Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy										DATE: February 2011	
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 2010**	**FY 2011**	**FY 2012 Base**	**FY 2012 OCO**	**FY 2012 Total**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**Cost To Complete**	**Total Cost**
Total Program Element	268.815	245.298	320.864	1.500	322.364	325.943	286.068	300.078	205.413	Continuing	Continuing
2270: *Exp Indirect Fire Gen Supt Wpn Sys*	22.782	25.747	24.024	-	24.024	35.881	34.624	31.666	30.601	Continuing	Continuing
2273: *Air Ops Cmd & Control (C2) Sys*	62.832	68.465	65.963	1.500	67.463	116.544	79.435	81.075	36.708	Continuing	Continuing
2274: *Command & Control Warfare Sys*	10.927	19.633	26.174	-	26.174	25.470	21.112	18.145	16.097	Continuing	Continuing
2275: *Joint Tactical Radio System*	5.294	2.038	5.018	-	5.018	5.069	2.260	2.295	2.318	Continuing	Continuing
2276: *Comms Switching and Control Sys*	4.239	4.293	4.071	-	4.071	3.371	1.738	1.662	1.706	Continuing	Continuing
2277: *System Engineering and Integration*	6.509	5.580	9.650	-	9.650	9.752	9.936	9.997	7.680	Continuing	Continuing
2278: *Air Defense Weapons System*	5.025	5.938	2.171	-	2.171	2.271	3.404	3.519	3.578	Continuing	Continuing
2510: *MAGTF CSSE & SE*	64.774	33.538	43.185	-	43.185	51.778	52.956	44.401	21.054	Continuing	Continuing
3099: *Radar System*	18.184	24.893	33.887	-	33.887	34.483	8.022	8.640	8.797	Continuing	Continuing
9999: *Congressional Adds*	6.374	-	-	-	-	-	-	-	-	0.000	6.374
9C89: *Marine Ground-Air Radar*	61.875	55.173	106.721	-	106.721	41.324	72.581	98.678	76.874	Continuing	Continuing

Note

Ground/Air Task Oriented Radar (G/ATOR) (formerly known as the Multi-Role Radar System (MRRS) was funded under project C30999D prior to FY2010.

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).

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy	DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*

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.

B. Program Change Summary ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	279.222	245.298	195.723	-	195.723
Current President's Budget	268.815	245.298	320.864	1.500	322.364
Total Adjustments	-10.407	-	125.141	1.500	126.641
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-2.881	-			
• SBIR/STTR Transfer	-9.675	-			
• Program Adjustments	-0.001	-	128.535	1.500	130.035
• Rate/Misc Adjustments	-	-	-3.394	-	-3.394
• Congressional General Reductions Adjustments	-0.150	-	-	-	-
• Congressional Directed Reductions Adjustments	2.300	-	-	-	-

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2010	FY 2011
Project: 9999: *Congressional Adds*		
Congressional Add: *Media Exploitation Tool Integration with Intelligence C2 Systems*	1.195	-
Congressional Add: *Battlefield Sensor Netting*	2.391	-
Congressional Add: *M2C2*	2.788	-
Congressional Add Subtotals for Project: 9999	6.374	-
Congressional Add Totals for all Projects	6.374	-

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy	DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0206313M: *Marine Corps Comms Systems*

Change Summary Explanation

The entire increase in FY12 in this PE is accounted for by program adjustments to the G/ATOR Radar ($84M), GCSS-MC ($28M), and the G-BOSS program ($17M). The G/ATOR increase is associated with restructure of the program, resulting in resourcing in accordance with the new schedule and cost estimate. The GCSS-MC increase is due to R&D funding to support the scheduled start of Block 2 in FY12. The G-BOSS increase is associated with the new requirement for integration of UAS data.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2270: *Exp Indirect Fire Gen Supt Wpn Sys*	22.782	25.747	24.024	-	24.024	35.881	34.624	31.666	30.601	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.

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 Blue Force Situational Awareness 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. TLDHS Block II also provides the capability to designate targets for laser-guided munitions and laser spot trackers. TLDHS Block II is comprised of and integrates two major subsystems: the Targeting Subsystem and the Target Hand-Off Subsystem. USMC Milestone C for TLDHS Block II was June 2005 and Fielding and Full rate Production Decisions were October 2006. Fluctuations of R&D across the FYDP are due to the nature of a spiral development approach.

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.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

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 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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: *JBC-P: Software Development/Integration.	0.676	3.611	1.492	-	1.492
Articles:	0	0	0		0
FY 2010 Accomplishments: 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 2011 Plans: This effort will focus mainly on systems engineering of the next increments of this sprial/incremental acquisition including requirements analysis, documentation review 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					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
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 Base 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 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 2010 Accomplishments:*** User juries and update of the existing JCR training efforts in support of the evolution to JBC-P. ***FY 2011 Plans:*** User juries and update of the existing JCR training efforts in support of the evolution to JBC-P. ***FY 2012 Base Plans:*** Existing documentation will be evaluated for re-use and updated as 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.	0.285 0	0.250 0	0.150 0	-	0.150 0
Title: *JBC-P: Developmental Test (DT)/Operational Test (OT) ***Articles:*** ***FY 2010 Accomplishments:*** Test planning and development as well participation and evaluation of s/w and some h/w test events. ***FY 2011 Plans:*** Test planning and development as well participation and evaluation of s/w and some h/w test events. ***FY 2012 Base Plans:***	0.040 0	0.500 0	0.250 0	-	0.250 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Laboratories integrated with Huntsville Software Engineering Division (SED) and Software Engineering Institute laboratories in order to facilitate RRT, SSAT and concurrent network integration test events.					
Title: *JBC-P: System Engineering, Programmatic, and Logistics Program Support ***Articles:*** ***FY 2010 Accomplishments:*** Support personnel and travel. ***FY 2011 Plans:*** Support personnel and travel. ***FY 2012 Base Plans:*** Support personnel and travel.	0.185 0	0.306 0	0.307 0	-	0.307 0
Title: *MAGTF C2: Engineering, research, development, integration and testing support for MAGTF release ***Articles:*** ***FY 2010 Accomplishments:*** Completed Preliminary Design review for System of Systems; competed technical design review of individual software components; completed coding, Unit Testing, Software Qualification Testing, integration, and initial integration of initial Service Oriented Infrastructure software build; completed initial Human Systems Interface evaluation and analysis; completed engineering testing on initial Service Oriented Infrastructure software build. Conducted initial baseline performance testing of the Service Oriented Infrastructure. Completed the development JTCW software components and began integration of build for 2011 release. Completed JITC Conformance to Standards testing. Began planning for formal testing to occur in FY11. ***FY 2011 Plans:*** Complete developmental of Service Oriented Infrastructure initial release; complete Information Assurance, JITC and Developmental Testing of the Service Oriented Infrastructure. Integrate into host platform 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. Complete developmental testing, certification and accreditation of JTCW software in order to release subsequent version during FY11.	4.266 0	4.560 0	-	-	-
Title: *MAGTF C2: Engineering, research, and software development for MAGTF capability release ***Articles:***	4.092 0	3.068 0	11.759 0	-	11.759 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
FY 2010 Accomplishments: Initiated initial architectural development for future release; initiated requirements definition and decomposition for 2013 release; initiated efforts to begin rapid prototyping for 2013 release. ***FY 2011 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. Funds support a completion of TSOA Build 2 and 3. ***FY 2012 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 TSOA builds 4 and 5, with development of the MCTSSA hosted Application Store and new IA services. Builds 4 and 5 introduce the enhanced Warfighter capability, and include interfaces with other Service SOA efforts, such as SOSCOE (Army) and CANES (Navy). Also funds the C2PC PDSS contract.					
Title: *MAGTF C2: Program Support. Software engineering program support	0.900	1.050	1.050	-	1.050
Articles:	0	0	0		0
FY 2010 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 2011 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 2012 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.					
Title: *BFSA: Joint Interoperability Testing	0.050	0.056	-	-	-
Articles:	0	0			
FY 2010 Accomplishments:					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continued joint interoperability Certification with U.S. Army. ***FY 2011 Plans:*** Continue joint interoperability certification with U.S. Army.					
Title: *BFSA: Software Development and Integration. ***Articles:*** ***FY 2010 Accomplishments:*** Continued URN Database integration, JCR testing and integration on unique USMC platforms, SW developmental efforts for USMC specific requirements, Information Assurance activities and installation kit integration evaluation on USMC platforms. ***FY 2011 Plans:*** Continue URN Database integration, JCR testing and integration on unique USMC platforms, SW field user evaluation, Information Assurance activities and installation kit integration evaluation on USMC platforms. Conduct JCR SW operational test. ***FY 2012 Base Plans:*** Continue URN Database integration and SW developmental efforts for USMC specific requirements.	1.910 0	1.010 0	2.186 0	-	2.186 0
Title: *BFSA: Test support ***Articles:*** ***FY 2010 Accomplishments:*** Continued engineering efforts for C2CE SW interoperability testing, DACT and JCR certification. Also, supported software (JCR) developmental testing efforts. ***FY 2011 Plans:*** JCR software operational testing efforts. ***FY 2012 Base Plans:*** JCR software operational testing efforts.	0.074 0	0.260 0	1.134 0	-	1.134 0
Title: *TCO: System testing and integration to develop additional functional capabilities. ***Articles:***	0.126 0	2.140 0	2.175 0	-	2.175 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Description: Hardware upgrade solutions were researched and documented, in preparation for seamless transition to future technology and increased software capability. ***FY 2010 Accomplishments:*** The Marine C2 Alerting Capability Module (CM) was enhanced to provide backwards compatibility and work continues to additional functionality to meet the JC2 CDD requirements. ***FY 2011 Plans:*** Continue developing Registration and Orchestration Capability Modules (CM). ***FY 2012 Base Plans:*** Execute Proof of Concept /backwards compatability Registration and Orchestration Capability Modules (CM).					
Title: *TCO: Integrate software changes into new system and perform testing. ***Articles:*** ***FY 2010 Accomplishments:*** JC2 requirements cross referenced with former NECC requirements to establish updated baseline for testing and performance metrics. Net Centric Service Oriented Architecture (SOA) advanced concepts and technologies were tested and documented. ***FY 2011 Plans:*** The Marine Corps is planning on developing 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 Net Centric Service Oriented Architecture (SOA). This development will include integration of the advanced concepts and technologies on existing, as well as possible upgraded hardware. ***FY 2012 Base Plans:*** Begin implementation of newly developed concepts and technologies for proof of concept.	0.310 0	0.648 0	0.482 0	-	0.482 0
Title: *TCO: Testing and validations of advanced concepts and technologies. ***Articles:*** ***FY 2010 Accomplishments:*** Detailed testing, certification and accreditation currently underway for the C2 Alerting Capability Module (CM). ***FY 2011 Plans:***	0.232 0	0.557 0	1.043 0	-	1.043 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continue testing as required. ***FY 2012 Base Plans:*** Test proof of concept.					
Title: *IDS: Concept and Technology Development ***Articles:*** ***Description:*** Background information: On 6 July 2009, USD AT&L issued an ADM in which he emphasized the ACAT 1 - Special Interest designation for all DoD biometrics activities. The USD AT&L also tasked the Army, as the DoD Executive Agent for Biometrics, to conduct an Analysis of Alternatives (AoA) for the Biometric Enterprise Capability and the Biometrics Tactical Collection Devices, as well as developing an architecture into which all services and components can fit. The Army is to return to the Office of the Secretary of Defense (OSD) Biometrics Overarching Integrated Product Team (OIPT) for a review to present the initial AoA findings and a description of the biometrics enterprise architecture no later than February 2010. Based on the results of this review, the USD AT&L will consider service recommendations for new ACAT designations, milestone point of entry and delegation of MDA responsibility. ***FY 2010 Accomplishments:*** The IDS acquisition process for the Marine Corps was streamlined by basing their approach on the Army Analysis of Alternatives (AoA) for the majority of the market research required for a hardware platform solution, followed by additional testing, and a limited FUE to ensure system operational suitability prior to fielding. Integration efforts focused on integrating COTS and NDI hardware, and COTS and GOTS software for a robust open system architecture, fully compliant with Common Operating Environment standards and requirements. To the maximum extent possible, the Marine Corps utilized the same procurement solution as the Army and, where necessary, evaluated and integrated COTS/NDI systems to satisfy unique USMC requirements. Future IDS upgrades will be based on commercial technology to the maximum extent possible. At this time, there is no material solution defined.	0.991 0	-	-	-	-
Title: *IDS: System Development and Testing ***Articles:*** ***FY 2011 Plans:***	-	1.508 0	0.949 0	-	0.949 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Provide system integration, testing, program support documentation and the development of a Life Cycle Cost Estimate (LCCE) ***FY 2012 Base Plans:*** Provide system integration, testing, and program support documentation.					
Title: *AFATDS: Development of BackUp Computer System (BUCS) & Software (SW) ***Articles:*** ***FY 2010 Accomplishments:*** Improvements to data computations for USMC Expeditionary Fire Support System (EFSS). Improvements to survey and meteorological software and new technical manuals. ***FY 2011 Plans:*** Improvements to data computations for new munitions for EFSS. Communications improvements to incorporate new radios procured by USMC.	0.200 0	0.200 0	-	-	-
Title: *AFATDS: Software Development, Testing, and Integration ***Articles:*** ***FY 2010 Accomplishments:*** Continued development of Increment I capabilities. Improved data computations for new munitions for EFSS. Incorporated Ground Counter Fire System (GCFS) accoustic sensor and Ground/Air Task Oriented Radar (G/ATOR) paramenters. Modified schedule of fires processing for Smart Cannons (M777A2). Implemented AN-PRC117F/148/1532 radio configurations. Continued AFATDS Mobile Tactical Shelter (MTS) integration testing. ***FY 2011 Plans:*** Continue development of Increment I capabilities. Implement AN-PRC117G radio configurations. Develop "Ease-of-Use" features to improve user-interface.	3.506 0	3.579 0	-	-	-
Title: *AFATDS: Program Management, Engineering. Information Assurance Support ***Articles:*** ***FY 2010 Accomplishments:***	0.572 0	0.900 0	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Information Assurance Certification and Accreditation to ensure confidentiality, integrity, and availability of AFATDS as well as obtain Authority to Operate (ATO) and Authority to Connect (ATC) to the Marine Corps Enterprise Network (MCEN). ***FY 2011 Plans:*** Information Assurance Certification and Accreditation to ensure confidentiality, integrity, and availability of AFATDS as well as obtain Authority to Operate (ATO) and Authority to Connect (ATC) to the Marine Corps Enterprise Network (MCEN).					
Title: *AFATDS: MCTSSA/MCOTEA testing new Software (SW) ***Articles:*** ***FY 2010 Accomplishments:*** Conducted Engineering User Evaulations and software test support. ***FY 2011 Plans:*** Continue Engineering User Evaulations and software test support.	0.250 0	0.250 0	-	-	-
Title: *AFATDS: USMC and Joint Systems. Enhancement to EMT and C2PC interface. ***Articles:*** ***FY 2010 Accomplishments:*** Interoperability testing with Joint Tactical Common Operational Picture (COP) Workstation (JTCW) software. ***FY 2011 Plans:*** Continued interoperability testing with JTCW software and explore solution for AFATDS JTCW interface when U.S. Army integrates EMT into Command Post Of the Future (CPOF) system.	0.304 0	0.308 0	-	-	-
Title: *TLDHS: Software Development, New Functionality and Sustainment ***Articles:*** ***FY 2010 Accomplishments:*** Commercial Joint Mapping Tool Kit (CJMTK)/ Situational Awareness Data Link (SADL), LINK16, 6017A message implementation. True North Laser Range Finder software integration and Combat Net Radio (CNR) timing studies. ***FY 2011 Plans:***	3.471 0	0.878 0	0.831 0	-	0.831 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Net Enabled Weapons (NEW) implementation/ AODB and TBMCS implementation/ Assault Support implementation/ Additional Link16 message implementation, Variable Message Format (VMF) implementation, Digital Aided Close Air Support (DACAS) messaging implementation, and Short Range Tomahawk software integration. ***FY 2012 Base Plans:*** Continuation of Net Enabled Weapons (NEW) implementation/ AODB and TBMCS implementation/ Assault Support implementation/ Additional Link16 message implementation, Variable Message Format (VMF) implementation, Digital Aided Close Air Support (DACAS) messaging implementation, and Short Range Tomahawk software integration.					
Title: *TLDHS: Test Development and Integration Support	0.342	0.108	0.216	-	0.216
Articles:	0	0	0		0
FY 2010 Accomplishments: Commercial Joint Mapping Tool Kit (CJMTK)/ Situational Awareness Data Link (SADL), Link16, 6017A, True North Laser Range Finder, and Combat Net Radio (CNR)software testing. ***FY 2011 Plans:*** Net Enabled Weapons (NEW), AODB and TBMCS, Assault Support, Link16, Variable Message Format (VMF), Digital Aided Close Air Support (DACAS), and Short Range Tomahawk software testing. ***FY 2012 Base Plans:*** Continue Net Enabled Weapons (NEW), AODB and TBMCS, Assault Support, Link16, Variable Message Format (VMF), Digital Aided Close Air Support (DACAS), and Short Range Tomahawk software testing.					
Accomplishments/Planned Programs Subtotals	22.782	25.747	24.024	-	24.024

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PMC/4631001: *AFATDS*	15.685	12.057	2.487	0.000	2.487	22.661	24.022	2.667	2.712	Continuing	Continuing
• PMC/4631002: *BFSA*	18.800	13.730	57.092	94.472	151.564	56.950	57.561	55.466	55.791	Continuing	Continuing
• PMC/4631003: *TCO*	0.772	30.262	15.079	0.000	15.079	13.686	8.658	9.355	9.513	Continuing	Continuing
• PMC/4631005: *TLDHS*	10.149	5.298	7.093	0.000	7.093	3.041	2.119	2.187	2.224	Continuing	Continuing
• PMC/4631006: *JBCP*	0.000	0.000	1.125	0.000	1.125	27.242	28.451	0.000	0.000	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PMC/643800: *IDS*	0.000	0.000	1.808	0.000	1.808	3.633	4.452	4.335	4.409	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).

