Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy											Date: February 2016	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604231N *I Tactical Command System*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	754.485	52.285	73.533	36.323	-	36.323	46.278	42.475	35.469	36.207	Continuing	Continuing
0486: *Tactical Support Center*	120.415	4.136	5.016	5.244	-	5.244	5.651	5.676	5.776	5.895	Continuing	Continuing
2213: *Mission Planning*	294.047	25.717	39.733	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	359.497
3032: *NTCSS (Naval Tactical Command Spt Sys)*	69.107	4.216	8.157	13.610	-	13.610	14.618	12.431	4.849	4.961	Continuing	Continuing
3320: *TRIDENT Warrior*	9.087	2.218	2.205	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	13.510
3323: *Maritime Tactical Command & Control (MTC2)*	18.998	11.859	15.262	14.293	-	14.293	22.557	21.113	21.528	21.966	Continuing	Continuing
3324: *Navy Air Operations Command and Control (NAOC2)*	10.496	1.784	0.801	0.999	-	0.999	1.043	1.010	1.028	1.050	Continuing	Continuing
9123: *FORCEnet*	232.335	2.355	2.359	2.177	-	2.177	2.409	2.245	2.288	2.335	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), and the Mobile Tactical Operations Centers (formerly Mobile Operations Control Centers).

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,

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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 updates. 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 decreases platform stability.

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): Maritime Tactical Command and Control (MTC2) is a software program which will provide tactical command and control 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)in order to field to all echelons of command (afloat and ashore) within the Navy. The program's objective 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 for 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 - Command and Control Information Services (C2AOS-C2IS). C2AOS-C2IS is being developed as 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 (JFACC) and Combined Air Operations Center (CAOC) 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.

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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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	60.195	81.553	70.835	-	70.835
Current President's Budget	52.285	73.533	36.323	-	36.323
Total Adjustments	-7.910	-8.020	-34.512	-	-34.512
• Congressional General Reductions	-	-0.020			
• Congressional Directed Reductions	-	-8.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-7.179	0.000			
• SBIR/STTR Transfer	-0.730	0.000			
• Program Adjustments	0.000	0.000	-28.122	-	-28.122
• Rate/Misc Adjustments	-0.001	0.000	-6.390	-	-6.390

Change Summary Explanation

Decrease in Tactical Command System by $1.7M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

Technical: Not applicable.
Schedule:

TACTICAL SUPPORT CENTER (Project 0486):
N/A

Naval Tactical Command Support System (NTCSS) (Project 3032):
RRR for NTCSS OA Release 1 BCM-Interdiction and NTCSS OA Release 2 Global ICRL has now been combined and is scheduled for Q3 FY16. A result of combining NTCSS OA Release 1 & 2 into one RRR event, TRR for NTCSS OA Release 2 Global ICRL shifted to Q2 FY16. DT for NTCSS OA Release 1 BCM-Interdiction and NTCSS OA Release 2 Global ICRL has now been combined and is scheduled for Q4 FY16. NTCSS Web-Enabled RADM RRR slipped to Q1 2019 due to RDT&E marks in FY15 and FY16.

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Maritime Tactical Command and Control (MTC2) (Project 3323):
Schedule changes are due to an increase in pre-acquisition activities required to complete Milestone B (formerly Build Decision (BD)) in FY 2017. Also, MTC2 software iterations will now be referred to as Builds vice Releases in this exhibit to align with the DoDI 5000.02 Model 3 Incrementally Deployed Software Intensive Program. Prior to FY 2017, MTC2 risk reduction efforts were conducted. The Requirements Definition Package (RDP) has been changed to an Information Systems - Capability Development Document (IS-CDD). Joint Staff reviewed the requirements documentation due to the pending Acquisition Category (ACAT) IAM Program of Record (PoR) designation and determined the document needed to be a Joint Requirements Oversight Council (JROC) approved IS-CDD. B1 Drop (formally R1 Drop) changed from FY 2018 Q2 to FY 2018 Q3 due to fact of life budget constraints to achieve affordability as the PoR is in pre-acquisition.

Navy Air Operations Command and Control (NAOC2)(Project 3324):
United States Air Force PE0207410F Air & Space Operations Center received an FY15 congressional mark that has resulted in a one year delay in the development of Command and Control Air Operations Suite - Command and Control Information Services (C2AOS-C2IS) Capability Package 3 (CP3) Air eXecution Information Systems (AXIS). This capability is required for the consolidated CP1, CP2, and CP3 Navy integration and Initial Operational Test & Evaluation of C2AOS-C2IS plus retirement of Theater Battle Management Core System (TBMCS).

Mission Planning (Project 2213):
Test and Evaluation:
Framework v1.3.5 MPE integration/validation has extended from 4th QTR 2015 to 4QTR 2016 to allow full fielding of Mission Planning on the F/A-18 platform. Mission Planning schedule FY17 and out is included in Mission Planning PE 0605215N.

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COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
0486: *Tactical Support Center*	120.415	4.136	5.016	5.244	-	5.244	5.651	5.676	5.776	5.895	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

TacMobile brings Enterprise Command, Control, Communications, Computers and Intelligence, Surveillance and Reconnaissance (C4ISR) to the Maritme Patrol and Reconnaissance Force (MPRF) community.

The Tactical/Mobile (TacMobile) program provides evolutionary systems and equipment upgrades to support 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.

TOCs 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 are scalable, mobile versions for operations from remote forward operating airfields. This program assures that existing TOCs and MTOCs are interoperable to fulfill their operational requirements. TOC/MTOC will continue to provide the ground Command and Control capabilities and C4I interfaces for the MPRF Family of Systems (FOS) aircraft and systems evolution including P-8A Multi-mission Maritime Aircraft (MMA) baseline and Increment 2, and the development of future C4I support capabilities for the P-8A Poseidon Increment 3, Advanced Airborne Sensor (AAS), and the MQ-4C TRITON Unmanned Aerial System.

The TacMobile program follows an Evolutionary Acquisition approach for adding capabilities that maintain and support MPRF weapons systems. Current requirements for TacMobile are to adapt to a smaller footprint and scalable Network-centric Services Oriented Architecture (SOA) configuration. Additional TacMobile requirements are to converge TOCs and MTOCs to a single configuration.

FY17: Funding supports core TacMobile systems development and testing to maintain interoperability with P-8A Poseidon and the MQ-4C Triton. Specifically this development is intended to increase modularity, establish additional security enclaves and reduce footprint 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 to ensure interoperability with emerging MPRF Aircraft and Sensors, facilitate the MPRF ISR and ASW data Processing - Exploitation - Dissemination (PED) process, and reduce TacMobile footprint enhancing mobility capabilities.

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Net Ready	0.638	0.938	0.938	0.000	0.938
Articles:	-	-	-	-	-

FY 2015 Accomplishments:

Continued Services Oriented Architecture (SOA) design implementation leveraging P-8A Applications Based Architecture Best of Breed architecture design. Began development of an initial TacMobile Ground Support portal - (TR 2.1.1). Developed plans to commence initial Tactical Operations Center Operational Control Prototype SOA fielding in TR 2.1.1. Continued Automated Digital Network System and Full Motion Video implementations - (TR 2.1.1). Continued 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). Incorporated Inc 2.1 CPD change memorandum and related changes - (T.R. 2.1.1). Began development of TacMobile Data Strategy, Information Support Plan , and Capabilities Production Document for Increment 3, supporting P-8A Poseidon Inc 3 - (Inc 3). Began update of all required TOC/MTOC Department of Defense Architecture Framework (DoDAF) products, integrated with the MPRF/Air ASW COI Family of Systems DoDAF products - (Inc 3). Continued Wideband Beyond Line of Sight Satellite Communications requirements analysis - (Inc 3). Commenced review of TacMobile Concept of Operations in alignment with Family of Systems CONOPS - (TR 2.1.1). Continued 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). Matured Measures of Effectiveness to maintain integrated requirements management with Increment 3 architecture elements - (Inc 3).

