Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*				R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	227.604	321.623	219.054	-	219.054	200.011	162.411	97.813	99.090	Continuing	Continuing
2270: *Exp Indirect Fire Gen Supt Wpn Sys*	24.739	23.810	21.119	-	21.119	33.665	28.277	27.039	24.813	Continuing	Continuing
2273: *Air Ops Cmd & Control (C2) Sys*	52.100	67.387	94.071	-	94.071	63.755	71.048	21.370	24.775	Continuing	Continuing
2274: *Command & Control Warfare Sys*	19.071	26.091	32.052	-	32.052	35.427	17.772	15.555	15.887	Continuing	Continuing
2275: *Joint Tactical Radio System*	1.850	4.964	4.413	-	4.413	25.309	9.817	3.901	6.066	Continuing	Continuing
2276: *Comms Switching and Control Sys*	4.106	3.979	8.327	-	8.327	10.336	9.295	7.759	5.103	Continuing	Continuing
2277: *System Engineering and Integration*	5.405	9.575	6.171	-	6.171	6.366	6.450	6.537	6.573	Continuing	Continuing
2278: *Air Defense Weapons System*	5.788	2.171	1.993	-	1.993	3.210	3.407	3.421	3.491	Continuing	Continuing
2510: *MAGTF CSSE & SE*	32.568	43.185	25.231	-	25.231	4.476	4.677	4.696	4.395	Continuing	Continuing
3099: *Radar System*	24.164	33.807	25.677	-	25.677	17.467	11.668	7.535	7.987	Continuing	Continuing
9C89: *Marine Ground-Air Radar*	57.813	106.654	-	-	-	-	-	-	-	0.000	164.467

A. Mission Description and Budget Item Justification

This program element provides funding to develop the command and control (C2) support and information infrastructures for the Fleet Marine Force and supporting establishment. Doctrinally, the C2 support system and the information infrastructure form two parts of a triad of capabilities which permits command and control systems to be transformed into a complete operating system. The third element of the triad is command and control organization and is not covered in this program element. USMC command and control is divided into seven functional areas and one supporting functional area as follows: intelligence C2, fire support C2, air operations C2, radio systems C2, combat service support C2, warfare C2, radar systems C2, and C2 support (information processing and communications).

Within this program element, subprojects have been grouped by C2 functional area for more efficient planning. Air defense weapons systems have been added to facilitate planning and a separate project is used for systems assigned to the supporting establishment. Subprojects which support the commander's decision processes have been collected into the Command Post Systems project since these systems must work in close cooperation to ensure effective C2 of Marine Air Ground Task Forces.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy					DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*		R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*			
B. Program Change Summary ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**
Previous President's Budget	245.298	320.864	325.943	-	325.943
Current President's Budget	227.604	321.623	219.054	-	219.054
Total Adjustments	-17.694	0.759	-106.889	-	-106.889
• Congressional General Reductions	-	-0.741			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.879	-			
• SBIR/STTR Transfer	-5.389	-			
• Program Adjustments	-	1.500	-115.175	-	-115.175
• Rate/Misc Adjustments	-	-	8.286	-	8.286
• Congressional General Reductions Adjustments	-1.784	-	-	-	-
• Congressional Directed Reductions Adjustments	-12.400	-	-	-	-

Change Summary Explanation

FY13 RDT&E projects decreased $28M to meet DoD cost saving goals while maintaining cost effective development schedules. Three FY 13 efforts increased as follows: the C2273 Common Aviation Command and Control System (CAC2S) increased $32.8M for the air combat element (ACE) battle management and control capabilities; the C2274 Ground Based Operational Surveillance System (GBOSS) sensor package system increased $1M; and, the C2276 Digital Technical Control switch network infrastructure increased $4.2M.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2270: *Exp Indirect Fire Gen Supt Wpn Sys*	24.739	23.810	21.119	-	21.119	33.665	28.277	27.039	24.813	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Advanced Field Artillery Tactical Data System (AFATDS) - The Advanced Field Artillery Tactical Data System (AFATDS) is an automated fire support command and control (C2) system consisting of fire support application software operating on common hardware platforms, which provides the MAGTF with the ability to rapidly integrate all supporting arms assets into maneuver plans via a digital data communications links. The AFATDS program includes AFATDS software and hardware, the Effects Management Tool (EMT) (a C2PC injector), the Back-up Computer System (BUCS), and the Battery Mobile Tactical Shelter (MTS).

Tactical Command Operations System (TCO) - TCO is the principle tool within the Marine Air Ground Task Force (MAGTF) for situational awareness through distribution of the Common Tactical Picture (CTP). It supports tactical operations providing information via high speed computer systems in a timely manner and includes the Intel Operations Workstations/Servers. R&D funds provide science and technology advanced concepts to be applied to the system for an increase in functional capabilities to the warfighter, to include JC2 development efforts within Tactical Service Oriented Architecture (TSOA).

Target Location Designation and Handoff System (TLDHS) - Provides the ability for Forward Observers (FOs) and Forward Air Controllers (FACs) to observe their area of interest, quickly and accurately locate ground targets, receive and display friendly unit information and Fire Support Coordination Measures (FSCMs) on map displays interfaced with C2PC. TLDHS can digitally request and provide digital terminal control for target engagements by field artillery (FA) through AFATDS, close air support (CAS) aircraft, and naval surface fire support (NSFS), and the machine-to-machine interface of the system reduces the potential for fratricide due to human error and by displaying friendly positions and target locations to the terminal controller.

Marine Air Ground Task Force (MAGTF) Command and Control (C2) Systems Applications - MAGTF C2 SA merges the development, integration and testing of 45 existing C2 systems and applications into one common enterprise capability. They reside in all Combat Operations Centers (COCs) and related USMC C2 platforms. This effort provides greater economies of scale/affordability with system developers, technical design agents, integration agents and individual program offices. MAGTF C2 SA efforts are in alignment with the combat developers requirements for: Net-Centric systems, Development of reusable Open Architecture components, Data exposure, Enhancing the war-fighter's Situational Awareness and Increasing/Maximizing the Commander's decision space.

Joint Battle Command - Platform (JBC-P) - will provide a single integrated Joint Blue Force Situational Awareness (JBFSA) capability solution for C2, Position Location Information (PLI), Mapping, Messaging, Overlays, and Routes, as required by Joint Requirements Oversight Council Memoranda 163-04, and 161-03. JBC-P will replace the BFT family of systems.

BFSA/Blue Force Tracker (BFT) - The BFT System is a commerical L-Band satellite-based Tracking and Communication System. USMC was directed to converge to the BFT Family of Systems (FoS) by Joint Requirements Oversight Council (JROC) Memorandum 163-04 direction based on OIF/OEF lessons learned. The BFT FoS

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

is comprised of the BFT, Mounted Refresh Computer (MRC) and Tactical Operations Center (TOC) Kit. BFT provides the near real time capability to identify vehicle/ squad/rotary aircraft position, track progress, and communicate with other operators of these tactical "platforms" in OIF, OEF, other OCONUS operations and CONUS training for wartime deployment.

Identity Dominance System (IDS) - will provide a user friendly biometric authentication technology that will be employed to deny the enemy freedom of movement within the populace and positively identify known insurgents within an Area of Responsibility (AOR). It will enable Marine Corps and host-nation security personnel to detain, apprehend or deny entry to unwanted individuals in critical areas. The capability will enhance overall Force Protection and High-Value Target Identification by providing a means to rapidly ascertain whether or not a detained individual is wanted for criminal or terrorist activity, badge local workers and support post incident investigation by allowing collected evidence to be compared to available biometrics to identify likely suspects. Specifically, these items will enable enhanced perimeter security for high-visibility events such as national elections on foreign soil; high profile dignitary meetings between U.S. military officials and host nation political and military leaders; and U.S. military demonstrations. This capability will also enable enhanced prisoner management for the efficient administration of detainees, and improve Civil Action of DoD personnel by providing a means to track payments to host-nation workers and managed local labor who support/access facilities where military/ Marines are located. Finally, this capability will enhance available intelligence by allowing "link analysis" on individuals to reveal criminal or terrorist associations not readily apparent when records are reviewed individually.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: *JBC-P: Software Development/Integration.	3.399	1.472	1.125	-	1.125
Articles:	0	0	0		0
FY 2011 Accomplishments: FY11 initiative focused mainly on systems engineering of the next increments of this spiral/incremental acquisition including requirements analysis, documentation review, integration wiht Marine Corps radios and participation in Army-led engineering efforts. Requirements identification/decomposition as well as funding a position in Huntsville, AL to serve as a liaison and integrated team member in the development of the JBC-P Core software. Federally Funded Research Center (FFRDC) software engineering support funded to provide appropriate government direction in design and development of software. Contract support funded to assist and serve as subject matter experts in this effort, as well as SPAWAR in later integration efforts.					
FY 2012 Plans: Personnel integrated into the software development team at the Software Engineering Directorate in Huntsville, AL in order to assist in the development and integration of the JBC-P capability. Federally Funded Research Center (FFRDC) software engineering support funded to provide appropriate government direction in design and development of software. Contract support funded to assist and serve as subject matter experts in this effort, as					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
well as SPAWAR in later integration efforts. Existing documentation and logistics support will be analyzed for supportability of JBC-P and follow on increments of the capability and if necessary, amended or re-written. ***FY 2013 Base Plans:*** Continue personnel integrated into the software development team at the Software Engineering Directorate in Huntsville, AL in order to assist in the development and integration of the JBC-P capability. Federally Funded Research Center (FFRDC) software engineering support funded to provide appropriate government direction in design and development of software. Contract support funded to assist and serve as subject matter experts in this effort, as well as SPAWAR in later integration efforts. Existing documentation and logistics support will be analyzed for supportability of JBC-P and follow on increments of the capability and if necessary, amended or re-written.					
Title: *JBC-P: Training Development. ***Articles:*** ***FY 2011 Accomplishments:*** Held User juries and updated existing JCR training efforts in support of the evolution to JBC-P. ***FY 2012 Plans:*** Evaluate and update existing documentation for re-use as JBC-P evolves. Utilizing Game-like software and Smartphone-like hardware is expected to reduce the amount of user training required for the system. ***FY 2013 Base Plans:*** Continue evaluation and updating of existing documentation for re-use as JBC-P evolves. Utilizing Game-like software and Smartphone-like hardware is expected to reduce the amount of user training required for the system.	0.250 0	0.150 0	0.200 0	-	0.200 0
Title: *JBC-P: Developmental Test (DT)/Operational Test (OT) ***Articles:*** ***FY 2011 Accomplishments:*** Test planning and development as well participation and evaluation of s/w and some h/w test events. ***FY 2012 Plans:*** Laboratories integrated with Huntsville Software Engineering Division (SED) and MCTSSA in order to facilitate test and network integration test events. ***FY 2013 Base Plans:***	0.500 0	0.250 0	0.200 0	-	0.200 0

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APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Continue laboratories integration with Huntsville Software Engineering Division (SED) and MCTSSA in order to facilitate test and network integration test events.					
Title: *JBC-P: System Engineering, Programmatic, and Logistics Program Support ***Articles:*** ***FY 2011 Accomplishments:*** Support personnel and travel. ***FY 2012 Plans:*** Support personnel and travel. ***FY 2013 Base Plans:*** Support personnel and travel.	0.306 0	0.307 0	0.400 0	-	0.400 0
Title: *MAGTF C2: Engineering, research, development, integration and testing support for MAGTF release ***Articles:*** ***FY 2011 Accomplishments:*** Complete developmental of Service Oriented Infrastructure initial release, complete Information Assurance (IA), and Developmental Testing of the Service Oriented Infrastructure. Integrate into Combat Operations Center (COC) and complete developmental testing. Continue decoupling of services and applications from legacy systems in order to integrate to work with the Service Oriented Infrastructure. complete systems integration and conduct developmental/operational testing.	4.516 0	-	-	-	-
Title: *MAGTF C2: Engineering, research, and software development for MAGTF capability release ***Articles:*** ***FY 2011 Accomplishments:*** Focus of effort is initiating adaptation, development and integration of entity, task and presentation services from multiple programs of record to operate with the Service. Initiated activities to incorporate functionality from the Fires, Logistics and Intelligence communities. Funds support a completion of TSOA Build 2 and 3. ***FY 2012 Plans:*** Focus of effort is initiating adaptation, development and integration of entity, task and presentation services from multiple programs of record to operate with the Service. Initiated activities to incorporate functionality from the Fires, Logistics and Intelligence communities. Initiate and build TSOA builds 4 and 5, with development of the MCTSSA hosted Application Environment and new IA services. Builds 4 and 5 introduce the enhanced	2.993 0	11.595 0	7.592 0	-	7.592 0

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APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Warfighter capability, and include interfaces with other Service SOA efforts, such as System of Systems Common Operating Environment (SOSCOE, Army) and Consolidated Afloat Network and Enterprise Services (CANES, Navy). ***FY 2013 Base Plans:*** Focus of effort is initiating adaptation, development and integration of entity, task and presentation services from multiple programs of record to operate with the Service. Initiated activities to incorporate functionality from the Fires, Logistics and Intelligence communities. Initiate and build 6 and 7. Builds 6 and 7 introduce enhanced collaboration and imagery functionality.					
Title: *MAGTF C2: Program Support. Software engineering program support ***Articles:*** ***FY 2011 Accomplishments:*** Federally Funded Research Center (FFRDC) software engineering support to provide appropriate government direction in design and development of software, conduct of source code reviews and prime vendor oversight. ***FY 2012 Plans:*** Federally Funded Research Center (FFRDC) software engineering support to provide appropriate government direction in design and development of software, conduct of source code reviews and prime vendor oversight. ***FY 2013 Base Plans:*** Federally Funded Research Center (FFRDC) software engineering support to provide appropriate government direction in design and development of software, conduct of source code reviews and prime vendor oversight.	1.050 0	1.100 0	1.100 0	-	1.100 0
Title: *BFSA: Joint Interoperability Testing ***Articles:*** ***FY 2011 Accomplishments:*** Joint interoperability certification with U.S. Army. ***FY 2012 Plans:*** Continue Joint interoperability certification with U.S. Army.	0.056 0	0.020 0	-	-	-
Title: *BFSA: Software Development, Integration and Testing ***Articles:*** ***FY 2011 Accomplishments:***	0.868 0	3.130 0	1.913 0	-	1.913 0

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APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Joint Capability Release (JCR) software testing and integration on USMC unique platforms, software field user evaluation, and installation kit integration evaluation on USMC platforms. ***FY 2012 Plans:*** Software and network developmental efforts for USMC specific requirements, software field user evaluations and associated risk reduction events. ***FY 2013 Base Plans:*** Continue software and network developmental efforts for USMC specific requirements and associated risk reduction events.					
Title: BFSA: Software Certification and Accreditation ***Articles:*** ***FY 2011 Accomplishments:*** Information assurance efforts to support certification and accreditation efforts of Joint Capability Release (JCR) software upgrades. ***FY 2012 Plans:*** Information assurance efforts to support certification and accreditation efforts of Joint Capability Release (JCR) software upgrades. ***FY 2013 Base Plans:*** Information assurance efforts to support certification and accreditation efforts of Joint Capability Release (JCR) software upgrades.	0.378 0	0.140 0	0.141 0	-	0.141 0
Title: *TCO: System testing and integration to develop additional functional capabilities. ***Articles:*** ***Description:*** Hardware upgrade solutions were researched and documented, in preparation for seamless transition to future technology and increased software capability. ***FY 2011 Accomplishments:*** Continue developing Registration and Orchestration Capability Modules (CM). ***FY 2012 Plans:*** Execute Proof of Concept /backwards compatability Registration and Orchestration Capability Modules (CM). ***FY 2013 Base Plans:***	2.140 0	2.142 0	1.194 0	-	1.194 0

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Update Global capability as enhanced Command Operation Picture (COP) service. Integrate and test ability to exchange data with multiple Command and Control (C2) systems. Execute interoperability between Global and modules.					
Title: *TCO: Integrate software changes into new system and perform testing. ***Articles:***	0.615 0	0.482 0	0.423 0	-	0.423 0
FY 2011 Accomplishments: The Marine Corps will develop Registration and Orchestration Capability Modules (CM) originally signed to and agreed upon by the Marine Corps under the Net Enabled Command Capability (NECC). As part of this FY11 effort, development will use advanced concepts and technologies specifically Tactical Service Oriented Architecture (TSOA). This development will include integration of the advanced concepts and technologies on existing, as well as possible upgraded hardware. ***FY 2012 Plans:*** Begin implementation of newly developed concepts and technologies for proof of concept. ***FY 2013 Base Plans:*** Continue implementation of newly developed concepts and technologies for proof of concept.					
Title: *TCO: Testing and validations of advanced concepts and technologies. ***Articles:***	0.557 0	1.043 0	1.000 0	-	1.000 0
FY 2011 Accomplishments: Continue testing as required. ***FY 2012 Plans:*** Continue testing as required. ***FY 2013 Base Plans:*** Continue testing as required.					
Title: *IDS: System Development and Testing ***Articles:***	1.050 0	0.941 0	0.936 0	-	0.936 0
FY 2011 Accomplishments: Provided system integration, testing, techical program documentation. ***FY 2012 Plans:***					

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APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Provide system integration, testing, and technical program development documentation. ***FY 2013 Base Plans:*** Provide system integration, testing, and technical program development documentation in preparation for Materiel Development Decision.					
Title: *AFATDS: BUCS Software Development and Integration ***Articles:***	0.200 0	-	-	-	-
FY 2011 Accomplishments: Improvements to data computations for new munitions for EFSS. Communications improvements to incorporate new radios procured by USMC.					
Title: *AFATDS: AFATDS Software Development and Integration ***Articles:***	3.971 0	-	1.459 0	-	1.459 0
FY 2011 Accomplishments: Completed development of Increment I capabilities. Implemented AN-PRC117G radio configurations and "Ease-of-Use" features to improve user-interface. ***FY 2013 Base Plans:*** Limited AFATDS software and interface enhancements. Limited interoperability testing with JTCW software.					
Title: *TLDHS: Software Development ***Articles:***	0.677 0	0.526 0	1.672 0	-	1.672 0
FY 2011 Accomplishments: Development of TLDHS software ***FY 2012 Plans:*** Continue the development of TLDHS software ***FY 2013 Base Plans:*** Continue the development of TLDHS software					
Title: *AFATDS: Information Assurance Support ***Articles:***	0.900 0	-	0.500 0	-	0.500 0
FY 2011 Accomplishments:					

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APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Conducted Information Assurance Certification and Accreditation activities to ensure confidentiality, integrity, and availability of AFATDS/BUCS S/W as well as obtain/maintain Authority to Operate (ATO) and Authority to Connect (ATC) to the Marine Corps Enterprise Network (MCEN).. ***FY 2013 Base Plans:*** Continue Information Assurance Certification and Accreditation activities to ensure confidentiality, integrity, and availability of AFATDS/BUCS S/W.					
Title: *TLDHS: Testing and Evaluation ***Articles:*** ***FY 2011 Accomplishments:*** Performed TLDHS software and hardware testing and testing of NEW, SDB, AODB and TBMCS, Link 16, VMF, DACAS Block I message and Short Range Tomahawk software with TLDHS software for interoperability and safety compliance. ***FY 2012 Plans:*** Continue to perform TLDHS software and hardware testing and testing of NEW, SDB, AODB and TBMCS, Link 16, VMF, DACAS Block II messaging with TLDHS software for interoperability and safety compliance. ***FY 2013 Base Plans:*** Continue to perform TLDHS software and hardware testing and testing of NEW, SDB, AODB and TBMCS, Link 16, VMF, DACAS Block II messaging with TLDHS software for interoperability and safety compliance.	0.009 0	0.108 0	0.472 0	-	0.472 0
Title: TLDHS: Integration ***Articles:*** ***FY 2011 Accomplishments:*** Integration efforts for Combat Operations Center (COC), Net Enabled Weaspons (NEW), Small Diameter Bomb (SDB), Air Operational Database (AODB) and Theater Battle Management Core Systems (TBMCS), additional Link 16 message, Variable Message Format (VMF), Digital Aided Close Air Support (DACAS) Block I messaging, and Short Range Tomahawk software. ***FY 2012 Plans:*** Continues the integration of COC, NEW, SDB, AODB and TBMCS, additional Link 16 message, VMF, and DACAS Block II messaging. ***FY 2013 Base Plans:***	0.009 0	0.108 0	0.472 0	-	0.472 0

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Continues the integration of COC, NEW, SDB, AODB and TBMCS, additional Link 16 message, VMF, and DACAS Block II messaging.					
Title: TLDHS: Software Oversight and Information Assurance Support	0.295	0.296	0.320	-	0.320
Articles:	0	0	0		0
FY 2011 Accomplishments: Performed software code review prior to testing, certification and accreditation and to obtain authority to operate (ATO) to the Marine Corps Enterprise Network.					
FY 2012 Plans: Continues software code review prior to testing, certification and accreditation and to obtain authority to operate (ATO) to the Marine Corps Enterprise Network.					
FY 2013 Base Plans: Continues software code review prior to testing, certification and accreditation and to obtain authority to operate (ATO) to the Marine Corps Enterprise Network.					
Accomplishments/Planned Programs Subtotals	24.739	23.810	21.119	-	21.119

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PMC/463300: *BFSA*	0.048	0.000	0.374	0.000	0.374	0.000	0.000	0.000	0.000	0.000	0.422
• PMC/463123: *JBCP*	0.000	1.125	11.687	0.000	11.687	0.000	0.000	0.000	0.000	Continuing	Continuing
• PMC/643800: *IDS*	0.000	1.808	0.000	0.000	0.000	1.808	5.419	6.371	0.831	Continuing	Continuing
• PMC/463105: *BFSA*	23.586	88.583	6.927	0.000	6.927	42.381	36.789	28.046	40.900	Continuing	Continuing
• PMC/463113: *TCO*	29.998	15.079	7.298	0.000	7.298	8.194	9.970	6.980	6.769	Continuing	Continuing
• PMC/463117: *TLDHS*	5.122	7.093	4.823	0.000	4.823	4.224	4.151	2.223	0.000	Continuing	Continuing
• PMC/463118: *AFATDS*	11.346	2.487	2.545	0.000	2.545	20.920	25.083	2.728	2.791	Continuing	Continuing
• PMC/463000: *TCO*	0.000	0.229	0.176	0.000	0.176	1.716	0.000	0.175	1.661	Continuing	Continuing

D. Acquisition Strategy

TLDHS: The acquisition of components (software/hardware) for the TLDHS initiative will maximize the use of existing COTS, GOTS, NDI and GFE. Software development is conducted utilizing a sole source small-business contract. Software must maintain compatibility with 5 POR and 7 Operational Flight Programs (OFP).

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

AFATDS: AFATDS is a Cost Plus Award Fee contract through Army CECOM, Aberdeen Proving Ground, MD. R&D efforts will be a combined effort between the software developer (Raytheon), the Army PM and the USMC of software enhancements for the next planned versions of AFATDS.

TCO: Contracting is done with various vendors for software test and integration, COTS evaluation and documentation to develop advanced concepts and additional functional capabilities. The PMO conducts quarterly performance reviews. Specific hardware is also procured for test purposes which include environmental, shock, compatibility and interoperability testing.

MAGTF C2 SA: MAGTF C2 SA is delivering command and control capabilities through bi-annual software releases (with major releases in FY11, FY13, and FY15) through multiple programs of record. Currently the initial focus is developing the Tactical Service Oriented Architecture (TSOA) software, which provides a common software infrastructure through which services and applications from other programs of record can begin the process of interfacting with in order to maximize software commonality across echelons and missions. The long term goal is a software capability that will enable data discovery and data sharing across mission areas, a common standards-based viewer, core services and applications, and access to the GIG and other Joint networks, data and services.
BFSA: The BFT FoS is leveraging an Army (PM Force Battle Command XXI Brigade and Below (FBCB2)) ACAT 1C program to deliver a critical battlefield command and control system to the operating forces. These systems operate on both a terrestrial and celestial network and enable tactical units to move more effectively by providing friendly unit identification and location, as well as friendly intent and status. The current focus is on testing and evaluating improved software which will make possible type-1 encryption and a greater bandwidth network. The long term goal is a secured reduced latency system that will greatly improve the battlefield commander's situational awareness and reduce the potential of fratricide.