AFATDS: AFATDS is a Cost Plus Award Fee contract through Army CECOM, Ft. Monmouth, NJ. 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 tri-annual software releases (with major releases in FY11, FY13, and FY15) through multiple programs of record. Currently the initial focus is on modifying JTCW software and providing 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 (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 SW 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: Currently, PM FBCB2/BFT is using a broadly defined projected schedule for JBC-P. The Marine Corps' program office will continue to work with the FBCB2 program office in the development of a detailed program schedule. PM FBCB2/BFT 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 IOT&E will be conducted.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

E. Performance Metrics

Milestone Reviews

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TLDHS	C/CPFF	Stauder Tech:St. Louis, MO	14.533	0.878	Feb 2011	1.047	Jan 2012	-		1.047	Continuing	Continuing	Continuing
AFATDS	C/CPAF	Raytheon:Fort Wayne, IN	18.887	3.767	Mar 2011	-		-		-	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	26.394	4.380	Mar 2011	3.276	Nov 2011	-		3.276	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	6.146	0.948	Feb 2011	1.303	Feb 2012	-		1.303	Continuing	Continuing	Continuing
MAGTF	C/CPFF	TBD:TBD	-	1.500	Mar 2011	6.330	Dec 2011	-		6.330	0.000	7.830	
BFSA	WR	SPAWAR:Charleston, SC	3.343	1.016	Mar 2011	0.800	Nov 2011	-		0.800	Continuing	Continuing	Continuing
BFSA	MIPR	CECOM:Ft. Monmouth, NJ	1.004	-		2.420	Jan 2012	-		2.420	0.000	3.424	
TCO	MIPR	SPAWAR:Charleston, S.C.	4.653	2.345	Mar 2011	2.630	Dec 2011	-		2.630	Continuing	Continuing	Continuing
JBC-P	WR	SPAWAR:Charleston, SC	0.200	0.600	Mar 2011	0.600	Dec 2011	-		0.600	Continuing	Continuing	Continuing
IDS	WR	SPAWAR:Charleston, SC	0.991	1.508	Nov 2010	0.949	Jan 2012	-		0.949	0.000	3.448	
		Subtotal	123.558	16.942		19.355		-		19.355			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF C2	WR	MCTSSA:Camp Pendleton, CA	1.445	0.200	Oct 2010	0.400	Oct 2011	-		0.400	Continuing	Continuing	Continuing
JBC-P	C/FFP	MCSC:Quantico, VA	1.578	2.761	Mar 2011	0.542	Mar 2012	-		0.542	Continuing	Continuing	Continuing
AFATDS	C/CPFF	MCSC:Quantico	1.935	0.320	Mar 2011	-		-		-	0.000	2.255	
		Subtotal	4.958	3.281		0.942		-		0.942			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TLDHS	WR	MCOTEA:Quantico, VA	1.527	0.108	Mar 2011	-		-		-	Continuing	Continuing	Continuing
AFATDS	WR	MCTSSA:Camp Pendleton, CA	2.431	0.150	Mar 2011	-		-		-	Continuing	Continuing	Continuing
AFATDS	WR	MCOTEA:Quantico, VA	0.580	0.100	Mar 2011	-		-		-	Continuing	Continuing	Continuing
AFATDS	WR	SPAWAR:Charleston, SC	1.778	0.900	Dec 2010	-		-		-	0.000	2.678	
MAGTF C2	WR	MCOTEA:Quantico, VA	0.657	0.100	Oct 2010	0.100	Oct 2011	-		0.100	Continuing	Continuing	Continuing
MAGTF C2	WR	MCTSSA:Camp Pendleton, CA	1.984	0.400	Nov 2010	0.200	Feb 2012	-		0.200	Continuing	Continuing	Continuing
MAGTF C2	MIPR	JITC:Ft. Huachuca, AZ	0.300	0.100	Feb 2011	0.150	Feb 2012	-		0.150	Continuing	Continuing	Continuing
BFSA	WR	MCTSSA:Camp Pendleton, CA	0.274	0.100	Jan 2011	0.100	Jan 2012	-		0.100	Continuing	Continuing	Continuing
BFSA	WR	MCOTEA:Quantico, VA	1.135	0.160	Nov 2010	-		-		-	Continuing	Continuing	Continuing
BFSA	MIPR	DISA:Ft. Huachuca, AZ	-	0.050	Jan 2011	-		-		-	Continuing	Continuing	Continuing
DACT	WR	MCOTEA:Quantico, VA	0.468	-		-		-		-	0.000	0.468	
JBC-P	C/CPFF	MCOTEA:Quantico, VA	-	0.250	Mar 2011	0.100	Dec 2011	-		0.100	Continuing	Continuing	Continuing
JBC-P	WR	MCTSSA:Camp Pendleton, CA	-	0.250	Mar 2011	0.150	Dec 2011	-		0.150	Continuing	Continuing	Continuing
TCO	MIPR	SPAWAR:Charleston, SC	0.232	1.000	Mar 2011	1.070	Dec 2011	-		1.070	0.000	2.302	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	11.366	3.668		1.870		-		1.870			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF C2	MIPR	CECOM/MITRE:Ft Monmouth, NJ	0.925	1.050	Dec 2010	1.050	Dec 2011	-		1.050	Continuing	Continuing	Continuing
BFSA	C/FFP	MCSC:Quantico, VA	2.143	-		-		-		-	Continuing	Continuing	Continuing
JBC-P	C/FFP	MCSC:Ft Monmouth, NJ	0.085	0.276	Mar 2011	0.277	Mar 2012	-		0.277	Continuing	Continuing	Continuing
JBC-P	MIPR	CECOM/MITRE:Ft Monmouth, NJ	0.113	0.500	Dec 2010	0.500	Dec 2011	-		0.500	Continuing	Continuing	Continuing
JBC-P	Various	MCSC/Travel:Quantico, VA	0.010	0.030	Sep 2011	0.030	Sep 2012	-		0.030	Continuing	Continuing	Continuing
		Subtotal	3.276	1.856		1.857		-		1.857			

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	143.158	25.747		24.024		-		24.024			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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				
MAGTF C2 SA Capability Block 2010 Release	3	2011	3	2011
JBC-P CS 13/14 S/W Development	1	2010	4	2011
JBC-P Handheld Prototype Analysis	3	2010	2	2011
JBC-P Vehicle H/W Prototype/Test/Integration	4	2010	1	2012
JBC-P MS C	1	2012	1	2012
JBC-P LRIP Handheld	2	2012	2	2012
JBC-P CS 15/16 S/W Development	1	2012	3	2013
JBC-P FRPDR	4	2012	4	2012
JBC-P DT/OT Beacons	1	2013	3	2014
TCO 4.2 S/W Fielding	4	2010	3	2011
TCO NET S/W Training & Site Support	4	2010	3	2013
TCO Replenish the Fleet (RTF)	2	2011	2	2011
TCO Contract Award (MCHS)	3	2012	3	2012
TCO IA	4	2012	1	2013
TCO Hardware Refresh/SW Fielding 1	1	2013	3	2013
TCO Hardware Refresh/SW Fielding 2	2	2016	4	2016
MAGTF C2 SA Capability Block 2012 Release	3	2013	3	2013
MAGTF C2 SA Capability Block 2015 Release	3	2015	3	2015
AFATDS BCI0 (6.6) SW Delivery	2	2010	3	2010
AFATDS BC11(6.7) Development/Testing	1	2010	3	2011
AFATDS BC13(6.8) Development/Testing	1	2010	1	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
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*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
AFATDS BC15(6.9) Development/Testing	1	2012	1	2015
AFATDS Increment 2 Development/Testing	1	2014	4	2016
AFATDS MTS Fielding	4	2011	4	2015
BFSA JCR Developmental Test	4	2010	4	2010
BFSA JCR Field Test	2	2011	2	2011
BFSA JCR Field User Evaluation 1	1	2011	1	2011
BFSA JCR Field User Evaulation 2	4	2011	4	2011
BFSA BFT-II FRP	2	2012	2	2013
TLDHS Testing 1.1.4	3	2010	1	2011
TLDHS Testing 1.1.5	1	2012	2	2012

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2273: *Air Ops Cmd & Control (C2) Sys*	62.832	68.465	65.963	1.500	67.463	116.544	79.435	81.075	36.708	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. Funds are for New Equipment training and On-Site fielding reps to support updated software and hardware fieldings, and to procure new hardware for TBMCS to leverage new technology and maintain relevance and capability.

The 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.

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).

Single Integrated Air Picture (SIAP) - is the product of fused, common, continual, unambiguous tracks of airborne objects within the surveillance area. A SIAP will be achieved through the use of a model-based architecture computerized specification (the Integrated Architecture Behavior Model, or IABM). The IABM provides the

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

common architectural standard (Platform-Independent Model, or PIM) for systems that make up the joint SIAP SoS. Each of the Services, through their respective SIAP program offices, develops Platform-Specific Models (PSM) of the IABM that are used to develop SIAP solutions for incorporation into Service-designated platforms.

Joint Cooperative Target ID Ground (JCTI-G), formerly known as Battlefield Target Identification Device (BTID) has been re-focused per DEPSECDEF guidance. The program has been changed from vehicle-vehicle Cooperative Target ID (CTI) to Fires on Dismounts CTI and Air-Ground CTI to meet the needs of the current fight. To support this direction, an Analysis of Alternatives (AoA) was initiated during FY10 based on guidance provided by the Vice Chief of Staff of the Army (VCSA) and Assistant Commandant of the Marine Corps (ACMC) and is being led by Joint Forces Command (JFCOM) . Simultaneous efforts will include: Dismount CTI technology development/technology maturation and technology down-select and preparing acquisition documentation to support an FY12 MS A decision.

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. FY10 funds required for H/W refresh. Funding also supports 2 MEB Urgent Universal Needs Statement (UUNS) (Mar 09) to include OEF supplemental kits of various configurations, Tactical Collaboration Work Station (TCWS) integration (MCCDC) LOC and OIF Force retrograde. FY11 and FY12 funds support testing and IA certification activities of MODEL G, (V)1 and 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. This is a New Start for FY10. Program Office is pursuing a MS B in FY11. Product is inteneded 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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: *JICO Support System: Software Sustainment & Integration Support	0.090	-	-	-	-
Articles:	0				
FY 2010 Accomplishments: Funding sent to the Joint program office to support production software integration for USMC systems					
Title: *JICO Support System: Program Management Support	0.387	0.489	0.498	-	0.498
Articles:	0	0	0		0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
FY 2010 Accomplishments: Program Office travel, MCTSSA and MCOTEA supported Multi-Surface Operational Test and Evaluation, and Information Assurance. ***FY 2011 Plans:*** Program Office travel. MCTSSA support for Increment 2 developement. ***FY 2012 Base Plans:*** Program Office travel as an active participant "seat at the table" at USAF to support Increment 2 development.					
Title: *BTID: System Product Development ***Articles:*** ***FY 2011 Plans:*** Per DEPSECDEF (DSD) guidance, refocus JCTI-G from vehicle-vehicle Cooperative Target ID (CTI) to Fires on Dismounts CTI and Air-Ground CTI to meet the needs of the current fight. To support this direction, efforts will include: Dismount CTI technology development/technology maturation to and technology down-select and preparing acquisition documentation to support an FY12 MS A decision. ***FY 2012 Base Plans:*** Continue Technology Development and the maturing process with multiple contractors providing systems that support DSD guidance and objectives. This effort will require a minimum of six to eight contractors whose products can meet Technology Readiness Assessment goals that will define a maturity level required in a field evaluation under realistic conditions in FY12.	-	16.500 0	17.373 0	-	17.373 0
Title: *BTID: Management Services ***Articles:*** ***FY 2011 Plans:*** Conducted Pre-Milestone A activities and conducted Phase 1 of the AoA Study. Per DEPSECDEF (DSD) guidance, refocus JCTI-G from vehicle-vehicle Cooperative Target ID (CTI) to Fires on Dismounts CTI and Air-Ground CTI to meet the needs of the current fight. To support this direction, efforts will include: Dismount CTI technology development/technology maturation to and technology down-select and preparing acquisition documentation to support an FY12 MS A decision. ***FY 2012 Base Plans:***	-	3.874 0	3.874 0	-	3.874 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continue development/technology maturation and prepare for MS A decision.					
Title: *COC: Continued Capability Solution	8.359	0.707	5.857	-	5.857
Articles:	0	0	0		0
FY 2010 Accomplishments: Complete Model G design, and ECP documentation.					
FY 2011 Plans: Complete Model G design, documentation, and testing.					
FY 2012 Base Plans: Complete (V)1 and OTM design, documentation, and testing.					
Title: *COC: Test and Evaluation	-	0.340	0.340	-	0.340
Articles:		0	0		0
FY 2011 Plans: Funded MCOTEA/JTIC for initial planning of Model G testing.					
FY 2012 Base Plans: Funded MCOTEA/JTIC for initial planning of (V)1 and OTM testing.					
Title: *CTN: Engineering Development Model (EDM).	4.995	0.380	0.200	-	0.200
Articles:	0	0	0		0
FY 2010 Accomplishments: Funds used for CEC WASP Development and AC2, GATOR, Remote Sensor Controls over DDS, & Mode 5 Adaptive Layer Development.					
FY 2011 Plans: Funds to be used for CEC WASP Development.					
FY 2012 Base Plans: Funds to be used for CEC WASP Development.					
Title: *CTN: Certification of Interfaces	5.219	2.792	4.605	-	4.605
Articles:	0	0	0		0
FY 2010 Accomplishments:					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Funds used for MTAOM, MCOTEA, Test Asset upgrade, COE Demo, 3 DELRR, Configuration Design Study, Data Collection Analysis, JITC and FOT&E. ***FY 2011 Plans:*** To be used for Data Collection Analysis, SW Configuration Management, FOT&E. ***FY 2012 Base Plans:*** To be used for Data Collection Analysis, SW Configuration Management, FOT&E.					
Title: *CTN: Program Management Support. ***Articles:*** ***FY 2010 Accomplishments:*** Funds used for MCSC Travel, System Engineering Support, Testing & Evaluation Support, Information Analysis Support, CM Support, and Logistics. ***FY 2011 Plans:*** Funds to be used for MCSC Travel, TSC support, Operational Test support, CM support, and SW support. ***FY 2012 Base Plans:*** Funds to be used for MCSC Travel, TSC support, Operational Test support, CM support, and SW support.	1.420 0	1.020 0	1.916 0	-	1.916 0
Title: *MACCS SUSTAINMENT: TAOM, ADCP and CDLS. ***Articles:*** ***FY 2010 Accomplishments:*** Design and prototype modification kits for Commercial Item Technology Refresh for TAOM, SAAWF, TIU and MCIU. ***FY 2011 Plans:*** Design and prototype modification kits for Commercial Item Technology Refresh for TAOM, SAAWF, TIU and MCIU. ***FY 2012 Base 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. ***FY 2012 OCO Plans:***	1.157 0	1.158 0	3.707 0	1.500 0	5.207 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Migrate the TAOM/MTAOM software baseline from CMS to C++, conduct test and field software baseline as v.7.0.					
Title: *RVVT: Preparation of MS C and Full Rate Production and Fielding activities ***Articles:*** ***FY 2010 Accomplishments:*** Continued Pre-Milestone B activities (Acquisition Plan, Source Selection Plan, FRP). Material Development Decision (AOA Study Plan and Statement of Need). ***FY 2011 Plans:*** Continue Pre-Milestone B activities (Acquisition Plan, Source Selection Plan, FRP). ***FY 2012 Base Plans:*** Complete Pre-Milestone B activities (Acquisition Plan, Source Selection Plan, FRP). Start preparation of Milestone C.	0.614 0	0.467 0	0.740 0	-	0.740 0
Title: *TBMCS: Program management support. ***Articles:*** ***FY 2010 Accomplishments:*** Program Management support. ***FY 2011 Plans:*** Program Management support. ***FY 2012 Base Plans:*** Program Management support.	0.617 0	0.454 0	0.463 0	-	0.463 0
Title: *TBMCS: Test and Evaluation for TBMCS Upgrades Joint Interoperability. ***Articles:*** ***FY 2010 Accomplishments:*** Test and Evaluation for TBMCS Upgrades Joint Interoperability. ***FY 2011 Plans:*** Test and Evaluation for TBMCS Upgrades Joint Interoperability. ***FY 2012 Base Plans:***	0.150 0	0.100 0	0.120 0	-	0.120 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Test and Evaluation for TBMCS Upgrades Joint Interoperability.					
Title: *CAC2S: Program Management Support. ***Articles:*** ***FY 2010 Accomplishments:*** Program management support which includes business/financial, engineering and logistical support for Phase 1 efforts. ***FY 2011 Plans:*** Program management support which includes business/financial, engineering and logistical support for Phase 1 and 2 efforts. ***FY 2012 Base Plans:*** Program management support which includes business/financial, engineering and logistical support for Phase 1 and 2 efforts.	3.900 0	4.200 0	2.500 0	-	2.500 0
Title: *CAC2S: Test and Evaluation and Information Assurance Certification. ***Articles:*** ***FY 2010 Accomplishments:*** CAC2S: System development testing, operational assessment, and live interface testing in accordance with continued Processing and Display Subsystem interface/integration, communications subsystem interface/ interoperability validation. Additionally, regression testing following DT & OT system corrections; as well as, Information Assurance certification test scans. ***FY 2011 Plans:*** CAC2S: This funding will focus mainly on Information Assurance certification test scans and Phase 1 IOT&E efforts. ***FY 2012 Base Plans:*** CAC2S: This funding will focus mainly on Information Assurance certification test scans.	2.320 0	1.950 0	2.542 0	-	2.542 0
Title: *CAC2S: EDM, TR, Gov't DT ***Articles:*** ***FY 2010 Accomplishments:***	13.056 0	12.542 0	4.635 0	-	4.635 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Design, Development and Testing of Engineering Developmental Models (EDM) for Phase 1. Funding used to fund MCOTEA, NSWC Crane and Dahlgren and IOT&E. ***FY 2011 Plans:*** Design, Development and Testing of Engineering Developmental Models (EDM) for Phase 2. This will be accomplished by awarding multiple contracts. Contractors will be required to produce a Sensor Data Subsystem prototype to be demonstrated to the government. Support integration testing and DT with G/ATOR and AC2. Will fund support activities NSWC Crane and Dahlgren and many other support activities. ***FY 2012 Base Plans:*** Once a contractor is selected from the demonstration as described under the FY11 funding, Phase 2 development and integration of the Sensor Data Subsystem into Phase 1 assets continues. Most of the funding will be expended by Phase 2 SDS contractor.					
Title: *CAC2S: Software development, DT, FUE, OA. ***Articles:*** ***FY 2010 Accomplishments:*** Data and information fusion component hardware and software development and support of Phase 1 EDM"s, including developmental testing, field user evaluations and operational assessments. ***FY 2011 Plans:*** Data and information fusion component hardware and software development and support of Phase 2 EDM"s, including field user evaluations and operational assessments. ***FY 2012 Base Plans:*** Continued Phase 2 EDM data and information fusion component hardware and software development.	15.012 0	18.170 0	12.072 0	-	12.072 0
Title: *CAC2S: Engineering, Management and Logistics Support ***Articles:*** ***FY 2010 Accomplishments:*** Engineering, Management & Logistics Support ***FY 2011 Plans:*** Engineering, Management & Logistics Support ***FY 2012 Base Plans:***	2.750 0	3.322 0	4.521 0	-	4.521 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Engineering, Management & Logistics Support					
Title: *SIAP: Develop Joint SIAP capability.	2.786	-	-	-	-
Articles:	0				
FY 2010 Accomplishments: Develop Joint SIAP capability.					
Accomplishments/Planned Programs Subtotals	62.832	68.465	65.963	1.500	67.463

