (ATOMS) Capability Package (CP) 1 Rel 2 Integration and Testing	1	2014	1	2015
ATOMS CP 1 Rel 3 Integration and Testing	2	2015	1	2016
Request information Services (RISC2) CP 1 Integration and Testing	4	2014	1	2016
Integrated Air and Missle Defense (IAMD) Planner CP 2 Rel 2 Integration and Testing	3	2015	1	2016
Air Space Management Application (ASMA) / Air Space Information Services (ASIS) Integration and Testing	1	2015	1	2016
CP 3 Integration and Testing	2	2016	2	2017
CP 4 Integration and Testing	3	2017	3	2018
CANES Integration of Navy CP1-CP2 Consolidated C2AOS-C2IS Product	2	2016	3	2016
Navy C2AOS-C2IS Operational Test CP1-CP2	4	2016	4	2016
TBMCS Integration and Testing on Navy Systems (CANES)	1	2014	4	2014
CANES Integration of Navy CP3 Consolidated C2AOS-C2IS Product	3	2017	1	2018
Navy C2AOS-C2IS Operational Test CP3	3	2018	3	2018
CANES Integration of Navy CP4 Consolidated C2AOS-C2IS Product	4	2018	2	2019
Navy C2AOS-C2IS Operational Test CP4	1	2020	1	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 9123 / *FORCEnet*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
9123: *FORCEnet*	229.434	2.901	2.601	2.359	-	2.359	2.319	2.470	2.304	2.351	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

FORCEnet is the Navy and Marine Corps initiative to deliver Information Dominance and achieve Department of the Navy (DoN)/Department of Defense (DoD) Transformation, Joint/Allied/Coalition Interoperability, implementing Maritime Domain Awareness (MDA), and Net-Centric Operations/Warfare (NCO/W). Chief of Naval Operations Information Dominance effort focuses prioritization and organizational responsibility for information dominance, cyber, intelligence and sensors resulting in increased scope of systems, platforms and mission areas. FORCEnet is a foundation of Sea Power 21, Naval Power 21, the Naval Operating Concept for Joint Operations, and the DoN's Naval Transformation Roadmap.

The FORCEnet project line funds the following efforts:

(1) DoN Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) Transformation/Strategic Planning within DoN/Joint/DoD Framework: Assesses existing and emerging capabilities, develops and evaluates Navy-wide policies, plans, requirements, and compliance; develops integration and investment strategies; and accelerates innovation, testing, assessment and fielding of material and non-material solutions for enhanced operational capability, Joint/Allied/Coalition interoperability and application/enforcement of enterprise requirements/architectures/standards toward greater NCO/W capability. Supports Navy implementation of MDA capability, Maritime Operations Centers (MOC), and enterprise network efforts.

(2)Information Dominance Portfolio Health Assessment: Funding supports Portfolio Health Assessments of Navy mission areas and identifies gaps in Information Dominance capabilities in the context of assessed mission areas. Funds support vignettes, technical baselines, architecture products, and briefings developed to support sponsor decision making processes.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: FORCEnet	2.901	2.601	2.359	-	2.359
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Department of the Navy (DoN) Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) Transformation/Strategic Planning within DoN/Joint/Department of Defense (DoD) Framework: Within the DoD, Joint Staff, and Combatant Commander management of Joint Capability Portfolios, continued to assess existing and emerging capabilities in selected operating environments, developed integration plans, executed system engineering reviews and investment strategies, accelerated innovation,					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 9123 / *FORCEnet*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
technology insertion, and incorporation of material and non-material solutions for enhanced Joint operational capabilities in Net-Centric Operations/Warfare. -Continued to support Navy implementation of Maritime Domain Awareness, Standing Joint Force Headquarters, Maritime Operations Centers and Coalition/Allied operations. Information Dominance Roadmaps and Analysis: Continued to research the Navy mission areas for interdependencies between programs for budget tradeoffs and mission impacts of those tradeoffs. -Continued to identify Navy mission area gaps in Information Dominance capabilities to prioritize Science and Technology efforts for future budget decisions. -Continued to evaluate Navy mission areas for linkages to roadmap action items and provided analytical and architectural support in the development of Information Dominance Roadmaps. -Continued to ensure Information Dominance Roadmaps objectives provide stated capabilities to the warfighters.					
FY 2015 Plans: Department of Navy (DoN) Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) Transformation/Strategic Planning within DoN/Joint/Department of Defense (DoD) Framework: Within the DoD, Joint Staff, and Combatant Commander management of Joint Capability Portfolios, continue to assess existing and emerging capabilities in selected operating environments, develop integration plans, execute system engineering reviews and investment strategies, accelerate innovation, technology insertion, and incorporation of material and non-material solutions for enhanced Joint operational capabilities in Net-Centric Operations/Warfare. -Continue to support Navy implementation of Maritime Domain Awareness, Standing Joint Force Headquarters, Maritime Operations Centers and Coalition/Allied operations. Information Dominance Portfolio Health Assessment: Utilize and study Navy mission areas in support of systems of systems engineering assessments used to inform sponsor. These assessments identify integration and interoperability gaps, trades, and solutions for sponsor related equities. -Identify Navy mission area gaps in Information Dominance capabilities to prioritize Science and Technology efforts for future budget decisions. -Assess tradespace and solutions, insuring Force level capability and systems of systems integration and interoperability in studied mission areas. -Package assessments to support sponsor decision making processes.					
FY 2016 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 9123 / *FORCEnet*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Information Dominance Portfolio Health Assessment: Utilize and study Navy mission areas in support of systems of systems engineering assessments used to inform sponsor. These assessments identify integration and interoperability gaps, trades, and solutions for sponsor related equities. -Provide analytical support to ensure that cybersecurity risk assessments and engineering activities are informed by Navy Cybersecurity Situational Awareness (NCSA) capabilities as addressed by the Portfolio Health Assessments (PHA). Identifying critical architectural dependencies to enable mission situational awareness is a key component of the PHAs. -Identify Navy mission area gaps in Information Dominance capabilities to prioritize Science and Technology efforts for future budget decisions. -Assess tradespace and solutions, insuring Force level capability and systems of systems integration and interoperability in studied mission areas. -Package assessments to support sponsor decision-making processes. ***FY 2016 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	2.901	2.601	2.359	-	2.359