FY 2016 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 (DoDAF) products, and integrate to the Maritime Patrol and Reconnaissance Force /Air Anti-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
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 2017 Base Plans:*** Continue to mature Services Oriented Architecture (SOA) implementations from P8 Applications Based Architecture with TacMobile architecture - (Inc3). 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 - (Inc3). Continue Automated Digital Network System and Full Motion Video implementations - (TR 2.1.1). Mature Family of Systems (FoS) 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 (DoDAF) products, and integrate to the Maritime Patrol and Reconnaissance Force /Air Anti-Submarine Warfare Community of Interest FoS DoDAF products - (Inc3). Continue review of TacMobile Concept of Operations (CONOPS) in alignment with Family of Systems CONOPS and P8 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). Mature refining Measures of Effectiveness to maintain integrated requirements management with Increment 3 architecture elements - (Inc 3). ***FY 2017 OCO Plans:*** N/A					
Title: Tactical Mobile Acoustic Support System (TACMASS)	0.736	0.736	0.736	0.000	0.736
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Implemented P-8A Poseidon Increment 2 Engineering Change Proposal (ECP) 1 Multistatic Active Coherent Phase 1 - (FR30). Continued implementing designs, integration and test of P-8A Poseidon Increment 2 (ECP) 2					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
and 3 - (FR40 /FR50). Continued requirement analysis and commence design of TacMobile system in support of P-8A Poseidon Increment 3 - (Inc 3). Commenced initial TacMobile system testing of ECP 2 - (FR40). ***FY 2016 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 2017 Base Plans:*** Validate and test P8 Increment 2 Engineering Change Proposal (ECP) 3 Multistatic Active Coherent (MAC) upgrades and functionality (TR 2.1.1). Mature requirements development for MAC Enhancements (MAC-E) and commence design of MAC-E - (Inc 3). ***FY 2017 OCO Plans:*** N/A					
Title: Aircraft Interfaces	0.583	0.883	0.883	0.000	0.883
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Commenced test and production of P8 Poseidon Increment 2 Engineering Change Proposal (ECP) 1 and ECP 2 required TacMobile support - (TR 2.1.1). Supported P-8A Poseidon Increment 2 Operational Evaluations - (TR 2.1.1) Continued refining Advanced Airborne Systems and TacMobile stack integration - (TR 2.1.1). Supported P8 Poseidon Increment 3 Applications Based Architecture System Readiness Review and Test and Evaluation prototyping - (Inc 3). Continued supporting interface design for Net Enabled Weapon and T-Sized Stores - (Inc 3). Commenced implementation of P-8A Poseidon Fly Away Kits, for media grooming and split deployment support - (TR 2.1.1). ***FY 2016 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 Applications Based Architecture Preliminary Design Review (PDR) 1 and Test and Evaluation prototype development - (Inc 3). Mature interface design for Net Enabled Weapon and					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
T-Sized Stores - (Inc 3). Finalize implementation of P-8A Poseidon Fly Away Kits, for media grooming and split deployment support - (Inc 3). ***FY 2017 Base Plans:*** Complete testing of TacMobile support for P8 Poseidon Increment 2 Engineering Change Proposal (ECP) 1 and ECP 2 - (TR 2.1.1). Complete support for all P-8A Poseidon Increment 2 Operational Evaluations - (TR 2.1.1) Conduct end to end testing of Advanced Airborne Systems and TacMobile stack integration - (TR 2.1.1). Continue support P8 Poseidon Increment 3 Applications Based Architecture Design Reviews and Test and Evaluation prototype development - (Inc 3). Integrate support for Net Enabled Weapon and T-Sized Stores - (TR2.1.2). Begin integration of P-8A media grooming and C4I Fly Away Kits - (TR 2.1.1). Install TacMobile Advanced Airborne Sensor (TMAAS) stack Engineering Development Model in Tactical Operations Center Jax for OT. (TR 2.1.1 Ph2) ***FY 2017 OCO Plans:*** N/A					
Title: Tactical Data Links	0.160	0.160	0.160	0.000	0.160
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Continued to monitor LINK-11 sundown plan, impacts on TacMobile, and potential adoption of LINK-22 / NATO Improved Link Eleven - (Inc 3). Commenced 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). Commenced technology review for selected Tactical Targeting Network Technology and Multifunctional Information Distribution System Joint Tactical Radio System Courses of Action - (TR 2.1.1) Commenced 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 Plans:*** 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 2017 Base Plans:***					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
- Commence communications upgrade design/integration/development including New Technology-Common Data Link Upgrade, Broadcast Intelligence Analysis, Joint Range Extension, Third Party Targeting, High Frequency Internet Protocol, and Link 16 updates (TR2.1.2 /Inc 3). ***FY 2017 OCO Plans:*** N/A					
Title: Enterprise Solutions	0.580	0.780	0.880	0.000	0.880
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Continued with Applications Based Architecture (ABA) requirements analysis, and commenced ABA design and development for TacMobile (TM) systems - (Inc 3). Completed Just a Bunch of Disks (now called Data Storage Architecture Upgrade (DSAU)) replacement requirement analysis, and DSAU design and development for TacMobile systems - (TR 2.1.1). Continued development of Multiple Security level Enclaves and evaluated Distributed Common Ground System Navy capabilities implementation - (Inc 3). Commenced development of next generation Mass Storage requirement - (Inc 3). ***FY 2016 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 2017 Base Plans:*** Continue Applications Based Architecture (ABA) requirements analysis, and continue ABA design and development for implementation on TacMobile systems - (Inc 3). Complete Data Storage Architecture Upgrade integration to support follow on test and evaluation - (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 2017 OCO Plans:*** N/A					
Title: Command and Control (C2)	0.402	0.402	0.607	0.000	0.607
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
FY 2015 Accomplishments: Completed Tactical Operations Center Operational Control Prototype Services Oriented Architecture (SOA) implementations thru phase 5 and commenced TacMobile SOA design leveraging P-8A Applications Based Architecture into TacMobile SOA requirements analysis and design/development. Prepared to leverage Poseidon Data modeling, security, applications and architecture - (Inc 3). Continued requirements analysis and commence development of Advanced Airborne Sensor system as part of TacMobile Multiple Security level Enclaves - (Inc 3). Implemented Global Command and Control System - Maritime Group Level 4.1 in support of Triton Mission Control System interface and continued to assess next generation Maritime Tactical Command and Control - (Inc 3). ***FY 2016 Plans:*** Continue Tactical Operations Center Operational Control Prototype Services Oriented Architecture (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). 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 2017 Base Plans:*** Further mature Tactical Operations Center Operational Control Prototype Services Oriented Architecture (SOA) design leveraging P-8A Applications Based Architecture into TacMobile SOA requirements analysis and design/development including Cross Domain Solutions. Continue to leverage Poseidon Data modeling, security, applications and architecture - (Inc 3). Continue Engineering Development Model development with High Assurance Guard, and continue implementation of Advanced Airborne Sensor system as part of TacMobile Multiple Independent Levels of Security - (Inc 3). Integrate Global Command and Control System - Maritime Group Level 4.1 in support of Triton Mission Control System interface and continue requirements analysis to assess next generation Maritime Tactical Command and Control - (TR 2.1.1 / TR 2.1.2). ***FY 2017 OCO Plans:*** N/A					
Title: Maritime Patrol and Reconnaissance Force (MPRF) Interoperability/TacMobile Footprint Reduction	1.037	1.117	1.040	0.000	1.040
Articles:	-	-	-	-	-
FY 2015 Accomplishments:					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Commenced implementation of full system integration of P-8A Poseidon Aircraft Increment 2 Mission Planning interoperability upgrades - (TR 2.1.1). Commenced 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). Commenced 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). Began stakeholder requirements analysis to reduce TOC/MTOC Size, Weight, Power and Cooling footprint via (TR 2.1.1). Began implementing 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). Continued implementing hardware design optimizations which reduce and consolidate TacMobile footprint, and Maritime Patrol and Reconnaissance Aircraft media changes - (TR 2.1.1). Began Change Request process for technologies that continues best optimizes data transfer rates - (Inc 3). Continued with development of Multiple Security level Enclaves utilizing a Multiple Independent Levels of Security approach. Initiated Higher than SECRET enclave's requirements analysis and design for TacMobile - (Inc 3).					
FY 2016 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 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). 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).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 2017 Base Plans: Refine design of TacMobile system functionality to reduce operator workload, to offset the increasing Mission/ Function/Task of the Maritime Patrol and Reconnaissance Force Intelligence Surveillance and Reconnaissance - (TR 2.1.1). Initiate stakeholder Size Weight Power and Cooling design analysis and commence TOC/ MTOC design - (TR 2.1.2/Inc3). 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 integration of P-8 Inc 3 Block 1 design elements - (TR 2.1.1). Commence Wide					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Band SatCom design utilizing technology that continues best optimizes data transfer rates - (TR 2.1.2 /Inc 3). Continue with development of Multiple Security level Enclaves, mature Higher than SECRET enclave's requirements analysis and design for TacMobile - (Inc 3). Continue defining Processing Exploitation and Dissemination support requirements for the wide range of P8A missions and Anti-Submarine Warfare and Intelligence Surveillance and Reconnaissance data elements - (Inc 3). ***FY 2017 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	4.136	5.016	5.244	0.000	5.244

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• OPN/2246: *MPRF Mission Support*	14.390	13.725	13.501	-	13.501	13.823	14.164	14.462	14.751	Continuing	Continuing
• OPN/2906: *TacMobile*	16.766	13.600	16.041	-	16.041	17.239	17.006	17.367	17.716	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 Aerial System (UAS), other Maritime Patrol and Reconnaissance Force (MPRF) Family of Systems (FOS) Aircraft and Systems, and evolving operational employment

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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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 2017 Navy			Date: February 2016
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	C/CPFF	SSC LANT; TAPESTRY : Charleston; SC; Pax River, MD	8.280	0.928	Dec 2014	1.188	Dec 2015	1.387	Dec 2016	-		1.387	Continuing	Continuing	Continuing
Systems Engineering	C/CPFF	SSC LANT; TAPESTRY; BAH, Sentek : Charleston, SC; Pax River, MD; San Diego, CA	31.053	0.978	Dec 2014	1.398	Dec 2015	1.308	Dec 2016	-		1.308	Continuing	Continuing	Continuing
Training Development	C/CPFF	SSC LANT; TAPESTRY; Sentek : Charleston, SC; Pax River, MD; San Diego, CA	2.561	0.300	Dec 2014	0.300	Dec 2015	0.300	Dec 2016	-		0.300	Continuing	Continuing	Continuing
Software Development	C/CPFF	SSC LANT, TAPESTRY, BAH, Sentek : Charleston, SC; Pax River, MD; San Diego, CA	47.202	0.302	Dec 2014	0.402	Dec 2015	0.602	Dec 2016	-		0.602	Continuing	Continuing	Continuing
Integrated Logistics Support	C/CPFF	SSC LANT, TAPESTRY : Charleston, SC; Pax River, MD	1.250	0.225	Dec 2014	0.225	Dec 2015	0.225	Dec 2016	-		0.225	Continuing	Continuing	Continuing
Configuration Management	C/CPFF	SSC LANT, TAPESTRY : Charleston, SC; Pax River, MD	0.975	0.175	Dec 2014	0.175	Dec 2015	0.175	Dec 2016	-		0.175	Continuing	Continuing	Continuing
Technical Data	C/CPFF	SSC LANT, TAPESTRY : Charleston, SC; Pax River, MD	1.260	0.220	Dec 2014	0.220	Dec 2015	0.220	Dec 2016	-		0.220	Continuing	Continuing	Continuing
Studies & Analyses	C/CPFF	SSC LANT, TAPESTRY, Sentek : Pax River, MD; San Diego CA	0.825	0.100	Dec 2014	0.100	Dec 2015	0.100	Dec 2016	-		0.100	Continuing	Continuing	Continuing
		Subtotal	93.406	3.228		4.008		4.317		-		4.317	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy			Date: February 2016
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Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	C/CPIF	SSC LANT; TAPESTRY : Charleston, NC; Pax River, MD	2.536	0.240	Dec 2014	0.340	Dec 2015	0.340	Dec 2016	-		0.340	Continuing	Continuing	Continuing
Operational Test & Evaluation	MIPR	OPTEVFOR; SSC LANT; TAPESTRY : Jacksonville, FL	5.706	0.157	Dec 2014	0.157	Dec 2015	0.157	Dec 2016	-		0.157	Continuing	Continuing	Continuing
		Subtotal	8.242	0.397		0.497		0.497		-		0.497	-	-	-