JBC-P: The JBC-P is leveraging the Army's (PM Force Battle Command XXI Brigade and Below (FBCB2)) development of the JBC-P software and the Marine Corps' program is contingent upon the Army's development and acquisition strategy. PM FBCB2 will fund research and development for JBC-P unless there are Service unique requirements, which the Marine Corps program office will fund. The Marine Corps' program office will participate in all design and readiness reviews and a joint operational testing events.

Identity Dominance System (IDS): Currently, the IDS is leveraging off the Army's development of a DoD interoperable materiel solution and the Marine Corps' program is contingent upon the Army's acquisition strategy. The Marine Corps' program office will participate in all design and readiness reviews and as well as the IOT&E activities. The long-term goal is to equip the Marine with a user-friendly biometric authentication technology that will be employed throughout DoD to deny the enemy freedom of movement within the populace and positively identify known insurgents within an Area of Responsibility (AOR).

E. Performance Metrics

Milestone Reviews

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TLDHS	C/CPFF	Stauder Tech:St. Louis, MO	14.966	0.659	Jan 2012	2.311	Jan 2013	-		2.311	Continuing	Continuing	Continuing
AFATDS	C/CPAF	Raytheon:Fort Wayne, IN	22.958	-		1.459	Jan 2013	-		1.459	Continuing	Continuing	Continuing
C2PC	C/CPIF	NGMS:San Diego	16.173	-		-		-		-	0.000	16.173	
MAGTF C2	C/CPIF	NGMS:San Diego	12.212	-		-		-		-	0.000	12.212	
MAGTF C2	MIPR	SPAWAR:Charleston, SC	30.730	5.628	Nov 2011	3.457	Nov 2012	-		3.457	Continuing	Continuing	Continuing
MAGTF C2	WR	NSWC:Panama City, FL	0.460	-		-		-		-	Continuing	Continuing	Continuing
MAGTF C2	C/CPFF	GD:Scottsdale, AZ	18.160	-		-		-		-	0.000	18.160	
MAGTF C2	C/CPFF	Viecore:NJ	0.402	-		-		-		-	0.000	0.402	
MAGTF C2	C/CPFF	MCSC:Quantico, VA	7.094	-		-		-		-	Continuing	Continuing	Continuing
MAGTF C2	C/CPFF	TBD:TBD	1.500	3.787	Dec 2011	2.235	Dec 2012	-		2.235	0.000	7.522	
MAGTF C2	WR	NSWC:Dahlgren, VA	-	1.000	Dec 2011	1.100	Dec 2012	-		1.100	0.000	2.100	
BFSA	MIPR	CECOM:Aberdeen Proving Grounds, MD	1.003	2.980	Feb 2012	1.903	Jan 2013	-		1.903	0.000	5.886	
TCO	MIPR	SPAWAR:Charleston, S.C.	6.994	2.624	Dec 2011	1.617	Dec 2012	-		1.617	Continuing	Continuing	Continuing
JBC-P	WR	SPAWAR:Charleston, SC	0.730	0.739	Jan 2012	0.708	Dec 2012	-		0.708	Continuing	Continuing	Continuing
JBC-P	C/FFP	MCSC:Quantico, VA	-	0.680	Mar 2012	0.500	Mar 2013	-		0.500	Continuing	Continuing	Continuing
IDS	C/CPFF	MCSC:Quantico, VA	2.499	0.941	Jun 2012	0.936	Jun 2013	-		0.936	Continuing	Continuing	Continuing
		Subtotal	135.881	19.038		16.226		-		16.226			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF C2	WR	MCTSSA:Camp Pendleton, CA	1.645	0.630	Oct 2011	0.600	Jan 2013	-		0.600	Continuing	Continuing	Continuing
JBC-P	C/FFP	MCSC:Quantico, VA	4.237	0.120	Mar 2012	0.120	Mar 2013	-		0.120	Continuing	Continuing	Continuing
AFATDS	C/CPFF	MCSC:Quantico	1.935	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	7.817	0.750		0.720		-		0.720			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TLDHS	WR	MCOTEA:Quantico, VA	1.527	-		-		-		-	Continuing	Continuing	Continuing
TLDHS	WR	MCTSSA:Camp Pendleton, CA	-	0.025	Jan 2012	0.105	Jan 2013	-		0.105	Continuing	Continuing	Continuing
TLDHS	WR	SPAWAR:Charleston, SC	0.069	0.179	Nov 2011	0.270	Dec 2012	-		0.270	Continuing	Continuing	Continuing
TLDHS	Reqn	NSWC:Dahlgren, VA	0.184	0.175	Jan 2012	0.250	Jan 2013	-		0.250	Continuing	Continuing	Continuing
AFATDS	WR	MCTSSA:Camp Pendleton, CA	2.431	-		-		-		-	Continuing	Continuing	Continuing
AFATDS	WR	MCOTEA:Quantico, VA	0.580	-		-		-		-	Continuing	Continuing	Continuing
AFATDS	WR	SPAWAR:Charleston, SC	2.678	-		0.500	Dec 2012	-		0.500	Continuing	Continuing	Continuing
TCO	MIPR	SPAWAR:Charleston, SC	1.232	1.043	Dec 2011	1.000	Dec 2012	-		1.000	Continuing	Continuing	Continuing
MAGTF C2	WR	MCOTEA:Quantico, VA	0.757	0.100	Oct 2011	-		-		-	Continuing	Continuing	Continuing
MAGTF C2	WR	MCTSSA:Camp Pendleton, CA	2.384	0.300	Feb 2012	0.200	Jan 2013	-		0.200	Continuing	Continuing	Continuing
MAGTF C2	MIPR	JITC:Ft. Huachuca, AZ	0.400	0.150	Feb 2012	-		-		-	Continuing	Continuing	Continuing
BFSA	WR	MCTSSA:Camp Pendleton, CA	0.374	0.100	Jan 2012	0.010	Jan 2013	-		0.010	Continuing	Continuing	Continuing
BFSA	WR	MCOTEA:Quantico, VA	1.185	0.050	Jan 2012	-		-		-	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
BFSA	MIPR	DISA:Ft. Huachuca, AZ	0.050	0.020	Jan 2012	-		-		-	Continuing	Continuing	Continuing
BFSA	WR	SPAWAR:Charleston, SC	4.359	0.140	Jan 2012	0.141	Dec 2012	-		0.141	Continuing	Continuing	Continuing
JBC-P	C/CPFF	MCOTEA:Quantico, VA	0.250	0.170	Jan 2012	0.170	Dec 2012	-		0.170	Continuing	Continuing	Continuing
JBC-P	WR	MCTSSA:Camp Pendleton, CA	0.250	0.050	Jan 2012	0.050	Dec 2012	-		0.050	Continuing	Continuing	Continuing
		Subtotal	18.710	2.502		2.696		-		2.696			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF C2	MIPR	CECOM/MITRE:Ft Monmouth, NJ	1.975	1.100	Dec 2011	1.100	Dec 2012	-		1.100	Continuing	Continuing	Continuing
BFSA	C/FFP	MCSC:Quantico, VA	2.143	-		-		-		-	Continuing	Continuing	Continuing
JBC-P	C/FFP	MCSC:Quantico, VA	0.361	0.120	Mar 2012	0.077	Mar 2013	-		0.077	Continuing	Continuing	Continuing
JBC-P	MIPR	CECOM/MITRE:Ft Monmouth, NJ	0.613	0.200	Jan 2012	0.200	Dec 2012	-		0.200	Continuing	Continuing	Continuing
JBC-P	Various	MCSC/Travel:Quantico, VA	0.040	0.100	Sep 2012	0.100	Sep 2013	-		0.100	Continuing	Continuing	Continuing
		Subtotal	5.132	1.520		1.477		-		1.477			

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	167.540	23.810		21.119		-		21.119			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2270: *Exp Indirect Fire Gen Supt Wpn Sys*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2270				
JBC-P MS C	3	2012	3	2012
JBC-P LRIP Handheld	1	2013	1	2013
JBC-P FRP DR	2	2013	2	2013
TCO Hardware Refresh	1	2012	1	2012
MAGTF C2 SA JTCW 1.1 Release	1	2012	1	2012
MAGTF C2 SA TSOA IDIQ Contract Award	1	2012	1	2012
MAGTF C2 SA TSOA Increment 3 Release	2	2012	2	2012
MAGTF C2 SA TSOA Increment 4 Release	4	2012	4	2012
MAGTF C2 SA TSOA Increment 5 Release	2	2013	2	2013
MAGTF C2 SA TSOA Increment 6 Release	4	2013	4	2013
MAGTF C2 SA MCSRC Initiation	3	2012	3	2012
AFATDS BC13 (6.8) Development/Testing	1	2012	2	2012
AFATDS BC15 (6.9) Development/Testing	3	2012	1	2015
Follow on AFATDS Version Development	2	2015	3	2017
AFATDS MTS Fielding	4	2011	1	2014
BFSA JCR Field User Evaluation 1	1	2011	1	2011
BFSA JCR Field User Evaulation 2	3	2011	3	2011
BFSA JCR Capability FRP/FD	2	2012	2	2013
TLDHS Major S/W Release 1.2.1.x	3	2012	3	2012
TLDHS Major S/W Release 1.2.2.x	1	2014	1	2014
IDS Materiel Development Decision	4	2011	4	2011

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
IDS Milestone B	3	2012	3	2012
IDS Milestone C	1	2016	1	2016
IDS ILA for MS B	2	2013	2	2013
IDS Full Rate Production	2	2016	2	2016
IDS ILA for MS C	4	2015	4	2015
IDS Fielding Decision	4	2016	4	2016
IDS JPIv2 Capabilities Development Document	1	2013	1	2013
IDS IOC	3	2017	3	2017

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2273: *Air Ops Cmd & Control (C2) Sys*	52.100	67.387	94.071	-	94.071	63.755	71.048	21.370	24.775	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Common Aviation Command and Control System (CAC2S) is a coordinated modernization effort to replace the existing aviation command and control equipment of the Marine Air Command and Control System (MACCS) and to provide the Aviation Combat Element with the necessary hardware, software, equipment, and facilities to effectively command, control, and coordinate aviation operations. The CAC2S system will accomplish the MACCS missions with a suite of operationally scalable modules to support the Marine Air Ground Task Force (MAGTF), Joint, and Coalition Forces. The CAC2S integrates the functions of aviation command and control into an interoperable system that will support the core competencies of all Marine Corps warfighting concepts. The CAC2S, in conjunction with MACCS organic sensors and weapons systems, supports the tenets of Expeditionary Maneuver Warfare and fosters joint interoperability. CAC2S Increment I will replace legacy aviation command and control systems in the following Marine aviation agencies: Direct Air Support Center (DASC), Tactical Air Command Center (TACC), and Tactical Air Operations Center (TAOC).

Theater Battle Management Core System (TBMCS) - Joint mandated Air War planning tool for the generation, dissemination and execution of the Air Tasking Order (ATO). TBMCS is an Air Force lead program, which provides the automated tools necessary to manage tactical air operations, execute area air defense and airspace management in the tactical area of operation, and coordinate operations with components of other military services. TBMCS is located at the Tactical Air Command Center (TACC), with remotes located throughout the Marine Air Ground Task Force (MAGTF). It is scalable, allowing for joint, coalition and service specific operations. It is an evolutionary acquisition program.

Composite Tracking Network (CTN) - will provide the Marine Air Ground Task Force (MAGTF) Commander a ground based sensor netting solution that significantly improves situational awareness by correlating sensor measurement data (target position, speed, heading, Identification Friend and Foe (IFF), etc.) from local and remote radars in the Cooperative Engagement Capability (CEC) network, which is then provided to the warfighter in the form of composite, real-time, air surveillance tracks. AN/MSQ-143A (V)I - funding will allow CTN to execute transportability testing and conduct a Field User Evaluation (FUE) of this system configuration. These events will wrap up the Testing for this configuration and allow the CTN Program Office to go to the MDA for a fielding decision for this system configuration. AN/MSQ-143A (V)I MTAOM Interface (USMC AC2 adaptive layer)- funding for this effort will allow CTN to conduct developmental testing of this interface. It will also allow the Program Office to conduct an IV&V of the software baseline that includes this adaptive layer. It will also fund the Follow On Test & Evaluation (FOT&E) of this interface. All of these events will be used by the MDA to make a fielding decision for the interface between CTN and MTAOM.

The Marine Air Command and Control System (MACCS) Sustainment - consists of various command and control agencies designed to provide the Aviation Combat Element (ACE) commander with the ability to monitor, supervise and influence the application of Marine aviation assets in support of MAGTF operations. The MACCS Sustainment provides funding to keep these fielded systems ready, relevant and capable until their functions are replaced by the Common Aviation Command and Control System (CAC2S).

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2273: *Air Ops Cmd & Control (C2) Sys*

Joint Cooperative Target ID Ground (JCTI-G) - The Program was refocused late in FY-11 to reflect the results of a JFCOM led AoA that determined the best path to follow for continued reduction of fratricide incidents. This was to support ongoing Funded and Programmed Capability Improvements (FPCI), supported by USMC Headquarters Capability Development & Integration (HQ CD&I) Branch. The FY12 JCTI-G resources will be applied to systems that will mitigate fratricide and improve operational effectiveness. Twenty four systems have been identified and all are on the Marine Corps' high priority requirement list. These funds will enable these programs to be modified, upgraded, and fielded to meet the current threat and the intent of the JCTI-G Memorandum of Understanding (MOU) between Vice Chief of Staff Army (VCSA) and Assistant Commandant of the Marine Corps (ACMC) dated 14 Jan 2010. This documents the Army and Marine Corps agreement to develop and field systems that will close the fratricide gap associated with the friendly Fires on Dismounts incidences. All of these Programs facilitate the warfighter's positive identification of friendly ground forces, thereby accelerating force sorting and enabling more effective and expeditious tactical decision-making.

Combat Operations Center (COC) AN/TSQ-239 (V)2/3/4 is a deployable, self-contained, modular, scalable and centralized facility which provides digital, shared Command and Control/Situational Awareness functionalities to enhance the Common Operational Picture (COP) for the Command Element, Ground Command Element, Air Combat Element, and Logistics Combat Element. It is a commercial-off-the-shelf integrated hardware solution using unit provided radios, re-hosted tactical data systems, and available Marine Corps prime movers to transport the system. Funds support testing and Information Assurance (IA) certification activities, integration of emerging technology, and On The Move (OTM) capabilities.

Remote Video Viewing Terminal (RVVT) - Provides warfighter with video connectivity to multiple types of aerial platforms (Pioneer, Dragon Eye, Raven B, Shadow, Predator, Fire Scout, and Litening Pod on P-3, AV8-B, and F/A-18). Data is displayed to Regimental Combat Teams and Forward Air Controller operators who coordinate with higher headquarters for fires. Product is intended to fit into the cargo pocket of the uniform in order to reduce the size of the recievers.

Joint Interface Control Office (JICO) Support System (JSS) - will provide net-centric services through a transformational management system to enable internet protocol-based networks of the future to operate efficiently with current tactical networks. It will manage complex tactical networks through an automated toolset and information repository that enables planning, management and analysis of tactical data link communications before, during and after operations.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: *JICO Support System: Program Management Support	0.480	0.497	-	-	-
Articles:	0	0			
FY 2011 Accomplishments: Program Office travel as an active participant "seat at the table" at USAF to support Increment 2 development.					
FY 2012 Plans: Program Office travel as an active participant "seat at the table" at USAF to support Increment 2 development.					
Title: *JCTI-G: Technology Development	2.652	16.124	-	-	-
Articles:	0	0			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
FY 2011 Accomplishments: Completed the Analysis of Alternatives. Stood up the Joint Program Office (JPO). ***FY 2012 Plans:*** Release RFP in support of System Engineering. Prepare for Materiel Development Decision (MDD) and subsequent contract award for Technology Development (TD). Prepare documentation to support Milestone decision. Award TD phase contracts.					
Title: *JCTI-G: Program Management Support ***Articles:*** ***FY 2011 Accomplishments:*** Supported and completed the Analysis of Alternative that analyzed engineering candidate technologies. Conducted Modeling & Simulation (M&S) Efforts with Army Material Systems Analysis Activity (AMSAA) for the technology development phase. ***FY 2012 Plans:*** Continue M&S effort in support of Technology development. Initiate Specification and Request for System Development in support of technology development phase.	3.500 0	3.600 0	-	-	-
Title: *JCTI-G: Management Services ***Articles:*** ***FY 2011 Accomplishments:*** Supported and completed the Analysis of Alternatives (AoA) Phase II. Developed Pre MS A documentation. Supported the start up of the Joint Program Office (JPO). ***FY 2012 Plans:*** Prepare MS A documentation. Continue JPO support.	1.519 0	1.500 0	-	-	-
Title: *COC: Continued Capability Solution ***Articles:*** ***FY 2011 Accomplishments:***	0.695 0	5.840 0	6.092 0	-	6.092 0

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Complete Model G design, documentation, and testing. ***FY 2012 Plans:*** Complete (V)1 and OTM design, documentation, and testing. ***FY 2013 Base Plans:*** Conduct analysis of technologies for integration in COC Baseline.					
Title: *COC: Test and Evaluation ***Articles:***	0.326 0	0.350 0	0.361 0	-	0.361 0
FY 2011 Accomplishments: Funded MCOTEA/JTIC for initial planning of Tactical Service Oriented Architecture (TSOA) testing. ***FY 2012 Plans:*** Funded MCOTEA/JTIC for initial planning of (V)1 and OTM testing. ***FY 2013 Base Plans:*** Funds MCOTEA/JTIC testing and analysis for COC.					
Title: *CTN: Engineering Development Model (EDM). ***Articles:***	2.147 0	2.461 0	1.567 0	-	1.567 0
FY 2011 Accomplishments: Funds Cooperative Engagement Capabilities (CEC) Wrap Around Simulation Program (WASP) Development. ***FY 2012 Plans:*** Funds CEC WASP Accreditation, SW Maintenance Support, Baseline Development. ***FY 2013 Base Plans:*** Continue to fund CEC WASP Accreditation, SW Maintenance Support, Baseline Development.					
Title: *CTN: Certification of Interfaces ***Articles:***	1.035 0	3.852 0	2.255 0	-	2.255 0
FY 2011 Accomplishments: Data Collection and Analysis, SW Configuration Management. ***FY 2012 Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Continue to fund Data Collection and Analysis, SW Independent Validation and Verification (IV&V) in preparation for FOT&E from Sept - Oct 2012. ***FY 2013 Base Plans:*** Common Aviation Command and Control System (CAC2S) and Ground/Air Task Oriented Radar (G/ATOR) Testing.					
Title: *CTN: Program Management Support. ***Articles:*** ***FY 2011 Accomplishments:*** MCSC Travel, Technical Services Corporation (TSC) support, Operational Test support, CM support, and SW support. ***FY 2012 Plans:*** MCSC Travel, Technical Services Corporation (TSC) support, Operational Test support, and SW support.	0.882 0	0.400 0	-	-	-
Title: *MACCS SUSTAINMENT: TAOM, ADCP and CDLS. ***Articles:*** ***FY 2011 Accomplishments:*** Design and prototype modification kits for Commercial Item Technology Refresh for TAOM, SAAWF, TIU and MCIU. ***FY 2012 Plans:*** Conduct SFT and field 4 new CDLS to each TACC; test and field ADSI v.15; integrate Mode5/S into the TAOM; monitor the DSAN Life Cycle Support (LCS) contract; and repair/replace MERWS and 3:1 shelters as required. Migrate the TAOM/MTAOM software baseline from CMS to C++. Conduct testing and field software baseline as v. 7.0 ***FY 2013 Base Plans:*** MITRE Effort; DSAN Support Contract, TAOC Life Cycle Support Contract, MTAOM Upgrade	1.113 0	5.201 0	8.988 0	-	8.988 0
Title: *RVVT: Preparation of MS C and Full Rate Production and Fielding activities ***Articles:*** ***FY 2011 Accomplishments:***	0.437 0	0.739 0	0.589 0	-	0.589 0

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Competed for POM 14 funding, sustained legacy remote video terminals, executed fielding of legacy remote video terminals upgrade, planned for Type 1 encryption for legacy remote video terminals, developed and executed Pre-Milestone activities. ***FY 2012 Plans:*** Achieved Materiel Development Decision and completed Pre-Milestone activities- developed Life Cycle Cost Estimate, defined Alternative Materiel solutions, defined Exit Criteria, developed Alternative Maintenance and Sustainment Concept, and received Phas A money to complete a BCA in lieu of an Alanysis of Alternatives (AoA). Developed a way ahead to merge efforts with The Target Location Designation and Handoff System (TLDHS) to meet the fleets need of a combined capability to connect to VideoScout Systems to view video feed. Development and testing of the combined capability is currently being conducted. ***FY 2013 Base Plans:*** Continuation of FY12 efforts to complete Milestone B and merge efforts with TLDHS.					
Title: *TBMCS: Program management support. ***Articles:***	0.431 0	0.460 0	0.500 0	-	0.500 0
FY 2011 Accomplishments: Program Management support. ***FY 2012 Plans:*** Program Management support. ***FY 2013 Base Plans:*** Program Management support.					
Title: *TBMCS: Test and Evaluation for TBMCS Upgrades Joint Interoperability. ***Articles:***	0.100 0	0.122 0	2.403 0	-	2.403 0
FY 2011 Accomplishments: Test and Evaluation for TBMCS Upgrades Joint Interoperability. ***FY 2012 Plans:*** Test and Evaluation for TBMCS Upgrades Joint Interoperability. ***FY 2013 Base Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Test and Evaluation for TBMCS Upgrades Joint Interoperability.					
Title: *CAC2S: Program Management Support. ***Articles:***	1.400 0	-	4.000 0	-	4.000 0
FY 2011 Accomplishments: Program management support which includes business/financial, engineering and logistical support for Phase 1 and 2 efforts. ***FY 2013 Base Plans:*** Program management support which includes business/financial, engineering and logistical support for Phase 1 and 2 efforts.					
Title: *CAC2S: Test and Evaluation and Information Assurance Certification. ***Articles:***	1.950 0	2.542 0	3.265 0	-	3.265 0
FY 2011 Accomplishments: Information Assurance certification test scans and Phase 1 IOT&E efforts. ***FY 2012 Plans:*** Focus mainly on Information Assurance certification test scans. ***FY 2013 Base Plans:*** Phase 2 Information Assurance certification test scans.					
Title: *CAC2S: EDM, TR, Gov't DT ***Articles:***	12.541 0	4.742 0	37.824 0	-	37.824 0
FY 2011 Accomplishments: Designed and Developed Engineering Developmental Models (EDM) for Phase 2, which was accomplished by awarding multiple contracts. Contractors produced a Sensor Data Subsystem prototype and demonstrated to the government. Support integration testing and DT with G/ATOR and AC2. Funds supported activities at NSWC Crane and Dahlgren and many other support activities. ***FY 2012 Plans:***					

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APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Once a contractor is selected from the demonstration as described under the FY11 funding, Phase 2 development and integration of the Sensor Data Subsystem continues. Most of the funding will be expended by Phase 2 SDS contractor but will also fund support activities NSWC Crane, Dahlgren and other support activities. ***FY 2013 Base Plans:*** Phase 2 development and integration of the Sensor Data Subsystem continues. Four (4) EDM's will be built this year. Most of the funding will be expended by Phase 2 SDS contractor but will also fund support activities at NSWC Crane, Dahlgren and other support activities.					
Title: *CAC2S: Software development, DT, FUE, OA. ***Articles:*** ***FY 2011 Accomplishments:*** Completed Engineering and Development of the Phase 1 Systems with successful DT and IOT$E leading to a successful Full Deployment Decision. Support Phase 2 EDM development and successful demonstrations at MCTSSA. ***FY 2012 Plans:*** Continue Phase 2 EDM data and information fusion component hardware and software development. ***FY 2013 Base Plans:*** Continue Phase 2 EDM data and information fusion component hardware and software development.	17.570 0	14.436 0	22.800 0	-	22.800 0
Title: *CAC2S: Engineering, Management and Logistics Support ***Articles:*** ***FY 2011 Accomplishments:*** Engineering, Management & Logistics Support ***FY 2012 Plans:*** Engineering, Management & Logistics Support ***FY 2013 Base Plans:*** Engineering, Management & Logistics Support	3.322 0	4.521 0	3.427 0	-	3.427 0
Accomplishments/Planned Programs Subtotals	52.100	67.387	94.071	-	94.071

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PMC/464017: *CTN*	17.360	7.016	0.100	0.000	0.100	12.307	9.332	2.354	0.000	Continuing	Continuing
• PMC/464002: *MACCS Sustainment*	37.747	17.005	23.114	0.000	23.114	10.099	2.861	0.885	0.046	Continuing	Continuing
• PMC/464003: *TBMCS*	5.986	6.580	3.585	0.000	3.585	4.465	3.852	4.685	3.721	Continuing	Continuing
• PMC/464000: *JCTI-G*	1.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• PMC/419005: *COC*	147.561	16.755	1.420	0.000	1.420	23.628	20.541	15.769	15.305	Continuing	Continuing
• PMC/464023: *RVVT*	5.614	2.923	0.001	0.000	0.001	4.695	5.775	6.952	14.647	Continuing	Continuing
• PMC/4640008: *CAC2S*	42.355	15.864	0.065	0.000	0.065	20.080	29.598	67.700	43.329	Continuing	Continuing
• PMC/4630000: *MACCS Sustainment*	0.033	2.554	8.715	0.000	8.715	1.760	0.866	1.843	0.000	Continuing	Continuing

D. Acquisition Strategy

CAC2S will employ an evolutionary acquisition strategy utilizing an incremental and phased approach for development and fielding of the CAC2S. The CPD identifies two increments to achieve the full requirements of CAC2S. The current acquisition strategy addresses Increment I of the CAC2S development process and focuses on the requirements that will modernize the assault and air support, air defense and control, and ACE battle management capabilities of the MACCS. Increment I of the CAC2S will be accomplished through a two phased approach. Phase 1 will address the requirements to establish the baseline CAC2S capabilities for the MACCS and improve AC2 performance and effectiveness. Phase 2 will address the requirements for remaining ACE BMC2 requirements

Theater Battle Management Core Systems (TBMCS) - TBMCS is an ACAT III, USAF Program with joint interest/oversight. It was mandated by the Chairman, Joint Chiefs of Staff in July 93 for Air Tasking Order (ATO) Interoperability among all services. The USMC will not be letting any competitive contracts for TBMCS, but following the USAF lead, utilizing USAF TBMCS contracts and fielding only the joint modules of TBMCS. As USMC unique requirements are identified and funded, they will be provided to the USAF (to include funding) for inclusion within TBMCS utilizing the USAF delivery order (fixed price) contract. Over the course of the FYDP, the USMC will leverage USAF software support activities vice funding strictly USMC software support.