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PMC/4640001: *CTN*	24.752	15.808	7.016	0.000	7.016	0.000	0.000	0.000	0.000	Continuing	Continuing
• PMC/4640002: *MACCS Sustainment*	5.547	36.887	11.769	5.236	17.005	8.084	10.883	0.910	0.838	Continuing	Continuing
• PMC/4640003: *TBMCS*	3.455	5.986	6.580	0.000	6.580	5.859	5.215	3.881	3.947	Continuing	Continuing
• PMC/464000: *BTID*	0.000	1.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• PMC/4190005: *COC*	19.028	123.200	16.755	0.000	16.755	16.454	19.912	17.385	17.685	Continuing	Continuing
• PMC/4640007: *RVVT*	6.305	5.643	2.923	0.000	2.923	3.068	0.000	0.000	0.000	Continuing	Continuing
• PMC/4640008: *CAC2S*	4.086	42.675	15.864	0.000	15.864	4.476	21.245	32.490	85.490	Continuing	Continuing
• PMC/4630001: *COC*	1.996	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.996	3.992
• PMC/4630002: *MACCS*	0.265	0.033	2.554	0.000	2.554	3.714	1.760	1.808	1.839	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,

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

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 family of systems that comprise the MACCS Sustainment program include all of the currently fielded Air Command and Control assets. These include the Tactical Air Operations Module (TAOM), Communications Data Link System (CDLS), Sector Anti-Air Warfare Facility (SAAWF), Air Defense Communication Platform (ADCP), Direct Air Support Central Airborne (DASCA), Direct Air Support Central Airborne System (DASCAS), TAOM Interface Unit (TIU), Multi-Channel Interface Unit (MCIU), Communication Interface System (CIS), Joint Tactical Information Distribution System (JTIDS), and Joint Range Extension (JRE).
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 - An Acquisition Strategy will be developed during FY11 with the establishment of a Joint Program Office.

RVVT - Program initiation in FY10 with entrance into the acquisition process at MS B. Anticipate MS B and intial contract award in early FY11. The program office expects to utilize a competitive acquisition approach to quickly field a capability with limited development.

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, OIF and GWOT. There is a continuing developmental effort to evolve the COC into a fully integrated MAGTF C2 capability. FY11 funds Model G H/W ECP kit fielding to entire AAO of 298 systems; funds three (V)1 CAPSETS in support of MEF Level COC requirement; funds procurement of 16 COC OTM kits in support of C2 OTM requirements; support H/W refresh and S/W upgrade releases. FY12 funds procurement of two additional (V)1 and H/W refresh and S/W upgrade releases.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	-		-		-		-	0.000	3.736	
CTN	WR	NAVSEA PEO IWS:Not Specified	4.115	0.380	Jan 2011	0.200	Jan 2012	-		0.200	0.000	4.695	
MACCS Sustainment	Reqn	NGES:Woodland Hills, CA	16.436	0.979	Jun 2011	1.500	Jun 2012	-		1.500	Continuing	Continuing	Continuing
MACCS Sustainment 1	WR	NSWC:Crane, IN	1.648	0.016	Sep 2011	1.257	Oct 2011	-		1.257	0.000	2.921	
COC	WR	SPAWAR:Charleston, SC	12.279	-		-		-		-	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	-		1.000	Mar 2012	-		1.000	0.000	1.220	
COC	C/CPIF	TBD:Not Specified	-	0.707	Jun 2011	4.857	Jun 2012	-		4.857	0.000	5.564	
BTID	WR	NSWC:Crane, IN	3.242	2.000	Nov 2010	2.873	Nov 2011	-		2.873	Continuing	Continuing	Continuing
BTID1	WR	NAVAIR:Pax River, MD	0.145	-		-		-		-	0.000	0.145	
BTID2	Reqn	NAVAIR:Pax River, MD	1.830	-		-		-		-	0.000	1.830	
BTID	MIPR	CERDIC Army Contractor:Ft Monmouth, NJ	-	14.500	Apr 2011	14.500	Apr 2012	-		14.500	0.000	29.000	
CAC2S	WR	NSWC:Crane, IN	17.403	5.122	Oct 2010	0.750	Oct 2011	-		0.750	0.000	23.275	
CAC2S	C/CPIF	General Dynamics:Quantico, VA	8.103	0.500	Jan 2011	-		-		-	0.000	8.603	
CAC2S	C/FFP	Phase 2 Contractor:Quantico, VA	5.145	15.248	Feb 2011	15.710	Feb 2012	-		15.710	0.000	36.103	
CAC2S	WR	NSWC:Dahlgren, VA	14.943	10.576	Jan 2011	5.210	Nov 2011	-		5.210	0.000	30.729	
		Subtotal	117.355	50.028		47.857		-		47.857			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	0.200	0.500	Jan 2011	0.500	Jan 2012	-		0.500	0.000	1.200	
CTN	WR	NSWC:PHD	0.224	-		-		-		-	0.000	0.224	
CTN	WR	NSWC:Crane, IN	-	0.400	Dec 2010	1.375	Dec 2011	-		1.375	0.000	1.775	
CTN	MIPR	MACCS:Quantico, VA	0.140	-		-		-		-	0.000	0.140	
CTN	WR	NAVSEA:Wallops Island, VA	0.316	-		-		-		-	0.000	0.316	
CTN	Various	Travel-TAD:Not Specified	0.105	0.120	Oct 2010	0.070	Oct 2011	-		0.070	0.000	0.295	
CTN	WR	SPAWAR:Charleston, SC	0.435	-		-		-		-	0.000	0.435	
MACCS Sustainment 1	WR	NSWC:Crane, IN	0.089	-		-		-		-	0.000	0.089	
MACCS Sustainment	Reqn	Northrop Grumman:Woodland Hills, CA	-	-		-		1.500	Nov 2011	1.500	0.000	1.500	
COC	MIPR	NUWC:Newport, RI	0.200	-		-		-		-	0.000	0.200	
BTID	Reqn	Tecolote:Arlington, VA	1.942	0.150	May 2011	0.150	May 2012	-		0.150	Continuing	Continuing	Continuing
JSS	WR	MCTSSA:Camp Pendelton Ca	0.090	0.093	Nov 2010	0.093	Nov 2011	-		0.093	0.000	0.276	
CAC2S	WR	Travel-TAD:Not Specified	0.500	0.500	Oct 2010	0.500	Oct 2011	-		0.500	0.000	1.500	
CAC2S	WR	NSWC Carderock:Carderock, MD	0.250	-		0.150	Dec 2011	-		0.150	0.000	0.400	
CAC2S	WR	JITC:Fort Huachuca, AZ	0.671	0.290	Jan 2011	-		-		-	0.000	0.961	
CAC2S	MIPR	MITRE:Boston, MA	4.063	0.800	Nov 2010	0.500	Nov 2011	-		0.500	0.000	5.363	
CAC2S	WR	MACCS-X:Camp Pendleton	1.464	0.100	Jan 2011	-		-		-	0.000	1.564	
CAC2S	WR	MCTSSA:Camp Pendleton	2.106	0.500	Jan 2011	0.500	Jan 2012	-		0.500	0.000	3.106	
CAC2S	WR		1.955	0.948	Jan 2011	0.750	Jan 2012	-		0.750	0.000	3.653	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		NSWC Corona:Corona, CA											
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	Oct 2010	0.027	Oct 2011	-		0.027	0.000	0.077	
		Subtotal	22.127	4.451		4.615		1.500		6.115			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CTN	WR	MACS-24:Not Specified	0.025	-		0.025	Dec 2011	-		0.025	0.000	0.050	
CTN	WR	PEO IWS 6:St. Petersburg, FL	2.846	1.171	Dec 2010	1.993	Dec 2011	-		1.993	0.000	6.010	
CTN	WR	NSWC Corona:Corona, CA	0.714	0.400	Jan 2011	0.390	Jan 2012	-		0.390	0.000	1.504	
CTN	WR	NSWC DD:Dahlgren, VA	0.822	0.120	Jan 2011	-		-		-	0.000	0.942	
CTN	WR	Fort Huachuca:JITC	0.008	-		-		-		-	0.000	0.008	
CTN	WR	MCOTEA:Quantico VA	0.919	0.225	Feb 2011	0.309	Feb 2012	-		0.309	0.000	1.453	
CTN	WR	MCSC:Quantico, VA	3.876	-		-		-		-	0.000	3.876	
CTN	WR	NSWC:Crane, IN	0.188	0.876	Dec 2010	1.859	Dec 2011	-		1.859	0.000	2.923	
MACCS Sustainment	WR	Aberdeen Test Center:Aberdeen, MD	0.160	0.113	Nov 2010	0.100	Mar 2012	-		0.100	0.000	0.373	
MACCS Sustainment 2	Various	MCOTEA:Quantico, VA	0.630	-		0.600	Dec 2011	-		0.600	0.000	1.230	
MACCS Sustainment 1	WR	NSWC:Crane, IN	-	0.050	Dec 2010	-		-		-	0.000	0.050	
RVVT	MIPR	MCOTEA Testing:Not Specified	-	-		0.125	Nov 2011	-		0.125	0.000	0.125	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
COC	MIPR	MCOTEA:Quantico, VA	0.528	0.200	Oct 2010	0.200	Oct 2011	-		0.200	0.000	0.928	
COC	MIPR	JTIC:Not Specified	-	0.140	Mar 2011	0.140	Mar 2012	-		0.140	0.000	0.280	
BTID	WR	MCOTEA:Quantico, VA	0.180	-		-		-		-	Continuing	Continuing	Continuing
TBMCS	WR	MCOTEA:Quantico, VA	0.460	0.100	Jan 2011	0.120	Nov 2011	-		0.120	0.000	0.680	
CAC2S	WR	MCOTEA:Quantico, VA	4.950	1.400	Jan 2011	0.450	Nov 2011	-		0.450	0.000	6.800	
		Subtotal	16.306	4.795		6.311		-		6.311			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CTN	WR	MCSC:Quantico, VA	0.882	-		-		-		-	0.000	0.882	
MACCS Sustainment	C/FFP	MCSC:Quantico, VA	0.100	-		0.250	Mar 2012	-		0.250	0.000	0.350	
COC	Reqn	MCSC:Quantico, VA	0.057	-		-		-		-	0.000	0.057	
COC	Reqn	NGMS:Stafford, VA	4.053	-		-		-		-	0.000	4.053	
BTID	C/FFP	QNA:Stafford, VA	0.479	1.300	Mar 2011	1.300	Mar 2012	-		1.300	Continuing	Continuing	Continuing
BTID	C/FFP	MCSC:Quantico, VA	0.335	2.424	Mar 2011	2.424	Mar 2012	-		2.424	Continuing	Continuing	Continuing
RVVT	Various	QNA:Stafford, VA	0.447	0.467	Feb 2011	0.622	Feb 2012	-		0.622	0.000	1.536	
RVVT	Various	NAVAIR:Pax River	0.216	-		-		-		-	0.000	0.216	
CAC2S	C/FFP	QNA:Stafford, VA	9.596	4.200	Nov 2010	1.750	Nov 2011	-		1.750	0.000	15.546	
JSS	WR	Travel TAD:Not Specified	0.094	0.016	Oct 2010	0.022	Oct 2011	-		0.022	Continuing	Continuing	Continuing
JSS	Reqn	TASC:Stafford, VA	0.300	0.132	Mar 2011	0.138	Mar 2012	-		0.138	Continuing	Continuing	Continuing
JSS	WR	SPAWAR Chas:Charleston, SC	-	0.150	Mar 2011	0.150	Mar 2012	-		0.150	0.000	0.300	
JSS	WR	Hanscom AFB:Boston, MA	-	0.098	Feb 2011	0.095	Feb 2012	-		0.095	0.000	0.193	
TBMCS	C/FFP	QNA:Stafford VA	1.573	0.404	Nov 2010	0.429	Nov 2011	-		0.429	0.000	2.406	
		Subtotal	18.132	9.191		7.180		-		7.180			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy			DATE: February 2011
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*	

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	173.920	68.465		65.963		1.500		67.463			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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	2010	4	2014
MACCS - TACC ADSI Software v. 14	4	2010	4	2010
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	4	2011	4	2011
CAC2S Phase 2 IOT&E	3	2015	3	2015
CAC2S Phase 2 LDU	4	2014	4	2014
BTID Fires on Dismount Increment I MS A	1	2012	1	2012
BTID Fires on Dismount Increment I MS B	1	2015	1	2015
BTID Air to Ground Increment II MS B	3	2013	3	2013
COC FOC	3	2010	4	2010
COC Operational Sustainment	1	2010	4	2016
COC Version 2	1	2010	1	2010
COC Version 3/4 Model F	1	2010	3	2010
COC Model G Developmental testing	2	2011	2	2011
COC Model G Production/Fielding	2	2011	4	2013

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2274: *Command & Control Warfare Sys*	10.927	19.633	26.174	-	26.174	25.470	21.112	18.145	16.097	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

COUNTER 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 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 will be upgraded to a Band C capability beginning in FY11. Increment 3.3 (mounted, man portable and fixed site) systems shall function as a single integrated system with common architecture that will counter the continued evolution of enemy threats FY13 - FY16. This program is an ongoing effort to develop new techniques, improve capabilities, enhance software and develop waveform loadsets to counter evolving threats and prevent technology obsolescence.