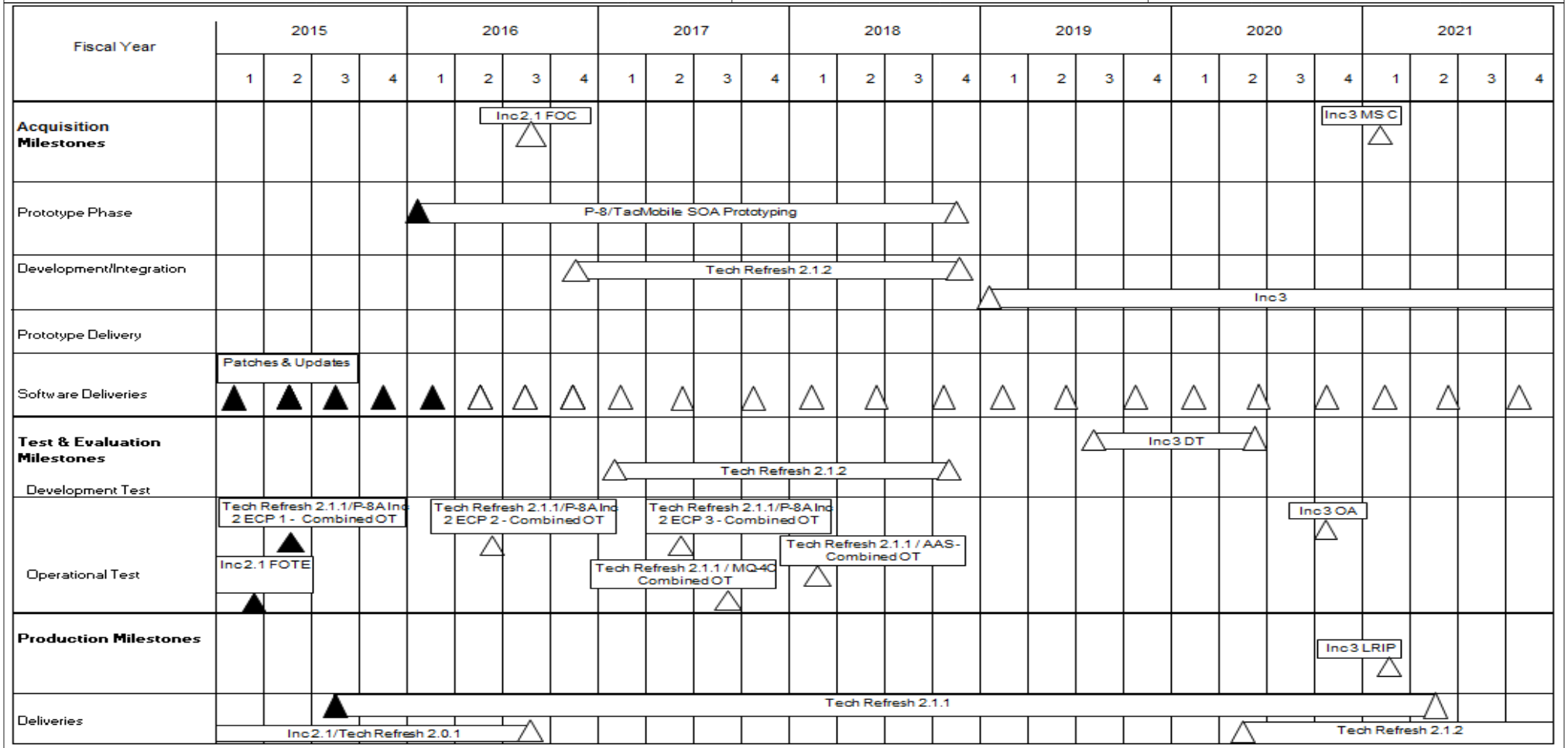
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPIF	TAPESTRY BAH; Sentek : Pax River, MD; Charleston, SC; San Diego, CA	2.754	0.236	Dec 2014	0.215	Dec 2015	0.215	Dec 2016	-		0.215	Continuing	Continuing	Continuing
Government Engineering Support	WR	SSC LANT : Charleston, NC	1.932	0.127	Dec 2014	0.134	Dec 2015	0.134	Dec 2016	-		0.134	Continuing	Continuing	Continuing
Program Management Support	C/CPIF	SSC LANT; PMW750; BAH; TAPESTRY; Sentek : Charleston, NC; San Diego, CA	13.853	0.130	Dec 2014	0.144	Dec 2015	0.063	Dec 2016	-		0.063	Continuing	Continuing	Continuing
Travel	WR	PMW750 : San Diego, CA	0.228	0.018	Dec 2014	0.018	Dec 2015	0.018	Dec 2016	-		0.018	Continuing	Continuing	Continuing
		Subtotal	18.767	0.511		0.511		0.430		-		0.430	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	120.415	4.136		5.016		5.244		-		5.244	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 0486 / *Tactical Support Center*



Note:
None

Exhibit R-4, Schedule Profile

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
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				
Software Delivery (Quarterly)	1	2015	4	2021
Increment 2.1 Delivery	1	2015	3	2016
Tech Refresh Delivery (TR 2.0.1)	1	2015	3	2016
Tech Refresh Delivery (TR 2.1.1)	3	2015	2	2021
Tech Refresh Delivery (TR 2.1.2)	2	2020	4	2021
Increment 3 Delivery (First LRIP unit)	4	2021	4	2021
Follow On Test and Evaluation (Increment 2.1)	1	2015	1	2015
Increment 2.1 FOC	3	2016	3	2016
Combined Operational Test (Tech Refresh 2.1.1)	2	2015	1	2018
Development (TR 2.1.2)	4	2016	4	2018
Developmental Test (Tech Refresh 2.1.2)	1	2017	4	2018
Prototyping (P-8/SOA)	1	2015	4	2018
Development (Increment 3)	1	2019	4	2021
Developmental Test (Increment 3)	3	2019	2	2020
Operational Assessment (Increment 3)	4	2020	4	2020
Milestone C (Increment 3)	1	2021	1	2021
Low Rate Initial Production (Increment 3)	1	2021	1	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy			Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 2213 / *Mission Planning*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
2213: *Mission Planning*	294.047	25.717	39.733	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	359.497
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Starting in FY17, Mission Planning (PU 2213) portion of the Tactical Command PE has been moved to Mission Planning PE (0605215N). 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. Over 40 (T/M/S) naval aircraft are supported by JMPS. 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), P-8, 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 Cybersecurity updates. Funding profile includes JMPS baseline efforts for all existing T/M/S on Windows 7 32-bit framework while concurrently re-architecting to 64-bit framework. Increment 4 which encompasses 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 increased stability in the architecture resulting in fewer fleet memory crashes. Delaying JMPS 64-bit transition to the fleet will allow system crashes to continue.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: JMPS Framework (FW) & Common Components (CC) Development	10.551	18.358	0.000	0.000	0.000
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 1.5 will be incorporated in future FW versions to address migration to .NET environment 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					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
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 2015 Accomplishments: Initiation and development of the Joint Mission Planning System (JMPS) Increment 4 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 Source Lines of Code (SLOC) 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 and E/A-18 G platforms.					
FY 2016 Plans: Continue the development of JMPS Increment 4 Core 64-bit Framework transition development activities. Major events include development of Cybersecurity safeguards, development of additional JMPS help features, and complex conversion of Source Lines of Code (SLOC) 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 and E/A-18G. 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 Increment 4/64-bit transition is required to address current physical memory access 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 2017 Base Plans:					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
N/A ***FY 2017 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 2015 Accomplishments:*** Develop, integrate and test JMPS-E MPE Versions 2.0.1 and 2.0.2. ***FY 2016 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 2017 Base Plans:*** N/A ***FY 2017 OCO Plans:*** N/A	0.740 -	0.660 -	0.000 -	0.000 -	0.000 -
Title: Mission Planning Environment (MPE) Integration and Test ***Articles:*** ***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	14.426 -	20.715 -	0.000 -	0.000 -	0.000 -

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
of the integrated MPE. Life-cycle management, with 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, JMPS MPE's are currently in the process of transitioning to Windows Operating System (OS) 7; with custom support available for the transition of all remaining naval aircraft. ***FY 2015 Accomplishments:*** Integration and test of Mission Planning Environment (MPEs) in support of over 40 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 Plans:*** Integration and test of MPEs in support of over 40 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 2017 Base Plans:*** N/A ***FY 2017 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	25.717	39.733	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• OPN/2876: *Naval Mission Planning Systems*	13.950	13.737	14.273	-	14.273	11.945	12.149	12.371	12.617	Continuing	Continuing
• RDTE/3858,5302,5380: *Air Force Mission Plng Systems*	60.679	55.835	78.323	-	78.323	75.567	75.113	87.771	0.000	Continuing	Continuing