MACCS SUSTAINMENT - The acquisition strategy implemented by the MACCS Sustainment Program Office is to maintain the readiness, relevance, and capabilities of the portfolio of post-Milestone C systems through Post Deployment Software Support (PDSS) activities, active refresh of obsolete hardware items, and the implementation of system improvements/modifications in accordance with approved systems engineering processes. Engineering changes to the systems make maximum use of Commercial Off-The-Shelf (COTS), Government Off-The-Shelf (GOTS), and Non-Developmental Items (NDI) in order to decrease risk, leverage developed capabilities and support apparatus, and minimize investment expenditures. These activities are performed by Original Equipment Manufacturer (OEM) commercial entities under contract to Marine Corps Systems Command (MCSC) or by Naval Surface Warfare Center (NSWC) Crane as the MACCS Sustainment Program In-Service Engineering Agent (ISEA). The next major milestone for the MACCS Sustainment Programs is Phase-out or Disposal as the replacement Common Aviation Command and Control System (CAC2S) reaches full operational capability.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

CTN - The USMC's CTN acquisition strategy is to participate in the USN's program procurement and testing, making necessary modifications to support the Marine Corps' requirement.
JCTI-G - A Technology Development Strategy will be developed in FY12.
RVVT - Program Office utilized SSC-LANT to fulfill a competitive acquisition approach to quickly field a capability with limited development. SSC-LANT is currently still in contract negotiations with L-3, expect negotiations to be complete 2 Qtr FY12.
COC - The Combat Operations Center (COC) AN/TSQ-239 (V)2/3/4 is the foundation of USMC C2, meeting near term communications and network requirements in OEF and GWOT. There is a continuing developmental effort to evolve the COC into a fully integrated MAGTF C2 capability. FY12 and FY13 supports continual tech refresh, modernization and software upgrade releases.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*	

Product Development ($ in Millions)

				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CTN	WR	NSWC:Crane, IN	3.736	-		0.667	Mar 2013	-		0.667	0.000	4.403	
CTN	WR	NAVSEA PEO IWS:Washington, DC	4.495	2.461	Apr 2012	0.900	Apr 2013	-		0.900	0.000	7.856	
MACCS Sustainment	Reqn	NGES:Woodland Hills, CA	17.415	1.516	Jun 2012	4.042	Nov 2012	-		4.042	Continuing	Continuing	Continuing
MACCS Sustainment 1	WR	NSWC:Crane, IN	1.664	1.257	Nov 2011	0.378	Nov 2012	-		0.378	0.000	3.299	
COC	WR	SPAWAR:Charleston, SC	12.267	1.224	Mar 2012	1.339	Oct 2012	-		1.339	Continuing	Continuing	Continuing
COC	Reqn	General Dynamics:Not Specified	27.811	-		-		-		-	Continuing	Continuing	Continuing
COC	Reqn	Coherent:Johnstown, PA	0.299	-		-		-		-	0.000	0.299	
COC	WR	NSWC:Crane, IN	0.220	-		-		-		-	0.000	0.220	
COC	C/CPIF	TBD:Not Specified	0.707	4.616	Jun 2012	4.753	Jun 2013	-		4.753	0.000	10.076	
JCTI-G	WR	NSWC:Crane, IN	5.217	3.600	Jan 2012	-		-		-	Continuing	Continuing	Continuing
JCTI-G Pax 1	WR	NAVAIR:Pax River, MD	0.145	-		-		-		-	0.000	0.145	
JCTI-G Pax 2	Reqn	NAVAIR:Pax River, MD	1.830	-		-		-		-	0.000	1.830	
JCTI-G Contractor 1	C/FFP	TBD:TBD	-	8.336	Jun 2012	-		-		-	0.000	8.336	
JCTI-G Contracter 2	C/FFP	TBD:TBD	-	8.313	Jun 2012	-		-		-	0.000	8.313	
CAC2S	WR	NSWC:Crane, IN	22.525	0.750	Oct 2011	1.500	Oct 2012	-		1.500	0.000	24.775	
CAC2S	C/CPIF	General Dynamics:Quantico, VA	8.603	-		-		-		-	0.000	8.603	
CAC2S	C/FFP	Phase 2 Contractor:Quantico, VA	20.393	15.369	Aug 2012	54.991	Nov 2012	-		54.991	0.000	90.753	
CAC2S	WR	NSWC:Dahlgren, VA	25.519	5.210	Nov 2011	5.300	Nov 2012	-		5.300	0.000	36.029	
CAC2S	MIPR	NAVSEA:Washington, DC	-	1.252	Jan 2012	-		-		-	0.000	1.252	
		Subtotal	152.846	53.904		73.870		-		73.870			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*	

Support ($ in Millions)

				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CTN	WR	NSWC:Dahlgren, VA	0.700	0.383	Jan 2012	0.100	Jan 2013	-		0.100	0.000	1.183	
CTN	WR	NSWC:PHD	0.224	0.208	Feb 2012	-		-		-	0.000	0.432	
CTN	WR	NSWC:Crane, IN	0.400	-	Feb 2012	0.500	Feb 2013	-		0.500	0.000	0.900	
CTN	MIPR	MACCS:Quantico, VA	0.140	-		-		-		-	0.000	0.140	
CTN	WR	NAVSEA:Wallops Island, VA	0.316	0.300	Jan 2012	-		-		-	0.000	0.616	
CTN	Various	Travel-TAD:Not Specified	0.225	0.530	Sep 2012	0.500	Sep 2013	-		0.500	0.000	1.255	
CTN	WR	SPAWAR:Charleston, SC	0.435	-		-		-		-	0.000	0.435	
MACCS Sustainment 1	WR	NSWC:Crane, IN	0.089	-		0.300	Dec 2012	-		0.300	0.000	0.389	
MACCS Sustainment	Reqn	NGES:Woodland Hills, CA	-	1.500	Nov 2011	2.485	Oct 2012	-		2.485	0.000	3.985	
COC	MIPR	NUWC:Newport, RI	0.200	-		-		-		-	0.000	0.200	
JCTI-G	Reqn	Tecolote:Arlington, VA	2.092	0.175	May 2012	-		-		-	Continuing	Continuing	Continuing
CAC2S	WR	Travel-TAD:Not Specified	1.000	0.250	Oct 2011	0.500	Oct 2012	-		0.500	0.000	1.750	
CAC2S	WR	NSWC Carderock:Carderock, MD	0.250	-		-		-		-	0.000	0.250	
CAC2S	C/CPAF	AMSSA:APG, Mayrland	-	0.225	Nov 2011	0.225	Nov 2012	-		0.225	0.000	0.450	
CAC2S	WR	SPAWAR:Charleston, SC	-	0.110	Nov 2011	0.200	Nov 2012	-		0.200	0.000	0.310	
CAC2S	WR	JITC:Fort Huachuca, AZ	0.961	0.100	Nov 2011	0.200	Nov 2012	-		0.200	0.000	1.261	
CAC2S	MIPR	MITRE:Boston, MA	4.863	1.200	Nov 2011	1.500	Nov 2012	-		1.500	0.000	7.563	
CAC2S	WR	MACCS-X:Camp Pendleton	1.564	-		-		-		-	0.000	1.564	
CAC2S	WR	MCTSSA:Camp Pendleton	2.606	0.500	Jan 2012	0.500	Nov 2012	-		0.500	0.000	3.606	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CAC2S	WR	NSWC Corona:Corona, CA	2.903	0.900	Nov 2012	1.200	Nov 2012	-		1.200	0.000	5.003	
CAC2S	C/FP	BAH:Stafford, VA	2.003	-		-		-		-	0.000	2.003	
SIAP	C/FP	RNB Technologies:Stafford VA	5.374	-		-		-		-	0.000	5.374	
TBMCS	Various	Travel:Not Specified	0.050	0.026	Oct 2011	-		-		-	0.000	0.076	
JSS	WR	MCTSSA:Camp Pendleton	0.183	0.183	Dec 2011	-		-		-	0.000	0.366	
		Subtotal	26.578	6.590		8.210		-		8.210			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CAC2S	WR	NSWC Port Hueneme:Port Hueneme, CA	-	0.225	Nov 2011	0.200	Nov 2012	-		0.200	0.000	0.425	
TBMCS	C/FFP	Lockheed Martin:Colorado Springs, CO	-	-		2.409	Dec 2012	-		2.409	0.000	2.409	
CTN	WR	Aberdeen Test Center:Aberdeen, MD	-	0.150	Oct 2011	-		-		-	0.000	0.150	
CTN	WR	MCSC CTQ:Quantico, VA	0.025	-		-		-		-	0.000	0.025	
CTN	WR	PEO IWS 6:St. Petersburg, FL	4.017	1.141	Dec 2011	0.425	Sep 2013	-		0.425	0.000	5.583	
CTN	WR	NSWC Corona:Corona, CA	1.114	0.420	Feb 2012	-		-		-	0.000	1.534	
CTN	WR	NSWC DD:Dahlgren, VA	0.942	0.320	Aug 2012	0.036	Sep 2013	-		0.036	0.000	1.298	
CTN	WR	Fort Huachuca:JITC	0.008	-		-		-		-	0.000	0.008	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CTN	WR	MCOTEA:Quantico VA	1.144	0.400	Jan 2012	0.700	Jan 2013	-		0.700	0.000	2.244	
CTN	WR	MCSC:Quantico, VA	3.876	-		-		-		-	0.000	3.876	
CTN	WR	NSWC:Crane, IN	1.064	-		-		-		-	0.000	1.064	
MACCS Sustainment	WR	Aberdeen Test Center:Aberdeen, MD	0.273	0.211	Nov 2011	0.211	Nov 2012	-		0.211	0.000	0.695	
MACCS Sustainment 2	Various	MCOTEA:Quantico, VA	-	0.467	Dec 2011	1.272	Dec 2012	-		1.272	0.000	1.739	
MACCS Sustainment 1	WR	NSWC:Crane, IN	0.050	-		-		-		-	0.000	0.050	
RVVT	WR	SSC-LANT:North Charleston, SC	-	0.124	Nov 2011	0.043	Nov 2012	-		0.043	0.000	0.167	
COC	MIPR	MCOTEA:Quantico, VA	0.728	0.206	Mar 2012	0.212	Oct 2012	-		0.212	0.000	1.146	
COC	MIPR	JTIC:Not Specified	0.140	0.144	Mar 2012	0.149	Mar 2013	-		0.149	0.000	0.433	
JCTI-G	WR	MCOTEA:Quantico, VA	0.180	0.200	Nov 2011	-		-		-	Continuing	Continuing	Continuing
TBMCS	WR	MCOTEA:Quantico, VA	0.560	0.120	Nov 2011	0.150	Nov 2012	-		0.150	0.000	0.830	
CAC2S	WR	MCOTEA:Quantico, VA	6.350	0.150	Nov 2011	1.000	Nov 2012	-		1.000	0.000	7.500	
		Subtotal	20.471	4.278		6.807		-		6.807			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CTN	WR	MCSC:Quantico, VA	0.882	0.400	Nov 2011	-		-		-	0.000	1.282	
MACCS Sustainment	C/FFP	MCSC:Quantico, VA	0.100	0.250	Jan 2012	0.300	Jan 2013	-		0.300	0.000	0.650	
COC	Reqn	MCSC:Quantico, VA	0.057	-		-		-		-	0.000	0.057	
COC	Reqn	NGMS:Stafford, VA	4.053	-		-		-		-	0.000	4.053	
JCTI-G	C/FFP	QNA:Stafford, VA	1.779	0.600	Mar 2012	-		-		-	Continuing	Continuing	Continuing
JCTI-G	C/FFP	MCSC:Quantico, VA	2.759	-		-		-		-	Continuing	Continuing	Continuing
RVVT	C/FFP	QNA:Stafford, VA	0.437	0.615	Feb 2012	0.535	Feb 2013	-		0.535	0.000	1.587	
CAC2S	C/FFP	QNA:Stafford, VA	13.796	-		4.000	Nov 2012	-		4.000	0.000	17.796	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JSS	WR	Travel TAD:Not Specified	0.010	0.022	Oct 2011	-		-		-	Continuing	Continuing	Continuing
JSS	Reqn	TASC:Stafford, VA	0.041	0.147	Nov 2011	-		-		-	Continuing	Continuing	Continuing
JSS	WR	SPAWAR Chas:Charleston, SC	0.150	0.050	Dec 2011	-		-		-	0.000	0.200	
JSS	WR	Hanscom AFB:Boston, MA	0.098	0.095	Feb 2012	-		-		-	0.000	0.193	
TBMCS	C/FFP	QNA:Stafford VA	1.977	0.436	Nov 2011	0.349	Nov 2012	-		0.349	0.000	2.762	
		Subtotal	26.139	2.615		5.184		-		5.184			

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	226.034	67.387		94.071		-		94.071			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2273: *Air Ops Cmd & Control (C2) Sys*

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2273: *Air Ops Cmd & Control (C2) Sys*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2273				
MACCS Sustainment	1	2011	4	2014
MACCS - TACC ADSI Software v. 14	4	2011	4	2012
MACCS - TACC ADSI Software v. 15	2	2013	2	2013
CTN IOC	2	2011	2	2011
CTN FOC	1	2016	1	2016
CAC2S Milestone C (completed 1st Qtr FY08; rescinded as of Dec 2009)	1	2011	1	2011
CAC2S Phase 1 IOT&E	3	2011	3	2011
CAC2S Phase 1 LDC	1	2012	1	2012
CAC2S Phase 2 IOT&E	3	2015	3	2015
CAC2S Phase 2 LDU	4	2014	4	2014
COC Operational Sustainment	1	2011	4	2016
COC (V)1 Field User Evaluation (FUE)	3	2012	3	2012

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2274: *Command & Control Warfare Sys*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2274: *Command & Control Warfare Sys*	19.071	26.091	32.052	-	32.052	35.427	17.772	15.555	15.887	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

COUNTER RADIO-CONTROLLED IMPROVISED EXPLOSIVE DEVICE (RCIED) ELECTRONIC WARFARE (USMC CREW) Systems are modular, programmable, multi-band radio-frequency jammers designed to deny enemy use of selected portions of the radio frequency spectrum to counter Radio-Controlled IEDs. CREW mounted systems are capable of being integrated into all Marine Corps Tactical Ground Vehicles. Increments 2.1 CREW Vechicle Receiver/Jammer (CVRJ) mounted and 3.1 Thor III man portable systems are being fielded to meet current threats in all theaters of operation. The 2.1 mounted systems are being upgraded to a Band C capability beginning in FY11. Increment 3.3 (mounted, dismounted and fixed site) systems shall function as a single integrated system with common architecture that will counter the continued evolution of enemy threats FY13 - FY17. This program is an ongoing effort to develop new techniques, improve capabilities, enhance software and develop waveform load sets to counter evolving threats and prevent technology obsolescence.

GROUND-BASED OPERATIONAL SURVEILLANCE SYSTEM (GBOSS). G-BOSS is a ground-based persistent surveillance sensor package with multiple detection and assessment capabilities comprised of four main components: trailer-mounted elevation platform, multi-spectral sensor suite, ground control station and remote ground control station. Daylight color imagery and Infrared imagery (StarSafire III and T-3000), Unattended ground sensors (UGS), Tactical Remote Sensor System(TRSS), Radar (MSTAR), Communication suite Wireless Point to Point Link (WPPL) and Unmanned aerial vehicle interface (VideoScout).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: *USMC CREW - Product Development	3.808	3.508	1.575	-	1.575
Articles:	0	0	0		0
FY 2011 Accomplishments: In FY11 USMC CREW continued development of waveform/load sets to support the CREW 2.1 CVRJ (mounted), CREW 3.1 Thor III (dismounted) systems and vehicle installation kits (VIKs) for additional vehicle platforms. In addition the program supported the development of waveform/loadsets and VIKs for the CREW 2.1 CVRJ Band C upgrade kits scheduled for procurement in 4th quarter FY11.					
FY 2012 Plans: In FY12 USMC CREW will continue to develop waveform/load sets for the mounted CREW 2.1 CVRJ (V1) and 2.1 CVRJ Band C Upgrade kits (V2); the dismounted CREW 3.1 Thor III; and the Universal Test Sets (UTS) which support each system variant (procured via Joint Improvised Explosive Device Defeat Organization (JIEDDO) and transitioned to USMC for sustainment in FY11). In addition, the program will continue to develop					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2274: *Command & Control Warfare Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
vehicle installation kits for the Band C Upgrade in order to support the integration and installation of the upgrade kits into Marine Corps vehicle platform. Lastly, the program will provide support for waveform/loadsets for Marine Expeditionary Unit Special Operations Capable (MEU (SOC)) systems being fielded in FY11 in support of an Urgent Statement of Need dated 17 May 2011. ***FY 2013 Base Plans:*** In FY13 the USMC CREW program will continue the development of waveform/load sets to support CREW Legacy systems (2.1 CVRJ V1 and V2 mounted and the 3.1 Thor III dismounted systems) and the UTS. In addition, the program will begin the development of waveform/loadsets for the increment 3.3 mounted, dismounted, and fixed site Low Rate Initial Production (LRIP) systems planned for award 4th Qtr FY13 in support of the Enduring Requirement to provide CREW systems to MEU/Marine Expeditionary Force (MEF) within a non-theater specific/non-wartime Operational TEMPO.					
Title: *USMC CREW - Support	2.806	3.848	3.772	-	3.772
Articles:	0	0	0		0
FY 2011 Accomplishments: Systems engineering and integration support required for continued enhancements to the Increment 2.1 (CREW 2.1 CVRJ V1 and Band C V2 mounted) and the 3.1 Thor III dismounted. In addition, support for the transition to the Enduring Requirement with fielding of the CVRJ systems to the Marine Expedionary Unit (MEU) Special Operations Command (SOC) based upon Statement of Need (SON) dated 17 May 2011. ***FY 2012 Plans:*** Systems engineering and integration support required for continued system enhancements, for CVRJ with Band C, Thor III, and support for the the Universal Test Sets procured by JIEDDO and transitioned to USMC CREW in FY12. ***FY 2013 Base Plans:*** Systems engineering and integration support required for the CREW Legacy variants as well as the transition to the JCREW 3.3 mounted, dismounted and fixed site systems scheduled for 4th Qtr FY13.					
Title: *USMC CREW - Test and Evaluation	1.250	1.127	1.340	-	1.340
Articles:	0	0	0		0
FY 2011 Accomplishments:					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2274: *Command & Control Warfare Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Test events in support of enhancements to CREW 2.1 CVRJ (V1), the CVRJ Band C upgrade (V2), and the 3.1 Thor III systems. ***FY 2012 Plans:*** FY12 efforts include the required testing to support continued enhancements to CREW 2.1 CVRJ V1, CVRJ Band C (V2), and the 3.1 Thor III systems ***FY 2013 Base Plans:*** FY13 efforts encompass the continued test events in support of the CREW Legacy (2.1 and 3.1) systems, the Universal Test Set (UTS) and the transition to the JCREW 3.3 systems beginning 4th Qtr FY13.					
Title: *USMC CREW - Management	0.588	0.740	0.801	-	0.801
Articles:	0	0	0		0
FY 2011 Accomplishments: Program oversight, task scheduling, reports and study analysis. ***FY 2012 Plans:*** Program oversight, task scheduling, reports and study analysis. ***FY 2013 Base Plans:*** Program oversight, task scheduling, reports and study analysis.					
Title: *GBOSS - Product Development	5.000	10.025	13.714	-	13.714
Articles:	0	0	0		0
FY 2011 Accomplishments: Engineered designs for net centric capability (Cross Domain Solution, COC integration and DCGS-MC/DIB interface) and Technology Readiness Assessments, and integration of sensor enhancements per Acquisition Program CDD requirements (sniper detection, Short Wave IR, anomalous activity, etc.). ***FY 2012 Plans:*** Continue the Technology Readiness Assessments and integration of sensor enhancements per Acquisition Program CDD requirements (sniper detection, Short Wave IR, anomalous activity, etc.). ***FY 2013 Base Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2274: *Command & Control Warfare Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Continue the Technology Readiness Assessments and integration of sensor enhancements per Acquisition Program CDD requirements (sniper detection, Short Wave IR, anomalous activity, etc.).					
Title: *GBOSS - Support ***Articles:***	1.712 0	1.711 0	2.737 0	-	2.737 0
FY 2011 Accomplishments: Worked Information Assurance (IA) accreditation efforts, IA and software management, and the adjudication of fleet/user change requests and associated engineering for incorporation as system enhancements. ***FY 2012 Plans:*** Continue the IA accreditation efforts, IA and software management, adjudication of fleet/user change requests and associated engineering for incorporation as system enhancements. ***FY 2013 Base Plans:*** Continue the IA accreditation efforts, IA and software management, adjudication of fleet/user change requests and associated engineering for incorporation as system enhancements.					
Title: *GBOSS - Test and Evaluation. ***Articles:***	0.900 0	4.274 0	4.349 0	-	4.349 0
FY 2011 Accomplishments: Worked on testing G-BOSS version upgrades for technology evaluation design validation and CONOPS development. ***FY 2012 Plans:*** Continue testing G-BOSS version upgrades for technology evaluation design validation and CONOPS development. ***FY 2013 Base Plans:*** Continue testing G-BOSS version upgrades and participate in DT testing at Fort Huachuca and Camp Atterbury upgrades for technology evaluation design validation and CONOPS development.					
Title: *GBOSS - Management. ***Articles:***	3.007 0	0.858 0	3.764 0	-	3.764 0
FY 2011 Accomplishments:					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2274: *Command & Control Warfare Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Worked CO Site mitigation and system integration support. ***FY 2012 Plans:*** Provide design oversight, task scheduling, estimate development, reports and test support. ***FY 2013 Base Plans:*** Provide design oversight, task scheduling, estimate development, reports and test support for the program office.					
Accomplishments/Planned Programs Subtotals	19.071	26.091	32.052	-	32.052

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PMC 6520: *USMC CREW*	160.449	8.662	198.808	0.000	198.808	114.868	117.062	116.641	121.437	Continuing	Continuing
• PMC 6438: *GBOSS*	0.000	49.682	55.500	0.000	55.500	22.487	30.271	30.256	30.810	Continuing	Continuing
• PMC 7000: *USMC CREW SPARES*	0.000	0.000	1.537	0.000	1.537	11.042	11.239	15.365	13.668	Continuing	Continuing

D. Acquisition Strategy

Counter RCIED Electronic Warfare (USMC CREW). Designated an ACAT II program (Feb 2007). Increment 2.1 mounted and 3.1 dismounted systems provide enhanced protection to combat elements in vehicle platforms and on foot. These systems replace Increment 2.0 (Chameleon and Hunter). Increment 3.3 mounted, dismounted and fixed site systems will replace the 2.1 and 3.1 systems to counter the continued evolution of enemy threats FY13 - 17 in support of the Enduring Requirement (non-theater specific). The program will continue to develop new techniques, improve capabilities, enhance software and develop upgrades to counter evolving threats and prevent technology obsolescence. Activities include waveform development, non-recurring engineering for system enhancements, capability upgrades, and installation kits, integration of the enhancements/Vehicle Installation Kits (VIKs) and the tests/government studies required to support these changes.