GROUND-BASED OPERATIONAL SURVEILLANCE SYSTEM (GBOSS). Ground-Based Operational Surveillance System (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), (TRSS), Radar (MSTAR), Communication suite (WPPL) and Unmanned aerial vehicle interface (VideoScout).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: *USMC CREW - Product Development	3.454	3.608	4.039	-	4.039
Articles:	0	0	0		0
FY 2010 Accomplishments: Development of Waveform/loadsets to support CREW 2.1 CVRJ (mounted) and CREW 3.1 THOR III (dismounted) systems and vehicle installation kits for additional platform variants.					
FY 2011 Plans: Planned Development of Waveform/loadsets to support CREW 2.1 CVRJ (mounted) and CREW 3.1 THOR III (dismounted) systems and vehicle installation kits for additional platform variants.					
FY 2012 Base Plans: Continued Development of Waveform/loadsets to support CREW 2.1 CVRJ (mounted) and CREW 3.1 THOR III (dismounted) systems and vehicle installation kits for additional platform variants.					
Title: *USMC CREW - Support	1.278	1.310	1.334	-	1.334

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Articles:	0	0	0		0
FY 2010 Accomplishments: Systems engineering and integration support for CVRJ 2.1 continued system enhancements and initial THOR III support. ***FY 2011 Plans:*** Planned systems engineering and integration support required for continued system enhancements, the planned Band C Upgrade, THOR III Support and transition to JCREW 3.3 ***FY 2012 Base Plans:*** Systems engineering and integration support required for continued system enhancements, for CVRJ with Band C, THOR III and transition to JCREW 3.3.					
Title: *USMC CREW - Test and Evaluation	1.776	2.190	2.265	-	2.265
Articles:	0	0	0		0
FY 2010 Accomplishments: Testing in support of CREW 2.1 CVRJ loadset enhancements and CREW 3.1 THOR III initial testing. ***FY 2011 Plans:*** Planned Testing required to support enhancements to CREW 2.1, 3.1 and transition to JCREW 3.3 ***FY 2012 Base Plans:*** Continue test efforts to support enhancements to CREW 2.1, 3.1 and transition to JCREW 3.3					
Title: *USMC CREW - Management	0.908	1.542	1.614	-	1.614
Articles:	0	0	0		0
FY 2010 Accomplishments: Program oversight, task scheduling, reports and study analysis ***FY 2011 Plans:*** Program oversight, task scheduling, reports and study analysis ***FY 2012 Base Plans:*** Program oversight, task scheduling, reports and study analysis					
Title: *GBOSS - Product Development	2.000	5.000	10.079	-	10.079
Articles:	0	0	0		0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
FY 2010 Accomplishments: Completed 3.0 Design/Integration of all G-BOSS variants, COC integration, Empire Challenge 2010 planning and execution, FY10 Test Plan and Configuration Management variants. ***FY 2011 Plans:*** Continued efforts for the engineering design 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 Base Plans:*** Continue 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:*** ***FY 2010 Accomplishments:*** Completed FY10 IA accreditation efforts, IA and software management, adjudication of fleet/user change requests and associated engineering for incorporation as system enhancements. ***FY 2011 Plans:*** Continue IA accreditation as required, IA and software management, adjudication of fleet/user change requests and associated engineering for incorporation as system enhancements. ***FY 2012 Base Plans:*** Continue IA accreditation efforts, IA and software management, adjudication of fleet/user change requests and associated engineering for incorporation as system enhancements.	0.652 0	2.000 0	1.713 0	-	1.713 0
Title: *GBOSS - Test and Evaluation. ***Articles:*** ***FY 2010 Accomplishments:*** Completed DT Events and participation in Empire Challenge 2010 for technology evaluation, design validation and CONOPS development. ***FY 2011 Plans:***	0.370 0	0.900 0	4.274 0	-	4.274 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continue work on testing GBOSS version upgrades and key participation in Empire Challenge 2011 for technology evaluation, design validation and CONOPS development. ***FY 2012 Base Plans:*** Continue testing for new GBOSS version and participate in Empire Challenge 2012 for technology evaluation, design validation. and CONOPS development.					
Title: *GBOSS - Management. ***Articles:***	0.489 0	3.083 0	0.856 0	-	0.856 0
FY 2010 Accomplishments: Completed CO Site mitigation and system integration support continued. ***FY 2011 Plans:*** Continue CO Site mitigation and system integration support. ***FY 2012 Base Plans:*** Planned design oversight, task scheduling, estimate development, reports and test support.					
Accomplishments/Planned Programs Subtotals	10.927	19.633	26.174	-	26.174

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PMC 6520: *USMC CREW*	11.181	185.449	8.662	0.000	8.662	115.586	116.542	119.891	76.124	Continuing	Continuing
• PMC 6438: *GBOSS*	110.603	0.000	6.782	42.900	49.682	4.711	25.056	33.723	33.831	Continuing	Continuing
• PMC 7000: *USMC CREW SPARES*	0.000	0.000	0.000	0.000	0.000	11.147	11.197	11.503	11.698	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 FY12 - 16. 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 and capability upgrades, integration of the enhancements and the tests/ government studies required to support these changes.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

GBOSS. The acquisition approach has been to use existing government contracts (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 FY12, 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 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
USMC CREW	SS/FFP	NAVSEA:BALTIMORE, MD	2.206	2.800	Mar 2011	3.600	Mar 2012	-		3.600	0.000	8.606	
USMC CREW	C/FFP	MCSC:QUANTICO, VA	0.751	1.657	Sep 2011	1.270	Sep 2012	-		1.270	0.000	3.678	
GBOSS	WR	NSWC:CRANE, IN	2.115	5.000	Jan 2011	8.915	Jan 2012	-		8.915	0.000	16.030	
GBOSS	SS/FP	General Dynamics:MULTIPLE LOCATIONS	-	-		0.500	Mar 2012	-		0.500	0.000	0.500	
GBOSS	C/CPFF	MCOTEA:QUANTICO, VA	-	-		0.051	Dec 2011	-		0.051	0.000	0.051	
GBOSS	WR	NSWC:DAHLGREN, VA	-	-		0.500	Nov 2011	-		0.500	0.000	0.500	
GBOSS	MIPR	CECOM:STAFFORD, VA	-	-		0.300	Jan 2012	-		0.300	0.000	0.300	
		Subtotal	5.072	9.457		15.136		-		15.136	0.000	29.665	

Remarks

USMC CREW NAVSEA: 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 Threat.
USMC CREW MCSC: In FY10 USMC CREW utilized the Product Support Integrator for the non-recurring engineering and design of the mounting solutions for CVRJ CREW 2.1 systems.
USMC CREW: MCSC - FY10 - FY12 will utilize the Prime Vendor/OEM of the CVRJ and THOR III and JCREW 3.3 systems for non-recurring engineering for capability enhancements, Engineering Change Proposals and mounting solutions.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
USMC CREW	C/FFP	MCSC:QUANTICO, VA	1.317	1.600	Mar 2011	0.875	Mar 2012	-		0.875	0.000	3.792	
GBOSS	Various	NSWC:CRANE, IN	0.652	2.000	Jan 2011	1.226	Nov 2011	-		1.226	0.000	3.878	
USMC CREW	WR	SSC-Atlantic:CHARLESTON, SC	0.748	0.477	Mar 2011	0.800	Jan 2012	-		0.800	0.000	2.025	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
USMC CREW	WR	NSWC:CRANE, IN	0.927	0.798	Mar 2011	0.500	Jan 2012	-		0.500	0.000	2.225	
GBOSS	C/FFP	DEMA:STAFFORD, VA	-	-		0.300	Apr 2012	-		0.300	0.000	0.300	
		Subtotal	3.644	4.875		3.701		-		3.701	0.000	12.220	

Remarks

USMC CREW MCSC: CEOss contracts for a Business Case Analysis in FY10, and an LCCE in FY11 (to be competed in Jun 2011)
USMC CREW MCSC: CEOss contracts for acquisition support in FY10,11 and 12
USMC CREW SSC-Atlantic: Systems Engineering and Integration for all Increment Systems
USMC CREW CRANE: Systems Engineering, RF Modeling and Simulation and Independent Verification and Validation (IV&V) support for all Increment Systems

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GBOSS	Various	MCOTEA:QUANTICO, VA	0.370	0.900	Jan 2011	0.450	Dec 2011	-		0.450	0.000	1.720	
USMC CREW	C/CPFF	MCOTEA:QUANTICO VA	0.327	-		0.617	Mar 2012	-		0.617	0.000	0.944	
USMC CREW	PO	YPG:YUMA, AZ	0.991	0.630	Mar 2011	0.700	Jan 2012	-		0.700	0.000	2.321	
USMC CREW	WR	NSWC:DAHLGREN, VA	0.150	0.100	Apr 2011	0.150	Apr 2012	-		0.150	0.000	0.400	
GBOSS	Various	NSWC:CRANE, IN	-	-		3.524	Jan 2012	-		3.524	0.000	3.524	
GBOSS	MIPR	CECOM:STAFFORD, VA	-	-		0.300	Jan 2012	-		0.300	0.000	0.300	
		Subtotal	1.838	1.630		5.741		-		5.741	0.000	9.209	

Remarks

USMC CREW MCOTEA - Provides OT/DT Oversight and support for Increment 3.3 systems (FY10 and FY12)
USMC CREW YPG - Provides test ranges and results analysis for all increment Systems
USMC CREW NSWC Dahlgren - provides RADHAZ Safety Studies for all increment systems

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
USMC CREW	Various	TBD:VAR	-	0.588	Jun 2011	0.740	Jun 2012	-		0.740	0.000	1.328	
GBOSS	Various	NSWC:CRANE, IN	0.652	3.083	Jan 2011	0.856	Dec 2011	-		0.856	0.000	4.591	
		Subtotal	0.652	3.671		1.596		-		1.596	0.000	5.919	

Remarks

USMC CREW VAR: Provides oversight and management support to USMC CREW program
USMC CREW MCSC: Provides EOD Engineering and Program Management Support to USMC CREW Program

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	11.206	19.633		26.174		-		26.174	0.000	57.013	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 Empire Challenge 2012	3	2012	4	2012
GBOSS DT/OA	2	2013	2	2013
GBOSS Operational Testing	2	2014	3	2014
GBOSS MILESTONE B	4	2011	4	2011
GBOSS MILESTONE C	4	2013	4	2013
GBOSS IOC	2	2015	2	2015
GBOSS FULL RATE PRODUCTION DECISION	3	2014	3	2014
USMC CREW 2.1 Waveform Development	1	2010	4	2016
USMC CREW JCREW 3.3 Milestone C	4	2011	4	2011
USMC CREW 2.1 and JCREW 3.3 Program Support	1	2010	4	2014
USMC CREW JCREW 3.3 Procurement Decision	3	2013	3	2013

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2275: *Joint Tactical Radio System*	5.294	2.038	5.018	-	5.018	5.069	2.260	2.295	2.318	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). The LMST and Phoenix terminals will be the primary provider of SHF connectivity to Marine Air-Ground Task Forces (MAGTF) operations. 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, are driving the requirement to update the TSCTs. The Mil-Std and DoD policy deal with interoperability of Satellite Radio Frequency (RF) Modems 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.

(U) High Capacity Communications Capability (HC3): was intended to replace Super High Frequency (SHF) wideband and be the Marine Air-Ground Task Force (MAGTF) Commanders' primary Satellite Communication (SATCOM) method of transmitting and receiving wideband voice, video, and data. The HC3 program has been cancelled by OSD.

(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/TSC-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 connnectivity regardless of distance while on-the-move (OTM).

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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) Networking on the Move (NOTM): NOTM, a new start in FY 2012, is a Marine Corps variant of the Army's WIN-T program. NOTM will integrate commercially available routers, encryption devices, and OTM satellite and terrestrial terminals to provide high-bandwidth line-of-sight and SATCOM connectivity across the battlefield. Production variants will be integrated as a kit into existing armored tactical wheeled vehicles without degrading their inherent protection.

(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): TCM was established as an interim solution to the Warfighter due to urgent communications requirements and schedule delay of JTRS. It represents procurement and upgrades of over 140,000 tactical radio systems. TCM radio systems are commercial off-the-shelf items procured on existing contracts. R&D funds are required for testing of the next generation Integrated Intra-Squad Radio (IISR) systems to determine the most desirable solution for lifecycle replacement of the current IISR inventory.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: *TCM - Next Generation IISR	-	-	0.445	-	0.445
Articles:			0		0
FY 2012 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Funding to support the procurement and testing of the next generation Integrated Intra-Squad Radio (IISR) to determine the most desirable solution for the lifecycle replacement of the current IISR in the Marine Corps inventory.					
Title: *Networking on the Move - Development ***Articles:*** ***FY 2012 Base Plans:*** Networking on the Move development efforts to include prototype hardware development.	-	-	1.277 0	-	1.277 0
Title: *CONDOR: Warfighter Information Network - Expeditionary (WIN-X) Development ***Articles:*** ***FY 2010 Accomplishments:*** Continued Warfighter Information Network - Expeditionary (WIN-X) Development efforts	0.500 0	-	-	-	-
Title: *CONDOR: Technical, Engineering Support and Contract Advisory, Assistance Services ***Articles:*** ***FY 2010 Accomplishments:*** Continued Technical, Engineering Support and Contract Advisory, Assistance Services. ***FY 2011 Plans:*** Technical, Engineering Support and Contract Advisory, Assistance Services.	1.018 0	0.224 0	-	-	-
Title: *CONDOR: Legacy Interoperability Development ***Articles:*** ***FY 2010 Accomplishments:*** Continued Interoperability Development of on-the-move capabilities and at-the-halt network and legacy communications equipment.	0.500 0	-	-	-	-
Title: *Very Small Aperture Terminal (VSAT): Development and integration ***Articles:*** ***FY 2010 Accomplishments:*** Continued development and integration efforts. Includes preparations for Joint Interoperability Testing for certification for Ka-band Upgrade, Marine Corps Operataional Test and Evaluation Activity (MCOTEA) support	0.407 0	0.043 0	0.411 0	-	0.411 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
for Ka-band testing and certification, Defense Information Systems Agency (DISA) Modem certification, Marine Corps Combat Development Center (MCCDC) Operational Architecture development. ***FY 2011 Plans:*** Continue Development and integration efforts along with Science & Technology engineering support for very small aperture terminal (VSAT). ***FY 2012 Base Plans:*** Continue Development and integration efforts, including DISA Modem Certification and engineering support for VSAT.					
Title: *Very Small Aperture Terminal (VSAT): Antenna Development ***Articles:*** ***FY 2010 Accomplishments:*** Continuied efforts to develop a lightweight inflatable satellite communications antenna.	0.190 0	-	-	-	-
Title: *High Capacity Communications Capability (HC3): USMC Integration efforts. ***Articles:*** ***FY 2010 Accomplishments:*** USMC Integration efforts for the HC3 Satellite Communication (SATCOM) primary method of transmitting and receiving wideband voice, video, and data.	1.024 0	-	-	-	-
Title: *TSCT (LMST): Test and Evaluation Support ***Articles:*** ***FY 2010 Accomplishments:*** MCOTEA test and evalution support. ***FY 2011 Plans:*** Continue Science & Technology engineering support. ***FY 2012 Base Plans:*** Develop IP Modem with Transmission Security (TRANSEC) capability. Test and certify IP Modem with Transmission Security (TRANSEC) capability.	0.288 0	0.265 0	2.687 0	-	2.687 0
Title: *Legacy Comm/Elec (Networks): Engineering Support for DTC ***Articles:***	0.473 0	0.460 0	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
FY 2010 Accomplishments: Continued Engineering Support for Digital Technical Control (DTC). ***FY 2011 Plans:*** Continue Engineering Support for Digital Technical Control.					
Title: *Legacy Comm/Elec (Networks): Operational Support Test/Support for DTC ***Articles:*** ***FY 2010 Accomplishments:*** Continued Operational Support Test/Support for DTC. ***FY 2011 Plans:*** Continued Operational Support Test/Support for DTC.	0.313 0	0.293 0	-	-	-
Title: *Legacy Comm/Elec: TRC-170 Certification ***Articles:*** ***FY 2010 Accomplishments:*** Continued effort to obtain Joint Interoperability Certification. ***FY 2011 Plans:*** Continue Engineering support to research a transit case troposcatter capability for TRC-170, MCOTEA Test and Evaluation Support. Obtain Joint interoperability certification.	0.581 0	0.753 0	-	-	-
Title: *SMART-T - Program Support ***Articles:*** ***FY 2012 Base Plans:*** Provide Science & Technology Engineering support for Secure, Mobile, Anti-jam, Reliable Tactical Terminal (SMART-T).	-	-	0.198 0	-	0.198 0
Accomplishments/Planned Programs Subtotals	5.294	2.038	5.018	-	5.018