Remarks

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 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 Joint Mission Planning System (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 2017 Navy		Date: February 2016
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 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Software Development/Framework and Common Components (FW/CC 64 bit)	C/CPFF	GTRI : Atlanta, GA	0.000	3.900	Jan 2015	4.208	Feb 2016	0.000		-		0.000	0.000	8.108	8.108
Primary Software Development/Framework Common Comp	C/CPFF	Northrop Grumman : Long Beach, CA	0.000	4.500	Jul 2015	2.000	Apr 2016	0.000		-		0.000	0.000	6.500	6.500
Primary Software Development/Framework and Common Components (FW/CC 64 bit)	TBD	TBD : TBD	0.000	0.000		12.150	Feb 2016	0.000		-		0.000	0.000	12.150	12.150
Primary Software Development/Joint Mission Planning System Expeditionary (JMPS-E)	MIPR	USAF : Hanscom AFB, MA	5.762	0.150	Feb 2015	0.050	Feb 2016	0.000		-		0.000	0.000	5.962	5.962
Award Fees	MIPR	Various : Various	1.928	0.050	Feb 2015	0.019	Jan 2016	0.000		-		0.000	0.000	1.997	1.997
Primary Software Development	Various	Various : Various	25.867	2.101	Jan 2015	1.515	Jan 2016	0.000		-		0.000	0.000	29.483	29.483
Primary Software Development Mission Planning Systems FW(32/64-bit)	C/CPFF	American Electronic Warfare Associates : California, MD	2.899	0.000		0.000		0.000		-		0.000	0.000	2.899	2.899
Prior years Prod Dev No Longer Funded in FYDP	Various	Various : Various	105.870	0.000		0.000		0.000		-		0.000	0.000	105.870	-
		Subtotal	142.326	10.701		19.942		0.000		-		0.000	0.000	172.969	-

Remarks

FY15-16 Primary Software Development/Framework (FW/CC 64 bit) initiation and development of the JMPS Framework Core and Common Components 64-bit transition development activities. In FY16, the Primary Software Development contract will be a competitive award. The performing activity and location are currently TBD due to the competitive contracting strategy.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy			Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 2213 / *Mission Planning*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	WR	NAWCWD : Point Mugu, CA	1.852	0.454	Nov 2014	0.461	Nov 2015	0.000		-		0.000	0.000	2.767	-
Prior Years Support No Longer Funded in FYDP	Various	Various : Various	13.514	0.000		0.000		0.000		-		0.000	0.000	13.514	-
		Subtotal	15.366	0.454		0.461		0.000		-		0.000	0.000	16.281	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Eng Integration & Test	WR	NAWCWD : Point Mugu, CA	94.456	10.866	Nov 2014	15.536	Nov 2015	0.000		-		0.000	0.000	120.858	-
Test & Evaluation	WR	COMOPTEVFOR : Norfolk, VA	4.467	0.948	Nov 2014	1.347	Nov 2015	0.000		-		0.000	0.000	6.762	-
		Subtotal	98.923	11.814		16.883		0.000		-		0.000	0.000	127.620	-

Remarks

System Eng Integration & Test (NAWCWD) increase in FY16 to meet new platform (CH-53K and Triton) Initial Operational Capability (IOCs) and 64-bit development efforts.

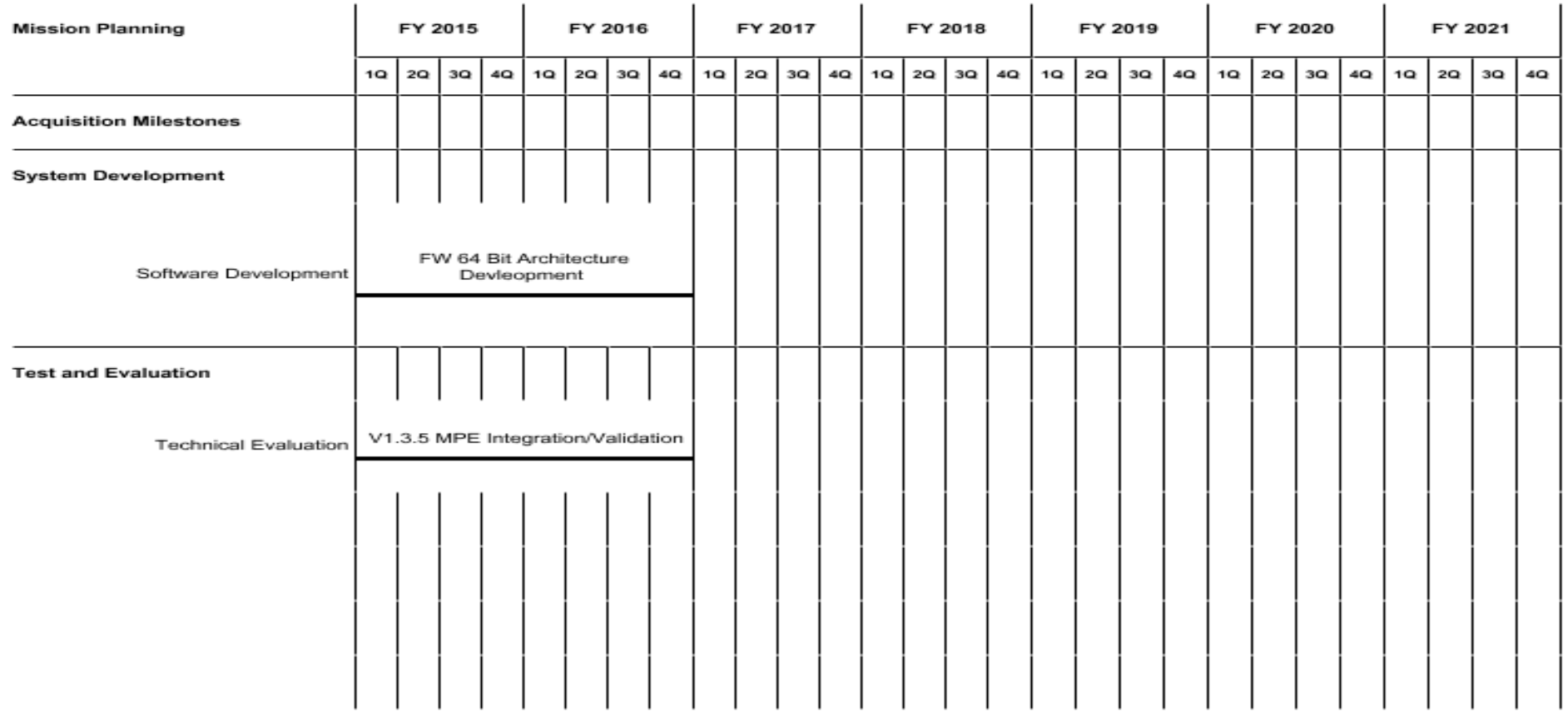
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support and Travel	WR	NAWCAD : Patuxent River, MD	37.432	2.748	Nov 2014	2.447	Nov 2015	0.000		-		0.000	0.000	42.627	-
		Subtotal	37.432	2.748		2.447		0.000		-		0.000	0.000	42.627	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	294.047	25.717		39.733		0.000		-		0.000	0.000	359.497	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 2213 / *Mission Planning*



2017DON - 0604231N - 2213

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
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				
System Development: Software Development: JMPS FW 64 Bit Architecture Development	1	2015	4	2016
Test and Evaluation: Technical Evaluation: JMPS V1.3.5 Mission-Planning Environment (MPE) Integration/Validation	1	2015	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy			Date: February 2016
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3032: *NTCSS (Naval Tactical Command Spt Sys)*	69.107	4.216	8.157	13.610	-	13.610	14.618	12.431	4.849	4.961	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

Project budget increase from FY 2016 to FY 2017 is necessary to conduct Developmental Testing (DT) of Beyond Capability of Maintenance (BCM) Interdiction and Global Individual Component Repair List (Global-ICRL) and to conduct DT and Operational Testing (OT) for Operational Supply (O-Supply) to include Table Of Allowance & Personal Gear Issue TOA/PGI; and Total Material Visibility & Requisition Management (TMV/RM).

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. FY2017 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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: NTCSS (Naval Tactical Command Spt Sys)	4.216	8.157	13.610	0.000	13.610
Articles:	-	-	-	-	-
Description: Maintenance and Supply Management Capability					
FY 2015 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 & Requisition Management (TMV/RM), and software code conversion of NTCSS legacy					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
software code to a modern JAVA-based system. Conducted pre-acquisition activities for open architecture follow-on efforts. ***FY 2016 Plans:*** Complete development of 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 2017 Base Plans:*** Conduct Developmental Testing (DT) of Beyond Capability of Maintenance (BCM) Interdiction and Global Individual Component Repair List (Global-ICRL). Conduct DT and Operational Testing (OT) for Operational Supply (O-Supply) to include Table Of Allowance & Personal Gear Issue TOA/PGI; and Total Material Visibility & Requisition Management (TMV/RM). Continue software code conversion of the Relational Supply (RSupply) application and the Relational Administrative Data Management (R-ADM) software applications. Commence software conversion efforts for Optimized Intermediate Maintenance Activity (OIMA) and Optimized Organizational Maintenance Activity (OOMA) Naval Aviation Logictics Command Management Information System (NALCOMIS) applications, converting six million lines of NTCSS legacy software code to a modern JAVA-based system providing a more flexible system platform with greater responsiveness to security, information assurance, functional, and system requirements and with greater speed to capability. Conduct pre-acquisition activities for open architecture follow-on efforts. ***FY 2017 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	4.216	8.157	13.610	0.000	13.610

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• OPN/2611: *Naval Tactical Command Support System*	8.066	14.416	12.336	-	12.336	10.519	9.764	17.563	17.934	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost

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 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 2017 Navy		Date: February 2016
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 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	WR	SSC : North Charleston, SC	0.668	0.000		0.000		0.000		-		0.000	0.000	0.668	0.668
Systems Engineering	C/CPFF	SeaPort : San Diego, CA	2.763	0.275	Nov 2014	0.280	Nov 2015	0.430	Nov 2016	-		0.430	Continuing	Continuing	Continuing
Licenses	Various	SSC : San Diego, CA	0.700	0.000		0.000		0.000		-		0.000	0.000	0.700	0.700
Software Development	C/CPFF	SSC : SSC: Norfolk, VA	58.787	3.219	Jan 2015	2.396	Feb 2016	4.100	Feb 2017	-		4.100	Continuing	Continuing	Continuing
Software Development	C/CPFF	TBD : San Diego, CA	0.000	0.000		4.713	Mar 2016	8.230	Feb 2017	-		8.230	Continuing	Continuing	Continuing
Integrated Logistics Support	C/CPFF	SeaPort : San Diego, CA	0.986	0.165	Nov 2014	0.204	Nov 2015	0.000		-		0.000	Continuing	Continuing	Continuing
Configuration Management	WR	SSC : San Diego, CA	0.460	0.000		0.000		0.000		-		0.000	0.000	0.460	0.460
Technical Data	WR	SSC : San Diego, CA	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	0.200
		Subtotal	64.564	3.659		7.593		12.760		-		12.760	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWC : Patuxent River, MD	1.003	0.132	Jan 2015	0.120	Jan 2016	0.120	Nov 2016	-		0.120	Continuing	Continuing	Continuing
Developmental Test & Evaluation	WR	SPAWAR FRD : San Diego, CA	0.000	0.000		0.000		0.420	Nov 2016	-		0.420	0.000	0.420	-
Operational Test & Evaluation	C/CPIF	COTF : Norfolk, VA	0.935	0.244	Jan 2015	0.244	Dec 2015	0.110	Nov 2016	-		0.110	Continuing	Continuing	Continuing
		Subtotal	1.938	0.376		0.364		0.650		-		0.650	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy			Date: February 2016
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 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPFF	SeaPort : San Diego, CA	0.896	0.000		0.000		0.000		-		0.000	0.000	0.896	0.896
Government Engineering Support	WR	SSC : San Diego, CA	0.279	0.000		0.000		0.000		-		0.000	0.000	0.279	0.279
Program Management Support	C/CPFF	SeaPort : San Diego, CA	1.430	0.181	Nov 2014	0.200	Nov 2015	0.200	Nov 2016	-		0.200	Continuing	Continuing	Continuing
		Subtotal	2.605	0.181		0.200		0.200		-		0.200	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	69.107	4.216		8.157		13.610		-		13.610	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		**Date:** February 2016
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	2015				2016				2017				2018				2019				2020				2021			
	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 1/2 FD	Rel 3/4 FD																	
Engineering Milestones NTCSS OA Release 1 BCM-Interdiction		PDR/CDR		TRR																								
NTCSS OA Release 2 Global ICRL		PDR/CDR				TRR	RRR																					
NTCSS OA Release 3 Operational Supply (TOA/PGI)	SFR		PDR/CDR																									
NTCSS OA Release 4 Operational Supply (TMV/RM)			SFR		PDR/CDR		TRR	RRR																				
NTCSS Web-Enabled (RADM/RSUP/OIMA/OOMA)																	RADM RRR	RSUP RRR				OIMA/OOMA RRR						
Test & Evaluation Milestones NTCSS OA								Rel 1/2 DT	Rel 3/4 DT	R-3/4OT																		
Software Deliveries NTCSS OA											Rel 1/2	Rel 3/4																
NTCSS Web-Enabled																		RADM	RSUP				OIMA/OOMA					

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
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 - 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)	3	2016	3	2016
NTCSS OA Build 1 - Development Test (DT)	4	2016	4	2016
NTCSS OA Build 1 - Software Delivery	3	2017	3	2017
NTCSS OA Build 2 - Preliminary Technical Review (PDR) / Critical Design Review (CDR)	2	2015	2	2015
NTCSS OA Build 2 - Test Readiness Review (TRR)	2	2016	2	2016
NTCSS OA Build 2 - Release Readiness Review (RRR)	3	2016	3	2016
NTCSS OA Build 2 - Development Test (DT)	4	2016	4	2016
NTCSS OA Build 2 - Software Delivery	3	2017	3	2017
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)	3	2016	3	2016
NTCSS OA Build 3 - Release Readiness Review (RRR)	4	2016	4	2016
NTCSS OA Build 3 - Development Test (DT)	1	2017	1	2017
NTCSS OA Build 3 - Operational Test (OT)	2	2017	2	2017
NTCSS OA Build 3 - Software Delivery	4	2017	4	2017
NTCSS OA Build 4 - System Functional Review (SFR)	3	2015	3	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
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 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)	1	2017	1	2017
NTCSS OA Build 4 - Operational Test (OT)	2	2017	2	2017
NTCSS OA Build 4 - Software Delivery	4	2017	4	2017
NTCSS Web-Enabled RADM - Release Readiness Review (RRR)	1	2019	1	2019
NTCSS Web-Enabled RADM - Software Delivery	2	2019	2	2019
NTCSS Web-Enabled RSUP - Release Readiness Review (RRR)	2	2019	2	2019
NTCSS Web-Enabled RSUP - Software Delivery	3	2019	3	2019
NTCSS Web-Enabled OIMA/OOMA - Release Readiness Review (RRR)	2	2020	2	2020
NTCSS Web-Enabled OIMA/OOMA - Software Delivery	3	2020	3	2020

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy			Date: February 2016
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3320: *TRIDENT Warrior*	9.087	2.218	2.205	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	13.510
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

Trident Warrior (TW) was transferred from 0604231N to 0606355N from FY17 forward.

A. Mission Description and Budget Item Justification

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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Trident Warrior	2.218	2.205	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2015 Accomplishments: -Finalized analysis of TW 14 executed experiment in order to determine recommended next steps for Naval Warfare Development Center (NWDC). -Explored 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. -Coordinated 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. -Coordinated TW participant efforts to achieve required installation and security certifications, accreditations and approvals. -Provided subject matter experts (SMEs) for core ship services during the experimentation period. -Provided independent experts to coordinate the establishment of, and compliance with, experiment plans and to lead analysis effort and provided unbiased assessment to decision makers for initiatives designated by NWDC. -Provided results to government sponsors to support the program's Planning, Programming, Budgeting, and Execution Process (PPBE) and engineering recommendations. -Planned and executed TW 15 operational events to accelerate the transition of ID capability to the Fleet.					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
-Solicited participation for Trident Warrior (TW) 16 and recommended inclusion of technologies responsive to identified Naval Capability Gaps. Selected technologies for participation in numbers supportable within resources. ***FY 2016 Plans:*** -Conduct analysis of TW 15 executed experiments in order to determine recommended next steps for Naval Warfare Development Center (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 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 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 16 operational events to accelerate the transition of Information Dominance (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 2017 Base Plans:*** TW was transferred from 0604231N to 0606355N from FY17 forward. ***FY 2017 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	2.218	2.205	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 3320 / *TRIDENT Warrior*

D. Acquisition Strategy

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 2017 Navy			Date: February 2016
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604231N / *Tactical Command System*	Project (Number/Name) 3320 / *TRIDENT Warrior*	