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

FORCEnet is a non-acquisition effort that informs and matures Navy decisions, which in turn impacts acquisition programs. Activities include acquiring intellectual capital in emerging technical areas through contracts providing technical engineering expertise and surge capacity for emerging tasks.

E. Performance Metrics

FORCEnet Performance Metrics: Goal: Chief of Naval Operations (CNO) strategic planning and supporting acquisition of classified efforts. Metric: Echelon 1 response to emergent strategic needs and classified warfighting capability.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 9123 / *FORCEnet*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development DLB/RCD	Various	Various : Various	1.196	-		-		-		-		-	-	1.196	-
Systems Engineering-DLB/RCD	Various	Various : Various	0.600	-		-		-		-		-	-	0.600	-
Ship Integration	Various	Various : Various	0.935	-		-		-		-		-	-	0.935	-
Systems Engineering	Various	Various : Various	1.600	-		-		-		-		-	-	1.600	-
		Subtotal	4.331	-		-		-		-		-	-	4.331	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support DLB/RCD	Various	Various : Various	0.250	-		-		-		-		-	-	0.250	-
Configuration Management DLB/RCD	Various	Various : Various	0.115	-		-		-		-		-	-	0.115	-
Development Support DLB/RCD	Various	Various : Various	0.250	-		-		-		-		-	-	0.250	-
Software Development DLB/RCD	Various	Various : Various	1.971	-		-		-		-		-	-	1.971	-
Development Support	Various	Various : Various	2.700	-		-		-		-		-	-	2.700	-
Software Support	Various	Various : Various	2.900	-		-		-		-		-	-	2.900	-
Sys Req Analysis/Sys Eng	Various	Various : Various	15.094	-		-		-		-		-	-	15.094	-
S/W Develop,Integ,Demo, Field - MDA Prototypes	Various	Various : Various	108.910	-		-		-		-		-	-	108.910	-
Sys Req Analysis/Sys Eng	WR	SSC PAC : San Diego, CA	1.157	-		-		-		-		-	-	1.157	-
Sys Req Analysis/Sys Eng	WR	SSC LANT : Charleston, SC	1.306	-		-		-		-		-	-	1.306	-
DoN Transformation (Strategic Planning)	WR	NSWC Dahlgren : Dahlgren, MD	0.907	0.162	Jan 2014	0.074	Jan 2015	-		-		-	-	1.143	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 9123 / *FORCEnet*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Information Dominance Roadmaps and Analysis	C/CPFF	METRON : Reston, VA	1.066	-		-		-		-		-	-	1.066	-
Information Dominance Roadmaps and Analysis	C/CPFF	SAIC : McLean, VA	2.952	1.959	Jan 2014	1.914	Jan 2015	1.784	Jan 2016	-		1.784	Continuing	Continuing	Continuing
Information Dominance Roadmaps and Analysis	WR	SSC LANT : Charleston, NC	0.906	0.446	Jan 2014	0.432	Jan 2015	0.355	Jan 2016	-		0.355	Continuing	Continuing	Continuing
Information Dominance Roadmaps and Analysis	C/CPFF	BAH : McLean, VA	0.000	-		-		0.220	Dec 2015	-		0.220	Continuing	Continuing	Continuing
		Subtotal	140.484	2.567		2.420		2.359		-		2.359	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various : Various	1.300	-		-		-		-		-	-	1.300	-