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PMC/4633001: *Tactical Satellite LMST*	1.350	4.631	1.389	16.000	17.389	1.423	1.448	1.476	1.501	0.000	30.631
• PMC/4633002: *Legacy Communications Electronics*	4.334	31.208	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)*	9.140	24.778	0.000	16.000	16.000	0.000	0.000	0.000	0.000	0.000	111.518
• PMC/4633004: *TCM*	51.174	61.017	54.580	41.402	95.982	55.522	56.055	59.339	60.586	0.000	548.377
• PMC/4633005: *SMART-T*	1.413	0.000	1.665	0.000	1.665	1.388	0.794	0.887	0.912	0.000	16.280
• PMC/700000: *SMART-T Spares*	2.020	0.178	0.000	0.000	0.000	0.188	0.192	0.197	0.200	0.000	2.975
• PMC/4633006: *AN/TRC-170*	0.000	0.000	0.136	25.000	25.136	0.000	0.000	0.000	0.000	0.000	25.136

D. Acquisition Strategy

(U) D. ACQUISITION STRATEGY:

(U) Tactical Satellite Comm Terminal (TSCT) - LIGHTWEIGHT MULTIBAND SATELLITE TERMINAL (LMST)/PHOENIX: The acquisition strategy for the Lightweight Multi-band Satellite Terminal (LMST) and Phoenix program is to upgrade terminals to maintain joint interoperability and to sustain those terminals.

(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. 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.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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) Tactical Communications Modernization (TCM): Provides support for the procurement and testing of the next generation Integrated Intra-Squad Radio (IISR) systems to determine the most desirable solution for the lifecycle replacement of the current IISR in the Marine Corps inventory.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
LMST IP and TRANSEC Modem Upgrade	MIPR	CECOM:Ft. Monmouth, NJ	-	-		2.687	May 2012	-		2.687	0.000	2.687	
CONDOR Development	SS/FFP	MITRE ,CECOM:Ft. Monmouth, NJ	6.746	0.224	Dec 2010	-		-		-	0.000	6.970	
NOTM Development	SS/FFP	MITRE, CECOM:Ft. Monmouth, NJ	-	-		0.440	Dec 2011	-		0.440	0.000	0.440	
		Subtotal	6.746	0.224		3.127		-		3.127	0.000	10.097	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
VSAT Development and Integration	SS/FFP	MITRE:Stafford, VA	4.337	-		0.411	Dec 2011	-		0.411	0.000	4.748	
LMST Contractor Support	SS/FFP	MITRE:Stafford, VA	-	0.265	Dec 2010	-		-		-	0.000	0.265	
LCE (Networks) Support	C/FFP	QNA:Stafford, VA	1.916	0.460	Mar 2011	-		-		-	0.000	2.376	
NOTM Contract Support	C/FFP	QNA:Stafford, VA	-	-		0.837	Mar 2012	-		0.837	0.000	0.837	
VSAT Contractor Support	C/FFP	QNA:Stafford, VA	-	0.043	Mar 2011	-		-		-	0.000	0.043	
LCE (TRC-170A) Support	SS/FFP	MITRE, CECOM:Fort Monmouth, NJ	-	0.500	Dec 2010	-		-		-	0.000	0.500	
SMART-T Contractor Support	C/FFP	QNA:Stafford, VA	-	-		0.198	Mar 2012	-		0.198	0.000	0.198	
		Subtotal	6.253	1.268		1.446		-		1.446	0.000	8.967	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
LCE (Networks) Test Support	MIPR	MCOTEA/ JITC:Quantico, VA	0.685	0.293	Mar 2011	-		-		-	0.000	0.978	
TCM Next Generation IISR	C/FFP	MCSC:Quantico, VA	-	-		0.445	Mar 2012	-		0.445	0.000	0.445	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
LCE (TRC-170A)	WR	MCOTEA:Quantico, VA	-	0.253	Jan 2011	-		-		-	0.000	0.253	
		Subtotal	0.685	0.546		0.445		-		0.445	0.000	1.676	

	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	13.684	2.038		5.018		-		5.018	0.000	20.740	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 L-Band Study	1	2010	2	2010
LMST Contract Expiration	4	2011	4	2011
LMST IP Modem ECP	4	2011	4	2016
LMST Reset/MWS	1	2010	4	2011
LMST Sustainment/Support	1	2010	4	2016
LMST: IP and TRANSEC Modem Upgrade Development	3	2012	1	2013
LMST: IP and TRANSEC Modem Upgrade Test and Certification	1	2013	2	2013
LMST (Phoenix) IP ECP	3	2012	3	2012
LMST (Phoenix) HPA Replacement	1	2015	4	2016
LMST (Phoenix) PNPT Testing	1	2010	3	2010
LMST (Phoenix) IP/NCW Test/Integration	3	2012	3	2013
LMST (Phoenix) JITC Certifications	4	2013	4	2013
LMST (Phoenix) Follow-on Contract	3	2010	3	2010
LMST (Phoenix) Master Work Schedule	3	2010	4	2016
LMST (Phoenix) PNPT Fielding	1	2011	3	2011
LMST (Phoenix) Terminals Fielding	4	2010	3	2012
LMST (Phoenix) Sustainment	1	2010	4	2016
VSAT JITC Test and Certification	2	2016	3	2016
VSAT Ka-band Integration	1	2010	4	2010
VSAT IOC	1	2010	1	2010
VSAT FOC	3	2010	3	2010

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
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 JIPM Research	1	2011	4	2011
VSAT NCW Research	1	2012	4	2012
VSAT IPV6 / Tech Refresh Research	1	2013	4	2016
VSAT Lightweight Antenna Development	4	2010	4	2011
VSAT ARSTRAT Test and Certification	2	2011	3	2011
LCE/TRC-170 Antenna Procurement	3	2010	3	2010
LCE/TRC-170 Transportation Test	1	2011	1	2011
LCE/TRC-170 Sling Lift Test	1	2011	1	2011
LCE/TRC-170 Antenna Production and Fielding	3	2011	4	2012
CONDOR AoA Study	1	2010	1	2010
CONDOR Integration Studies	1	2011	4	2011
NOTM Research	1	2012	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2276: *Comms Switching and Control Sys*	4.239	4.293	4.071	-	4.071	3.371	1.738	1.662	1.706	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 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: *TSM: Engineering and Program Support	0.093	0.100	0.500	-	0.500
Articles:	0	0	0		0
FY 2010 Accomplishments: Continued FY09 effort of engineering and program support.					
FY 2011 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continue FY10 effort of engineering and program support. ***FY 2012 Base Plans:*** Continue FY11 effort of engineering and program support.					
Title: *TSM: Technology Insertion ***Articles:*** ***FY 2010 Accomplishments:*** Technology insertion development initial increment. ***FY 2011 Plans:*** Technology insertion continued development, increment II. ***FY 2012 Base Plans:*** Technology insertion continued development, increment III.	0.186 0	0.215 0	0.804 0	-	0.804 0
Title: *WFN-T: Engineering Support and Prototype Development ***Articles:*** ***FY 2010 Accomplishments:*** Provided for engineering support and prototype development to modify existing programs to add emerging capabilities for interoperability, increments I and II; TDN developmental efforts continue under the WFN-T program. ***FY 2011 Plans:*** Continue FY10 efforts, increments III and IV.	1.991 0	2.146 0	-	-	-
Title: *Data Distribution System - Modular (DDS-M): T&E Program support ***Articles:*** ***FY 2012 Base 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.	-	-	2.210 0	-	2.210 0
Title: *NPM: SPEED, CEOI development and Pub 8 compliance ***Articles:*** ***FY 2010 Accomplishments:***	1.521 0	1.403 0	0.517 0	-	0.517 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continued Systems Planning, Engineering, and Evalution Device (SPEED) software enhancements. ***FY 2011 Plans:*** Continue with SPEED v11.X testing, release, fielding and award. ***FY 2012 Base Plans:*** Continue future enhancements to software to maintain relevancy with emerging communication technology.					
Title: *ECCS: Test and Evaluation and Program Support ***Articles:*** ***FY 2010 Accomplishments:*** Continued program support for T&E efforts. ***FY 2011 Plans:*** Continue program support for T&E efforts. ***FY 2012 Base Plans:*** Continue program support for T&E efforts.	0.448 0	0.429 0	0.039 0	-	0.039 0
Title: *DTC: T&E support ***Articles:*** ***FY 2012 Base Plans:*** Provide support for T&E efforts.	-	-	0.001 0	-	0.001 0
Accomplishments/Planned Programs Subtotals	4.239	4.293	4.071	-	4.071

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PMC/4634-1: *TSM*	33.676	1.850	0.000	15.780	15.780	0.000	0.000	0.000	0.000	0.000	124.248
• PMC/4634-2: *ECCS*	9.864	8.308	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.172
• PMC/4634-3: *TDN*	0.000	0.000	1.000	0.000	1.000	0.016	0.000	0.000	0.000	0.000	56.003
• PMC/4634-4: *WFN-T*	63.762	31.384	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	117.546
• PMC/4634-5: *DDS-M*	0.000	0.000	14.191	33.962	48.153	36.713	36.559	30.764	18.855	0.000	171.044
• PMC/4634-6: *DTC*	0.000	0.000	0.134	0.000	0.134	0.138	0.142	0.146	0.000	0.000	0.560

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PMC/4634-7: *JECCS*	0.000	0.000	0.000	0.000	0.000	7.647	11.208	1.466	13.922	0.000	34.243

D. Acquisition Strategy

(U) Transition Switch Module (TSM): calls for the use and integration of proven commercial switching technologies of sufficient maturity for production with level of effort RDT&E at this stage of the program for developmental efforts related to option year engineering. 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 manhours.

(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 developing and integrating "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.

(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.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

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. R&D effort will focus on developing and integrating improved versions of existing components.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy			DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NPM (SPEED)	C/FFP	MCSC, Northrop Grumman:VA, FL	5.926	1.403	Aug 2011	0.517	Jan 2012	-		0.517	0.000	7.846	
TSM	SS/FFP	MCSC, EDO:VA, SC	0.925	0.215	Jun 2011	0.804	Jan 2012	-		0.804	0.000	1.944	
		Subtotal	6.851	1.618		1.321		-		1.321	0.000	9.790	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TSM Engineering Support	SS/FFP	MCSC, MITRE:VA	0.426	0.100	Jun 2011	0.500	Jan 2012	-		0.500	0.000	1.026	
ECCS Support	C/FFP	MCSC, QinetiQ:VA	0.691	0.429	Mar 2011	0.039	Apr 2012	-		0.039	0.000	1.159	
WFN-T Engineering Support	SS/FFP	US Army, MITRE:VA	0.636	1.246	Jun 2011	-		-		-	0.000	1.882	
DDS-M Engineering Support	SS/FFP	US Army, MITRE:VA	-	-		0.514	Mar 2012	-		0.514	0.000	0.514	
		Subtotal	1.753	1.775		1.053		-		1.053	0.000	4.581	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
WFN-T T&E	MIPR	JITC:Ft. Huachuca, AZ	-	0.900	Jan 2011	-		-		-	0.000	0.900	
DTC T&E	MIPR	JITC:Ft. Huachuca, AZ	-	-		0.001	Mar 2012	-		0.001	0.000	0.001	
DDS-M T&E	WR	MCOTEA:VA	-	-		0.300	Mar 2012	-		0.300	0.000	0.300	
DDS-M T&E	MIPR	JITC:Ft. Huachuca, AZ	-	-		0.080	May 2012	-		0.080	0.000	0.080	
		Subtotal	-	0.900		0.381		-		0.381	0.000	1.281	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy			DATE: February 2011
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*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DDS-M Program Support	C/FFP	MCSC, QinetiQ:VA	-	-		1.316	Mar 2012	-		1.316	0.000	1.316	
		Subtotal	-	-		1.316		-		1.316	0.000	1.316	

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	8.604	4.293		4.071		-		4.071	0.000	16.968	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 Production	2	2010	2	2011
TDN DDS-M Core Modules - Limited Fielding	2	2010	1	2011
TDN DDS-M Core Modules - FRP	4	2010	4	2011
TDN DDS-M - IAM PDR	4	2011	4	2011
TDN DDS-M - IAM CDR	4	2011	4	2011
TDN DDS-M - Host Based Security System (HBSS) PDR	3	2011	4	2011
TDN DDS-M - IAM Production Decision	1	2012	1	2012
TDN DDS-M - IAM Fielding Decision	1	2012	1	2012
TDN DDS-M - HBSS CDR	3	2012	3	2012
TDN DDS-M - HBSS Production Decision	3	2012	3	2012
TDN DDS-M - Recompete RFP	4	2012	2	2013
TDN DDS-M Production 2	3	2013	4	2016
NPM/SPEED RFP	3	2012	3	2012
NPM/SPEED Technical Review - SRR 1	2	2010	2	2010
NPM/SPEED Technical Review - SRR 2	4	2011	4	2011
NPM/SPEED Technical Review - SRR 3	4	2013	4	2013
NPM/SPEED Technical Review - SRR 4	2	2015	2	2015
NPM/SPEED Technical Review - SRR 5	4	2016	4	2016
NPM/SPEED Technical Review - TRR 1	4	2010	4	2010
NPM/SPEED Technical Review - TRR 2	1	2012	1	2012
NPM/SPEED Technical Reivew - TRR 3	1	2014	1	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
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
NPM/SPEED Technical Review - TRR 4	3	2015	3	2015
NPM/SPEED Developmental Test - PAT 1	1	2011	1	2011
NPM/SPEED Developmental Test - PAT 2	2	2012	2	2012
NPM/SPEED Developmental Test - PAT 3	1	2014	2	2014
NPM/SPEED Developmental Test - PAT 4	4	2015	4	2015
NPM/SPEED Operational Test - FAT 1	1	2010	1	2010
NPM/SPEED Operational Test - FAT 2	2	2011	2	2011
NPM/SPEED Operational Test - FAT 3	3	2012	3	2012
NPM/SPEED Operational Test - FAT 4	2	2014	3	2014
NPM/SPEED Operational Test - FAT 5	4	2015	1	2016
NPM/SPEED Contract Award 1	3	2010	3	2010
NPM/SPEED Contract Award 2	4	2011	4	2011
NPM/SPEED Contract Award 3	4	2013	4	2013
NPM/SPEED Contract Award 4	3	2015	3	2015
NPM/SPEED Fielding/Deliveries - Ver 10.0.3	2	2010	1	2011
NPM/SPEED Fielding/Deliveries - Ver 11.0	3	2011	1	2012
NPM/SPEED Fielding/Deliveries - Ver 11.0.1	4	2012	3	2013
NPM/SPEED Fielding/Deliveries - Ver 11.X.X	1	2014	4	2014
NPM/SPEED Fielding/Deliveries - Version 11.X.X	4	2015	3	2016
NPM/SPEED Operations & Support	1	2010	4	2016
TSM RFP Release	3	2011	3	2011
TSM Contract Award	3	2012	3	2012
TSM POR Procurement/Production	1	2010	4	2011
TSM FOC	3	2011	3	2011

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
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 Level of Effort option year RDTE development	1	2010	4	2012
TSM GTF Procurement and fielding	1	2010	1	2011
TSM Technology Insertion	4	2010	4	2016
ECCS MDD/MS B	4	2010	4	2010
ECCS MS C	1	2011	1	2011
ECCS LRIP	1	2011	3	2011
ECCS FRPDR	3	2011	3	2011
ECCS FRP	4	2011	4	2012
ECCS IOC	2	2012	2	2012
ECCS FOC	4	2012	4	2012
ECCS Draft RFP	4	2010	4	2010
ECCS RFP Release	1	2011	1	2011
ECCS Source Selection	1	2011	1	2011
ECCS Contract Award	2	2011	2	2011
ECCS SFR	1	2011	1	2011
ECCS IBR2	1	2011	1	2011
ECCS FCA	3	2011	3	2011
ECCS PCA	4	2011	4	2011
ECCS SIT/JITC	3	2011	3	2011
ECCS Functional Acceptance Test	1	2011	1	2011
ECCS OA	3	2011	4	2011
ECCS RAM	1	2011	2	2011
ECCS 80% ETM	2	2011	3	2011
ECCS I&KPT	4	2011	4	2011

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2277: *System Engineering and Integration*	6.509	5.580	9.650	-	9.650	9.752	9.936	9.997	7.680	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).