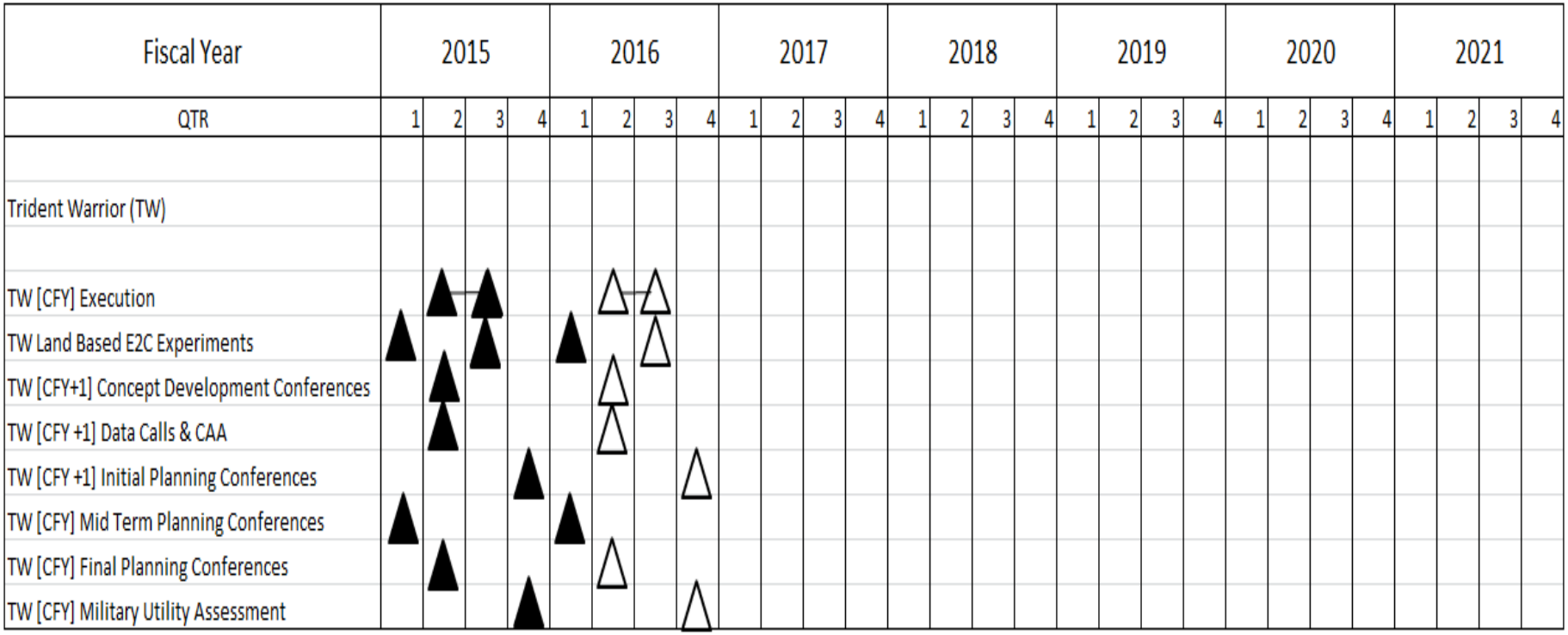
Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Trident Warrior (TW)	WR	Fleet Forces Command : San Diego, CA	0.122	0.000		0.000		0.000		-		0.000	0.000	0.122	-
Trident Warrior (TW)	WR	Naval Postgraduate School : Monterey, CA	3.038	0.909	Nov 2014	0.000		0.000		-		0.000	0.000	3.947	-
Trident Warrior (TW)	WR	SSC Atlantic : Charleston, SC	0.736	0.045	Jan 2015	0.000		0.000		-		0.000	0.000	0.781	-
Trident Warrior (TW)	WR	SSC Pacific : San Diego, CA	1.342	0.333	Nov 2014	0.331	Nov 2015	0.000		-		0.000	2.006	4.012	-
Trident Warrior (TW)	C/CPFF	AUSGAR Technologies Inc. : San Diego, CA	3.849	0.931	Apr 2015	1.301	Apr 2016	0.000		-		0.000	6.082	12.163	-
Trident Warrior (TW)	WR	NSWC Corona : Corona, CA	0.000	0.000		0.295	Nov 2015	0.000		-		0.000	0.295	0.590	-
Trident Warrior (TW)	C/CPFF	Pacific Science & Engineering Group, Inc. : San Diego, CA	0.000	0.000		0.108	Nov 2015	0.000		-		0.000	0.108	0.216	-
Trident Warrior (TW)	C/CPFF	Science Applications International Corp : McLean, VA	0.000	0.000		0.170	Dec 2015	0.000		-		0.000	0.170	0.340	-
		Subtotal	9.087	2.218		2.205		0.000		-		0.000	8.661	22.171	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	9.087	2.218		2.205		0.000		-		0.000	8.661	22.171	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
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 2017 Navy		Date: February 2016
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 2015	2	2015	3	2015
Trident Warrior (TW) Execution 2016	2	2016	3	2016
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 Concept Development Conferences 2015	2	2015	2	2015
TW Concept Development Conferences 2016	2	2016	2	2016
TW Data Calls & CAA 2015	2	2015	2	2015
TW Data Calls & CAA 2016	2	2016	2	2016
TW Initial Planning Conferences 2015	4	2015	4	2015
TW Initial Planning Conferences 2016	4	2016	4	2016
TW Mid-Term Planning Conferences 2015	1	2015	1	2015
TW Mid-Term Planning Conferences 2016	1	2016	1	2016
TW Final Planning Conferences 2015	2	2015	2	2015
TW Final Planning Conferences 2016	2	2016	2	2016
TW Military Utility Assessment 2015	4	2015	4	2015
TW Military Utility Assessment 2016	4	2016	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy			Date: February 2016
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3323: *Maritime Tactical Command & Control (MTC2)*	18.998	11.859	15.262	14.293	-	14.293	22.557	21.113	21.528	21.966	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 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) in order to field to all echelons of command (afloat and ashore) within the Navy. The program's objective 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.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Maritime Tactical Command and Control (MTC2)	9.962	13.382	12.860	0.000	12.860
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Completed Information Systems - Capability Development Document (IS-CDD) and Capability Drop 1 requirements documents (capabilities defined in Capability Drop 1 will be fielded in FY 2018 as MTC2 Build 1 (B1)). Completed MTC2 B0 software development for alignment to the FY 2016 Navy Tactical Command (NTC) test event.					
FY 2016 Plans: Begin pre-acquisition documentation in support of Milestone B for Build 1 (B1) and Build 2 (B2) in FY 2017. Complete Information Assurance (IA) certification and accreditation to support NTC test event. Conduct testing in support of MTC2 NTC risk reduction activities.					
FY 2017 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Continue risk reduction activities and finalize pre-acquisition documentation in support of Milestone B for B1 and B2. Award contract and B1 delivery order to begin MTC2 software development. Initiate Tactical Decision Aids and Planning Tools design and development. Begin development of MTC2 capabilities for Ballistic Missile Defense Tracks Situation Awareness and AEGIS interfaces. ***FY 2017 OCO Plans:*** N/A					
Title: Global Force Management - Data Initiative (GFM-DI) ***Articles:*** ***FY 2015 Accomplishments:*** Mapped MTC2 requirements to GFM-DI. Received approval for GFM-DI Implementation Plan. ***FY 2016 Plans:*** Conduct integration and testing of designated GFM-DI capabilities for translation into the MTC2 Build 1 (B1) software baseline. ***FY 2017 Base Plans:*** Continue integration and testing of designated GFM-DI capabilities for translation into the MTC2 B1 software baseline, which will be part of the capabilities being developed for MTC2 in the B1 Final Architecture and Milestone B decision. ***FY 2017 OCO Plans:*** N/A	1.897 -	1.880 -	1.433 -	0.000 -	1.433 -
Accomplishments/Planned Programs Subtotals	11.859	15.262	14.293	0.000	14.293

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

MTC2 acquisition strategy will align to DoDI 5000.02 Model 3 Incrementally Deployed Software Intensive Program. MTC2 will execute a rapid software development acquisition strategy that is responsive to the fleet needs. Software development will be comprised of multiple builds defined by Capability Drops (CDs) of increasing levels of net-centric services capability. MTC2 will remain in the Risk Reduction prototype phase until Milestone B scheduled in FY 2017. 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

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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)*

development will utilize SPAWARSYSCOM contracts. SPAWAR Systems Center - Pacific (SSC-PAC), San Diego, CA will be the Lead System Integrator as the designated Software Support Activity (SSA).

E. Performance Metrics

MTC2 performance metrics will be defined and approved during Milestone B scheduled for FY 2017.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy			Date: February 2016
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 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	SSC : Norfolk, VA/ San Diego, CA	3.809	1.265	Dec 2014	1.618	Dec 2015	3.776	Dec 2016	-		3.776	Continuing	Continuing	Continuing
Training Development	WR	SSC : San Diego, CA	0.828	0.424	Dec 2014	0.543	Dec 2015	0.000		-		0.000	Continuing	Continuing	Continuing
Integration, Assembly & Test	WR	SSC : San Diego, CA	8.412	5.517	Dec 2014	7.146	Dec 2015	2.288	Dec 2016	-		2.288	Continuing	Continuing	Continuing
Studies & Design	MIPR	Various : Various	1.764	0.000		0.000		0.000		-		0.000	0.000	1.764	1.764
Systems Engineering	C/CPFF	Various : San Diego, CA	1.523	3.516	Mar 2015	4.504	Mar 2016	2.132	Dec 2016	-		2.132	Continuing	Continuing	Continuing
Software Development	C/CPIF	TBD : TBD	0.000	0.000		0.000		3.639	Mar 2017	-		3.639	Continuing	Continuing	Continuing
Software Development	WR	SSC : San Diego, CA	0.000	0.000		0.000		0.695	Dec 2016	-		0.695	0.000	0.695	-
		Subtotal	16.336	10.722		13.811		12.530		-		12.530	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	WR	SSC : Norfolk, VA/ San Diego, CA	0.047	0.000		0.000		0.127	Dec 2016	-		0.127	Continuing	Continuing	Continuing
		Subtotal	0.047	0.000		0.000		0.127		-		0.127	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	SSC : San Diego, CA	0.459	0.226	Dec 2014	0.289	Dec 2015	0.000		-		0.000	0.000	0.974	0.974
Contractor Engineering Support	C/CPFF	SeaPort : San Diego, CA	0.476	0.000		0.000		0.225	Dec 2016	-		0.225	Continuing	Continuing	Continuing
Program Management Support	C/CPFF	SeaPort : San Diego, CA	1.642	0.911	Dec 2014	1.162	Dec 2015	0.855	Dec 2016	-		0.855	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy		Date: February 2016
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)*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	WR	SSC : San Diego, CA	0.000	0.000		0.000		0.556	Dec 2016	-		0.556	Continuing	Continuing	Continuing
Management Services	Various	Various : Various	0.038	0.000		0.000		0.000		-		0.000	0.000	0.038	-
		Subtotal	2.615	1.137		1.451		1.636		-		1.636	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	18.998	11.859		15.262		14.293		-		14.293	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
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)*

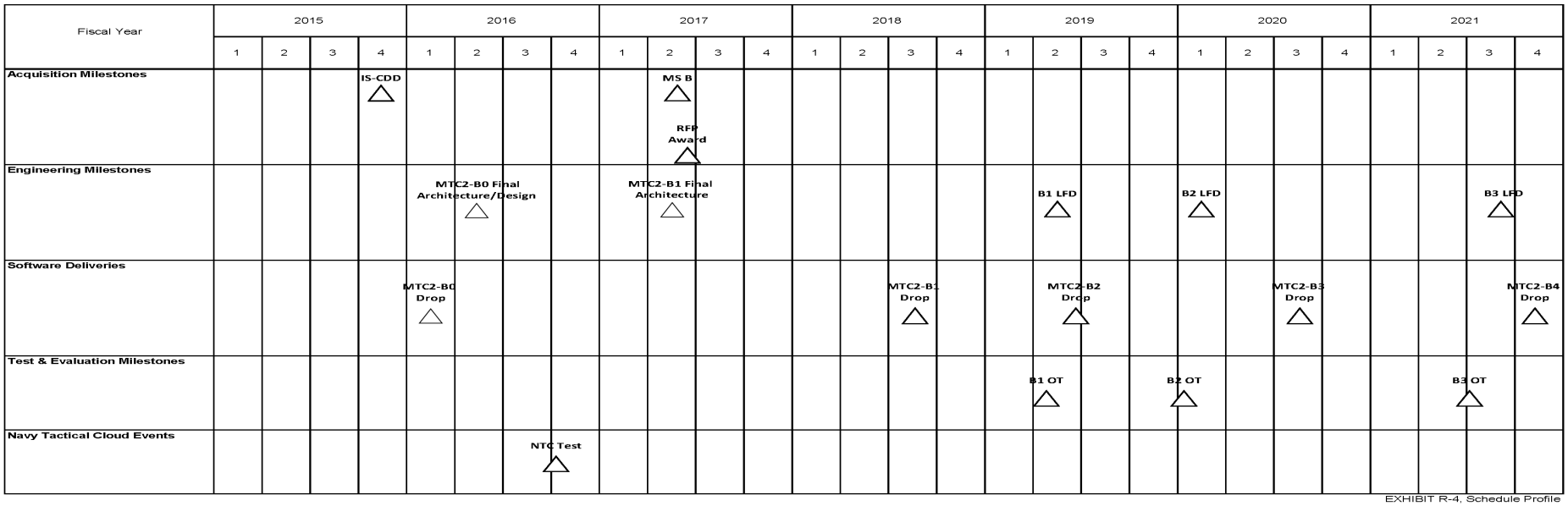


EXHIBIT R-4, Schedule Profile

Legend:

B - Build	MTC2 B0 - NTC Software
IS-CDD - Information Systems - Capability Development Document	NTC - Navy Tactical Cloud
LFD - Limited Field Decision	OT - Operational Test
MTC2 - Maritime Tactical Command and Control	RFP - Request for Proposal

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
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				
Information Systems - Capability Development Document (IS-CDD)	4	2015	4	2015
MTC2 Build 0 (B0) Drop	1	2016	1	2016
MTC2 B0 Final Architecture/Design	2	2016	2	2016
Naval Tactical Cloud (NTC) Test	4	2016	4	2016
MTC2 Build 1 (B1) Final Architecture	2	2017	2	2017
Milestone B (MS B)	2	2017	2	2017
Request For Proposal (RFP) Award	2	2017	2	2017
MTC2 B1 Drop	3	2018	3	2018
B1 Operational Test (OT)	2	2019	2	2019
MTC2 Build 2 (B2) Drop	2	2019	2	2019
B1 Limited Fielding Decision (LFD)	2	2019	2	2019
B2 OT	1	2020	1	2020
B2 LFD	1	2020	1	2020
MTC2 Build 3 (B3) Drop	3	2020	3	2020
B3 LFD	3	2021	3	2021
B3 OT	3	2021	3	2021
MTC2 Build 4 (B4) Drop	4	2021	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy			Date: February 2016
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3324: *Navy Air Operations Command and Control (NAOC2)*	10.496	1.784	0.801	0.999	-	0.999	1.043	1.010	1.028	1.050	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 FY2017, 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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Command and Control Air and Space Operations Suite - Command and Control Information Services (C2AOS-C2IS) Integration and Testing	1.784	0.801	0.999	0.000	0.999
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Continued integration and testing of Capability Package 1 (CP1) Air Tasking Order Management System (ATOMS), CP1 Request Information Services for Command and Control (RISC2), Capability Package 2 (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					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
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 Plans:*** Conduct final integration and 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 1 (CP1) Air Tasking Order Management System (ATOMS), CP1 Request Information Services for Command and Control (RISC2), Capability Package 2 (CP2) Airspace Management Application/Airspace Information Service (ASMA/ASIS), and CP2 Integrated Air and Missile Defense (IAMD) Planner. ***FY 2017 Base Plans:*** Conduct Operational Test of initial C2AOS-C2IS modules to include CP1 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. Begin integration and testing of Capability Package 3 (CP3) Air eXecution Information Systems (AXIS), and begin integration and validation of the consolidated CP1/CP2/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 2017 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	1.784	0.801	0.999	0.000	0.999

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 Network 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.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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)*

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 reduce sustainment costs.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy			Date: February 2016
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 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering/ Training DevelopmentText/ Configuration Management	WR	SSC Pacific : San Diego, CA	3.766	0.000		0.000		0.000		-		0.000	0.000	3.766	3.362
Licenses/Government Furnished Equipment (GFE)/Technical Data	WR	VARIOUS : VARIOUS	2.342	0.000		0.000		0.000		-		0.000	0.000	2.342	0.488
Systems Engineering	MIPR	MITRE : San Diego, CA	0.000	0.170	Dec 2014	0.000		0.000		-		0.000	0.000	0.170	0.170
Integration and Testing	WR	VARIOUS : VARIOUS	0.000	0.000		0.000		0.924	May 2017	-		0.924	Continuing	Continuing	Continuing
		Subtotal	6.108	0.170		0.000		0.924		-		0.924	-	-	-

Remarks

GFE supports integration efforts, not for fielding.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	SSC Pacific : San Diego,CA	0.180	0.000		0.000		0.000		-		0.000	0.000	0.180	0.180
Integrated Logistics Support	WR	SSC Atlantic : Charleston, SC	0.358	0.000		0.000		0.000		-		0.000	0.000	0.358	0.358
		Subtotal	0.538	0.000		0.000		0.000		-		0.000	0.000	0.538	0.538

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation	MIPR	COMOPTEVFOR : Norfolk, VA	0.294	0.000		0.075	Mar 2016	0.075	Mar 2017	-		0.075	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy		Date: February 2016
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 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	SSC Pacific : San Diego, CA	2.651	0.000		0.000		0.000		-		0.000	0.000	2.651	2.651
Integration and Testing	WR	VARIOUS : VARIOUS	0.000	1.614	Jul 2015	0.726	Jul 2016	0.000		-		0.000	0.000	2.340	2.345
		Subtotal	2.945	1.614		0.801		0.075		-		0.075	-	-	-

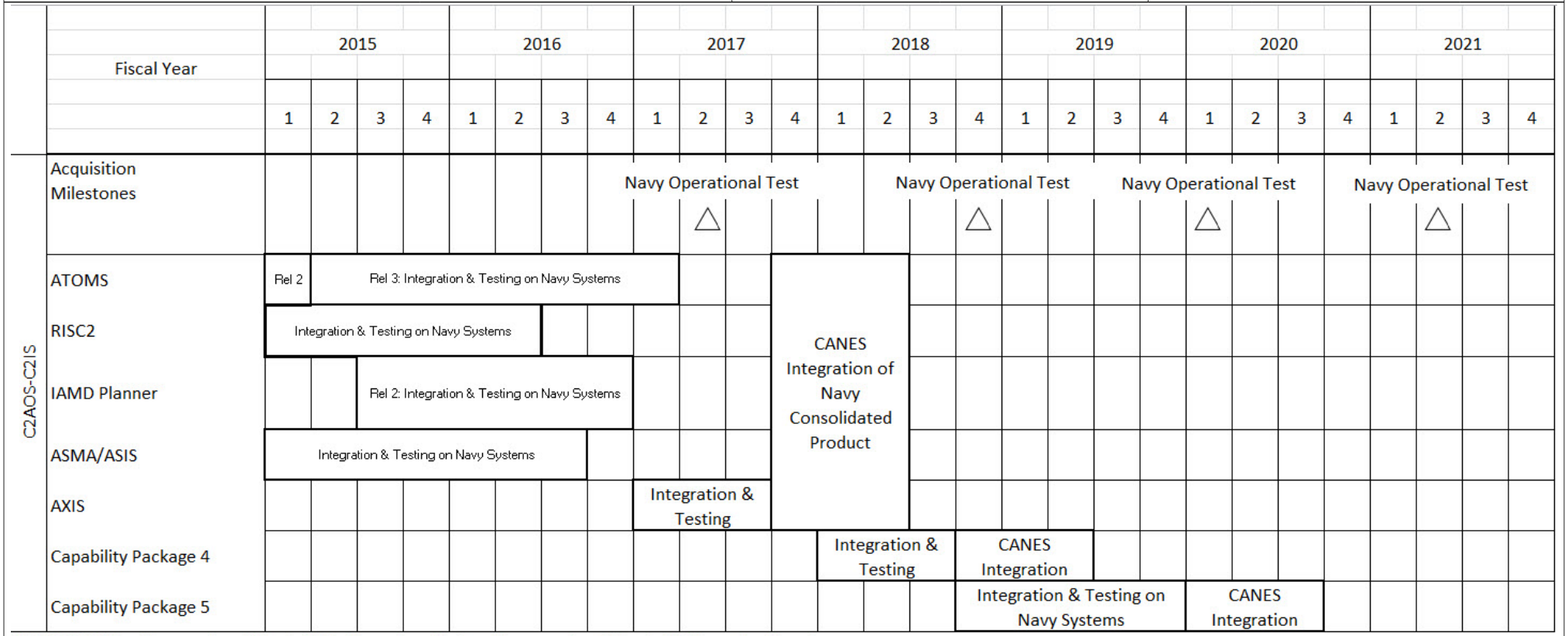
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPFF	Sentek : San Diego, CA	0.651	0.000		0.000		0.000		-		0.000	0.000	0.651	0.651
Program Management Support	C/CPFF	Booz Allen : San Diego, CA	0.254	0.000		0.000		0.000		-		0.000	0.000	0.254	0.254
		Subtotal	0.905	0.000		0.000		0.000		-		0.000	0.000	0.905	0.905

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	10.496	1.784		0.801		0.999		-		0.999	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
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)*



C2AOS-C2IS - Command and Control Air Operations Suite - Command and Control Information Services
ATOMS - Air Tasking Order Management System
RISC2 - Request Information Services for Command and Control
ASMA/ASIS - Airspace Management Application/Airspace Information service
IAMD - Intergrated Air and Missile Defense
CANES - Consolidated Afloat Network and Enterprise Services

