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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	1,071.648	313.832	219.054	178.753	-	178.753	162.231	98.082	95.915	96.217	Continuing	Continuing
2270: Exp Indirect Fire Gen Supt Wpn Sys	170.433	31.905	21.119	33.019	-	33.019	28.113	26.775	24.588	24.978	Continuing	Continuing
2273: Air Ops Cmd & Control (C2) Sys	228.138	59.435	94.071	68.669	-	68.669	73.436	24.886	23.853	18.147	Continuing	Continuing
2274: Command & Control Warfare Sys	19.071	25.624	32.052	11.234	-	11.234	10.397	10.209	10.206	10.363	Continuing	Continuing
2275: Joint Tactical Radio System	7.426	5.280	4.413	21.923	-	21.923	5.353	2.383	3.072	6.176	Continuing	Continuing
2276: Comms Switching and Control Sys	24.280	4.121	8.327	15.405	-	15.405	11.114	7.767	5.083	5.171	Continuing	Continuing
2277: System Engineering and Integration	9.434	10.923	6.171	11.626	-	11.626	6.637	6.648	6.588	6.692	Continuing	Continuing
2278: Air Defense Weapons System	33.700	2.129	1.993	3.041	-	3.041	3.498	3.475	3.499	3.555	Continuing	Continuing
2510: MAGTF CSSE & SE	214.097	40.415	25.231	3.526	-	3.526	4.176	3.668	3.048	3.381	Continuing	Continuing
3099: Radar System	116.834	31.545	25.677	10.310	-	10.310	19.507	12.271	15.978	17.754	Continuing	Continuing
9C89: Marine Ground-Air Radar	248.235	102.455	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	350.690
MDAP/MAIS Code(s): 582												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
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).												

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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)	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014 Base</u>	<u>FY 2014 OCO</u>	<u>FY 2014 Total</u>
Previous President's Budget	321.623	219.054	200.011	-	200.011
Current President's Budget	313.832	219.054	178.753	-	178.753
Total Adjustments	-7.791	0.000	-21.258	-	-21.258
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.331	0.000			
• SBIR/STTR Transfer	-9.121	0.000			
• Program Adjustments	0.000	0.000	-8.961	-	-8.961
• Rate/Misc Adjustments	-0.001	0.000	-12.297	-	-12.297

Change Summary Explanation

FY14 decrease due to a change in requirements for the enhanced Ground Based Operational Surveillance System (G-BOSS) system.

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COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2270: Exp Indirect Fire Gen Supt Wpn Sys	170.433	31.905	21.119	33.019	-	33.019	28.113	26.775	24.588	24.978	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

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

A. Mission Description and Budget Item Justification

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) FoS - JBC-P FoS is a joint Army led ACAT II program. It is a product line made up of systems and products formerly associated with the Blue Force Tracker (BFT) FoS and JBC-P. It comprises L-Band SATCOM and terrestrial Command and Control (C2) and Situational Awareness (SA) systems that use graphic displays to identify friendly units by providing Position Location Information (PLI) while facilitating tactical level C2.

Blue Force Situational Awareness (BFSA) - The Marine Corps' Situational Awareness Blue Force Tracker family of systems is comprised of the Mounted and Dismounted variants of a terrestrial Enhanced Position Location Reporting System/Single Channel Ground Airborne Radio System (EPLRS/SINCGARS) and the mounted celestial (SATCOM) system. In FY14, the BFSA and JBPC funding lines are merged into the JBPC FoS line.

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

Identity Dominance System-MC (IDS-MC) - IDS-MC is a multi-modal (fingerprint, iris and face) biometric collection system that provides the USMC a reliable and effective capability to collect, share, match, access, verify and store identity information. IDS-MC will enable the Marine to collect appropriate biometric, biographical and reference information on an individual and match this locally developed information with pre-existing information available to the expeditionary force. The system will display match results with linkage to the respective individual's biographical and reference information as well as help analyze the response, update records as appropriate, create reports and disseminate updated information in accordance with current MAGTF policy. The primary mission of IDS-MC is to provide the MAGTF with the means to identify persons encountered in the battlespace. While IDS-MC is not an intelligence analysis system, it does provide identification information