Coalition Warrior Interoperability Demonstration (CWID) (a.k.a. Joint Warrior InterOperability Demonstration (JWID)) is a Joint Chiefs-of-Staff (JCS) and a Chairman of the Joint Chiefs annual event. CWID remains the premier event to investigate interagency and coalition interoperability problems. CWID defines solutions that can be applied in the operational community. CWID's mission is to conduct military operations to deter, prevent, and defeat threats and aggressions aimed at the US its territories and assigned areas of responsibilities as directed by the President or Secretary of Defense.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

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.

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Expeditionary Energy Office (E2O) ***Articles:***	-	-	2.470 0	-	2.470 0
FY 2012 Base Plans: Funds will 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."					
Title: *JWID: Deter, prevent, and defeat threats and aggressions aimed at the US. ***Articles:***	1.216 0	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Description: Coalition Warrior Interoperability Demonstration (CWID) (a.k.a. Joint Warrior InterOperability Demonstration (JWID)) is a Joint Chiefs-of-Staff (JCS) and a Chairman of the Joint Chiefs annual event. CWID remains the premier event to investigate interagency and coalition interoperability problems. CWID defines solutions that can be applied in the operational community. CWID's mission is to conduct military operations to deter, prevent, and defeat threats and aggressions aimed at the US its territories and assigned areas of responsibilities as directed by the President or Secretary of Defense. ***FY 2010 Accomplishments:*** JWID: Deter, prevent, and defeat threats and aggressions aimed at the US.					
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 2010 Accomplishments:*** JINTACCS: Joint development, implementation, and testing of data links under the direction of the JCS and OASD/NII. ***FY 2011 Plans:*** JINTACCS: Joint development, implementation, and testing of data links under the direction of the JCS and OASD/NII. ***FY 2012 Base Plans:*** JINTACCS: Joint development, implementation, and testing of data links under the direction of the JCS and OASD/NII.	1.497 0	1.611 0	1.078 0	-	1.078 0
Title: *SEIC: Engineering and Technical Support ***Articles:*** ***Description:*** 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	2.342 0	2.492 0	5.070 0	-	5.070 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
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. ***FY 2010 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 2011 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. ***FY 2012 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. FY12 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	1.454	1.477	1.032	-	1.032

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Articles:	0	0	0		0
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 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 2010 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 2011 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. ***FY 2012 Base 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	6.509	5.580	9.650	-	9.650

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CWID1	C/FP	NSWC:Dahlgren, VA	1.446	-		-		-		-	0.000	1.446	
CWID2	WR	NSWC:Dahlgren, VA	0.200	-		-		-		-	0.000	0.200	
CWID	C/FP	MCSC:Quantico, VA	0.130	-		-		-		-	0.000	0.130	
CWID	C/FP	JTIC:Indian Head, MD	0.076	-		-		-		-	0.000	0.076	
JINTACCS	C/FP	NSWC:Dahlgren, VA	0.070	-		-		-		-	0.000	0.070	
		Subtotal	1.922	-		-		-		-	0.000	1.922	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CWID	C/FP	OSEC:Stafford, VA	0.724	-		-		-		-	0.000	0.724	
MAGTF SEI&C	C/FP	OSEC:Stafford, VA	3.110	1.583	Apr 2011	2.520	Apr 2012	-		2.520	0.000	7.213	
MAGTF SEI&C	C/FP	MCSC:Quantico, VA	0.145	0.200	Apr 2011	0.800	Apr 2012	-		0.800	0.000	1.145	
MAGTF SEI&C	WR	NSWC:Dahlgren, VA	0.453	0.550	Nov 2010	0.750	Apr 2012	-		0.750	0.000	1.753	
JDEP	C/FP	NSWC:Dahlgren, VA	1.120	0.540	Dec 2010	0.344	Apr 2012	-		0.344	0.000	2.004	
JDEP	C/FP	OSEC:Carlsbad, CA	0.944	0.460	Oct 2011	0.348	Apr 2012	-		0.348	0.000	1.752	
JINTACCS	C/FP	OSEC:Stafford, VA	1.162	1.000	Apr 2011	0.742	Apr 2012	-		0.742	0.000	2.904	
JINTACCS	C/FP	MCTSSA:Cmp Pendlton CA	2.000	0.611	Jan 2011	0.336	Apr 2012	-		0.336	0.000	2.947	
EEO (E20)	WR	NWSC:Crane, IN	-	-		0.920	Jan 2012	-		0.920	0.000	0.920	
EEO (E20)	C/FP	NWSC:Cradderock, MD	-	-		0.875	Jan 2012	-		0.875	0.000	0.875	
EEO (E20)	C/FP	SPARWAR:Charleston, SC	-	-		0.675	Jan 2012	-		0.675	0.000	0.675	
		Subtotal	9.658	4.944		8.310		-		8.310	0.000	22.912	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JDEP	WR	SSCC:Charleston, SC	1.019	0.477	Nov 2010	0.340	Apr 2012	-		0.340	0.000	1.836	
MAGTF SEI&C	MIPR	MITRE:Ft Monmouth NJ	1.079	0.159	Dec 2010	1.000	Apr 2012	-		1.000	0.000	2.238	
		Subtotal	2.098	0.636		1.340		-		1.340	0.000	4.074	

	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	13.678	5.580		9.650		-		9.650	0.000	28.908	

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2278: *Air Defense Weapons System*	5.025	5.938	2.171	-	2.171	2.271	3.404	3.519	3.578	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 encompasses two sub-element programs which are part of the Integrated Air Defense System for the Marine Corps.

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: *GBAD TRANSFORMATION: Test and Evaluation (Remote Terminal Unit Replacement) ***Articles:***	0.357 0	-	-	-	-
FY 2010 Accomplishments: Conducted field user evaluation of A-MANPADS Increment I C4 Suite enhancements in accordance with the approved Test and Evaluation Strategy.					
Title: *GBAD TRANSFORMATION: Program Management Services ***Articles:***	0.122 0	0.107 0	0.440 0	-	0.440 0
FY 2010 Accomplishments: Continued to support developmental testing in accordance with approved test and evaluation strategy.					
FY 2011 Plans: Support the completion of developmental testing of A-MANPADS Increment I.					
FY 2012 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Support the research and development of a replacement for the Stinger missile.					
Title: *GBAD TRANSFORMATION: Product Development (C2 Integration) ***Articles:*** ***FY 2010 Accomplishments:*** Continued developmental testing to include field user evaluation. Integration of hardware and software for a C2 interface solution. ***FY 2011 Plans:*** Testing to include hardware and software certification and information assurance certification. ***FY 2012 Base Plans:*** Continuing effort to research a replacement weapon for Stinger.	0.282 0	0.473 0	0.742 0	-	0.742 0
Title: *GBAD TRANSFORMATION: Product Development (Remote Terminal Unit Replacement) ***Articles:*** ***FY 2010 Accomplishments:*** Integration of Commerical-off-the-shelf and Nondevelopmental Item Remote Terminal Unit replacement components into A-MANPADS Increment I.	0.352 0	-	-	-	-
Title: *GBAD TRANSFORMATION: Integration Development (Missile Integration) ***Articles:*** ***FY 2010 Accomplishments:*** Participated in multiple vendor and Government sponsored GBAD capabilities demonstrations. ***FY 2011 Plans:*** Multiple vendor and Government participation in a Governement sponsored GBAD capabilities demonstration. ***FY 2012 Base Plans:*** Multiple vendor and Government participation in a Governement sponsored GBAD capabilities demonstration.	3.380 0	4.991 0	0.989 0	-	0.989 0
Title: *GBAD TRANSFORMATION: Support Costs (MCTSSA/MCCDC/Crane support) ***Articles:*** ***FY 2010 Accomplishments:***	0.532 0	0.367 0	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
GBAD-T will continue to support Stinger live-fire exercises at the LAAD Battalions and the Stinger School house, ensuring LAAD gunners obtain and retain military occupational specialty proficiency. ***FY 2011 Plans:*** GBAD-T will continue to support Stinger live-fire exercises at the LAAD Battalions and the Stinger School house, ensuring LAAD gunners obtain and retain military occupational specialty proficiency.					
Accomplishments/Planned Programs Subtotals	5.025	5.938	2.171	-	2.171

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PMC/300600: *GBAD-T*	2.352	5.175	12.287	0.000	12.287	12.439	12.497	12.778	5.839	Continuing	Continuing
• PMC/70000: *GBAD-T*	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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 2012 Navy			DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GBAD-T	WR	NSWC:Crane.IN	2.904	0.520	Jan 2011	-		-		-	0.000	3.424	
GBAD-T	MIPR	Army:AMRDEC	2.875	1.591	Jan 2011	0.742	Jan 2012	-		0.742	0.000	5.208	
GBAD-T	MIPR	PMA-259:China Lake	1.500	0.875	Feb 2011	0.989	Feb 2012	-		0.989	0.000	3.364	
GBAD-T	Various	TBD:Not Specified	3.070	2.478	Feb 2011	-		-		-	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	-		-		-		-	0.000	0.464	
GBAD-T	C/FP	L3:San Diego, CA	1.473	-		-		-		-	0.000	1.473	
		Subtotal	18.159	5.464		1.731		-		1.731	0.000	25.354	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GBAD-T	WR	NSWC:Crane, IN	0.526	-		0.440	Jan 2012	-		0.440	0.000	0.966	
GBAD-T	C/FP	MCCDC:Quantico, VA	1.660	0.250	Feb 2011	-		-		-	0.000	1.910	
GBAD-T	WR	MCTSSA:Camp Pendleton, CA	0.170	0.050	Feb 2011	-		-		-	0.000	0.220	
GBAD-T	WR	MCSC:Quantico, VA	0.061	0.067	Jan 2011	-		-		-	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	4.229	0.367		0.440		-		0.440	0.000	5.036	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
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	
JFIIT1	Reqn	MCSC:Quantico, VA	0.318	-		-		-		-	0.000	0.318	
JFIIT2	WR	4th MAW:Not Specified	0.085	-		-		-		-	0.000	0.085	
JFIIT3	WR	MCTSSA:Camp Pendelton, CA	0.127	-		-		-		-	0.000	0.127	
JFIIT4	WR	MCSC:Quantico, VA	0.047	-		-		-		-	0.000	0.047	
		Subtotal	2.878	-		-		-		-	0.000	2.878	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GBAD-T	C/FP	MCSC:Quantico, VA	0.417	0.107	Feb 2011	-		-		-	0.000	0.524	
JFIIT	Reqn	MCSC:Quantico, VA	0.194	-		-		-		-	0.000	0.194	
		Subtotal	0.611	0.107		-		-		-	0.000	0.718	

	Total Prior Years Cost	FY 2011 Cost	FY 2011	FY 2012 Base Cost	FY 2012 Base	FY 2012 OCO Cost	FY 2012 OCO	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	25.877	5.938		2.171		-		2.171	0.000	33.986	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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	2	2011	2	2011
GBAD-T Full Rate Production	2	2011	2	2011
GBAD-T Fielding Decision	3	2011	3	2011
GBAD-T IOC	4	2011	4	2011

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2510: *MAGTF CSSE & SE*	64.774	33.538	43.185	-	43.185	51.778	52.956	44.401	21.054	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 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 will deliver capabilities in block increments. Block 1 focuses on delivery of retail supply functionality and fielding of this capability is divided into two major independent releases: Enterprise Release 1.1 and Deployed Access Release 1.2. Block 2 will expand the retail supply functionality of Block 1 by implementing Marine Corps-wide wholesale and retail warehouse management and automated information technologies, such as Radio Frequency Identification (RFID) and bar code scanning. Block 2 will concentrate on transportation, distribution and in-transit visibility by focusing on planning the modes, links and schedules of the intra-theater transportation and distribution system. Block 2 requirements analysis and program planning are scheduled to begin during FY12. GCSS-MC was designated an Acquisition Category (ACAT)IAM program in march 2004 and successfully completed a MS B review on June 8, 2007 and a MS C review on 28 May 2010.

TRANSPORTATION SYSTEMS PORTFOLIO (TSP) RDT&E funding 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

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

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 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 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.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

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.

The AIT office will continue to test new Marine Corps-unique automated information application modules that will support: the Marine Corps and Defense Supply Chain via-the-Web capabilities; PKI-enabled Web application modules for Commanders worldwide. Also, RDT&E funding includes the continuation of testing and improving AITs accessibility and functionality for external customers, and the continuation of developing and implementing Web Services software technologies (e.g., Simple Object Access Protocol, Universal Discovery and Description Integration, Web Services Description Language).

BASE TELECOM [Base Telecommunications Infrastructure (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 non-NMCI voice, video and data 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.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: BASE TELECOM (BTI)	-	-	0.454	-	0.454
Articles:			0		0
FY 2012 Base Plans: 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)	1.444	1.508	1.610	-	1.610
Articles:	0	0	0		0
FY 2010 Accomplishments:					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
In FY10, in addition to root cause analysis of failures of fielded gear, MCHS is using RDT&E funding to verify vendor specs for new products and to evaluate the applicability of both current and new products for procurement under the revised MCHS Indefinite Delivery, Indefinite Quantity contract with selected vendors. Environmental and stress testing includes rigorous environmental testing in accordance with (IAW) applicable Military Specifics (MILSPECs) to evaluate performance of COTS hardware under field conditions. Software loading is also performed by MCHS to verify compatibility with various hardware configurations. ***FY 2011 Plans:*** In FY11, RDT&E will continue to be used to conduct trend analysis on reported failures of fielded COTS hardware and to evaluate the ability of new products to meet Marine Corps needs. ***FY 2012 Base 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.					
Title: GCSS-MC LOGISTICS CHAIN MANAGEMENT (GCSS-MC) ***Articles:*** ***FY 2010 Accomplishments:*** FY10 accomplishments include the successful Block 1 Milestone C decision. Block 1, Release 1.1 completed Field User Evaluations and Initial Operational Testing & Evaluation during FY10. Block 1, Release 1.2 continued the initial design, build and test activities in preparation for Systems Integration Developmental Test & Evaluation (SIDT&E). ***FY 2011 Plans:*** FY11 activities include the completion of the Block I, Release 1.1 system rollout to III Marine Expeditionary Force (MEF) and the beginning of the system rollout and user training for I & II MEF units. Training materials will be fielded to the USMC school houses. Block 1, Release 1.2 activities include the completion of the SIDT&E and Government Developmental Test & Evaluation (GDT&E). GCSS-MC Block 1 is scheduled for a Limited Release Follow-on Operational Test & Evaluation Acquisition Decision Memorandum (ADM) during the 4th Qtr. ***FY 2012 Base Plans:*** FY12 activities include the Block 1 Full Deployment Decision (FDD) scheduled during the 2nd Qtr. The Block 1, Release 1.1 rollout will be almost completed by the end of FY12 with Full Deployment scheduled for the 2nd Qtr of FY13. Block 1, Release 1.2 will complete the Follow-on Operational Test & Evaluation (FOT&E) and	57.855 0	27.759 0	36.380 0	-	36.380 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
begin fielding in after the FDD decision. Block 2 requirements analysis and program planning are scheduled to begin during FY12 along with efforts to upgrade from Oracle eBusiness Suite Release 11 to Release 12. Block 2, Release 2.1 will expand the retail supply functionality of Block 1 by implementing Marine Corps-wide wholesale and retail warehouse management and automated information technologies, such as RFID and bar code scanning. Block 2, Release 2.2 will also focus on transportation, distribution and in-transit visibility by focusing on planning the modes, links and schedules of the intra-theater transportation and distribution system.					
Title: TRANSPORTATION SYSTEMS PORTFOLIO (TSP) ***Articles:*** ***FY 2010 Accomplishments:*** FY10 TSP funding is being utilized to continue developement of deployment and distribution applications enhancements. ***FY 2011 Plans:*** FY11 TSP will begin integration efforts for the functionalities of Automated Manifest System - Tactical (AMS-TAC) and Warehouse to Warfighter (W2W). TSP will conduct pre-milestone "A" efforts for a follow-on Deployment Execution Support System (DESS)and will conduct the studies necessary to receive milestone "A" decision. ***FY 2012 Base Plans:*** FY12 TSP will conclude AMS-TAC and W2W integration efforts leading to easier integration with GCSS-MC. TSP will begin technology development efforts for the follow-on DESS leading to Milestone "B" decision and TSP will modernize the Transportation Management System (TMS) due to new legislative requirements.	0.592 0	0.558 0	1.134 0	-	1.134 0
Title: JOINT FORCES REQUIREMENT GENERATION II (JFRG II) ***Articles:*** ***FY 2010 Accomplishments:*** FY10 funds being used to begin material solution analysis for the development for JFRG II V2.0, receive Technical Proposal for v2.0 development, receive a revised Functional Requirements list, receive Software Requirements Specification (SRS), and System Requirements Specification (SyRS) and Requirements Traceability Matrix (RTM). JFRG II will conduct a SFR necessary to receive Milestone B. ***FY 2011 Plans:***	1.207 0	0.360 0	0.260 0	-	0.260 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
FY11 funds will continue to fund Technology Development to reach Milestone B. ***FY 2012 Base Plans:*** FY12 funds will be utilized to conduct Engineering & Manufacturing Development to reach Milestone C.					
Title: PUBLIC KEY INFRASTRUCTURE (PKI) ***Articles:*** ***FY 2010 Accomplishments:*** FY10 funding supports continued testing, correction of deficiencies, and implementation of PKI requirements for tactical applications, Marine Corp Enterprise IT Services (MCEITS) integration and SIPRNET capabilities. ***FY 2011 Plans:*** FY11 funding will provide for continued testing, correction of deficiencies, and implementation of PKI requirements for tactical applications, MCEITS and SIPRNET capabilities. ***FY 2012 Base Plans:*** FY12 funding will provide for continued testing, correction of deficiencies, and implementation of PKI requirements for tactical applications, MCEITS and SIPRNET capabilities.	1.672 0	1.312 0	1.547 0	-	1.547 0
Title: AUTOMATED IDENTIFICATION TECHNOLOGY (AIT) ***Articles:*** ***FY 2010 Accomplishments:*** AIT expanded capabilities of passive RFID system to allow the inclusion of additional visibility transactions to meet expanded DoD reporting requirements. Research new DoD transaction information to allow for population of interface data to the USMC receiving systems. ***FY 2011 Plans:*** AIT will upgrade the RFID infrastructure to include a mobile capability. Initial 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. Expand use of pRFID outside the Supply and Distribution systems. 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. ***FY 2012 Base Plans:***	2.004 0	2.041 0	1.800 0	-	1.800 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
AIT will provide the ability to control devices on the edgeware and provide common infrastructure middleware capability to support multiple AIT technologies during FY12 - FY16.					
Accomplishments/Planned Programs Subtotals	64.774	33.538	43.185	-	43.185