GBOSS. The acquisition approach has been to use existing government contracts (US Navy, US Army, US Air Force) for Commercial-Off-the-Shelf (COTS) and Government-Off-the-Shelf (GOTS) material and services that meet the basic requirements of the UUNS and give priority to materials and services already integrated into an existing or similar architecture. In FY13, the acquisition approach will be to maintain NSWC Crane as the system integrator to leverage their engineering and contracting vehicles for product development and test and evaluation. This approach is the most expeditious to deliver equipment and services to the forces in theater.

E. Performance Metrics

Milestone Reviews

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2274: *Command & Control Warfare Sys*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
USMC CREW	SS/FFP	NAVSEA:BALTIMORE, MD	3.300	3.089	Dec 2011	1.146	Dec 2012	-		1.146	0.000	7.535	
USMC CREW	WR	SSC-A:CHARLESTON, SC	0.646	0.419	Dec 2011	0.429	Dec 2012	-		0.429	0.000	1.494	
GBOSS	WR	NSWC:CRANE, IN	7.115	8.674	Jan 2012	12.214	Nov 2012	-		12.214	Continuing	Continuing	Continuing
GBOSS	SS/FP	General Dynamics:MULTIPLE LOCATIONS	-	0.500	Mar 2012	0.300	Mar 2013	-		0.300	Continuing	Continuing	Continuing
GBOSS	C/CPFF	MCOTEA:QUANTICO, VA	-	0.051	Dec 2011	0.750	Dec 2012	-		0.750	Continuing	Continuing	Continuing
GBOSS	WR	NSWC:DAHLGREN, VA	-	0.500	Nov 2011	0.150	Nov 2012	-		0.150	Continuing	Continuing	Continuing
GBOSS	MIPR	CECOM:STAFFORD, VA	-	0.300	Jan 2012	0.300	Dec 2012	-		0.300	Continuing	Continuing	Continuing
		Subtotal	11.061	13.533		15.289		-		15.289			

Remarks

USMC CREW NAVSEA: FY11 - FY13 CREW will utilize Johns Hopkins University Applied Physics Laboratories to develop waveform load sets for all CREW Increment systems to continue to counter the evolving RCIED Threats.
USMC CREW SSC-A (SPAWAR, Charleston): FY11 - FY13 CREW will utilize SSC-Atlantic to develop mounting solutions in order to integrate mounted systems into all Marine Corps Vehicle platforms
GBOSS (NSWC Crane) Systems Integration/Product Development and Systems Engineering Support

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
USMC CREW	WR	NSWC:DAHLGREN, VA	0.249	1.090	Jan 2012	1.117	Jan 2013	-		1.117	0.000	2.456	
USMC CREW	C/FFP	MCSC:QUANTICO, VA	1.152	-		-		-		-	0.000	1.152	
GBOSS	WR	SPAWAR:CHARLESTON, SC	-	-		0.300	Jan 2013	-		0.300	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2274: *Command & Control Warfare Sys*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GBOSS	Various	NSWC:CRANE, IN	2.652	1.411	Nov 2011	2.437	Nov 2012	-		2.437	Continuing	Continuing	Continuing
USMC CREW	WR	NSWC:CRANE, IN	1.404	2.758	Jan 2012	2.655	Jan 2013	-		2.655	0.000	6.817	
GBOSS	C/FFP	DEMA:STAFFORD, VA	-	0.300	Apr 2012	-		-		-	Continuing	Continuing	Continuing
		Subtotal	5.457	5.559		6.509		-		6.509			

Remarks

USMC CREW MCSC: CEOss Contracts for a Life Cycle Cost Estimate and PM Subject Matter Expertise support
USMC CREW NSWC CRANE: On and off-site direct Systems Engineering Support, RF Modeling and Simulation and Independent Verification and Validation (IV&V) support for all Increment Systems
USMC CREW NSWC Dahlgren: RADHAZ (Radio Hazard) Studies, Safety and Configuration Management Support

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GBOSS	Various	MCOTEA:QUANTICO, VA	-	-		0.349	Dec 2012	-		0.349	Continuing	Continuing	Continuing
USMC CREW	C/CPFF	MCOTEA:QUANTICO VA	0.283	0.287	Mar 2012	0.290	Mar 2013	-		0.290	0.000	0.860	
USMC CREW	PO	YPG:YUMA, AZ	0.967	0.840	Dec 2011	1.050	Dec 2012	-		1.050	0.000	2.857	
GBOSS	Various	NSWC:CRANE, IN	-	3.974	Jan 2012	3.500	Nov 2012	-		3.500	Continuing	Continuing	Continuing
GBOSS	MIPR	CECOM:STAFFORD, VA	-	0.300	Jan 2012	0.500	Jan 2013	-		0.500	Continuing	Continuing	Continuing
		Subtotal	1.250	5.401		5.689		-		5.689			

Remarks

USMC CREW MCOTEA - Provides OT/DT Oversight and support for Increment 3.3 systems (FY11, FY12 and FY13)
USMC CREW YPG/EPG - Provides test ranges and results analysis for all increment systems
USMC GBOSS - MCOTEA will provide oversight support for testing. NSWC, Crane will provide testing and evaluation per GBOSS CDD requirements.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2274: *Command & Control Warfare Sys*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
USMC CREW	C/FFP	MCSC:QUANTICO, VA	0.588	0.740	Jun 2012	0.801	Jun 2013	-		0.801	0.000	2.129	
GBOSS	Various	NSWC:CRANE, IN	4.187	0.858	Dec 2011	3.764	Nov 2012	-		3.764	Continuing	Continuing	Continuing
		Subtotal	4.775	1.598		4.565		-		4.565			

Remarks

USMC CREW MCSC: Provides Program Management Support to USMC CREW Program
USMC GBOSS: Program Management Support to USMC GBOSS Program

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	22.543	26.091		32.052		-		32.052			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2274: *Command & Control Warfare Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2274: *Command & Control Warfare Sys*

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2274: *Command & Control Warfare Sys*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2274				
GBOSS(E) DT	3	2013	3	2013
GBOSS(E) Operational Testing	3	2014	4	2014
GBOSS(E) MILESTONE B	2	2012	2	2012
GBOSS(E) MILESTONE C	1	2014	1	2014
GBOSS(E) IOC	3	2015	3	2015
GBOSS(E) FULL RATE PRODUCTION DECISION	4	2014	4	2014
USMC CREW 2.1 Waveform Development	1	2011	4	2017
USMC CREW JCREW 3.3 Milestone C	3	2012	3	2012
USMC CREW 2.1 and JCREW 3.3 Program Support	1	2011	4	2014
USMC CREW JCREW 3.3 Procurement Decision	3	2013	3	2013

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2275: *Joint Tactical Radio System*	1.850	4.964	4.413	-	4.413	25.309	9.817	3.901	6.066	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

(U) Tactical Satellite Comm Terminal (TSCT) - LIGHTWEIGHT MULTIBAND SATELLITE TERMINAL (LMST)/PHOENIX are quad-band Super High Frequency (SHF) satellite terminals mounted in transit cases and High Mobility Multipurpose Wheeled Vehicles (HMMWVs). With the signing of the SATCOM Collapse (20 May 2011) a dynamic transition will take place to consolidate (3) programs, Lightweight Multiband Satellite Terminal (LMST), Phoenix Tactical SHF Satellite Terminal (TSST), and the Very Small Aperture Terminal Large (VSAT-L) into (1) requirement defined as the Universal Satellite Access Tactical Terminal (UnSATT). RDT&E funding will be utilized to research/integrate Joint IP Modems as mandated by DISA to ensure interoperability during the transition process.

(U) Legacy Communications/Electronics Modifications and Sustainment (LEGACY): encompass post production sustainment of fielded tactical communication and networking systems and Service Life Extension Programs (SLEP) of aging communications equipment reaching the end of their life cycle. The post production sustainment provides necessary engineering and logistic support to maintain the existing operational capability above threshold operational readiness. The support provides equipment specialists, configuration management, supply support coordination and control, depot maintenance control and warranty administration. The AN/TSQ-227 Digital Technical Control (DTC) is undergoing a major refresh driven by Department of Defense (DoD)/Joint Interoperability Test Command (JITC) mandated interoperability and security requirements, which includes technology insertion and evolutionary equipment improvements as part of the SLEP effort. Additionally, the AN/TRC-170A Troposcatter Communications System is also undergoing a refresh/product improvement which brings the system from 1980s technology to the 21st century. R&D funds are required to certify the antenna replacement, and future funds are required to develop, test, and certify the movement of the current HMMWV-mounted radio shelter into a transit case solution.

(U) Command & Control On-the-move Network, Digital Over-the-horizon Relay (CONDOR): CONDOR capabilities material solution will be a coordinated effort with the Army's WIN-T program. A Marine Corps variant called Networking on the Move (NOTM) is currently being developed. The CONDOR funding line is funding the capability to allow tactical forces extended Beyond Line-of-Sight (BLOS) to maintain situational awareness by extending data network connectivity regardless of distance while on-the-move (OTM).

(U) Networking on the Move (NOTM): Networking-on-the-Move (NOTM) will provide Beyond Line of Sight (BLOS)/Line of Sight (LOS) transmission capability to the operating forces for network connectivity while on the move to enable access to Command and Control (C2) applications, streaming video and collaboration tools. NOTM will also provide remote and dynamic network management to eliminate the burden on end-users and incidental operators to perform technical functions. The NOTM proposed program of record will include vehicle integration kits, capable of being installed on existing and future vehicle platforms. NOTM will also include the software and hardware necessary to provide network management for all levels of the program. NOTM is being developed using an incremental approach where the first increment will provide capabilities to the Marine Expeditionary Unit (MEU) followed by additional capabilities and units. R&D funding will be used to develop the system and conduct development and operational testing to ensure all requirements are met.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

(U) Very Small Aperture Terminal (VSAT) - VSAT provides beyond line-of-sight (BLOS), low-cost satellite communications to MAGTF commands at the Major Subordinate Commands to the Battalion levels. VSAT enables critical voice, video, and data for Command and Control (C2), Fires, Logistics, and Intelligence. VSAT fills a void of BLOS, high bandwidth capability throughout the Marine Air-Ground Task Force (MAGTF). The VSATs are currently Ku-band only, which requires commercial satellite connectivity. Future upgrades will utilize the military's Wideband Global Satellites to save on long-term O&M costs. Research and development work will need to be done to ensure that VSAT can transition from Ku to Ka-band.

Additionally, SATCOM Joint Interoperability as defined in Mil-Std-188-165B and DoD Policy "Transmission of Internet Protocol (IP) over DoD-Leased and DoD-owned transponded Satellite Communications Systems" of 10 Feb 06, is driving the requirement to update the VSATs. The Mil-Std and DoD policy deal with Satellite RF Modem Interoperability and require modems with Transmission Security (TRANSEC) and IP capabilities, respectively. R&D funds are needed to perform the development, test, and certification of terminal configurations that support these requirements. The Capabilities Production Document identifies the need for a lighter, more mobile satellite terminal for all echelons. This fact, coupled with the cancellation of the HC3 program, is driving the need to reduce terminal weight and to add X-band capability.

(U) Secure Mobile Anti-Jam Reliable Tactical-Terminal (SMART-T): SMART-T provides tactical users with protected data and voice via Extremely High Frequency (EHF) satellite communications. The SMART-T system is transported on High Mobility Multipurpose Wheeled Vehicles (HMMWVs), providing MAGTF Commanders a secure, survivable, long-haul, low/medium data rate communications link not subject to terrain masking and horizon limitations. The SMART-T is also capable of operation when removed from the HMMWV. SMART-T will be undergoing an upgrade to be interoperable with the new Advanced Extremely High Frequency (AEHF) constellation and will require certification testing and a Multi-service Operational Test and Evaluation (MOT&E).

(U) Tactical Communications Modernization (TCM): - Next generation solutions for the Warfighter due to urgent communications requirements and JTRS schedule delays.
- Represents procurements through the FYDP supporting the next generation IISR, wideband THHR, and AN/MRC-145 service life extension program
- RDTE funding is required to determine the optimal solution for the AN/MRC-145 service life extension program

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: TCM - Next Generation IISR, Wideband THHR and AN/MRC-145 SLEP	-	0.440	0.562	-	0.562
Articles:		0	0		0
FY 2012 Plans: Next generation solutions for the Warfighter due to urgent communications requirements and continuing JTRS schedule delay - Represents procurements through the FYDP supporting the next generation IISR, wideband THHR, and AN/MRC-145 service life extension program - RDTE funding is required to determine the optimal solution for the AN/MRC-145 service life extension program					
FY 2013 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Next generation solutions for the Warfighter due to urgent communications requirements and continuing JTRS schedule delay - Represents procurements through the FYDP supporting the next generation IISR, wideband THHR, and AN/MRC-145 service life extension program - RDTE funding is required to determine the optimal solution for the AN/MRC-145 service life extension program					
Title: NOTM: Test and Evaluation Support ***Articles:*** ***FY 2012 Plans:*** Test and evaluation support of prototype systems and equipment. ***FY 2013 Base Plans:*** Continue test and evaluation support of prototype systems and equipment.	-	0.200 0	0.350 0	-	0.350 0
Title: NOTM: Product Development ***Articles:*** ***FY 2012 Plans:*** Proof of concept development. ***FY 2013 Base Plans:*** Proof of concept development.	-	0.460 0	0.802 0	-	0.802 0
Title: NOTM: Engineering Program Support ***Articles:*** ***FY 2012 Plans:*** Development efforts to include required acquisition documentation and technical support. ***FY 2013 Base Plans:*** Continue development efforts to include required acquisition documentation and technical support.	-	0.603 0	1.922 0	-	1.922 0
Title: CONDOR: Technical, Engineering Support and Contract Advisory, Assistance Services ***Articles:*** ***FY 2011 Accomplishments:*** Technical, Engineering Support and Contract Advisory, Assistance Services.	0.203 0	-	-	-	-
Title: LMST: Engineering Program Support	-	1.314	0.316	-	0.316

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Articles:		0	0		0
FY 2012 Plans: Funds for program support, MCOTEA travel to test events, and ECP development for the joint IP Modem upgrades for both the LMST and Phoenix programs. ***FY 2013 Base Plans:*** Continued program support, and MCOTEA travel to support certification testing and modem integration testing.					
Title: VSAT: Test and Evaluation Support	0.039	0.407	0.363	-	0.363
Articles:	0	0	0		0
FY 2011 Accomplishments: Continue Development and integration efforts along with Science & Technology engineering support for Very Small Aperture Terminal (VSAT). ***FY 2012 Plans:*** Continue Development and integration efforts, including DISA Modem Certification and engineering support for VSAT. ***FY 2013 Base Plans:*** Continue Development and integration efforts, including DISA Modem Certification and engineering support for VSAT.					
Title: LMST: Test and Evaluation Support	0.244	1.344	-	-	-
Articles:	0	0			
FY 2011 Accomplishments: Continue Science & Technology engineering support. ***FY 2012 Plans:*** Funds to support JITC certifications and modem integration testing for both the LMST and Phoenix programs.					
Title: Legacy Comm/Elec (Networks): Engineering Support for DTC	0.352	-	-	-	-
Articles:	0				
FY 2011 Accomplishments: Continue Engineering Support for Digital Technical Control and TRC-170.					
Title: Legacy Comm/Elec (Networks): Operational Support Test/Support for DTC	0.293	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Articles:	0				
FY 2011 Accomplishments: Continued Operational Support Test/Support for DTC/TRC-170.					
Title: Legacy Comm/Elec: TRC-170 Test	0.719	-	-	-	-
Articles:	0				
FY 2011 Accomplishments: Testing of safety critical failures of TRC-170 antenna replacement.					
Title: SMART-T - Program Support	-	0.196	0.098	-	0.098
Articles:		0	0		0
FY 2012 Plans: Provide Science & Technology Engineering support for Secure, Mobile, Anti-jam, Reliable Tactical Terminal (SMART-T).					
FY 2013 Base Plans: Provide Science & Technology Engineering support for Secure, Mobile, Anti-jam, Reliable Tactical Terminal (SMART-T).					
Accomplishments/Planned Programs Subtotals	1.850	4.964	4.413	-	4.413

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PMC/4633001: *Tactical Satellite LMST*	4.631	17.389	1.418	4.591	6.009	1.444	1.470	1.493	1.511	0.000	36.710
• PMC/4633002: *Legacy Communications Electronics*	31.208	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	39.578
• PMC/4633003: *Very Small Aperture Terminal (VSAT)*	44.038	16.000	0.500	17.800	18.300	13.688	5.814	1.526	1.537	0.000	171.643
• PMC/4633004: *TCM*	71.179	84.450	61.683	4.937	66.620	85.694	94.182	47.728	11.530	0.000	621.259
• PMC/4633005: *SMART-T*	0.000	1.665	1.263	2.200	3.463	0.928	1.424	1.649	1.053	0.000	20.816
• PMC/700000: *SMART-T Spares*	0.178	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.198

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PMC/4633006: *AN/TRC-170*	0.000	25.136	0.000	3.000	3.000	2.992	5.979	7.464	9.206	0.000	53.777

D. Acquisition Strategy

(U) D. ACQUISITION STRATEGY:

(U) Tactical Satellite Comm Terminal (TSCT) - LIGHTWEIGHT MULTIBAND SATELLITE TERMINAL (LMST)/PHOENIX: With the signing of the SATCOM Collapse (20 May 2011) a dynamic transition is about to take place which will consolidate (3) programs, Lightweight Multiband Satellite Terminal (LMST), Phoenix Tactical SHF Satellite Terminal (TSST), and the Very Small Aperture Terminal Large (VSAT-L) into (1) requirement defined as the Universal Satellite Access Tactical Terminal (UnSATT). The acquisition strategy for the Lightweight Multi-band Satellite Terminal (LMST) and Phoenix program is to sustain terminals to maintain joint interoperability through FY17.

(U) Legacy Communications/Electronics Modifications and Sustainment (LEGACY): Provide continuous sustainment support to fielded equipment and implemented Service Life Extension Programs for equipment reaching its end of life supportability.

(U) Command & Control On-the-move Network, Digital Over-the-horizon Relay (CONDOR): Evaluate prototype hardware.

(U) Networking on the Move (NOTM): Develop on-the-move capabilities and integrate with at-the-halt network and legacy communications equipment.

(U) Very Small Aperture Terminal (VSAT): provides beyond line-of-sight (BLOS) satellite communications throughout the MAGTF. Multiple VSAT configurations provide the capability to tailor satellite communications to the lowest echelon. The VSATs are currently Ku-band only which requires commercial satellite connectivity. Future upgrades will utilize the military's Wide-band Global Satellites Ka-band capability to reduce long term O&M costs associated with commercial bandwidth. R&D work is necessary to ensure the successful transition from Ku to Ka-band. R&D funds will also be used to develop and test an X-band capability for the VSAT Terminals. Additional R&D funding will allow for further development of more capable modems which will provide higher capacity through-put and Transmission Security (TRANSEC).

(U) Secure Mobile Anti-Jam Reliable Tactical-Terminal (SMART-T): AEHF capability upgrade requires MCSC to modify SMART-T terminals with AEHF upgrade kits and replace the AN/PSQ-17 planning tool by purchasing the Tactical Computer Digital Mission Planner, AN/PYQ-19, through PM WIN-T.