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
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	2015	1	2015
ATOMS CP1 Rel 3 Integration and Testing	2	2015	1	2016
Request information Services (RISC2) CP1 Integration and Testing	1	2015	1	2016
Air Space Management Application (ASMA) / Air Space Information Services (ASIS) Integration and Testing	1	2015	1	2016
Integrated Air and Missle Defense (IAMD) Planner CP2 Rel 2 Integration and Testing	3	2015	1	2016
CP3 Integration and Testing	2	2016	2	2017
CANES Integration of Navy CP1-CP2 Consolidated C2AOS-C2IS Product	2	2016	3	2016
Navy C2AOS-C2IS Operational Test CP1-CP2	2	2017	2	2017
CP4 Integration and Testing	3	2017	3	2018
CANES Integration of Navy CP3 Consolidated C2AOS-C2IS Product	3	2017	1	2018
Navy C2AOS-C2IS Operational Test CP3	4	2018	4	2018
CANES Integration of Navy CP4 Consolidated C2AOS-C2IS Product	4	2018	2	2019
CP5 Integration and Testing	4	2018	4	2019
Navy C2AOS-C2IS Operational Test CP4	1	2020	1	2020
CANES Integration of Navy CP5 Consolidated C2AOS-C2IS Product	1	2020	3	2020
Navy C2AOS-C2IS Operational Test CP5	1	2021	1	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy			Date: February 2016
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
9123: *FORCEnet*	232.335	2.355	2.359	2.177	-	2.177	2.409	2.245	2.288	2.335	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 (PHA): 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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: FORCEnet	2.355	2.359	2.177	0.000	2.177
Articles:	-	-	-	-	-
FY 2015 Accomplishments: DoN Command, C4ISR Transformation/Strategic Planning within DoN/Joint/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, technology insertion, and incorporation of material and non-material solutions for enhanced Joint operational capabilities in NCO/W.					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
-Continued to support Navy implementation of MDA, Standing Joint Force Headquarters, MOC, and Coalition/ Allied operations. Information Dominance Portfolio Health Assessment (PHA): Utilized and studied Navy mission areas in support of systems of systems engineering assessments used to inform sponsor. These assessments identified integration and interoperability gaps, trades, and solutions for sponsor related equities. -Identified Navy mission area gaps in Information Dominance capabilities to prioritize Science and Technology efforts for future budget decisions. -Assessed tradespace and solutions, ensuring Force level capability and systems of systems integration and interoperability in studied mission areas. -Packaged assessments to support sponsor's decision making processes. ***FY 2016 Plans:*** Information Dominance PHA: Continue to 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 PHA. Identify critical architectural dependencies to enable mission situational awareness, which is a key component of the PHAs. -Continue to identify Navy mission area gaps in Information Dominance capabilities to prioritize Science and Technology efforts for future budget decisions. -Continue to assess tradespace and solutions, ensuring Force level capability and systems of systems integration and interoperability in studied mission areas. -Continue to package assessments to support sponsor decision-making processes. ***FY 2017 Base Plans:*** Information Dominance PHA: Continue to 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. -Continue to provide analytical support to ensure that cybersecurity risk assessments and engineering activities are informed by NCSA capabilities as addressed by the PHA. Continue to identify critical architectural dependencies that enable mission situational awareness, which is a key component of the PHAs. -Continue to identify Navy mission area gaps in Information Dominance capabilities to prioritize Science and Technology efforts for future budget decisions.					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
-Continue to assess tradespace and solutions, ensuring Force level capability and systems of systems integration and interoperability in studied mission areas. -Continue to package assessments to support sponsor decision-making processes. ***FY 2017 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	2.355	2.359	2.177	0.000	2.177

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 2017 Navy		Date: February 2016
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 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development DLB/RCD	Various	Various : Various	1.196	0.000		0.000		0.000		-		0.000	0.000	1.196	-
Systems Engineering-DLB/RCD	Various	Various : Various	0.600	0.000		0.000		0.000		-		0.000	0.000	0.600	-
Ship Integration	Various	Various : Various	0.935	0.000		0.000		0.000		-		0.000	0.000	0.935	-
Systems Engineering	Various	Various : Various	1.600	0.000		0.000		0.000		-		0.000	0.000	1.600	-
		Subtotal	4.331	0.000		0.000		0.000		-		0.000	0.000	4.331	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support DLB/RCD	Various	Various : Various	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	-
Configuration Management DLB/RCD	Various	Various : Various	0.115	0.000		0.000		0.000		-		0.000	0.000	0.115	-
Development Support DLB/RCD	Various	Various : Various	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	-
Software Development DLB/RCD	Various	Various : Various	1.971	0.000		0.000		0.000		-		0.000	0.000	1.971	-
Development Support	Various	Various : Various	2.700	0.000		0.000		0.000		-		0.000	0.000	2.700	-
Software Support	Various	Various : Various	2.900	0.000		0.000		0.000		-		0.000	0.000	2.900	-
Sys Req Analysis/Sys Eng	Various	Various : Various	15.094	0.000		0.000		0.000		-		0.000	0.000	15.094	-
S/W Develop,Integ,Demo, Field - MDA Prototypes	Various	Various : Various	108.910	0.000		0.000		0.000		-		0.000	0.000	108.910	-
Sys Req Analysis/Sys Eng	WR	SSC PAC : San Diego, CA	1.157	0.000		0.000		0.000		-		0.000	0.000	1.157	-
Sys Req Analysis/Sys Eng	WR	SSC LANT : Charleston, SC	1.306	0.000		0.000		0.000		-		0.000	0.000	1.306	-
DoN Transformation (Strategic Planning)	WR	NSWC Dahlgren : Dahlgren, MD	1.069	0.054	Jan 2015	0.000		0.000		-		0.000	0.000	1.123	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy			Date: February 2016
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 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Information Dominance Roadmaps and Analysis	C/CPFF	METRON : Reston, VA	1.066	0.000		0.000		0.000		-		0.000	0.000	1.066	-
Information Dominance Roadmaps and Analysis	C/CPFF	SAIC : McLean, VA	4.911	1.877	Jan 2015	1.784	Mar 2016	1.633	Mar 2017	-		1.633	Continuing	Continuing	Continuing
Information Dominance Roadmaps and Analysis	WR	SSC LANT : Charleston, NC	1.352	0.424	Jan 2015	0.355	Mar 2016	0.324	Mar 2017	-		0.324	Continuing	Continuing	Continuing
Information Dominance Roadmaps and Analysis	C/CPFF	BAH : McLean, VA	0.000	0.000		0.220	Mar 2016	0.220	Mar 2017	-		0.220	Continuing	Continuing	Continuing
		Subtotal	143.051	2.355		2.359		2.177		-		2.177	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various : Various	1.300	0.000		0.000		0.000		-		0.000	0.000	1.300	-
Accelerating Joint Warfighting Capability (TW)	Various	Various : Various	30.736	0.000		0.000		0.000		-		0.000	0.000	30.736	-
Accelerating Joint Warfighting Capability (TW)	WR	Fleet Forces Command : San Diego, CA	0.095	0.000		0.000		0.000		-		0.000	0.000	0.095	-
Accelerating Joint Warfighting Capability (TW)	WR	Naval Postgraduate School : Monterey, CA	0.978	0.000		0.000		0.000		-		0.000	0.000	0.978	-
Accelerating Joint Warfighting Capability (TW)	WR	SSC Atlantic : Charleston, SC	0.445	0.000		0.000		0.000		-		0.000	0.000	0.445	-
Accelerating Joint Warfighting Capability (TW)	WR	SSC Pacific : San Diego, CA	1.069	0.000		0.000		0.000		-		0.000	0.000	1.069	-
Accelerating Joint Warfighting Capability (TW)	C/CPFF	AUSGAR Technologies Inc. : San Diego, CA	1.489	0.000		0.000		0.000		-		0.000	0.000	1.489	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy			Date: February 2016
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 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Imp FORCEnet Req (Fn Comp)	Various	Various : Various	17.144	0.000		0.000		0.000		-		0.000	0.000	17.144	-
Developmental Test & Evaluation DLB/RCD	Various	Various : Various	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-
DoN Transformation (Strategic Planning)	Various	Various : Various	20.521	0.000		0.000		0.000		-		0.000	0.000	20.521	-
DoN Transformation (Strategic Planning)	WR	NUWC : Newport, RI	0.959	0.000		0.000		0.000		-		0.000	0.000	0.959	-
DoN Transformation (Strategic Planning)	WR	NPGS : Monterey, CA	1.686	0.000		0.000		0.000		-		0.000	0.000	1.686	-
DoN Transformation (Strategic Planning)	C/CPFF	NGIT : Herndon, VA	0.349	0.000		0.000		0.000		-		0.000	0.000	0.349	-
DoN Transformation (Strategic Planning)	C/CPFF	Unknown : Unknown	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
		Subtotal	77.271	0.000		0.000		0.000		-		0.000	0.000	77.271	-

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 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Support	Various	Various : Various	2.124	0.000		0.000		0.000		-		0.000	0.000	2.124	-
Government Engineering Support	Various	Various : Various	3.899	0.000		0.000		0.000		-		0.000	0.000	3.899	-
Program Management Support DLB/RCD	Various	Various : Various	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	-
Travel DLB/RCD	Various	Various : Various	0.145	0.000		0.000		0.000		-		0.000	0.000	0.145	-
Program Management Support	Various	Various : Various	0.800	0.000		0.000		0.000		-		0.000	0.000	0.800	-
Travel	Various	Various : Various	0.299	0.000		0.000		0.000		-		0.000	0.000	0.299	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy			Date: February 2016
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 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Acquisition Workforce	Various	Various : Various	0.165	0.000		0.000		0.000		-		0.000	0.000	0.165	-
		Subtotal	7.682	0.000		0.000		0.000		-		0.000	0.000	7.682	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	232.335	2.355		2.359		2.177		-		2.177	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 9123 / *FORCEnet*

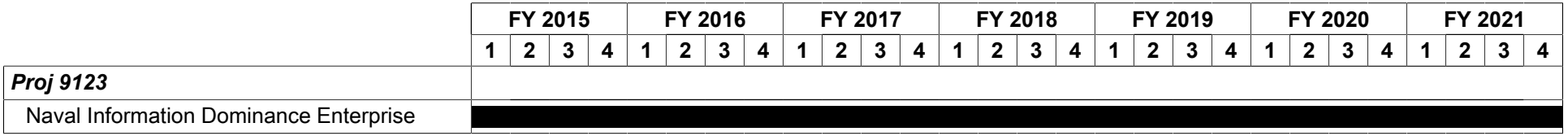


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604231N / *Tactical Command System*	**Project (Number/Name)** 9123 / *FORCEnet*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 9123				
Naval Information Dominance Enterprise	1	2015	4	2021