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• BLI 463000 2: *CCR: MCHS Svrs/ Wkstns*	17.284	18.398	1.889	9.273	11.162	1.831	1.640	1.666	1.694	Continuing	Continuing
• BLI 461700 1: *Combat Spt Sys: GCSS-MC*	6.929	27.158	13.897	0.000	13.897	4.948	12.739	9.299	9.461	Continuing	Continuing
• BLI 463500: *Comm & Elec Infra Spt: PKI*	0.799	0.930	0.998	0.000	0.998	1.184	1.450	1.489	1.529	Continuing	Continuing
• BLI 461700 2: *Combat Spt Sys: AIT*	5.439	4.753	3.990	0.000	3.990	2.852	2.092	2.761	1.936	Continuing	Continuing
• BLI 463000 1: *CCR:GCSS-MC*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.800	5.656	0.000	15.456
• BLI 4635: BTI: *Base Telecom*	12.607	11.808	21.151	0.000	21.151	22.092	18.474	19.394	19.724	0.000	125.250

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 block increments. Each "Block" capability will follow a complete acquisition process in accordance with the DOD 5000 publications and OSD's Enterprise Integration roadmap. Blocks will include emergent user priorities, advanced technology improvements and expanded functionality. Each Block will repeat the complete acquisition program cycle going through a milestone (MS) C Full Rate Production Decision Review. Block 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

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

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 Block as required and prioritized by the user community.

The GCSS-MC/LCM Block 2 requirements analysis and program planning are scheduled to begin during FY12. Block 2 will expand the retail supply functionality of Block 1 by implementing Marine Corps-wide wholesale and retail warehouse management and automated information technologies, such as RFID and bar code scanning. Block 2 will concentrate on transportation, distribution and in-transit visibility by focusing on planning the modes, links and schedules of the intra-theater transportation and distribution system

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 Dec 2011. This contract supports the testing of software for functionality with service users then passed on to Defense Information Systems Agency (DISA) for security & 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 RFID, pRFID, and UID. AIT evaluates emerging technologies, new equipment, and performs integration analysis and testing.

BASE TELECOM [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).

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GCSS LCM Block 1 Application	C/FFP	Oracle USA:Reston, VA	156.585	22.400	Oct 2010	2.205	Oct 2011	-		2.205	0.000	181.190	
GCSS LCM Block 1 Training Development	C/FP	EDO:Stafford, VA	2.500	-		-		-		-	0.000	2.500	
PKI	C/FFP	Various:Various	5.503	1.312	May 2011	1.547	May 2012	-		1.547	Continuing	Continuing	Continuing
AIT	C/FFP	TBD:TBD	4.942	2.041	Dec 2010	1.800	Dec 2011	-		1.800	Continuing	Continuing	Continuing
VAR	Various	Various:Various	17.601	-		-		-		-	Continuing	Continuing	Continuing
GCSS LCM Block 2 Application	Various	TBD:Triangle, VA	-	-		32.460	Apr 2012	-		32.460	Continuing	Continuing	Continuing
		Subtotal	187.131	25.753		38.012		-		38.012			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
VAR	Various	Various:Various	1.213	-		-		-		-	0.000	1.213	
		Subtotal	1.213	-		-		-		-	0.000	1.213	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MCHS	WR	SPAWAR:Charleston, SC	9.633	1.508	Jan 2011	1.610	Jan 2012	-		1.610	Continuing	Continuing	Continuing
GCSS LCM Block 1 DT & OT Evaluations	WR	Various:Various	7.249	2.900	Nov 2010	0.265	Oct 2011	-		0.265	0.000	10.414	
Various	Various	Various:Various	12.881	0.918	Sep 2011	0.403	Sep 2012	-		0.403	Continuing	Continuing	Continuing
		Subtotal	29.763	5.326		2.278		-		2.278			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy			DATE: February 2011
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*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GCSS LCM PMO Support	C/FFP	TASC:Stafford, VA	14.745	-		-		-		-	0.000	14.745	
GCSS LCM PMO Support	C/FFP	Various:Various	10.384	2.459	Jan 2011	1.450	Jan 2012	-		1.450	0.000	14.293	
Various	Various	Various:Various	3.980	-		1.445	Sep 2012	-		1.445	0.000	5.425	
		Subtotal	29.109	2.459		2.895		-		2.895	0.000	34.463	

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	247.216	33.538		43.185		-		43.185			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 Block 1 Limited Release AD	4	2011	4	2011
GCSS-MC Logistics Chain Mgt Block 1 FDD	2	2012	2	2012
GCSS-MC Logistics Chain Mgt Block 1 FD	2	2013	2	2013

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3099: *Radar System*	18.184	24.893	33.887	-	33.887	34.483	8.022	8.640	8.797	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(V)3) - 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 beset with increasing obsolescence and Diminishing Manufacturing Sources (DMS) issues. The program will use a Post Production Support (PPS) contract to develop engineering changes to resolve DMS.

Family of Target Acquistion 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 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 firendly 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. FY10-FY16 funds will be used to address engineering issues that arise due to DMS items within the Family of Target Acquisition Systems.

Short/Medium Range Air Defense Radar (SHORAD) - The Short/Medium Range Air Defense Radar AN/TPS-63B 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(V)3 three-dimensional, long-range, air surveillance radar system. The Short/Medium Range Air Defense Radar will develop engineering change proposals related to improved system performance with the specific purpose of meeting increased fleet operational requirements. AN/TPS-63 modifications and system improvements will be researched and analyzed to determine which complement existing components to preclude an expensive USMC investment in solid-state radar technology. This system was first fielded in 1978 and now in the late sustainment phase of its system life cycle. The AN/TPS-63B radar system will be phased out when replaced by the Ground/Air Task Oriented Radar (G/ATOR).

Three Dimensional Expeditionary Long Range Radar (3DELRR) - The Marine Corps is providing technical, engineering, and programmatic support (personnel) 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 performs modeling and simulation work at the Virtual Warfare Center (VWC) in St. Louis, MO, in order to test advanced concepts relating to Marine Corps Command and Control (C2) and MAGTF operations. The testing and analysis of these advanced concepts focuses on persistent forward naval engagements in support of the MAGTF.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: *AN/TPS-59 : Management Service Support	1.250	7.557	7.000	-	7.000
Articles:	0	0	0		0
Description: The program will address Diminishing Manufacturing Sources (DMS) issues by continuing use of a Post Production Support (PPS) contract. The AN/TPS-59 Incremental Sustainment is a two-phased acquisition approach to address Diminishing Manufacturing Systems and the Mode 5 Implementation of the AN/TPS-59(V)3 Radar System.					
FY 2010 Accomplishments: MCSC - Program Management Support					
FY 2011 Plans: MCSC - Program Management Support, In-sourcing.					
FY 2012 Base Plans: MCSC - Program Management Support for the Increment II developmental effort					
Title: *3DELRR: Management Service Support	-	-	2.030	-	2.030
Articles:			0		0
FY 2012 Base Plans: MCSC - General Dynamics for programmatic support, MCOTEA for testing events and support, and HQMC CD&I for requirements.					
Title: *VWC: Management Service Support	-	-	4.842	-	4.842
Articles:			0		0
FY 2012 Base Plans: Virtual Warfare Center - ONR for testing of advance concepts for the USMC.					
Title: *GWLR/FTAS: Program office management/travel	0.050	1.081	0.050	-	0.050
Articles:	0	0	0		0
Description: 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 Target Processing Set. The FTAS is critical in the execution of counter-fire and the integration of target acquisition information enabling attack by MAGTF assets. The FTAS also provides artillery firing units the ability					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
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. FY10-FY16 funds will be used to address engineering issues that arise due to DMS items within the Family of Target Acquisition Systems. ***FY 2010 Accomplishments:*** Travel funding for the ALBANY MARCORSYSCOM support for conferences and site visits. ***FY 2011 Plans:*** SME Dahlgren for development of Sensor Manager. Travel funding for the ALBANY MARCORSYSCOM support for conferences and site visits. ***FY 2012 Base Plans:*** Travel funding for the ALBANY MARCORSYSCOM support for conferences and site visits.					
Title: *GWLR/FTAS: Contractor ***Articles:***	0.582 0	0.486 0	0.100 0	-	0.100 0
Description: 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 Target Processing Set. The FTAS is critical in the execution of counter-fire 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. FY10-FY16 funds will be used to address engineering issues that arise due to DMS items within the Family of Target Acquisition Systems. ***FY 2010 Accomplishments:*** NSWC CRANE - Government Engineering Support to include Correlation and Fusion, Dahlgren - Engineering Support for the Family of Target Acquisition systems to support the Correlation and Fusion as well as market studies (RFI"s). ***FY 2011 Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
NSWC CRANE - Government Engineering Support to include Correlation and Fusion ECPs to the TPS, Dahlgren - Engineering Support for the Family of Target Acquisition systems to support the Correlation and Fusion. Government liason with FSED Ft. Sill. ***FY 2012 Base Plans:*** NSWC CRANE - Government Engineering Support to include Correlation and Fusion ECPs to the TPS, Dahlgren - Engineering Support for the Family of Target Acquisition systems to support the Correlation and Fusion. Government liason with FSED Ft. Sill.					
Title: *GWLR/FTAS: Software/Hardware ECP's ***Articles:*** ***Description:*** 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 Target Processing Set. The FTAS is critical in the execution of counter-fire 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. FY10-FY16 funds will be used to address engineering issues that arise due to DMS items within the Family of Target Acquisition Systems. ***FY 2010 Accomplishments:*** Dahlgren - continuation of services from FY09 and ongoing. Crane - Correlation and Fusion. ***FY 2011 Plans:*** CECOM - Develop Sensor Management Platform for the TPS. ***FY 2012 Base Plans:*** Continued development of Correlation and Fusion tools using the Sensor Manager Platform.	0.165 0	0.285 0	0.397 0	-	0.397 0
Title: *GWLR/FTAS: System Diminishing Manufacturing Sources (DMS) ***Articles:*** ***Description:*** 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.	0.989 0	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
The FTAS consists of the AN/TPQ-46 Firefinder radar, the AN/TPQ-48 Lightweight Counter Mortar Radar and the Target Processing Set. The FTAS is critical in the execution of counter-fire 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. FY10-FY16 funds will be used to address engineering issues that arise due to DMS items within the Family of Target Acquisition Systems. ***FY 2010 Accomplishments:*** Dahlgren - continuation of services from FY09 and ongoing. Crane - Correlation and Fusion.					
Title: *SHORT/MEDIUM RANGE AIR DEFENSE RADAR: Life Extension Study ***Articles:*** ***Description:*** The Short/Medium Range Air Defense Radar AN/TPS-63B 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(V)3 three-dimensional, long-range, air surveillance radar system. ***FY 2010 Accomplishments:*** To provide better configuration management to the current systems by on site visits and field configuration survey. AN/TPS-63 modifications and system improvements will be researched and analyzed to determine which complement existing components. ***FY 2011 Plans:*** To provide better configuration management to the current systems by on site visits and field configuration survey. Continuing developing effort to resolve ongoing DMSMS issues and ensure current sustainment efforts.	0.214 0	0.197 0	-	-	-
Title: *AN/TPS-59 : Develop Engineering Change Proposals ***Articles:***	13.684 0	9.363 0	13.462 0	-	13.462 0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Description: The program will address Diminishing Manufacturing Sources (DMS) issues by continuing use of a Post Production Support (PPS) contract. The AN/TPS-59 Incremental Sustainment is a two-phased acquisition approach to address Diminishing Manufacturing Systems and the Mode 5 Implementation of the AN/TPS-59(V)3 Radar System. ***FY 2010 Accomplishments:*** Lockheed Martin - Engineering Change Proposal support, Diminishing Manufacturing Systems reports, software integration, Mode 5, trade study, DO54 Processor Tech Refresh. ***FY 2011 Plans:*** Lockheed Martin - Engineering Change Proposal support, Diminishing Manufacturing Systems reports, Dynamic Mode, and Increment II. Sensis - Vendor Level Maintenance Support. ***FY 2012 Base Plans:*** Lockheed Martin Engineering Change Proposal support, Diminishing Manufacturing Sources, Mode 5 Upgrade Increment II Sensis - Vendor Level Maintenance Support.					
Title: *AN/TPS-59 : Support. Costs	1.250	4.897	5.800	-	5.800
Articles:	0	0	0		0
Description: The program will address Diminishing Manufacturing Sources (DMS) issues by continuing use of a Post Production Support (PPS) contract. The AN/TPS-59 Incremental Sustainment is a two-phased acquisition approach to address Diminishing Manufacturing Systems for the AN/TPS-59(V)3 Radar System. ***FY 2010 Accomplishments:*** MCOTEA/MCTSSA - Testing events, MITRE - Engineering support, Lockheed Martin - PMO/IPT ***FY 2011 Plans:*** MCOTEA/MCTSSA - Testing events, MITRE - Engineering support, Lockheed Martin - PMO/IPT ***FY 2012 Base Plans:*** MCOTEA/MCTSSA - Testing events, MITRE - Engineering support, Lockheed Martin - PMO/IPT Sensis - Vendor Level Maintenance Support.					
Title: *SHORT/MEDUIM RANGE AIR DEFENSE RADAR: Engineering and Technical Support (IFF)	-	1.027	0.206	-	0.206
Articles:		0	0		0

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Description: The Short/Medium Range Air Defense Radar AN/TPS-63B 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(V)3 three-dimensional, long-range, air surveillance radar system. The radar also provides a time-shared display of radar and Identification Friend or Foe (IFF) data. The Short/Medium Range Air Defense Radar will develop engineering change proposals related to improved system performance with the specific purpose of meeting increased fleet operational requirements. AN/TPS-63 modifications and system improvements will be researched and analyzed to determine which complement existing components to preclude an expensive USMC investment in solid-state radar technology. ***FY 2011 Plans:*** Research and development efforts are needed to be Mode 5 Identification Friend or Foe (IFF) compliant and provide the communication link to pass critical IFF data to the TAOC. ***FY 2012 Base Plans:*** Engineering and Technical support required to address Diminishing Manufacturing Sources (DMS) High Voltage issues in two key areas, Travelling Wave Tube (TWT) and Cross Field Amplifiers (CFA) which support the Identification Friend or Foe (IFF) capability.					
Accomplishments/Planned Programs Subtotals	18.184	24.893	33.887	-	33.887

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PMC/46501: *Short/Medium Range Radar Mods*	0.700	0.694	4.425	3.000	7.425	6.690	0.743	0.755	0.768	Continuing	Continuing
• PMC/46502: *AN/TPS-59*	4.805	5.493	28.010	21.789	49.799	38.924	24.050	25.141	29.402	Continuing	Continuing
	5.772	0.166	3.671	1.717	5.388	3.134	2.143	2.202	2.239	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PMC/46503: *FAMILY OF TARGET ACQUISITION SYSTEMS*											

D. Acquisition Strategy

Long Range Radar (AN/TPS-59(V)3) - The program will address Diminishing Manufacturing Sources (DMS) issues by continuing use of a Post Production Support (PPS) contract. The AN/TPS-59 Incremental Sustainment is a two-phased acquisition approach to address Diminishing Manufacturing Systems for the AN/TPS-59(V)3 Radar System.