(U) Tactical Communications Modernization (TCM): - Provides for the testing and evaluation of next generation tactical radio systems supporting the AN/MRC-145 service life extension program.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NOTM Development	C/FFP	QNA:Stafford, VA	-	0.460	Dec 2011	0.802	Dec 2012	-		0.802	0.000	1.262	
CONDOR Development	SS/FFP	MITRE ,CECOM:Ft. Monmouth, NJ	6.970	-		-		-		-	0.000	6.970	
		Subtotal	6.970	0.460		0.802		-		0.802	0.000	8.232	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NOTM Engineering Support	FFRDC	MITRE:Stafford, VA	-	0.203	Jan 2012	0.784	Jan 2013	-		0.784	0.000	0.987	
VSAT Development and Integration	FFRDC	MITRE:Stafford, VA	4.337	-	Jan 2012	0.293	Jan 2013	-		0.293	0.000	4.630	
LMST Contractor Support	FFRDC	MITRE:Stafford, VA	0.265	2.658	Mar 2012	0.316	Mar 2013	-		0.316	0.000	3.239	
LCE (Networks) Support	C/FFP	QNA:Stafford, VA	2.376	-		-		-		-	0.000	2.376	
NOTM Contract Support	C/FFP	QNA:Stafford, VA	-	0.400	Mar 2012	1.138	Mar 2013	-		1.138	0.000	1.538	
VSAT Contractor Support	C/FFP	QNA:Stafford, VA	0.043	-		-		-		-	0.000	0.043	
LCE (TRC-170A) Support	FFRDC	MITRE, CECOM:Fort Monmouth, NJ	0.500	-		-		-		-	0.000	0.500	
SMART-T Contractor Support	C/FFP	QNA:Stafford, VA	-	0.196	Mar 2012	0.098	Mar 2013	-		0.098	0.000	0.294	
		Subtotal	7.521	3.457		2.629		-		2.629	0.000	13.607	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
VSAT Test Support	MIPR	JITC:Ft. Huachuca, AZ	-	0.407	Mar 2012	0.070	Mar 2013	-		0.070	0.000	0.477	
NOTM Test Support	MIPR	MCTSSA:Camp Pendleton, CA	-	0.200	Dec 2011	0.350	Dec 2012	-		0.350	0.000	0.550	
LCE (Networks) Test Support	MIPR	MCOTEA/ JITC:Quantico, VA	0.978	-		-		-		-	0.000	0.978	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TCM Next Generation IISR	C/FFP	MCSC:Quantico, VA	-	0.440	Mar 2012	0.562	Mar 2013	-		0.562	0.000	1.002	
LCE (TRC-170A)	WR	MCOTEA:Quantico, VA	0.253	-		-		-		-	0.000	0.253	
		Subtotal	1.231	1.047		0.982		-		0.982	0.000	3.260	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	15.722	4.964		4.413		-		4.413	0.000	25.099	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2275: *Joint Tactical Radio System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2275				
LMST BCA	1	2011	1	2011
LMST Contract Expiration	4	2011	4	2011
LMST Joint IP Modem Upgrades	2	2013	4	2017
LMST Reset/MWS	1	2011	4	2011
LMST Sustainment/Support	1	2011	4	2017
LMST Contract Award	1	2012	1	2012
LMST (Phoenix) Joint IP Modem Upgrades	1	2012	4	2013
LMST (Phoenix) JITC Certifications	4	2013	4	2013
LMST (Phoenix) Master Work Schedule	1	2011	4	2017
LMST (Phoenix) PNPT Fielding	3	2011	2	2012
LMST (Phoenix) Terminals Fielding	1	2011	2	2011
LMST (Phoenix) Sustainment	1	2011	4	2017
VSAT ARSTRAT, ICTO, JITC Testing	1	2011	1	2011
VSAT Government Acceptance Testing	2	2012	4	2012
VSAT Large Fielding Decision	4	2011	4	2011
VSAT Large IOC	1	2012	1	2012
VSAT Large Fielding	1	2012	2	2012
VSAT Ka-band FRP/Fielding	3	2012	3	2012
VSAT Small/Medium IOC	1	2013	1	2013
VSAT JITC Test Event (DICE 3)	4	2013	4	2013
VSAT JIPM Upgrade	2	2013	3	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
VSAT Ka-band FOC	4	2013	4	2013
VSAT Tech Refresh	4	2016	4	2016
SMART-T SV-1 On Orbit Test	4	2011	1	2012
SMART-T Fielding Conference I MEF	1	2012	1	2012
SMART-T AEHF Planning Tool Fielding Decison	1	2012	1	2012
SMART-T Increment 5 Release	2	2012	2	2012
SMART-T Operational User Evaluation	1	2012	1	2012
SMART-T Phase 1 Training (Backwards compatibility)	1	2012	2	2013
SMART-T SV-2 Launch	2	2012	2	2012
SMART-T Fielding Conference II MEF	2	2012	2	2012
SMART-T Phase 2 Training	2	2013	4	2015
SMART-T SV-2 On Orbit Test	3	2012	4	2012
SMART-T Planning Tool Fielding	3	2012	4	2015
SMART-T AEHF Terminal Fielding	3	2012	4	2015
SMART-T Multi-service Operational Test & Evaluation	3	2012	2	2013
SMART-T SV-3 Launch	1	2013	1	2013
NOTM CDD Development	1	2011	1	2012
NOTM CARD/LCCE/Affordability Assessment	2	2011	1	2012
NOTM MS C Increment 1	4	2013	4	2013
NOTM Proof of Concept Testing Increment 2	1	2012	4	2013
NOTM PDR Increment 2	3	2013	3	2013
NOTM Post PDR Assessment Increment 2	1	2014	1	2014
NOTM MS B Increment 2	2	2014	2	2014
NOTM EMD RFI	3	2013	3	2013
NOTM EMD RFP	1	2014	1	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2275: *Joint Tactical Radio System*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NOTM EMD Contract Award	3	2014	3	2014
NOTM LRIP Increment 2 RFP	4	2015	4	2015
NOTM LRIP Increment 2 Contract Award	2	2016	2	2016
NOTM LRIP Increment 2 FRP	4	2017	4	2017

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2276: *Comms Switching and Control Sys*	4.106	3.979	8.327	-	8.327	10.336	9.295	7.759	5.103	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

(U) Network Planning & Management (NPM), formerly Joint Network Management System (JNMS), is a portfolio of communications planning and Network Management applications for use throughout the Marine Air-Ground Task Force (MAGTF). NPM includes the Systems Planning Engineering and Evaluation Device (SPEED). NPM provides the MARFOR (Marine Forces) component planners with the ability to conduct high-level planning; detailed planning and engineering; monitoring; control and reconfiguration; and spectrum planning and management in support of Combatant Commander (COCOM) and Commander, Joint Task Force (CJTF) operations. SPEED provides High Frequency (HF) predictions, Line of Site (LOS) propagation, Radio Coverage Analysis (RCA), Satellite planning, Command and Control Personal Computer (C2PC) track interface, interference and de-confliction analysis, spectrum management, Radio Guard Charts, Comm-On-The-Move (COTM), and T/E (training & education) and force structure management.

(U) Transition Switch Module (TSM): consists of three systems that provide a flexible Unit Level Switch that replaces legacy Tri-Tac switches with current commercial technology, providing maneuver elements with improved voice/data switching, data transport and bandwidth management capabilities. This program maintains USMC joint interoperability as all Services transition to Commercial Off-The-Shelf (COTS) switching technologies.

(U) Expeditionary Command and Control Suite (ECCS): Will provide reach back capability to the Global Information Grid (GIG) to access the Defense Switch Network (DSN), Defense Information System Network (DISN) Secret Internet Protocol Router Network (SIPRNET), Non-secure Internet Protocol Router Network (NIPRNET), and DISN Video Services (DVS), enabling a small advance force/liaison team to communicate with a Marine Air-Ground Task Force (MAGTF), Joint Task Force (JTF) or other Joint Force Commander, and to maintain situational awareness.

(U) Tactical Data Network (TDN) Gateway (GW): The TDN GW is a shelter system mounted on a Heavy-High Mobility Multipurpose Wheeled Vehicle (H-HMMWV) and is the data communication connection between external and internal Marine Air-Ground Task Force (MAGTF) networks. It provides the Wide Area Network (WAN) connection point and is the hub of the Local Area Network (LAN) architecture. The LAN is extended via the Data Distribution System (DDS), which is the TDN server variant of the TDN GW. TDN GWs and DDSs provide data transfer and switching services, subscriber access and mobile host support. A GW can operate from the SENSITIVE BUT UNCLASSIFIED (SBU) up to the SECRET level and contains an integral NSA Type 1 Inline Network Encryption (INE) device capable of supporting tunneling.

(U) Tactical Data Network (TDN) Data Distribution System - Modular (DDS-M): The DDS-M provides the commander a modular, integrated, and interoperable Internet Protocol (IP)- based LAN and WAN data networking capability that forms the data communications backbone and data communications support to organizations within a MAGTF. The DDS-M provides extension of the Defense Information System Network (DISN), Secret Internet Protocol Router Network (SIPRNet), and Sensitive But Unclassified (SBU) Non-secure Internet Protocol Router Network (NIPRNet) as well as a Coalition networking capability and access to strategic, supporting

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2276: *Comms Switching and Control Sys*

establishments, joint and other service component tactical data networks for Marine Corps Tactical Data Systems (TDSs) and other DDS-Ms. The DDS-M provides Marine Corps maneuver elements with a modular and scalable IP data transport capability that will replace, supplement and be used with existing legacy data systems through the integration of computers, routers, data switches and cabling, Enhanced Position Location and Reporting System (EPLRS) radio net interface units, MODEMS, link encryption devices, and patch panels. Uninterrupted Power Supplies (UPS) provide for emergency power and continuity of operations. The DDS-M can operate from the SBU up to the TOP SECRET (TS)/SENSITIVE COMPARTMENTED INFORMATION (SCI) level and contains integral In-line Network Encryption (INE) device supporting IP Security (IPSec) and Virtual Private Networking (VPN).

(U) Warfighter Network Tactical (WFN-T): WFN-T is a portfolio of systems of tactical network programs. Starting In FY 2012, WFN-T is broken out into three separate programs: TDN DDS-M, TDN Gateway, and Joint Enhanced Core Communications System (JECCS). WFN-T provides a standard data and voice architecture for voice, Secret Internet Protocol Router Network (SIPRNet), Non-Classified Internet Protocol Router Network (NIPRNet), coalition, data, and video services that is interoperable with Joint communications systems. Specifically, it provides interoperability with Defense Information Systems Agency (DISA) net-centric Global Information Grid (GIG) convergence architecture, provides network optimization (accelerators) to best utilize precious satellite and terrestrial bandwidth, replaces copper and fiber optic cable infrastructure assemblies that are outdated, provides Voice over Internet Protocol (VoIP) that efficiently shares the IP transport data, and provides multi-level security cross-domain solutions mandated by the DISA GIG IP convergence (black core).

(U) Joint Enhanced Core Communications System (JECCS): Formerly known as First In Command and Control System (FICCS). JECCS is the Joint Task Force (JTF) enabler "first in" integrated, processor-controlled communications and management system that provides C2 capabilities supporting a Marine Expeditionary Unit (MEU) deployment ashore of the early phases of a deployment by a larger command element such as a Marine Air-Ground Task Force (MAGTF) or JTF Commander's mission into an Area of Operation. The JECCS is easily scalable and capable of "fly-away" deployment. It is a system of systems composed of Commercial Off-the-Shelf (COTS) and Government Off-the-Shelf (GOTS) equipment. It provides the primary interface between subscriber equipment/systems and the long-haul multi-channel transmission systems. The JECCS facilitates secure and non-secure voice and data communications, switching functions, network routing, and management functions. The JECCS augments the current and planned communications architectures and provides technical control and network management services for the broad range of switching and radio connectivity requirements.

(U) Digital Technical Control (DTC): DTC and other communications are a switch network infrastructure which provides voice, SIPR, NIPR, coalition, data, and video services. DTC provides the deployed warfighter with a standard data and voice architecture that is interoperable with joint and other services' communications systems. Prior to FY 2012, funding for DTC was included in PU C2275, Legacy Communications/Electronics.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: TSM: Engineering and Program Support	0.100	0.500	0.317	-	0.317
Articles:	0	0	0		0
FY 2011 Accomplishments: Continue engineering and program support efforts.					
FY 2012 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Continue engineering and program support efforts. ***FY 2013 Base Plans:*** Continue engineering and program support efforts.					
Title: TSM: Technology Insertion ***Articles:*** ***FY 2011 Accomplishments:*** Technology insertion continued development, increment III. ***FY 2012 Plans:*** Technology insertion continued development, increment IV.	0.212 0	0.775 0	-	-	-
Title: WFN-T: Engineering Support and Prototype Development ***Articles:*** ***FY 2011 Accomplishments:*** Continue FY10 efforts for increments III and IV.	1.927 0	-	-	-	-
Title: WFN-T: Test and Evaluation Support ***Articles:*** ***FY 2011 Accomplishments:*** Continued test and evaluation of WFN-T efforts.	0.150 0	-	-	-	-
Title: DDS-M: Test and Evaluation Support ***Articles:*** ***FY 2012 Plans:*** JITC Joint Interoperability Testing and MCOTEA participation in DT events; First Article Testing (FAT) and Systems Integration Testing (SIT) in support of independent user evaulations. ***FY 2013 Base Plans:*** Continue JITC Joint Interoperability Testing and MCOTEA participation in DT events; First Article Testing (FAT) and Systems Integration Testing (SIT) in support of independent user evaulations.	-	0.380 0	0.510 0	-	0.510 0
Title: DDS-M Program Management Support ***Articles:*** ***FY 2012 Plans:***	-	1.266 0	1.444 0	-	1.444 0

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Program management support for DDS-M systems. ***FY 2013 Base Plans:*** Continue program management support for DDS-M systems.					
Title: DDS-M: Program Engineering Support	-	0.514	0.517	-	0.517
Articles:		0	0		0
FY 2012 Plans: Program engineering support for DDS-M systems. ***FY 2013 Base Plans:*** Continue program engineering support for DDS-M systems.					
Title: NPM: SPEED, CEOI development and Pub 8 compliance	1.344	0.505	0.978	-	0.978
Articles:	0	0	0		0
FY 2011 Accomplishments: Continue with SPEED v11.X testing, release, fielding and award. ***FY 2012 Plans:*** Continue future enhancements to software to maintain relevancy with emerging communication technology. ***FY 2013 Base Plans:*** Continue future enhancements to software to maintain relevancy with emerging communication technology.					
Title: ECCS: Test and Evaluation Support	0.373	-	0.409	-	0.409
Articles:	0		0		0
FY 2011 Accomplishments: Continue test and evaluation support. ***FY 2013 Base Plans:*** Continue test and evaluation support.					
Title: ECCS: Engineering and Program Support	-	0.038	0.934	-	0.934
Articles:		0	0		0
FY 2012 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Continue engineering and program efforts. ***FY 2013 Base Plans:*** Continue engineering and program efforts.					
Title: ECCS: Product Development ***Articles:*** ***FY 2013 Base Plans:*** Development on JIPM, ARSTRAT, and IA certifications.	-	-	0.770 0	-	0.770 0
Title: JECCS: Engineering and Program Support ***Articles:*** ***FY 2013 Base Plans:*** Continue program support for development and testing efforts.	-	-	0.077 0	-	0.077 0
Title: JECCS: Test and Evaluation Support ***Articles:*** ***FY 2013 Base Plans:*** Continue upgrade/refresh testing of JECCS-R systems.	-	-	0.040 0	-	0.040 0
Title: DTC: Test and Evaluation Support ***Articles:*** ***FY 2013 Base Plans:*** Provide support for T&E efforts.	-	-	0.151 0	-	0.151 0
Title: DTC: Engineering and Development Support ***Articles:*** ***FY 2012 Plans:*** Continue engineering program support efforts. ***FY 2013 Base Plans:*** Continue engineering program support efforts.	-	0.001 0	2.180 0	-	2.180 0
Accomplishments/Planned Programs Subtotals	4.106	3.979	8.327	-	8.327

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PMC/4634-1: *TSM*	1.850	15.780	0.000	22.100	22.100	0.000	0.000	0.000	0.000	0.000	146.348
• PMC/4634-2: *ECCS*	0.415	0.000	0.300	0.000	0.300	4.777	12.657	10.423	0.000	0.000	38.436
• PMC/4634-4: *WFN-T*	21.217	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	107.379
• PMC/4634-5: *DDS-M*	0.000	98.153	32.353	0.000	32.353	56.073	50.931	40.436	41.007	0.000	318.953
• PMC/4634-6: *DTC*	0.000	20.134	3.295	0.000	3.295	8.981	1.070	3.484	7.352	0.000	44.316
• PMC/4634-7: *JECCS*	0.000	0.000	5.200	0.000	5.200	5.192	1.746	1.776	9.913	0.000	23.827
• PMC/4630-1: *TSM*	0.000	0.000	0.000	0.000	0.000	22.117	0.000	0.000	0.000	0.000	22.117

D. Acquisition Strategy

(U) Transition Switch Module (TSM): calls for the identification, integration, and testing of commercial switching technologies of sufficient maturity to improve system performance or meet emerging user requirements. Seeks commercial solutions that are fully compatible and interoperable with other Communication Networking Systems (CNS) programs that are fielded and/or being fielded e.g., DTC, TDN, Joint Enhanced Core Communication System (JECCS) etc.

(U) Network Planning and Management (NPM), formerly Joint Network Management Systems (JNMS): The NPM acquisition strategy emphasizes the use of Commercial Off-The-Shelf (COTS) and Government Off-The-Shelf (GOTS) products. The USMC GOTS SPEED acquisition strategy is for spiral development with the goal of releasing one new version of software annually. The SPEED contract method is through a sole source Blanket Purchase Agreement (BPA) using Fixed Price Task Orders based on the developer's GSA schedule for man-hours.

(U) Expeditionary Command and Control Suite (ECCS): will use the evolutionary acquisition strategy and pursue a competitive firm fixed price contract. Major concerns will be interoperability and compatibility with existing systems and components. R&D effort will focus on integrating and testing 'miniaturized' versions of existing components. Emerging technologies such as VoIP and Secure Wireless will also be addressed in the out year R&D effort. R&D funding drops as system goes into production.

(U) Tactical Data Network (TDN): is an evolutionary acquisition strategy. As new products and industry standards are produced, they are to be tested and integrated into TDN equipment. RDTE funding is required to test and evaluate Commercial Off-The-Shelf (COTS) items which will be integrated into TDN Gateways and Data Distribution Systems (DDS) to fulfill Operational Requirements Document (ORD) requirements. FY10 and FY11 funding for TDN is included in the WFN-T line.

(U) TDN Data Distribution System - Modular (DDS-M): is an evolutionary acquisition strategy that will modify existing and legacy programs to add emerging capabilities for interoperability. The tenets of the WFN-T acquisition strategy are Commercial Off-The-Shelf (COTS) and Government Off-The-Shelf (GOTS), firm fixed-price competitive contracts for material solutions to meet emerging requirements. WFN-T may reuse other Services' development and ride external contracts that satisfy requirements and analysis of alternatives.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

(U) Joint Enhanced Core Communications System-Refresh (JECCS-R): The JECCS-R acquisition strategy is based upon an evolutionary acquisition where most components are Commercial Off-the-Shelf (COTS). As an evolutionary acquisition, the JECCS will continue to be upgraded and improved as technology advances. Software version upgrades will be included. COTS and GOTS will be used to the maximum extent possible. The task order recipient will be responsible for updating the JECCS-R system operations and maintenance manual, which provides an integrated view of the equipment and interoperation of all components.

(U) Digital Technical Control (DTC): is an evolutionary acquisition strategy. As new products and industry standards are produced, they are to be tested and integrated into DTC equipment. Major concerns will be interoperability and compatibility with existing systems and components in the Marine Corps, as well as Joint and Coalition forces. R&D effort will focus on developing and integrating improved versions of existing components, while working toward the end-state of IPV6.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ECCS JIPM, ARSTRAT	C/FFP	US Army, CECOM:Aberdeen, MD	7.231	-		0.555	Jan 2013	-		0.555	0.000	7.786	
ECCS IA Certifications	Reqn	MCOTEA:Quantico, VA	6.412	-		0.215	Dec 2012	-		0.215	0.000	6.627	
NPM (SPEED S/W Development)	C/FFP	MCSC, Northrop Grumman:VA, FL	7.329	0.505	Mar 2012	0.978	Jan 2013	-		0.978	0.000	8.812	
TSM DITS-H Development	SS/FFP	MCSC, ITT:VA, SC	1.140	0.775	Mar 2012	-		-		-	0.000	1.915	
		Subtotal	22.112	1.280		1.748		-		1.748	0.000	25.140	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ECCS Engineering Support	FFRDC	US Army, MITRE:Stafford, VA	-	0.038	Jan 2012	0.534	Jan 2013	-		0.534	0.000	0.572	
DTC Engineering Supportq	FFRDC	US Army, MITRE:Stafford, VA	-	0.001	Jan 2012	2.180	Jan 2013	-		2.180	0.000	2.181	
ECCS Engineering Support	WR	MCTSSA:Camp Pendleton, CA	-	-		0.100	Dec 2012	-		0.100	0.000	0.100	
TSM Engineering Support	FFRDC	US Army, MITRE:Stafford, VA	0.526	0.500	Jan 2012	0.317	Jan 2013	-		0.317	0.000	1.343	
WFN-T Engineering Support	FFRDC	US Army, MITRE:Stafford, VA	1.882	-		-		-		-	0.000	1.882	
DDS-M Engineering Support	SS/FFP	US Army, MITRE:Stafford, VA	-	0.514	Jan 2012	0.517	Jan 2013	-		0.517	0.000	1.031	
		Subtotal	2.408	1.053		3.648		-		3.648	0.000	7.109	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ECCS T&E	WR	MCOTEA:VA	-	-		0.315	Jan 2013	-		0.315	0.000	0.315	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ECCS T&E	MIPR	JITC:Ft. Huachuca, AZ	-	-		0.094	Jan 2013	-		0.094	0.000	0.094	
DTC T&E	MIPR	JITC:Ft. Huachuca, AZ	-	-		0.151	May 2013	-		0.151	0.000	0.151	
WFN-T T&E	MIPR	JITC:Ft. Huachuca, AZ	0.900	-		-		-		-	0.000	0.900	
DDS-M T&E	WR	MCOTEA:VA	-	0.300	Mar 2012	0.300	Mar 2013	-		0.300	0.000	0.600	
DDS-M T&E	MIPR	JITC:Ft. Huachuca, AZ	-	0.080	May 2012	0.210	May 2013	-		0.210	0.000	0.290	
		Subtotal	0.900	0.380		1.070		-		1.070	0.000	2.350	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ECCS Program Support	C/FFP	MCSc, QinetiQ:VA	-	-		0.300	Mar 2013	-		0.300	0.000	0.300	
JECCS Program Support	C/FFP	MCSC, QinetiQ:VA	-	-		0.117	Mar 2013	-		0.117	0.000	0.117	
DDS-M Program Support	C/FFP	MCSC, QinetiQ:VA	-	1.266	Mar 2012	1.444	Mar 2013	-		1.444	0.000	2.710	
		Subtotal	-	1.266		1.861		-		1.861	0.000	3.127	

	Total Prior Years Cost	FY 2012 Cost	FY 2012	FY 2013 Base Cost	FY 2013 Base	FY 2013 OCO Cost	FY 2013 OCO	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	25.420	3.979		8.327		-		8.327	0.000	37.726	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2276: *Comms Switching and Control Sys*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2276				
TDN DDS-M Core Modules - Fielding	1	2011	1	2013
TDN DDS-M Core Modules - IOC	2	2012	3	2012
TDN DDS-M - Core Modules - FOC	1	2013	3	2013
TDN DDS-M - Recompete RFP	3	2012	3	2012
TDN DDS-M - Contract Award	2	2013	2	2013
TDN DDS-M - Tech Refresh/Fielding	2	2014	4	2016
NPM/SPEED IPR (one per quarter)	1	2011	4	2017
NPM/SPEED Fielding - Ver 11.0	4	2011	4	2011
NPM/SPEED Fielding - Ver 11.1	2	2012	2	2012
NPM/SPEED Fielding - Ver 11.X (one new version per FY)	2	2013	2	2017
NPM/SPEED RFP	1	2012	1	2012
NPM/SPEED Contract Award	1	2013	1	2013
NPM/SPEED Developmental Test - PAT (1st QTR each FY)	1	2011	1	2017
NPM/SPEED Operational Test - FAT 1 (1st QTR each FY)	1	2011	1	2017
NPM/SPEED ATO for 11.0	3	2011	3	2011
NPM/SPEED ATO for 11.1	1	2012	1	2012
NPM/SPEED ATO for 11.X	2	2013	2	2013
ECCS RFI	4	2011	4	2011
ECCS MDD	3	2011	3	2011
ECCS RFP Release	1	2012	1	2012
ECCS MS C/FRP	1	2012	1	2012