Accelerating Joint Warfighting Capability (TW)	Various	Various : Various	30.736	-		-		-		-		-	-	30.736	-
Accelerating Joint Warfighting Capability (TW)	WR	Fleet Forces Command : San Diego, CA	0.095	-		-		-		-		-	-	0.095	-
Accelerating Joint Warfighting Capability (TW)	WR	Naval Postgraduate School : Monterey, CA	0.978	-		-		-		-		-	-	0.978	-
Accelerating Joint Warfighting Capability (TW)	WR	SSC Atlantic : Charleston, SC	0.445	-		-		-		-		-	-	0.445	-
Accelerating Joint Warfighting Capability (TW)	WR	SSC Pacific : San Diego, CA	1.069	-		-		-		-		-	-	1.069	-
Accelerating Joint Warfighting Capability (TW)	C/CPFF	AUSGAR Technologies Inc. : San Diego, CA	1.489	-		-		-		-		-	-	1.489	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 9123 / *FORCEnet*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Imp FORCEnet Req (Fn Comp)	Various	Various : Various	17.144	-		-		-		-		-	-	17.144	-
Developmental Test & Evaluation DLB/RCD	Various	Various : Various	0.500	-		-		-		-		-	-	0.500	-
DoN Transformation (Strategic Planning)	Various	Various : Various	20.521	-		-		-		-		-	-	20.521	-
DoN Transformation (Strategic Planning)	WR	NUWC : Newport, RI	0.840	0.119	Jan 2014	0.064	Jan 2015	-		-		-	-	1.023	-
DoN Transformation (Strategic Planning)	WR	NPGS : Monterey, CA	1.471	0.215	Jan 2014	0.117	Jan 2015	-		-		-	-	1.803	-
DoN Transformation (Strategic Planning)	C/CPFF	NGIT : Herndon, VA	0.349	-		-		-		-		-	-	0.349	-
DoN Transformation (Strategic Planning)	C/CPFF	Unknown : Unknown	0.000	-		-		-		-		-	-	-	-
		Subtotal	76.937	0.334		0.181		-		-		-	-	77.452	-

Remarks

Accelerating Joint Warfighting Capability (Trident Warrior) (TW), was transferred from Project 9123 into new Project 3320 from FY12 forward.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Support	Various	Various : Various	2.124	-		-		-		-		-	-	2.124	-
Government Engineering Support	Various	Various : Various	3.899	-		-		-		-		-	-	3.899	-
Program Management Support DLB/RCD	Various	Various : Various	0.250	-		-		-		-		-	-	0.250	-
Travel DLB/RCD	Various	Various : Various	0.145	-		-		-		-		-	-	0.145	-
Program Management Support	Various	Various : Various	0.800	-		-		-		-		-	-	0.800	-
Travel	Various	Various : Various	0.299	-		-		-		-		-	-	0.299	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 9123 / *FORCEnet*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Acquisition Workforce	Various	Various : Various	0.165	-		-		-		-		-	-	0.165	-
		Subtotal	7.682	-		-		-		-		-	-	7.682	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	229.434	2.901		2.601		2.359		-		2.359	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 9123 / *FORCEnet*

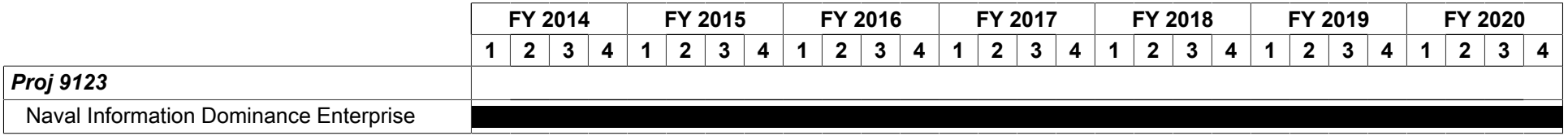


Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 9123 / *FORCEnet*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 9123				
Naval Information Dominance Enterprise	1	2014	4	2020