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 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 firendly 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. FY09-FY15 funds will be used to address engineering issues that arise due to DMS items within the Family of Target Acquisition Systems.

The Short/Medium Range Air Defense Radar AN/TPS-63B 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(V)3 three-dimensional, long-range, air surveillance radar system. The radar also provides a time-shared display of radar and Identification Friend or Foe (IFF) data. The Short/Medium Range Air Defense Radar will develop engineering change proposals related to improved system performance with the specific purpose of meeting increased fleet operational requirements. AN/TPS-63 modifications and system improvements will be researched and analyzed to determine which complement existing components to preclude an expensive USMC investment in solid-state radar technology.

E. Performance Metrics

Milestone Reviews

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59	C/CPFF	LOCKHEED MARTIN:SYRACUSE, NY	52.575	9.363	Oct 2010	13.462	Oct 2011	-		13.462	0.000	75.400	
AN/TPS-59	C/CPFF	SENSIS:SYRACUSE, NY	1.100	-		-		-		-	0.000	1.100	
SHORT/MEDIUM RANGE	C/CPFF	NORTHROP GRUMMAN:Not Specified	0.220	1.224	Jan 2011	0.206	Jan 2012	-		0.206	0.000	1.650	
		Subtotal	53.895	10.587		13.668		-		13.668	0.000	78.150	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FTAS	WR	NSWC, DAHLGREN:DAHLGREN	5.598	0.285	Oct 2010	-		-		-	0.000	5.883	
FTAS	MIPR	CECOM:FT MONMOUTH	1.932	0.486	Jan 2011	0.100	Jan 2012	-		0.100	0.000	2.518	
FTAS	WR	MCLB:BARSTOW	1.200	-		-		-		-	0.000	1.200	
FTAS	WR	NSWC, CRANE:CRANE, IN	1.850	-		0.397	Oct 2011	-		0.397	0.000	2.247	
FTAS	C/FFP	MCSC:QUANTICO	0.893	1.081	Dec 2010	0.050	Oct 2011	-		0.050	0.000	2.024	
AN/TPS-59	C/CPFF	MCOTEA:QUANTICO	-	0.340	Oct 2010	0.350	Oct 2011	-		0.350	0.000	0.690	
AN/TPS-59	C/CPFF	CDI:QUANTICO	-	0.400	Apr 2011	0.450	Apr 2012	-		0.450	0.000	0.850	
AN/TPS-59	C/CPFF	NSWC, DAHLGREN:MCSC	-	1.763	Jan 2011	2.250	Jan 2012	-		2.250	0.000	4.013	
AN/TPS-59	C/CPFF	SPAWAR:MCSC	-	1.494	Feb 2011	1.750	Feb 2012	-		1.750	0.000	3.244	
AN/TPS-59	C/CPFF	MITRE:Not Specified	1.025	0.900	Oct 2010	1.000	Oct 2011	-		1.000	0.000	2.925	
3DELRR	C/CPFF	MCOTEA:QUANTICO	-	-		0.143	Mar 2012	-		0.143	0.000	0.143	
VWC	C/CPFF	ONR:Not Specified	-	-		4.842	Apr 2012	-		4.842	0.000	4.842	
3DELRR	Various	HQMC CD&I:HQMC	-	-		0.142	Mar 2012	-		0.142	0.000	0.142	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	12.498	6.749		11.474		-		11.474	0.000	30.721	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59	C/CPFF	MCSC:QUANTICO	8.617	5.037	Dec 2010	7.000	Dec 2011	-		7.000	0.000	20.654	
AN/TPS-59	C/CPFF	IN-SOURCING:QUANTICO	-	0.520	Oct 2010	-		-		-	0.000	0.520	
FTAS	WR	MCSC:QUANTICO	0.504	-		-		-		-	0.000	0.504	
AN/TPS-59 (3DELRR)	C/CPFF	GENERAL DYNAMICS:QUANTICO	-	2.000	Mar 2011	-		-		-	0.000	2.000	
3DELRR	C/CPFF	GENERAL DYNAMICS:QUANTICO	-	-		1.745	Mar 2012	-		1.745	0.000	1.745	
		Subtotal	9.121	7.557		8.745		-		8.745	0.000	25.423	

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	75.514	24.893		33.887		-		33.887	0.000	134.294	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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				
FTAS TPS MS C	4	2010	1	2011
FTAS TPS IOC	1	2011	1	2011
FTAS TPS FOC	3	2011	3	2011
FTAS FIREFINDER FOC	4	2010	1	2011
FTAS LCMR FOC	1	2010	1	2010
AN/TPS-59 TRR INC I	4	2010	4	2010
AN/TPS-59 INCREMENT II IOC	1	2014	1	2014
AN/TPS-59 INCREMENT II MS-C	1	2013	1	2013
AN/TPS-59 INCREMENT II FOC	4	2015	4	2015
AN/TPS-59 INCREMENT I IOC	1	2011	1	2011
AN/TPS-59 INCREMENT I FOC	4	2011	4	2011

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
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 9999: *Congressional Adds*	

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
9999: *Congressional Adds*	6.374	-	-	-	-	-	-	-	-	0.000	6.374
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Battlefield Sensor Netting System - This is a system using several sensors in a battlefield area, with groups of sense in communication with sensor netting stations. Each sensor netting station broadcasts air traffic data to terminal users in its area. The sensors may be radars, infrared detectors, etc. The sensor netting station includes communications to each sensor, processing facilities for handling aircraft I.D. and eliminating redundant targets, and communications to terminal users. The terminal users may include missile or gun batteries, tank or infantry columns, etc. This funds the development of increasing timeliness and accuracy to better engage aircraft and missiles earlier.

Mobile Modular Command and Control (M2C2) - The development of Mobile Modular Command and Control (M2C2) technology provides the Marine Operating Forces with an on-the-move command and control (OTM C2) capability with over the horizon (OTH) communication links. The Congressional funding helps to baseline the M2C2 capability and prepare it for transition into an acquistion program of record, the Command Operations Center (COC).

Media Explotation Tool Integration with Intelligence C2 Systems - Digital media exploitation rapidly extracts data from enemy devices and media captured on the battlefield. Development of this tool will allow for collection/conversion of raw data into actionable intelligence for timely analysis/dissemination.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011
Congressional Add: Media Exploitation Tool Integration with Intelligence C2 Systems ***FY 2010 Accomplishments:*** $1.2M FY10 RDT&E Funds will be used to further develop the System for TRIaging Key Evidence (STRIKE), which is the media exploitation tool used by the USMC CI/HUMINT Equipment Program (CIHEP). While a number of task orders will be issued, the development will primarily continuing to incorporate other open architecture tools into the existing STRIKE capability and increasing its interoperability with existing intelligence systems.	1.195	-
Congressional Add: Battlefield Sensor Netting ***FY 2010 Accomplishments:*** Mobile Modular Command and Control (M2C2) - The development of Mobile Modular Command and Control (M2C2) technology provides the Marine Operating Forces with an on-the-move command and control (OTM C2) capability with over the horizon (OTH) communication links. The Congressional funding helps to baseline the M2C2 capability and prepare it for transition into an acquistion program of record, the Command Operations Center (COC).	2.391	-
Congressional Add: M2C2	2.788	-

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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 9999: *Congressional Adds*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011
FY 2010 Accomplishments: Media Explotation Tool Integration with Intelligence C2 Systems- Digital media exploitation rapidly extracts data from enemy devices and media captured on the battlefield. Development of this tool will allow for collection/conversion of raw data into actionable intelligence for timely analysis/dissemination.		
Congressional Adds Subtotals	6.374	-

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Congressional Add

E. Performance Metrics

Congressional Add

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy			DATE: February 2011
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
9C89: *Marine Ground-Air Radar*	61.875	55.173	106.721	-	106.721	41.324	72.581	98.678	76.874	Continuing	Continuing
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.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: *G/ATOR: Contractor Technical, Development Engineering/EDM	45.983	39.110	77.682	-	77.682
Articles:	0	0	0		0
FY 2010 Accomplishments: EDM material procurement and fabrication. Contractor software integration and test, and contractor system integration and test.					
FY 2011 Plans: Finish System Integration and Test, Start Environmental Qualification Testing (EQT), Start Performance Qualification Testing (PQT)					
FY 2012 Base Plans: Finish EQT, Finish PQT, Factory Acceptance Testing and Start and Finish Developmental Testing, Start Anti-tamper development. Begin producibility enhancement efforts to include design, prototype development and integration/regression testing of Gallium Arsenide based T/R modules and associated technology insertion efforts.					
Title: *G/ATOR: Test and Evaluation	0.836	2.822	9.200	-	9.200
Articles:	0	0	0		0
FY 2010 Accomplishments:					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Narine Corps Operational Test and Evaluation Activity (MCOTEA), General Dynamics, NSWC Corona, and Aberdeen Test Facility contribute to Test and Evaluation Master Plan (TEMP) development. ***FY 2011 Plans:*** Finish System Integration and Test, Start Environmental Qualification Testing (EQT), Start Performance Qualification Testing (PQT) ***FY 2012 Base Plans:*** Finish EQT, Finish PQT, Factory Acceptance Testing and Start and Finish Developmental Testing, Start Anti-tamper development					
Title: *G/ATOR: Program Office Management & Travel Costs	0.361	0.150	0.424	-	0.424
Articles:	0	0	0		0
FY 2010 Accomplishments: Travel support for testing events scheduled in FY10. ***FY 2011 Plans:*** Continue travel efforts in support of program test events. ***FY 2012 Base Plans:*** Travel support for testing events scheduled in FY12.					
Title: *G/ATOR: Government Technical Support	8.534	7.491	10.627	-	10.627
Articles:	0	0	0		0
FY 2010 Accomplishments: MITRE, Naval Systems Warfare Center (NSWC) Dahlgren, NSWC Crane, MARCORSYSCOM, MCOTEA Quantico Software Engineering (management, requirements mapping, code walk through) and Radar Engineering Support ***FY 2011 Plans:*** Continued support from these activities to enable program execution; MITRE, NSWC Dahlgren, NSWC Crane, MARCORSYSCOM, MCOTEA. ***FY 2012 Base Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continued support from these activiites to enable program execution; MITRE, NSWC Dahlgren, NSWC Crane, MARCORSYSCOM, MCOTEA.					
Title: *G/ATOR: Engineering, Management, & Logistics Support	6.161	5.600	8.788	-	8.788
Articles:	0	0	0		0
FY 2010 Accomplishments: Supportability Analysis update (Maintenance Plan), M-Demonstration, and training.					
FY 2011 Plans: Continued support from these activities to enable program execution; General Dynamics Information Technology, Combat Development & Integration.					
FY 2012 Base Plans: Provide support to DT/OT: collect and analyze test data, transport equipment to test sites, provide maintenance services. Update documentation to satisfy ACAT 1D regulatory and statutory requirements; prepare for and execute the Independent Logistics Assessment.					
Accomplishments/Planned Programs Subtotals	61.875	55.173	106.721	-	106.721

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PMC/465000: *GRND/AIR TASK ORIENTED RADAR*	0.000	0.000	4.246	0.000	4.246	125.831	116.388	80.176	254.060	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 SHORAD mission; MRRS Ground system is a one for one replacement of the AN/TPQ-46A. The System Development & Demonstration (SDD) phase designed to allow 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 SDD phase and flowed down to support builds.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
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*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy			DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	C/CPIF	NORTHRUP GRUMMAN:LINTHICUM HEIGHTS, MD	81.130	39.110	Nov 2010	77.682	Dec 2011	-		77.682	Continuing	Continuing	Continuing
		Subtotal	81.130	39.110		77.682		-		77.682			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	MIPR	MITRE:BOSTON, MA	0.818	0.504	Nov 2010	1.800	Dec 2011	-		1.800	Continuing	Continuing	Continuing
G/ATOR	WR	NSWC-DAHLGREN:DAHLGREN, VA	7.535	6.010	Nov 2010	7.774	Dec 2011	-		7.774	Continuing	Continuing	Continuing
G/ATOR	WR	NSWC-CRANE:CRANE, ID	0.660	0.530	Nov 2010	0.284	Dec 2011	-		0.284	Continuing	Continuing	Continuing
G/ATOR	C/FP	MCSC:QUANTICO, VA	0.107	0.107	Nov 2010	-		-		-	Continuing	Continuing	Continuing
G/ATOR	WR	MCOTEA:QUANTICO, VA	0.322	0.340	Nov 2010	-		-		-	Continuing	Continuing	Continuing
G/ATOR	C/FP	SAIC:QUANTICO, VA	-	-		0.200	Dec 2011	-		0.200	0.000	0.200	
G/ATOR	WR	NSWC-PHD:DAM NECK, VA BEACH	-	-		0.569	Dec 2011	-		0.569	0.000	0.569	
		Subtotal	9.442	7.491		10.627		-		10.627			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	WR	MCOTEA:QUANTICO, VA	0.322	0.350	Nov 2010	0.700	Dec 2011	-		0.700	Continuing	Continuing	Continuing
G/ATOR	C/FP		0.450	0.500	Nov 2010	0.600	Dec 2011	-		0.600	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		GENERAL DYNAMICS:STAFFORD, VA											
G/ATOR	MIPR	MITRE:BOSTON, MA	-	0.672	Nov 2010	-		-		-	0.000	0.672	
G/ATOR	WR	MCSC:QUANTICO, VA	0.385	0.300	Nov 2010	-		-		-	Continuing	Continuing	Continuing
G/ATOR	WR	NSWC-CORONA:CORONA, CA	0.118	0.300	Nov 2010	0.300	Dec 2011	-		0.300	Continuing	Continuing	Continuing
G/ATOR	MIPR	US ARMY ABERDEEN:PROVING GROUND, MD	0.100	0.350	Nov 2010	1.600	Dec 2011	-		1.600	Continuing	Continuing	Continuing
G/ATOR	MIPR	MARINE CORP AIR STATION:YUMA, AZ	-	0.350	Nov 2010	2.200	Feb 2012	-		2.200	Continuing	Continuing	Continuing
G/ATOR	MIPR	REDSTONE ARSENAL:REDSTONE, ALABAMA	0.110	-		-		-		-	0.000	0.110	
G/ATOR	MIPR	MCTSSA:CAMP PENDLETON, CA	-	-		2.200	Dec 2011	-		2.200	0.000	2.200	
G/ATOR	MIPR	NAVAL SURFACE WEAPONS COMBAT CNTR:WALLOPS, CA	-	-		1.600	Dec 2011	-		1.600	0.000	1.600	
		Subtotal	1.485	2.822		9.200		-		9.200			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	C/FP	GENERAL DYNAMICS:STAFFORD, VA	7.187	5.400	Nov 2010	8.350	Dec 2011	-		8.350	Continuing	Continuing	Continuing
G/ATOR2	WR	MCSC:QUANTICO, VA	0.150	0.150	Oct 2010	-		-		-	Continuing	Continuing	Continuing
G/ATOR3	C/FP	MCSC:QUANTICO, VA	0.211	0.200	Oct 2010	0.862	Dec 2011	-		0.862	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy		DATE: February 2011
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*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	7.548	5.750		9.212		-		9.212			

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	99.605	55.173		106.721		-		106.721			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
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 2012 Navy		DATE: February 2011
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 Development and Demonstration Phase SDD/EMD	1	2010	3	2013
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	2015
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	3	2016	3	2016