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
ECCS Contract Award	1	2012	1	2012
ECCS Verification Test	3	2012	4	2012
ECCS FCA	4	2012	4	2012
ECCS PCA	4	2012	4	2012
ECCS Fielding Decision	4	2012	4	2012
DTC-R FCA	2	2011	2	2011
DTC-R OA	2	2011	3	2011
DTC-R Full Rate Production	3	2011	3	2011
DTC-R NET	1	2012	2	2013
DTC-R IOC	2	2012	2	2012
DTC-R Refresh Fielding	2	2012	2	2015
DTC-R FOC	1	2014	1	2014
DTC-R Market Research	1	2014	1	2015
DTC-R PDR	2	2015	2	2015
DTC-R CDR	4	2015	4	2015
JECCS CARD	1	2011	2	2011
JECCS LCCE	2	2011	3	2011
JECCS Affordability Assessment (AA)	4	2011	1	2012
JECCS RFI	3	2011	3	2011
JECCS RFP	4	2011	4	2011
JECCS MDD	1	2012	1	2012
JECCS MS B	3	2012	3	2012
JECCS FRP/MS C	1	2013	1	2013
JECCS Production Decision	2	2013	2	2013
JECCS Fielding Decision	3	2013	3	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2276: *Comms Switching and Control Sys*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
JECCS IOC	1	2014	1	2014
JECCS FOC	1	2015	1	2015
JECCS CDR	4	2012	4	2012
JECCS SVR	2	2013	2	2013
JECCS PRR	4	2013	4	2013
JECCS PDR	1	2015	1	2015
JECCS FAT/SIT	1	2013	1	2013
JECCS JITC/Operational Assessment	2	2013	2	2013
JECCS PAT 1	3	2013	3	2013
JECCS PAT 2	4	2013	4	2013
TSM MDD Technology Insertion 1	1	2011	1	2011
TSM MS B Technology Insertion 1	2	2011	2	2011
TSM RFP Technology Insertion 2	2	2011	2	2011
TSM Contract Award Technology Insertion 2	1	2012	1	2012
TSM IBR	2	2012	2	2012
TSM CDR	3	2012	3	2012
TSM FAT/SIT/JITC Technology Insertion 1	3	2012	2	2013
TSM SBR	2	2013	2	2013
TSM MS C Technology Insertion 1	2	2013	2	2013
TSM FRP Technology Insertion 1	4	2013	4	2013
TSM MDD Technology Insertion 2	1	2014	1	2014
TSM MS B Technology Insertion 2	2	2014	2	2014
TSM MS C Technology Insertion 2	3	2016	3	2016
TSM FRP Technology Insertion 2	1	2017	1	2017
TSM RFP Increment x	2	2014	2	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2276: *Comms Switching and Control Sys*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
TSM Contract Award Increment x	1	2015	1	2015
TSM Fielding Technology Insertion 2	3	2013	4	2014

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2277: *System Engineering and Integration*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2277: *System Engineering and Integration*	5.405	9.575	6.171	-	6.171	6.366	6.450	6.537	6.573	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

This project provides funds for engineering, test, and evaluation activity, which ensures that the systems being developed within the Program Element (PE) employ consistent standards for interoperability and, to the maximum extent feasible, use hardware and software which is uniform and standard across programs. Marine Air-Ground Task Force Command, Control, Communications, Computers, and Intelligence Systems Engineering and Integration, and Coordination. (MAGTF C4I SEI&C) provides for the centralized planning and execution of Marine Corps Enterprise Information Technology and National Security Systems. It develops, certifies, and manages the configurations of the Marine Corps Enterprise
Systems and Technical Architecture products and uses these to support enterprise-level systems engineering. It supports unified technical representation to joint and coalition communities for Marine Corps Systems and provides top-tier system engineering support to address system of systems technical issues. It is used to conduct direct Marine Expeditionary Unit/Marine Expeditionary Force (MEU/MEF) support in system integration testing with USN. This is part of Deploying Group Systems Integration Testing (DGSIT)) and workups supporting Marine Expeditionary Force (MEF) deployments. It is also used to support Marine Corps systems coordination and involvement in DoD initiatives to include ForceNet, Global Information Grid Enterprise Services (GIGES), and other Deployable Information Systems Architecture DISA/NETWARCOM efforts.

Joint Distributed Engineering Plant (JDEP) directly supports DoD mandated directive CJCSI 6212.01F, to evaluate the interoperability of the holistic Marine Air Ground Task Force (MAGTF) Command Control Communications Intelligence (C4I) Capability produced by Marine Corps Systems Command (MARCORSYSCOM). This evaluation will be accomplished via the MAGTF C4I Capability Certification (MC3) process. Using MC3, composite capabilities are evaluated for their collective interoperability with joint forces; support integration of emmergent systems with systems aleady fielded, and to conduct critical engineering analysis capable of isolating and correcting capability deficiencies and optimize system of systems performance.

Joint Interoperability of Tactical Command and Control Systems (JINTACCS) is a Joint Chiefs-of-Staff (JCS)/DoD-mandated program for joint development, implementation, and testing of tactical datalinks and US Message Text Format (MTF) under the direction of the Defense Information Systems Agency (DISA) and Office of the Secretary of Defense/Networks and Information Integration (OASD/NII) per the Commander Joint Chiefs of Staff (CJCSI) 6610.01C and CJCS16241.04 for US Military Tactical Forces (USMTF).

Marine Air-Ground Task Force Command, Control, Communications, Computers, and Intelligence Systems Engineering and Integration, and Coordination. (MAGTF C4I SEI&C) provides for the centralized planning and execution of Marine Corps Enterprise Information Technology and National Security Systems. It develops, certifies, and manages the configurations of the Marine Corps Enterprise Systems and Technical Architecture products and uses these to support enterprise-level systems engineering. It supports unified technical representation to joint and coalition communities for Marine Corps Systems and provides top-tier system engineering support to address system of systems technical issues. It is used to conduct direct Marine Expeditionary Unit/Marine Expeditionary Force (MEU/MEF) support in

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2277: *System Engineering and Integration*

system integration testing with USN. This is part of Deploying Group Systems Integration Testing (DGSIT)) and workups supporting Marine Expeditionary Force (MEF) deployments. It is also used to support Marine Corps systems coordination and involvement in DoD initiatives to include ForceNet, Global Information Grid Enterprise Services (GIGES), and other Deployable Information Systems Architecture DISA/NETWARCOM efforts.

Expeditionary Energy Office (E2O): Energy is a top priority for the USMC as stated by the Commandant, and in support of this priority, he created the USMC Expeditionary Energy Office (E2O), with the mission to analyze, develop, and direct the Marine Corps' energy strategy in order to optimize expeditionary capabilities across all warfighting functions. E2O's role is to advise the Marine Requirements Oversight Council (MROC) on all energy and resource related requirements, acquisitions, and programmatic decisions. This office and funding will support the USMC Energy Strategy, which is the framework for the Marine Corps that communicates the Commandant's vision, mission, goals and objectives for expeditionary and installations energy. Additionally, this funding will enable execution of the USMC Energy Strategy Implementation Guidance which identifies specified tasks and responsibilities and timeframes for achievement. These two documents align the Marine Corps with operational energy management and strategy requirements established in the National Defense Authorization Act 2009, DoD directives and SECNAV goals. This funding will support the office"s requirements for technical, programmatic, and administrative support.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: Expeditionary Energy Office (E2O)	-	2.451	2.448	-	2.448
Articles:		0	0		0
FY 2012 Plans: Funds provide Expeditionary "Smart" Power Grids, Expeditionary Alternative (PV Solar) Energy Systems and Alternative (Bio) fuels to analyze, develop, and direct the Marine Corps" energy strategy in order to optimize expeditionary capabilities across all warfighting functions. Additionally, this funding will enable execution of the USMC Energy Strategy Implementation Guidance which identifies specified tasks and responsibilities and timeframes for achievement. These two documents align the Marine Corps with operational energy management and strategy requirements established in the National Defense Authorization Act 2009, DoD directives and SECNAV goals. This funding will support the office"s requirements for technical, programmatic, and administrative support."					
FY 2013 Base Plans: Funds provide Expeditionary "Smart" Power Grids, Expeditionary Alternative (PV Solar) Energy Systems and Alternative (Bio) fuels to analyze, develop, and direct the Marine Corps" energy strategy in order to optimize expeditionary capabilities across all warfighting functions. Additionally, this funding will enable execution of the USMC Energy Strategy Implementation Guidance which identifies specified tasks and responsibilities and timeframes for achievement. These two documents align the Marine Corps with operational energy management and strategy requirements established in the National Defense Authorization Act 2009, DoD					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2277: *System Engineering and Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
directives and SECNAV goals. This funding will support the office"s requirements for technical, programmatic, and administrative support."					
Title: JINTACCS: JCS and OASD/NII Data Links Testing. ***Articles:*** ***Description:*** Joint Interoperability of Tactical Command and Control Systems (JINTACCS) is a Joint Chiefs-of-Staff (JCS)/DoD-mandated program for joint development, implementation, and testing of tactical data links and US Message Text Format (MTF) under the direction of the Defense Information Systems Agency (DISA) and Office of the Secretary of Defense/Networks and Information Integration (OASD/NII) per the Commander Joint Chiefs of Staff (CJCSI) 6610.01C and CJCS16241.04 for US Military Tactical Forces (USMTF). ***FY 2011 Accomplishments:*** JINTACCS: Joint development, implementation, and testing of data links under the direction of the JCS and OASD/NII. ***FY 2012 Plans:*** JINTACCS: Joint development, implementation, and testing of data links under the direction of the JCS and OASD/NII. ***FY 2013 Base Plans:*** JINTACCS: Joint development, implementation, and testing of data links under the direction of the JCS and OASD/NII.	1.543 0	1.070 0	1.007 0	-	1.007 0
Title: SEIC: Engineering and Technical Support ***Articles:*** ***Description:*** Marine Air-Ground Task Force (MAGTF) Command, Control, Communications, Computers, and Intelligence (C4I) Systems Engineering and Integration, and Coordination (SEI&C). MAGTF C4I SEI&C provides for the centralized planning and execution of Marine Corps Enterprise Information Technology and National Security Systems. It develops, certifies, and manages the configurations of the Marine Corps Enterprise Systems and Technical Architecture products and uses these to support enterprise-level systems engineering. It supports unified technical representation to joint and coalition communities for Marine Corps Systems and provides top-tier system engineering support to address system of systems technical issues. It is used to conduct direct Marine Expeditionary Unit/Marine Expeditionary Force (MEU/MEF) support in system integration testing with USN. This is part of Deploying Group Systems Integration Testing (DGSIT)) and	2.433 0	5.030 0	2.716 0	-	2.716 0

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2277: *System Engineering and Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
workups supporting Marine Expeditionary Force (MEF) deployments. It is also used to support Marine Corps systems coordination and involvement in DoD initiatives to include ForceNet, Global Information Grid Enterprise Services (GIGES), and other Deployable Information Systems Architecture DISA/NETWARCOM efforts. ***FY 2011 Accomplishments:*** MAGTF SEI&C: Engineering and technical support for configuration management of MAGTF C4I systems. Review and submittal of multiple Integration Support Plans (ISPs) and Tactical ISPs (TISPs). Pre-deployment assistance to I MEF and multiple MEUs. Participation in ForceNet, NCES, GIGES and other Joint DoD initiatives. Plans are for continued activities to support the interoperability and jointness of the USMC Enterprise IT/NSS systems. ***FY 2012 Plans:*** MAGTF SEI&C: Engineering and technical support for configuration management of MAGTF C4I systems. Review and submittal of multiple Integration Support Plans (ISPs) and Tactical ISPs (TISPs). Pre-deployment assistance to I MEF and multiple MEUs. Participation in ForceNet, NCES, GIGES and other Joint DoD initiatives. Plans are for continued activities to support the interoperability and jointness of the USMC Enterprise IT/NSS systems. FY12 level of funding is needed to accomplish the technical objectives for integration and interoperability between MAGTF systems and systems of systems. ***FY 2013 Base Plans:*** MAGTF SEI&C: Engineering and technical support for configuration management of MAGTF C4I systems. Review and submittal of multiple Integration Support Plans (ISPs) and Tactical ISPs (TISPs). Pre-deployment assistance to I MEF and multiple MEUs. Participation in ForceNet, NCES, GIGES and other Joint DoD initiatives. Plans are for continued activities to support the interoperability and jointness of the USMC Enterprise IT/NSS systems. FY13 level of funding is needed to accomplish the technical objectives for integration and interoperability between MAGTF systems and systems of systems.					
Title: JDEP: Develop Certifications and Conduct MAGTF C4I Capability ***Articles:*** ***Description:*** Joint Distributed Engineering Plant (JDEP) directly supports DoD mandated directive CJCSI 6212.01F, to evaluate the interoperability of the holistic Marine Air Ground Task Force (MAGTF) Command Control Communications Intelligence (C4I) Capability produced by Marine Corps Systems Command (MARCORSYSCOM). This evaluation will be accomplished via the MAGTF C4I Capability Certification (MC3) process. Using MC3, composite capabilities are evaluated for their collective interoperability with	1.429 0	1.024 0	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2277: *System Engineering and Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
joint forces; support integration of emmergent systems with systems aleady fielded, and to conduct critical engineering analysis capable of isolating and correcting capability deficiencies and optimize system of systems performance. ***FY 2011 Accomplishments:*** JDEP: Conduct development of the MAGTF C4I Capability Certification process which involved the creation of capability based test threads. Additionally, create Joint Test Threads and participate in a JFCOM sponsored joint distributed test event. ***FY 2012 Plans:*** JDEP: Conduct development of the MAGTF C4I Capability Certification process which involved the creation of capability based test threads. Additionally, create Joint Test Threads and participate in a JFCOM sponsored joint distributed test event.					
Accomplishments/Planned Programs Subtotals	5.405	9.575	6.171	-	6.171

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2277: *System Engineering and Integration*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JINTACCS	C/FP	NSWC:Dahlgren, VA	0.070	-		-		-		-	0.000	0.070	
		Subtotal	0.070	-		-		-		-	0.000	0.070	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF SEI&C	C/FP	OSEC:Stafford, VA	1.200	2.480	Apr 2012	1.313	Apr 2013	-		1.313	0.000	4.993	
MAGTF SEI&C	C/FP	MCSC:Quantico, VA	0.800	0.800	Apr 2012	0.440	Apr 2013	-		0.440	0.000	2.040	
MAGTF SEI&C	WR	NSWC:Dahlgren, VA	0.449	0.750	Apr 2012	0.413	Apr 2013	-		0.413	0.000	1.612	
JDEP	C/FP	NSWC:Dahlgren, VA	1.152	0.344	Apr 2012	-		-		-	0.000	1.496	
JDEP	C/FP	OSEC:Carlsbad, CA	0.300	0.340	Apr 2012	-		-		-	0.000	0.640	
JINTACCS	C/FP	OSEC:Stafford, VA	1.000	0.742	Apr 2012	0.686	Apr 2013	-		0.686	0.000	2.428	
JINTACCS	C/FP	MCTSSA:Cmp Pendlton CA	0.513	0.328	Apr 2012	0.321	Apr 2013	-		0.321	0.000	1.162	
EEO (E20)	WR	NWSC:Crane, IN	-	0.901	Jan 2012	0.870	Jan 2013	-		0.870	0.000	1.771	
EEO (E20)	C/FP	NWSC:Cradderock, MD	-	0.875	Jan 2012	0.887	Jan 2013	-		0.887	0.000	1.762	
EEO (E20)	C/FP	SPAWAR:Charleston, SC	-	0.675	Jan 2012	0.691	Jan 2013	-		0.691	0.000	1.366	
		Subtotal	5.414	8.235		5.621		-		5.621	0.000	19.270	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JDEP	WR	SSCC:Charleston, SC	-	0.340	Apr 2012	-		-		-	0.000	0.340	
MAGTF SEI&C	MIPR	MITRE:Ft Monmouth NJ	-	1.000	Apr 2012	0.550	Apr 2013	-		0.550	0.000	1.550	
		Subtotal	-	1.340		0.550		-		0.550	0.000	1.890	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2277: *System Engineering and Integration*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	5.484	9.575		6.171		-		6.171	0.000	21.230	

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2278: *Air Defense Weapons System*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2278: *Air Defense Weapons System*	5.788	2.171	1.993	-	1.993	3.210	3.407	3.421	3.491	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Ground Based Air Defense Transformation (GBAD-T) - Based upon the deployment of the Low Altitude Air Defense (LAAD) Battalions and their employment of the Stinger Missile, GBAD-T transforms Air Defense equipment through technology insertion and equipment repackaging to address capability gaps as the result of equipment obsolescence and the emergent and evolving threats to the Marine Air Ground Task Force (MAGTF).

GBAD-T consist of three efforts: 1) sustainment of currently fielded LAAD equipment/assets; 2) fielding and support of the Advanced Man-Portable Air Defense System (A-MANPADS) that replaces the Avenger Weapon System and existing MANPADS vehicles; 3) replacing the Remote Terminal Unit (RTU), an effort that replaces an 18 pound laptop computer that provides Situational Awareness and Command and Control to the Stinger and A-MANPAD teams. The RTU replacement will interface with and be capable of receiving a Common Aviation Command and Control Systems (CAC2S) broadcasted link. It will also be capable of interfacing with legacy MACCS.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: *GBAD TRANSFORMATION: Program Management Services	0.107	1.105	0.705	-	0.705
Articles:	0	0	0		0
FY 2011 Accomplishments: Continuing efforts for Information Assurance Accredidation.					
FY 2012 Plans: Information Assurance and Research into Slue to Cue and follow on weapons systems.					
FY 2013 Base Plans: Information Assurance and Research into Optics and Mode 5 IFF (identification friend or foe).					
Title: *GBAD TRANSFORMATION: Product Development	0.473	0.075	0.297	-	0.297
Articles:	0	0	0		0
FY 2011 Accomplishments: Continuing effort to research a replacement weapon for Stinger.					
FY 2012 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2278: *Air Defense Weapons System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Research in to advanced Friend or Foe Identification. ***FY 2013 Base Plans:*** Research in advanced Friend or Foe Identification.					
Title: *GBAD TRANSFORMATION: Integration Development (Missile Integration) ***Articles:***	4.983 0	0.791 0	0.791 0	-	0.791 0
FY 2011 Accomplishments: Multiple vendor and Government participation in a Government sponsored GBAD capabilities demonstration. ***FY 2012 Plans:*** Multiple vendor and Government participation in a Government sponsored GBAD capabilities demonstration. ***FY 2013 Base Plans:*** Multiple vendor and Government participation in a Government sponsored GBAD capabilities demonstration.					
Title: *GBAD TRANSFORMATION: Support Costs (MCTSSA/MCCDC/Crane support) ***Articles:***	0.225 0	0.200 0	0.200 0	-	0.200 0
FY 2011 Accomplishments: GBAD-T will continue to support Health Assesments at the LAAD Battalions and the Stinger School house, ensuring Operational Readiness is maintained. ***FY 2012 Plans:*** GBAD-T will continue to support Health Assesments at the LAAD Battalions and the Stinger School house, ensuring Operational Readiness is maintained. ***FY 2013 Base Plans:*** GBAD-T will continue to support Health Assesments at the LAAD Battalions and the Stinger School house, ensuring Operational Readiness is maintained.					
Accomplishments/Planned Programs Subtotals	5.788	2.171	1.993	-	1.993

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PMC/300600: *GBAD-T*	3.559	12.287	11.054	0.000	11.054	24.632	24.436	10.723	10.478	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2278: *Air Defense Weapons System*

D. Acquisition Strategy

GBAD TRANSFORMATION: Designated an Abbreviated Acquisition Program (AAP), GBAD-T effects the rapid transition from the Avenger/MANPADS weapon system to the more mobile, flexible, and maintainable Advanced MANPADS. The AAP is principally comprised of integrating Government Off The Shelf (GOTS) equipment and Non-developmental Items (NDI).

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2278: *Air Defense Weapons System*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GBAD-T	WR	NSWC:Crane.IN	3.424	-		-		-		-	0.000	3.424	
GBAD-T	MIPR	Army:AMRDEC	4.991	-		-		-		-	0.000	4.991	
GBAD-T	MIPR	PMA-259:China Lake	2.375	-		-		-		-	0.000	2.375	
GBAD-T	Various	TBD:.	5.548	-		-		-		-	0.000	5.548	
GBAD-T	WR	NSWC:Crane,IN (PAS-13 HW)	1.469	-		-		-		-	0.000	1.469	
GBAD-T	C/FP	EG&G:Stafford, VA	0.489	-		-		-		-	0.000	0.489	
GBAD-T	C/FP	DRS Tech:Palm Bay, FL	0.215	-		-		-		-	0.000	0.215	
GBAD-T	C/FP	Raytheon:San Diego, CA	3.700	-		-		-		-	0.000	3.700	
GBAD-T	C/FP	MCSC:Quantico, VA	0.464	0.075	Nov 2011	0.297	Nov 2012	-		0.297	0.000	0.836	
GBAD-T	C/FP	L3:San Diego, CA	1.473	-		-		-		-	0.000	1.473	
		Subtotal	24.148	0.075		0.297		-		0.297	0.000	24.520	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GBAD-T	WR	NSWC:Crane, IN	0.526	0.200	Jan 2012	0.200	Jan 2013	-		0.200	0.000	0.926	
GBAD-T	C/FP	MCCDC:Quantico, VA	1.910	-		-		-		-	0.000	1.910	
GBAD-T	WR	MCTSSA:Camp Pendleton, CA	0.220	-		-		-		-	0.000	0.220	
GBAD-T	WR	MCSC:Quantico, VA	0.128	-		-		-		-	0.000	0.128	
GBAD-T	C/FP	MCOTEA:Quantico, VA	0.257	-		-		-		-	0.000	0.257	
JFIIT	SS/FP	RNB:Stafford, VA	1.425	-		-		-		-	0.000	1.425	
JFIIT	WR	MCSC:Quantico, VA	0.130	-		-		-		-	0.000	0.130	
		Subtotal	4.596	0.200		0.200		-		0.200	0.000	4.996	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2278: *Air Defense Weapons System*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GBAD-T	C/FFP	MCSC:Quantico, Va	-	0.791	Oct 2011	0.791	Oct 2012	-		0.791	0.000	1.582	
GBAD-T	MIPR	WSMR:NM	0.872	-		-		-		-	0.000	0.872	
GBAD-T	MIPR	Not Specified:Aberdeen, MD	0.047	-		-		-		-	0.000	0.047	
GBAD-T	C/FP	MCOTEA:Quantico, VA	0.672	-		-		-		-	0.000	0.672	
GBAD-T	MIPR	NATC:NM	0.710	-		-		-		-	0.000	0.710	
		Subtotal	2.301	0.791		0.791		-		0.791	0.000	3.883	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GBAD-T	C/FFP	SPAWAR:Charleston SC	-	0.659	Oct 2011	0.320	Oct 2012	-		0.320	0.000	0.979	
GBAD-T	C/FP	MCSC:Quantico, VA	0.524	0.446	Oct 2011	0.385	Oct 2012	-		0.385	0.000	1.355	
		Subtotal	0.524	1.105		0.705		-		0.705	0.000	2.334	

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	31.569	2.171		1.993		-		1.993	0.000	35.733	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2278: *Air Defense Weapons System*

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2278: *Air Defense Weapons System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2278				
GBAD-T Milestone C	3	2011	3	2011
GBAD-T Full Rate Production	3	2011	3	2011
GBAD-T Fielding Decision	1	2012	1	2012
GBAD-T IOC	1	2012	1	2012

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2510: *MAGTF CSSE & SE*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2510: *MAGTF CSSE & SE*	32.568	43.185	25.231	-	25.231	4.476	4.677	4.696	4.395	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

(U) The Marine Air Ground Task Force (MAGTF) Combat Service Support Element & Supporting Establishment (CSSE & SE) consists of mutually supporting Logistics Information Technology (IT) programs that support force deployment, planning, and execution; sustainment and distribution; and contributes to the Combatant Commander's Common Operating Picture to support rapid accurate decision making.

MARINE CORPS COMMON HARDWARE SUITE (MCHS) provides Commercial-Off-The-Shelf (COTS) workstations (desktop/laptop), servers and other IT hardware to support the Operating Force and other non-Navy Marine Corps Intranet (NMCI) Marine Corps customers. MCHS provides support for two principal groups: 1) Approximately 50 United States Marine Corps (USMC) Tactical and Functional Programs of Record that use COTS IT hardware as part of their fielded systems; and 2) Tactical and other Marine Corps customers not supported by NMCI such as Marine Corps Forces, Europe/Marine Corps Forces, Korea and stand-alone Marine Corps units and schoolhouses. The goal of the program is to enhance overall IT system interoperability and lower the total cost of ownership by centralizing procurement of COTS IT hardware, reducing the number of different configurations of computers, and providing worldwide integrated logistics support for all fielded MCHS hardware. Rapid technology insertion provides ability to develop, test, and evaluate COTS hardware and software configurations for rapid fielding purposes.

GLOBAL COMBAT SUPPORT SYSTEM-MARINE CORPS (GCSS-MC) is the physical implementation of the enterprise Information Technology (IT) architecture designed to support both improved and enhanced Marine Air Ground Task Force (MAGTF) Combat Support Services (CSS) functions and MAGTF Commander and Combatant Commanders/Joint Task Force (CC/JTF) combat support information requirements. The initial program includes all transactional CSS systems related to Supply Chain Management (SCM) and Enterprise Asset Management (EAM) functionality enabled with Service Management functions. When combined, these capabilities are referred to as Logistics Chain Management (LCM) or GCSS-MC/LCM. The primary goal of GCSS-MC/LCM is to provide the capabilities specified in the Logistics Operational Architecture (Log OA). The result of enabling the Log OA is the retirement of legacy applications. The GCSS-MC/LCM exposes timely mission information to Marine Corps operational and CSS commanders, CC/JTF commanders and their staffs and other authorized users. It exposes information interoperability and common logistics information applications and services across functional areas. GCSS-MC/LCM allows operating forces commanders to base decisions on complete logistics information and make decisions in concert with specific operational tasks.

The GCSS-MC/LCM program is procuring capabilities by increments. GCSS-MC/LCM Increment 1 is a subset of the total requirement that focuses on Logistics Management and Execution with Logistics Command and Control requirements necessary to perform those functions in a deployed environment. GCSS-MC/LCM Increment 1 is global in scope and it can be deployed under any circumstances, during peace or war, independent of geographical location. The GCSS-MC/LCM Increment 1 Capability Development Document (CDD), dated 25 May 2005 and approved in December 2005, establishes the requirements for the entire GCSS-MC portfolio. Key objectives of the CDD include the following: (1) Deliver integrated functionality across supply, maintenance, transportation, finance, engineering, health, acquisition and manpower systems in accordance with the Marine Corps Logistics Operational Architecture; (2) Provide timely information to Marine Corps operational and CSS commanders, CCs and Joint JTF commanders and their staffs and other authorized users; (3) Allow Operating Forces (OPFORS) commanders to base

decisions on complete logistics information and make decisions in concert with specific operational tasks; and (4) Provide users and operators of logistics processes access to information and applications across the spectrum of conflict regardless of location.

TRANSPORTATION SYSTEMS PORTFOLIO (TSP) supports the various ongoing and continuing efforts to modernize legacy USMC logistics systems including joint interoperability testing and certification and development to ensure compliance with information assurance testing and certification requirements. Legacy systems include joint programs supporting deployment and sustainment of theater assets as well as existing USMC legacy systems. Joint interoperability testing and certification is an ongoing and continuous requirement that is critical to ensuring all TSP applications are interoperable with other Department of Defense and Joint Services systems. There are also ongoing and continuing efforts to ensure that the legacy TSP applications comply with the latest information assurance requirements. TSP applications are continually updating their security posture through software enhancements based upon the latest cyber threats. Also, mandatory DOD compliance with software patches ensure TSP systems are in compliance with new information assurance vulnerability assessments and ensure data integrity, confidentiality and availability.

JOINT FORCE REQUIREMENTS GENERATOR II (JFRG II) is a Global Command and Control System (GCCS) software application designed to provide DOD with a Joint Services, state-of-the-art, integrated, and deployable Automated Information System (AIS) that supports strategic force movements. JFRG II provides rapid development of force data to satisfy operational planning and execution requirements. It serves as the essential link between service force requirements and validated/sourced unit data. JFRG II permits multi-level planning with entry of equipment and personnel data, transportation/movement data, and the phasing of the total force throughout the entire movement timeline. JFRG II contains an exhaustive joint data library and interfaces directly with the Joint Operation Planning and Execution System (JOPES). JFRG II can generate standard, executive, and ad hoc reports, perform database queries, and export or import data from Transportation Coordinators' Automated Information for Movement System (TC-AIMS) II, MAGTF Deployment Support System (MDSS) II and JOPES. JFRG II operates and functions in either a classified or unclassified environment.

PUBLIC KEY INFRASTRUCTURE (PKI) provides security objects and mechanisms used by Public Key (PK)-enabled systems and applications. The primary products of PKI are PK certificates and other certified objects used in conjunction with PK certificates. In addition to PK certificates, PKI provides on-line services (e.g. on-line certificate status checking), and supplies authenticated attributes in PK certificates and/or attribute certificates. PKI is one of a number of security solutions used to protect information and provide attributes to enable critical resources in the Global Information Grid, and is used concurrently with other solutions (e.g. in-line network encryptors to implement the defense-in-depth concept.) In conjunction with PK-enabled applications, PKI is used for identification, authentication, data confidentiality and integrity, and non-repudiation security services. Additionally, PKI functionally will be expanded to the Secret Internet Protocol Router Network (SIPRNET).

AUTOMATED IDENTIFICATION TECHNOLOGY (AIT) conducts research and development capabilities testing to expand and enhance options necessary to provide today's Commanders accurate information that allows better communication, coordinating, synchronization, and real-time logistics data transfer capabilities to programs that influence Warfighting evolutions. AIT devices, hardware and software's are continually evolving and RDT&E provides the necessary modernization progression to ensure that technologies deployed today meet the demands of the Commander's by providing faster, more reliable, increase data reliability and expedited logistics' architecture for Marine Corps-unique transportation, distribution and supply systems/software and applications. AIT forecast and plans to focus Web-basing, Web-enablement and Web Services software technology [i.e., machine-to-machine information exchanges between, our customers in the Military Services and Defense

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2510: *MAGTF CSSE & SE*

agencies, and the Defense industry, based upon the open-standard Extensible Markup Language (XML), Simple Object Access Protocol (SOAP), Military-Standard (MIL-STD) formatted protocols]. There are three primary reasons why AIT is pursuing this direction:

1. Web-based applications dramatically reduce the costs associated with fielding new software mission capabilities. (Only a limited handful of central servers need to be updated rather than thousands of employees' desktop computers.)
2. Web-basing and Web Services make AITs software applications much more adaptable to the ongoing and future changes in the Marine Corps procurement and financial management systems that are being implemented in accordance with the Department's Business Enterprise Architecture.
3. AIT has found that Web-based application development is substantially less expensive than traditional client/server or mainframe-based application development. One of the reasons why Web-based development is less expensive is that Web-basing applications allows AIT to productively adapt large amounts of open source software packages with minimal or even zero acquisition and support costs. Also, this allows the Marine Corps to achieve their desired real-time supply chain information "reach-back" capabilities that may extend to the factory floors where parts, components,and systems are produced.

BASE TELECOMMUNICATIONS INFRASTRUCUTRE (BTI) provides all Marine Corps installations with the base area network communications infrastructure that connects the end-user to the Defense Information Systems Agency (DISA) network. BTI sustains upgrades and enhances the telecommunications systems infrastructure for all Marine Corps Installations in order to meet the demands required to support the 5th Element of the MAGTF. BTI is designed to maintain industry currency as it relates to technological capabilities for all voice, video and data transport services via each installation's infrastructure. These data services include support for but are not limited to: Telephony (including voice over internet protocol), Enhanced 911, Video-Teleconferencing, Integrated Services Digital Network, Marine Corps Enterprise Network, Energy Monitoring Control Systems, Intrusion Detection Systems, Access Control Systems, Fire Alarm Control Networks and Fleet Training Systems. This includes supporting systems such as optical networks, telecommunications management systems, primary power, voice mail, teleconferencing, and outside plant infrastructure.

ELECTRONIC MAINTENANCE SUPPORT SYSTEM (EMSS) is composed of several main components including Electronic Maintenance Devices (EMD), regional servers, deployment servers, charger racks, and ruggedized deployment cases. EMSS is a rugged organizational-level (O-level), light-weight, one-man portable maintenance device capable of supporting multiple platforms and systems across maintenance communities. EMSS provides a Commercial Off-The-Shelf (COTS) hardware device equipped with network interfaces, Built-In-Test/Built-In-Test Equipment (BIT/BITE) interfaces, and Software Defined Test Instrument (SDTI) General Purpose Electronic Test Equipment (GPETE) capabilities. These hardware capabilities will enable commercial or custom DoD and USMC software capabilities including Interactive Electronic Technical Manuals (IETMs), Computer Based Training (CBT), access to Subject Matter Experts (SMEs) over USMC networks, and other maintenance applications to be hosted on EMSS. With these capabilities, maintainers will make more informed decisions, thereby sustaining force readiness over time.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: BASE TELECOM (BTI)	-	0.454	0.460	-	0.460
Articles:		0	0		0
FY 2012 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
FY12 Participation in the DISA Unified Capabilities (voice, video, collaboration, and data) pilot is critical to BTI modernization strategy. The RDT&E funds will be utilized for testing efforts in support of the DISA Unified Communications Everything over Ethernet effort. After the testing is reviewed by the Joint Interoperability Test Command (JITC), successfully evaluated products will be placed on the Approved Products List (APL). ***FY 2013 Base Plans:*** FY13 continued participation in the DISA Unified Capabilities (voice, video, collaboration, and data) pilot is critical to BTI modernization strategy. The RDT&E funds will be utilized for testing efforts in support of the DISA Unified Communications Everything over Ethernet effort. After the testing is reviewed by the Joint Interoperability Test Command (JITC), successfully evaluated products will be placed on the Approved Products List (APL).					
Title: MARINE CORPS COMMON HARDWARE SUITE (MCHS) ***Articles:*** ***FY 2011 Accomplishments:*** FY11 MCHS conducted trend analysis on reported failures of fielded Commercial off-the-Shelf (COTS) hardware and to evaluate the ability of new products to meet Marine Corps needs. ***FY 2012 Plans:*** In FY12, RTD&E will continue to be used to conduct trend analysis on reported failures of fielded COTS hardware and rapid technology insertion which provides ability to develop, test, and evaluate COTS hardware and software configurations for rapid fielding purposes.	1.464 0	1.610 0	-	-	-
Title: GCSS-MC LOGISTICS CHAIN MANAGEMENT (GCSS-MC) ***Articles:*** ***FY 2011 Accomplishments:*** FY11 activities Increment 1, Release 1.2 activities include the completion of the Release 1.2 System Integration Development & Test (SIDT&E); preparation for the Follow-on Operational Test & Evaluation (FOT&E); MEF Transportability testing; and being Modular MAGTF System (MMS) design analysis. ***FY 2012 Plans:***	26.958 0	36.380 0	21.326 0	-	21.326 0

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2510: *MAGTF CSSE & SE*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
FY12 activities include completion of the Increment 1, Release 1.2 Marine Expeditionary Force (MEF) SIDT&E, MEF Government Development Test & Evaluation (GDT&E) and MEF FOT&E. FY12 activities also include the start of the GCSS-MC baseline upgrade from Oracle eBusiness Suite Release 11 to Release 12. ***FY 2013 Base Plans:*** FY13 activities include the continuation of the GCSS-MC baseline upgrade from Oracle eBusiness Suite Release 11 to Release 12.					
Title: TRANSPORTATION SYSTEMS PORTFOLIO (TSP) ***Articles:*** ***FY 2011 Accomplishments:*** FY11 TSP conducted Active RFID upgrades and Joint Interoperability Testing & Certification (JITC) for all application upgrades and releases for all the programs within the portfolio. ***FY 2012 Plans:*** During FY12 TSP will conduct Active RFID upgrades and JITC for all application upgrades and releases for all the programs within the portfolio.	0.542 0	1.134 0	-	-	-
Title: JOINT FORCES REQUIREMENT GENERATION II (JFRG II) ***Articles:*** ***FY 2011 Accomplishments:*** FY11 funds provided Technology Development to reach Milestone B. ***FY 2012 Plans:*** FY12 funds will continue to fund Technology Development to reach Milestone B. ***FY 2013 Base Plans:*** FY13 funds will be utilized to conduct Engineering & Manufacturing Development to reach Milestone C.	0.349 0	0.260 0	0.175 0	-	0.175 0
Title: PUBLIC KEY INFRASTRUCTURE (PKI) ***Articles:*** ***FY 2011 Accomplishments:*** FY11 PKI continued testing, correction of deficiencies, and implementation of PKI requirements for tactical applications as well as MCEITS and SIPRNET capabilities. ***FY 2012 Plans:***	1.274 0	1.547 0	1.214 0	-	1.214 0

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2510: *MAGTF CSSE & SE*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
FY12 funding will provide for continued testing, correction of deficiencies, and implementation of PKI requirements for tactical applications as well as MCEITS and SIPRNET capabilities. ***FY 2013 Base Plans:*** FY13 funding will provide for continued testing, correction of deficiencies, and implementation of PKI requirements for tactical applications as well as MCEITS and SIPRNET capabilities.					
Title: AUTOMATED IDENTIFICATION TECHNOLOGY (AIT) ***Articles:*** ***FY 2011 Accomplishments:*** During FY11 the AIT Program Office worked with functional advocates and Capability, Development and Integration (CD&I) to solidify the requirement to develop an enterprise/consolidated AIT infrastructure capability in order to reduce future maintenance costs. Current infrastructure supports both active radio-frequency identification (aRFID) and passive RFID (pRFID) using multiple middleware solutions and contracts. The AIT PO awarded a contract in order to research and develop an enterprise/consolidated AIT capability taking advantage of new technology and middleware. ***FY 2012 Plans:*** During FY12 AIT will upgrade the RFID infrastructure to include a mobile capability. Initiate development and testing of AIT device interfaces with GCSS-MC. Expand communications capabilities for the active RFID (aRFID) infrastructure to include cellular and broadband capabilities. AIT will expand the aRFID infrastructure to take advantage of newer technology to allow non-nodal tracking in response to after-action comments from Iraq. AIT will provide the ability to control devices on the edgeware and provide common infrastructure middleware capability to support multiple AIT technologies FY12 - FY16.	1.981 0	1.800 0	-	-	-
Title: ELECTRONIC MAINTENANCE SUPPORT SYSTEM (EMSS) ***Articles:*** ***FY 2013 Base Plans:*** In FY13 the EMSS program will begin Research and Development for the Block II version of the Electronic Maintenance Support Systems to include all subcomponents. The program office will conduct studies and initiate the transition to the Block II using a Pre-Planned Product Improvement (P3I) version of EMSS. Focus areas will be deployed wireless capability, advanced diagnostics software applications, and IETM software development.	-	-	2.056 0	-	2.056 0
Accomplishments/Planned Programs Subtotals	32.568	43.185	25.231	-	25.231

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2510: *MAGTF CSSE & SE*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PMC/BLI 463000 MCHS: *MCHS*	22.404	11.162	19.570	0.000	19.570	2.880	2.079	2.079	2.245	Continuing	Continuing
• PMC/BLI 461700 GCSS: *GCSS-MC*	26.988	13.897	24.034	0.000	24.034	5.541	3.228	16.565	7.519	Continuing	Continuing
• PMC/BLI 463000 PKI: *PKI*	0.163	0.001	0.001	0.000	0.001	0.000	0.000	0.428	0.000	Continuing	Continuing
• PMC/BLI 461700 AIT: *AIT*	4.753	3.990	0.157	0.000	0.157	0.163	0.351	0.163	0.246	Continuing	Continuing
• PMC/BLI 463500 BTI: *BTI*	11.730	21.151	22.135	0.000	22.135	18.567	19.527	19.877	20.228	Continuing	Continuing
• PMC/BLI 418100: *EMSS*	1.996	2.016	7.425	0.000	7.425	5.908	4.696	4.604	4.367	Continuing	Continuing
• PMC/BLI 463500 PKI: *PKI*	0.998	1.184	1.318	0.000	1.318	1.304	1.450	1.494	1.607	Continuing	Continuing
• PMC/BLI 463000 TSP: *TSP*	0.220	0.873	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.093

D. Acquisition Strategy

MARINE CORPS HARDWARE SUITE (MCHS) ensures computer hardware in the Operating Forces keeps pace with industry computer hardware technical improvements. Analyses of technical alternatives are periodically required in order to determine how to best meet emerging customer requirements.

GLOBAL COMBAT SUPPORT SYSTEM-MARINE CORPS (GCSS-MC) is pursuing an Evolutionary Acquisition (EA) strategy in order to field operationally suitable and supportable capabilities in the shortest time possible that meets the Logistics Advocate goals. EA offers the fastest method to field this highest of advocate priorities and allows for requirements to be time-phased as the users become more familiar with the strengths and weaknesses of the fielded system. In addition to quicker fielding, an EA approach is particularly well suitable for software intensive programs and offers these benefits: rapid delivery of an initial capability with the explicit intent of delivering continuously improving capabilities in the future and a reduction in the "cycle time" from identification of emergent user requirements, priorities and fielding. The GCSS-MC acquisition strategy will deliver capabilities in increments. Each increment capability will follow a complete acquisition process in accordance with the DOD 5000 publications and OSD's Enterprise Integration roadmap. Increments will include emergent user priorities, advanced technology improvements and expanded functionality. Each increment will repeat the complete acquisition program cycle going through a milestone (MS) C Full Rate Production Decision Review. Increment 1 is divided into two major independent releases: Enterprise Release 1.1 and Deployed Access Release 1.2. This approach differs from the original plan of delivering one release due to the technical complexities related to the overall scope of the solution. More substantial software improvement/system upgrades will be fielded with each Increment as required and prioritized by the user community.

TRANSPORTATION SYSTEMS PORTFOLIO (TSP) conducts research and development currently executed under multiple contracts ending at various times across the FYDP. These contracts support the testing of the joint deployment and sustainment systems along with the USMC legacy systems.

JOINT FORCES REQUIREMENT GENERATOR II (JFRG II) conducts research and development currently executed under a five-year contract ending August 2011. Open Competition for a follow on contract to continue supporting testing of software for functionality with service users then passed on to Defense Information Systems

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2510: *MAGTF CSSE & SE*

Agency (DISA) for security and interoperability testing and released as a Global Command and Control Systems (GCCS) mission application. This is conducted based on a six-month release schedule of GCCS, with a six-month lead time for each JFRG II version release.

PUBLIC KEY INFRASTRUCTURE (PKI) is a DOD ACAT IAM Program. At the service level, the USMC PKI program is being managed as an Abbreviated Acquisition Program. Based on an Assistant Secretary of Defense Acquisition Decision Memorandum, DOD PKI development will be conducted through a series of block upgrades. The functional enhancement, changes will result in increased capability and functionality for PKI and increase the levels of security and assurance which affects mitigation of identified risks. There are thirteen functional and five assurance enhancements. Additionally, PKI functionality will be expanded to the SIPRNET.

AUTOMATED IDENTIFICATION TECHNOLOGY (AIT) hardware in the Operating Forces keeps pace with industry computer hardware technical improvements. AIT will support all aspects of active Radio Frequency Identification (aRFID) and passive RFID (pRFID). AIT evaluates emerging technologies, new equipment, and performs integration analysis and testing.

BASE TELECOMMUNICATIONS INFRASTRUCTURE (BTI) provides all Marine Corps installations with the base area network communications infrastructure that connects the end-user to the DISA network. BTI sustains upgrades and enhances the telecommunications systems infrastructure for all Marine Corps Installations in order to meet the demands required to support the 5th Element of the Marine Air Ground Task Force (MAGTF). Participation in the DISA Unified Capabilities (voice, video, collaboration, and data) pilot is critical to BTI modernization strategy. The RDT&E funds will be utilized for testing efforts in support of the DISA Unified Communications Everything over Ethernet effort. After the testing is reviewed by the JITC, successfully evaluated products will be placed on the Approved Products List (APL). The BTI PO currently utilizes various multi-year Blanket Purchase Agreement contracts to procure the test equipment and products being evaluated.

ELECTRONIC MAINTENANCE SUPPORT SYSTEM (EMSS) will conduct technology development, market research, and prototype testing for Block II capabilities required for MS B to be acheived 4th quarter FY14.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2510: *MAGTF CSSE & SE*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Development (EMSS)	TBD	NAVESEA:Washington, District of Columbia	-	-		0.500	Dec 2012	-		0.500	Continuing	Continuing	Continuing
GCSS LCM Increment 1 Application	C/T&M	Oracle USA:Reston, VA	178.985	14.180	Oct 2011	-		-		-	Continuing	Continuing	Continuing
GCSS LCM Increment 1 Training Development	C/FP	EDO:Stafford, VA	2.500	-		-		-		-	Continuing	Continuing	Continuing
PKI	C/FFP	Various:Various	6.815	1.547	Feb 2012	1.214	Feb 2013	-		1.214	Continuing	Continuing	Continuing
AIT	C/FFP	TBD:TBD	6.983	1.800	Aug 2012	-		-		-	Continuing	Continuing	Continuing
VAR	Various	Various:Various	17.601	-		-		-		-	Continuing	Continuing	Continuing
GCSS LCM Oracle eBusiness Suite Release 12 Upgrade	C/FP	TBD:TBD	-	22.200	Mar 2012	21.326	Nov 2012	-		21.326	Continuing	Continuing	Continuing
		Subtotal	212.884	39.727		23.040		-		23.040			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support (EMSS)	WR	NSWC, Crane:Crane, Indiana	-	-		0.563	Dec 2012	-		0.563	Continuing	Continuing	Continuing
Various Studies (EMSS)	Various	Various:Various	-	-		0.993	Mar 2013	-		0.993	Continuing	Continuing	Continuing
VAR	Various	Various:Various	1.213	1.394	Jul 2012	0.175	Jul 2013	-		0.175	Continuing	Continuing	Continuing
		Subtotal	1.213	1.394		1.731		-		1.731			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MCHS	WR	SPAWAR:Charleston, SC	11.141	1.610	Jan 2012	-		-		-	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2510: *MAGTF CSSE & SE*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GCSS LCM Increment 1 DT & OT Evaluations	WR	MCOTEA:Quantico, VA	10.149	-		-		-		-	Continuing	Continuing	Continuing
Various	Various	Various:Various	13.799	-		-		-		-	Continuing	Continuing	Continuing
BTI	C/FFP	TBD:TBD	-	0.454	Sep 2012	0.460	Sep 2013	-		0.460	Continuing	Continuing	Continuing
		Subtotal	35.089	2.064		0.460		-		0.460			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GCSS LCM PMO Support	C/FFP	TASC:Stafford, VA	14.745	-		-		-		-	Continuing	Continuing	Continuing
GCSS LCM PMO Support	C/FFP	Various:Various	12.843	-		-		-		-	Continuing	Continuing	Continuing
Various	Various	Various:Various	3.980	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	31.568	-		-		-		-			

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	280.754	43.185		25.231		-		25.231			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2510: *MAGTF CSSE & SE*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 2510: *MAGTF CSSE & SE*

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 2510: *MAGTF CSSE & SE*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2510				
GCSS-MC Logistics Chain Mgt Increment 1 Limited Release AD	4	2011	4	2011
GCSS-MC Logistics Chain Mgt Increment 1 FDD	1	2013	1	2013
GCSS-MC Logistics Chain Mgt Increment 1 FD	2	2013	2	2013

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 3099: *Radar System*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
3099: *Radar System*	24.164	33.807	25.677	-	25.677	17.467	11.668	7.535	7.987	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Long Range Radar (AN/TPS-59) - The AN/TPS-59 is a three dimensional ground-based sensor that can detect and track long range Air Breathing Targets (ABT) at ranges of 300 nautical miles and Tactical Ballistic Missiles (TBM) at ranges of 400 nautical miles. The system is experiencing increasing obsolescence and Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues. The program will use a Post Production Support (PPS) contract to develop engineering changes to resolve DMSMS and incorporate Mode 5 Identification Friend or Foe (IFF) per DOD mandate.

Family of Target Acquisition Systems (FTAS) - The FTAS provides the MAGTF the capability to locate, identify and attack enemy indirect fire weapons systems and observe and direct friendly artillery fire. The FTAS consists of the AN/TPQ-46 Firefinder radar, the AN/TPQ-48 Lightweight Counter Mortar Radar and the AN/TSQ-267 Target Processing Set. The FTAS is critical in the execution of counterfire and the integration of target acquisition information enabling attack by MAGTF assets. The FTAS also provides artillery firing units the ability to conduct artillery registration and other friendly fire missions. The FTAS encompasses the equipment required to support target acquisition within the target acquisition platoon and is resident in the headquarters battery of each artillery regiment. The program will continue to address engineering issues that arise due to DMSMS items within the FTAS.

Short/Medium Range Air Defense Radar (SHORAD) - The SHORAD AN/TPS-63 is a two-dimensional, medium-range, medium altitude, transportable radar system which is doctrinally employed as a tactical gap-filler or as an early warning system for early deployment into the operational area. It has a 360-degree air surveillance capability at a range of 160 miles and complements the co-employed AN/TPS-59 three-dimensional, long-range, air surveillance radar system. The Short/Medium Range Air Defense Radar will develop engineering change proposals related to improved system reliability with the specific purpose of meeting increased fleet operational requirements.

Three Dimensional Expeditionary Long Range Radar (3DELRR) - Marine Corps personnel are providing technical, engineering, and programmatic support to the U.S. Air Force 3DELRR program. The program support consists of program management, engineering, logistics, test, and requirements activities. 3DELRR is a potential replacement for the AN/TPS-59.

Virtual Warfare Center (VWC) Support - The project team conducts fully interactive simulated wargames at the Virtual Warfare Center (VWC) in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area. The VWC provides a venue for the exploration of advanced engagement concepts focused on persistent forward naval engagements in support of the MAGTF and the development of associated Joint and Service specific TTPs. VWC support encompasses a set of integrated fire control (IFC) activities that also includes concept/CONOPS development, family of systems architecture development, and systems engineering/integration efforts.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 3099: *Radar System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: AN/TPS-59 : Develop Engineering Change Proposals	9.363	12.462	10.706	-	10.706
Articles:	0	0	0		0
Description: The program will address DMSMS issues by continuing use of a Post Production Support (PPS) contract. The AN/TPS-59 modification will address DMSMS and the DOD mandated Mode 5 Implementation of the AN/TPS-59 Radar System.					
FY 2011 Accomplishments: Lockheed Martin - Data Processor Group Fielding, Software Maintenance Update Fieldings, IFF Mode 5, 1A5 Antenna Power Cabinet Engineering Change Proposal/Delivery Orders Awarded, and DMSMS reports.					
FY 2012 Plans: Lockheed Martin - Continue development of IFF Mode 5, 1A5 Antenna Power Cabinet Engineering Change Proposals, and software maintenance releases. Initiate Receiver/Exciter ECP to address DMSMS/ Obsolescence issues.					
FY 2013 Base Plans: Lockheed Martin - IFF Mode 5, 1A5 Antenna Power Cabinet, Receiver/Exciter Engineering Change Proposal, and software maintenance releases. MS-C scheduled for 2nd QTR FY14.					
Title: AN/TPS-59 : Management Service Support	6.913	7.000	4.500	-	4.500
Articles:	0	0	0		0
FY 2011 Accomplishments: MCSC - Program Management Support.					
FY 2012 Plans: MCSC - Program Management Support.					
FY 2013 Base Plans: MCSC - Program Management Support (reduced effort based on PM's prioritization of requirements).					
Title: AN/TPS-59 : Engineering and Technical Support	4.897	6.738	4.549	-	4.549
Articles:	0	0	0		0
FY 2011 Accomplishments:					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 3099: *Radar System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
MCOTEA/MCTSSA - Data Processing Group and Software Maintenance Testing events, MITRE/NSWC Dahlgren - Engineering support, Lockheed Martin - PMO/IPT, SPAWAR - IA Support, MCCDC CD&I - Requirements support, NAWC Pax River - Mode 5 support. ***FY 2012 Plans:*** MCOTEA/MCTSSA - Software Maintenance Testing events, MITRE/NSWC Dahlgren - Engineering support, Lockheed Martin - PMO/IPT, SPAWAR - IA Support, MCCDC CD&I - Requirements support, NAWC Pax River - Mode 5 support. ***FY 2013 Base Plans:*** MCOTEA/MCTSSA - Mode 5 and Software Maintenance Testing events, MITRE/NSWC Dahlgren - Engineering support, Lockheed Martin - PMO/IPT, SPAWAR - IA Support, MCCDC CD&I - Requirements support, NAWC Pax River - Mode 5 support. (Reduced effort for IA support - prioritization of efforts directed towards Mode 5)					
Title: SHORAD: Engineering and Technical Support	1.186	0.205	0.489	-	0.489
Articles:	0	0	0		0
Description: Provide configuration management to the current systems by on-site visits and field configuration surveys. Continuing development effort to resolve ongoing DMSMS and obsolescence issues. ***FY 2011 Accomplishments:*** TIU interface and Baseline Study delivery orders awarded and conducted. ***FY 2012 Plans:*** Correct DMSMS and obsolescence issues based on results of Baseline/Life Extension Study. ***FY 2013 Base Plans:*** Continue resolving DMSMS and obsolescence issues based on results of Baseline/Life Extension Study.					
Title: FTAS: Engineering and Technical Support	0.575	0.546	0.646	-	0.646
Articles:	0	0	0		0
FY 2011 Accomplishments: NSWC Dahlgren - Engineering Support for the Family of Target Acquisition systems to support Sensor Management and Collaboration Tool (SMACT) Development, and Government liason with Fires Software					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 3099: *Radar System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Engineering Directorate (FSED) Ft. Sill. MCSC Albany - Program Travel in support of Equipment and Logistics SME. ***FY 2012 Plans:*** NSWC Dahlgren - Engineering Support for the Family of Target Acquisition systems to support Sensor Management and Collaboration Tool (SMACT) Development, and Government liason with Fires Software Engineering Directorate (FSED) Ft. Sill. Aberdeen Proving Ground (APG)- M116A3 MOD Trailer Capabilities Validation. Tobyhanna Army Depot (TYAD)- AN/TPQ-46 MILTOPE Computer Refresh Engineering Change Proposal (ECP). MCSC Albany - Program Travel in support of Equipment and Logistics SME. ***FY 2013 Base Plans:*** NSWC Crane - ECP development on the AN/TSQ-267. NSWC Dahlgren - Engineering Support for the Family of Target Acquisition systems, and Government liason with Fires Software Engineering Directorate (FSED) Ft. Sill. Tobyhanna Army Depot (TYAD)- AN/TPQ-46 MILTOPE Computer Refresh Engineering Change Proposal (ECP). MCSC Albany - Program Travel in support of Equipment and Logistics SME.					
Title: FTAS: Management Service Support ***Articles:*** ***FY 2011 Accomplishments:*** MCSC- Program Management Support.	1.230 0	-	-	-	-
Title: 3DELRR: Testing and Requirements Support ***Articles:*** ***FY 2012 Plans:*** MCOTEA - Testing support, MCCDC CD&I - requirements support. ***FY 2013 Base Plans:*** MCOTEA - Testing support, MCCDC CD&I - requirements support.	-	0.280 0	0.240 0	-	0.240 0
Title: 3DELRR: Management Service Support ***Articles:*** ***FY 2012 Plans:*** MCSC - Program Management and Technical Support. ***FY 2013 Base Plans:***	-	1.745 0	1.611 0	-	1.611 0

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 3099: *Radar System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
MCSC - Program Management and Technical Support.					
Title: VWC: Testing Support	-	4.831	2.936	-	2.936
Articles:		0	0		0
FY 2012 Plans: FY11: Effort was shut down from March-September 2011. Automated Battle Management Aides (ABMA) analysis was conducted. Resumed USMC participation in the Nimble Fire exercise. Delivered the USMC Operational Concept for Integrated Fire Control (IFC) Capability document. Delivered the USMC Integrated Air and Missile Defense (IAMD) Architecture Phase I products. FY12: Conduct fully interactive simulated wargames (Nimble Fire) at the Virtual Warfare Center (VWC) in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area. Deliver USMC IFC architecture Phase II products. Conduct systems integration of IFC related systems in analysis venues. Conduct systems engineering of IFC related C2, sensors, networks, and weapons. Transition technical workspace to new facility as part of the BRAC. ***FY 2013 Base Plans:*** Continuation of simulated wargames at the Virtual Warfare Center (VWC) in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area.					
Accomplishments/Planned Programs Subtotals	24.164	33.807	25.677	-	25.677

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PMC/465003: *AN/TPS-59*	10.993	49.799	30.901	8.015	38.916	20.009	18.926	26.996	31.796	Continuing	Continuing
• PMC/465005: *FTAS*	0.159	5.388	3.145	0.000	3.145	2.157	2.228	2.284	2.332	Continuing	Continuing
• PMC/465007: *SHORAD*	0.500	7.425	3.685	0.000	3.685	1.713	0.976	1.421	0.728	Continuing	Continuing

D. Acquisition Strategy

Long Range Radar (AN/TPS-59) - The AN/TPS-59 is a three dimensional ground-based sensor that can detect and track long range Air Breathing Targets (ABT) at ranges of 300 nautical miles and Tactical Ballistic Missiles (TBM) at ranges of 400 nautical miles. The system is experiencing increasing obsolescence and Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues. The program will use a Post Production Support (PPS) contract to develop engineering changes to resolve DMSMS and incorporate Mode 5 Identification Friend or Foe (IFF) per DOD mandate.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 3099: *Radar System*

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Three Dimensional Expeditionary Long Range Radar (3DELRR) - Marine Corps personnel are providing technical, engineering, and programmatic support to the U.S. Air Force 3DELRR program. The program support consists of program management, engineering, logistics, test, and requirements activities. 3DELRR is a potential replacement for the AN/TPS-59.

Virtual Warfare Center (VWC) Support - The project team conducts fully interactive simulated wargames at the Virtual Warfare Center (VWC) in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area. The VWC provides a venue for the exploration of advanced engagement concepts focused on persistent forward naval engagements in support of the MAGTF and the development of associated Joint and Service specific TTPs. VWC support encompasses a set of integrated fire control (IFC) activities that also includes concept/CONOPS development, family of systems architecture development, and systems engineering/integration efforts.

E. Performance Metrics

Milestone Reviews

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 3099: *Radar System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59	C/CPFF	LOCKHEED MARTIN:SYRACUSE, NY	61.938	12.462	Oct 2011	10.706	Oct 2012	-		10.706	0.000	85.106	
SHORAD	C/CPFF	NORTHROP GRUMMAN:WARNER ROBINS, GA	1.444	0.205	Jan 2012	0.489	Jan 2013	-		0.489	0.000	2.138	
		Subtotal	63.382	12.667		11.195		-		11.195	0.000	87.244	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59	WR	NAWCAD:PAX RIVER, MD	-	1.000	Oct 2011	0.550	Oct 2012	-		0.550	0.000	1.550	
AN/TPS-59	C/CPFF	MCOTEA:QUANTICO	0.340	0.350	Oct 2011	0.300	Oct 2012	-		0.300	0.000	0.990	
AN/TPS-59	C/CPFF	MCCDC CDI:QUANTICO	0.400	0.388	Apr 2012	0.356	Apr 2013	-		0.356	0.000	1.144	
AN/TPS-59	C/CPFF	NSWCDD:MCSC	1.763	2.250	Jan 2012	1.400	Jan 2013	-		1.400	0.000	5.413	
AN/TPS-59	C/CPFF	SPAWAR:MCSC	1.494	1.750	Feb 2012	0.950	Feb 2013	-		0.950	0.000	4.194	
AN/TPS-59	C/CPFF	MITRE:BEDFORD, MA	1.925	1.000	Oct 2011	1.000	Oct 2012	-		1.000	0.000	3.925	
FTAS	WR	NSWC:DAHLGREN	5.883	0.280	Jan 2012	0.250	Jan 2013	-		0.250	0.000	6.413	
FTAS	MIPR	AMRY CECOM:ABERDEEN, MD	2.418	-		-		-		-	0.000	2.418	
FTAS	MIPR	APG:ABERDEEN, MD	-	0.100	Feb 2012	-		-		-	0.000	0.100	
FTAS	MIPR	TYAD:TOBYHANNA, PA	-	0.116	Feb 2012	0.048	Feb 2013	-		0.048	0.000	0.164	
FTAS	WR	NSWC:CRANE, IN	1.850	-		0.298	Oct 2012	-		0.298	0.000	2.148	
FTAS	Various	MCSC:QUANTICO	1.974	0.050	Oct 2011	0.050	Oct 2012	-		0.050	0.000	2.074	
3DELRR	C/CPFF	MCOTEA:QUANTICO	-	0.138	Mar 2012	0.113	Mar 2013	-		0.113	0.000	0.251	
3DELRR	Various	HQMC CD&I:HQMC	-	0.142	Mar 2012	0.120	Mar 2013	-		0.120	0.000	0.262	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 3099: *Radar System*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
VWC	C/CPFF	ONR:ST. LOUIS, MO	-	4.831	Oct 2011	2.936	Oct 2012	-		2.936	0.000	7.767	
		Subtotal	18.047	12.395		8.371		-		8.371	0.000	38.813	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59	C/CPFF	MCSC:QUANTICO	13.654	7.000	Dec 2011	4.500	Dec 2012	-		4.500	0.000	25.154	
AN/TPS-59 (3DELRR)	C/CPFF	GENERAL DYNAMICS:QUANTICO	2.000	-		-		-		-	0.000	2.000	
FTAS	WR	MCSC:QUANTICO	0.504	-		-		-		-	0.000	0.504	
3DELRR	C/CPFF	GENERAL DYNAMICS:QUANTICO	-	1.745	Dec 2011	1.611	Dec 2012	-		1.611	0.000	3.356	
		Subtotal	16.158	8.745		6.111		-		6.111	0.000	31.014	

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	97.587	33.807		25.677		-		25.677	0.000	157.071	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 3099: *Radar System*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 3099: *Radar System*

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 3099: *Radar System*

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 3099: *Radar System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3099				
AN/TPS-59 PPM I IOC	4	2011	4	2011
AN/TPS-59 PPM I FOC	2	2012	2	2012
AN/TPS-59 PPM II MS-C	2	2014	2	2014
AN/TPS-59 PPM II IOC	1	2015	1	2015
AN/TPS-59 PPM II FOC	1	2016	1	2016
FTAS TPS Fielding Decision	2	2011	2	2011
FTAS TPS IOC	2	2011	2	2011
FTAS TPS FOC	4	2011	4	2011

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 9C89: *Marine Ground-Air Radar*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
9C89: *Marine Ground-Air Radar*	57.813	106.654	-	-	-	-	-	-	-	0.000	164.467
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Ground/Air Task Oriented Radar (G/ATOR) (formerly known as the Multi-Role Radar System (MRRS)) is an expeditionary, 3-dimensional, high-mobility, multi-purpose wheeled vehicle, short/medium range multi-role radar designed to detect cruise missiles, air breathing targets, rockets, mortars, and artillery. MRRS and GWLR (Ground Weapons Locating Radar) merged into a single requirement/capability (G/ATOR) and will replace an aging fleet of single mission legacy radar systems. G/ATOR will support air defense, air surveillance, counter-battery/target acquisition, aviation radar tactical enhancements and the final evolution will also support the Air Traffic Control mission. This project was funded under project C3099 prior to FY 2010 and was moved to Program Element 0204460M/ Project 9C89 beginning in FY13.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: *G/ATOR: Contractor Technical, Development Engineering/EDM	42.090	77.682	-	-	-
Articles:	0	0			
FY 2011 Accomplishments: Finished REG Integration and Test (I&T), conduct Software Qualification Testing (SQT) and start System I&T and Performance Qualification Testing (PQT).					
FY 2012 Plans: Finish System I&T, conduct Environmental Qualification Test (EQT), finish PQT, deliver Engineering Development Model (EDM) to the Government (DD250 sign off), start Anti-Tamper (AT) planning, assist the government in development of the LRIP configuration in support of Transition to LRIP, conduct Production Readiness Review (PRR) and begin producibility enhancement efforts to include design, prototype development and integration/regression testing of Gallium Nitride (GaN) based Transmit/Receive (T/R) modules and associated technology insertion efforts.					
Title: *G/ATOR: Test and Evaluation	2.822	9.200	-	-	-
Articles:	0	0			
FY 2011 Accomplishments: Finished REG Integration and Test (I&T), conduct Software Qualification Testing (SQT), start Performance Qualification Testing (PQT).					
FY 2012 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Finish System I&T, conduct Environmental Qualification Test (EQT), finish PQT, provide support for the beginning of Developmental Testing 1B (DT1B).					
Title: *G/ATOR: Program Office Management & Travel Costs ***Articles:*** ***FY 2011 Accomplishments:*** Continued travel efforts in support of system development and test. ***FY 2012 Plans:*** Continue travel efforts in support of system development and test.	0.150 0	0.357 0	-	-	-
Title: *G/ATOR: Government Technical Support ***Articles:*** ***FY 2011 Accomplishments:*** Continued support from these activities to enable program execution; MITRE, NSWC Dahlgren, NSWC Crane, NSWC PHD, MARCORSYSCOM and MCOTEA ***FY 2012 Plans:*** Continue support from these activities to enable program execution; MITRE, NSWC Dahlgren, NSWC Crane, NSWC PHD, MARCORSYSCOM and MCOTEA	7.151 0	10.627 0	-	-	-
Title: *G/ATOR: Engineering, Management, & Logistics Support ***Articles:*** ***FY 2011 Accomplishments:*** Continued engineering, management & logistics program office support from General Dynamics Information Technology (GDIT). ***FY 2012 Plans:*** Finish engineering, management & logistics program office support under existing CEOSS contract with GDIT. Award new contract and continue engineering, management & logistics program office support with new CEOSS contract vehicle.	5.600 0	8.788 0	-	-	-
Accomplishments/Planned Programs Subtotals	57.813	106.654	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PMC/465000: *GRND/AIR TASK ORIENTED RADAR*	0.000	4.246	90.348	0.000	90.348	109.025	80.310	254.185	258.581	Continuing	Continuing

D. Acquisition Strategy

The Ground/Air Task Oriented Radar (G/ATOR), formerly known as Multi-Role Radar System (MRRS) will fill the MRRS and GWLR requirements. Five legacy systems (AN/TPS-63, AN/UPS-3, AN/MPQ-62, AN/TPS-73 and AN/TPQ-46A) will be replaced by a single material design that offers an opportunity to reduce development cost and combine training and logistics assets. MRRS Aviation systems replace the AN/TPS-63, AN/MPQ-62 and AN/TPS-73 systems, as well as additional systems in support of the Short Range Air Defense (SHORAD) mission; MRRS Ground system is a one for one replacement of the AN/TPQ-46A. The Engineering Manufacturing Development (EMD) phase allows for technology insertion due to obsolescence and technology growth issues. As Tactical Enhancements become available, fielded systems will be backfitted. Two Engineering Development Models (EDM), (one Contractor, one Government), will be developed during the EMD phase and flowed down to support builds.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 9C89: *Marine Ground-Air Radar*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	C/CPIF	NORTHROP GRUMMAN SYSTEMS CORPORATION:LINTHICUM HEIGHTS, MD	122.120	77.682	Dec 2011	-		-		-	0.000	199.802	
		Subtotal	122.120	77.682		-		-		-	0.000	199.802	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	MIPR	MITRE:BOSTON, MA	1.322	1.733	Dec 2011	-		-		-	0.000	3.055	
G/ATOR	WR	NSWC-DAHLGREN:DAHLGREN, VA	13.545	7.774	Dec 2011	-		-		-	0.000	21.319	
G/ATOR	WR	NSWC-CRANE:CRANE, IN	1.190	0.284	Dec 2011	-		-		-	0.000	1.474	
G/ATOR	C/FP	MCSC:QUANTICO, VA	0.214	0.200	Dec 2011	-		-		-	0.000	0.414	
G/ATOR	C/CPIF	MCOTEA:QUANTICO, VA	0.662	-		-		-		-	0.000	0.662	
G/ATOR	WR	NSWC-PHD:DAM NECK, VA	-	0.569	Dec 2011	-		-		-	0.000	0.569	
		Subtotal	16.933	10.560		-		-		-	0.000	27.493	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	C/CPIF	MCOTEA:QUANTICO, VA	0.672	0.700	Dec 2011	-		-		-	0.000	1.372	
G/ATOR	C/FP	GENERAL DYNAMICS:STAFFORD, VA	0.950	0.600	Dec 2011	-		-		-	0.000	1.550	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 9C89: *Marine Ground-Air Radar*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	WR	NSWC-CORONA:CORONA, CA	0.418	0.300	Dec 2011	-		-		-	0.000	0.718	
G/ATOR	MIPR	US ARMY ABERDEEN:PROVING GROUND, MD	0.450	1.600	Dec 2011	-		-		-	0.000	2.050	
G/ATOR	MIPR	MARINE CORP AIR STATION:YUMA, AZ	0.350	2.200	Feb 2012	-		-		-	0.000	2.550	
G/ATOR	MIPR	MCTSSA:CAMP PENDLETON, CA	-	2.200	Dec 2011	-		-		-	0.000	2.200	
G/ATOR	MIPR	NAVAL SURFACE WEAPONS COMBAT CNTR:WALLOPS ISLAND, VA	-	1.600	Dec 2011	-		-		-	0.000	1.600	
		Subtotal	2.840	9.200		-		-		-	0.000	12.040	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	C/FP	MCSC:MCSC-QUANTICO, VA	-	8.350	Dec 2011	-		-		-	0.000	8.350	
G/ATOR	Various	MCSC:QUANTICO, VA	0.300	0.424	Sep 2012	-		-		-	0.000	0.724	
G/ATOR	C/FP	GENERAL DYNAMICS:STAFFORD, VA	12.587	-		-		-		-	0.000	12.587	
GATOR	C/FP	MCSC:QUANTICO, VA	0.411	0.438	Dec 2011	-		-		-	0.000	0.849	
		Subtotal	13.298	9.212		-		-		-	0.000	22.510	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
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	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	155.191	106.654		-		-		-	0.000	261.845	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0206313M: *Marine Corps Comms Systems*	PROJECT 9C89: *Marine Ground-Air Radar*

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*	**PROJECT** 9C89: *Marine Ground-Air Radar*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 9C89				
Defense/Air Surveillance AS/AD Capability System Demonstration (DT)(1B)	2	2012	4	2012
Defense/Air Surveillance AS/AD Capability System Demonstration (DT/OT)(1C)	3	2015	1	2016
Defense/Air Surveillance AS/AD Capability Operational Assessment (OA)	4	2012	1	2013
Defense/Air Surveillance AS/AD Capability Low Rate Initial Production (LRIP)	3	2013	3	2017
Defense/Air Surveillance AS/AD Capability Milestone C	3	2013	3	2013
Defense/Air Surveillance AS/AD Capability (IOT&E)	2	2016	2	2016
Defense/Air Surveillance AS/AD Capability (IOC)	4	2016	4	2016
Defense/Air Surveillance AS/AD Capability Full Rate Production Decision	4	2016	4	2016