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in support of military intelligence and law enforcement operations by providing positive identification of persons of interest. IDS-MC is an enabler in the areas of detainee management and questioning, base access, counterintelligence screening, border control, law enforcement, displaced persons' management and aiding in humanitarian assistance missions. IDS-MC supports the tactical application of identity dominance and fully supports a forward presence, crisis response and contingency response capability. IDS-MC will incrementally phase out the Biometric Automated Toolset(BAT).					
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 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).					
Target Location Designation and Handoff System (TLDHS) - TLDHS is the only Marine Corps man-portable digital fires entry system designed for the Forward Air Controllers (FACs), Forward Observers (FOs), Fire Support Teams (FSTs), Firepower Control Teams (FCTs), Tactical Air Control Parties (TACPs) and Reconnaissance Teams to quickly acquire targets in day, night and near-all-weather visibility conditions, in order to conduct precise, rapid indirect surface fire support, Naval Surface Fire Support (NSFS) and Close Air Support (CAS).					
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2012	FY 2013	FY 2014
Title: *MAGTF C2: Engineering, research, and software development for MAGTF capability release			12.785	7.096	19.070
Articles:			0	0	0
FY 2012 Accomplishments: Focus of effort was 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. Initiated and built TSOA builds 3 and 4, with development of the MCTSSA hosted Application Environment and new IA services. Builds 3 and 4 introduced the enhanced Warfighter capability, and include interfaces with other Service SOA efforts, such as System of Systems Common Operating Environment (SOSCOE, Army) and Consolidated Afloat Network and Enterprise Services (CANES, Navy).					
FY 2013 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. Initiate activities to incorporate functionality from the Fires, Logistics and Intelligence communities. Initiate and build 5 and 6. Builds 5 and 6 introduce enhanced collaboration and imagery functionality.					
FY 2014 Plans: Increase in FY 14 funding from FY13 supports enhancing services capability from builds 5 and 6 with the addition of user-facing applications, to include the Battle Command Display. Incorporate services which interoperate with logistics and intelligence systems and initiate builds 7 and 8.					
Title: *MAGTF C2: Program Support. Software engineering program support			2.362	1.596	1.623

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
		FY 2012	FY 2013	FY 2014	
Articles:		0	0	0	
FY 2012 Accomplishments: Federally Funded Research Center (FFRDC) provided software engineering support to provide appropriate government direction in design and development of software, conduct of source code reviews and prime vendor oversight.					
FY 2013 Plans: Federally Funded Research Center (FFRDC) continue software engineering support to provide appropriate government direction in design and development of software, conduct of source code reviews and prime vendor oversight.					
FY 2014 Plans: Federally Funded Research Center (FFRDC) will continue software engineering support to provide appropriate government direction in design and development of software, conduct of source code reviews and prime vendor oversight.					
Title: *JBC-P: Software Development/Integration.		0.824	0.525	2.189	
Articles:		0	0	0	
FY 2012 Accomplishments: 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. Support provided to assist and serve as subject matter experts in this effort. Existing documentation and logistics support analyzed for supportability of JBC-P and follow on increments of the capability.					
FY 2013 Plans: Continue personnel integrate 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. Support provided to assist and serve as subject matter experts in this effort. Existing documentation and logistics support analyzed for supportability of JBC-P and follow on increments of the capability.					
FY 2014 Plans: The increase in FY14 is a result of the BFSA and JBCP funding lines merge into the JBCP FoS Line. The increase will continue personnel integration into the software development team at the Software Engineering Directorate in Huntsville, AL in order to assist in the development and integration of the JBCP software capability. Federally Funded Research Center (FFRDC) software engineering support funded to provide appropriate government direction in design and development of software. Support provided					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
to assist and serve as subject matter experts in this effort. Existing documentation and logistics support analyzed for supportability of JBC-P and follow on increments of the capability.				
Title: *JBC-P: Training Development. FY 2012 Accomplishments: Evaluated and updated existing documentation for re-use as JBC-P evolves in support of training development. FY 2013 Plans: Continue evaluation and updating of existing documentation for re-use as JBC-P evolves in support of training development. FY 2014 Plans: Will continue evaluation and updating of existing documentation for re-use as JBC-P evolves in support of training development.		Articles: 0.150 0	0.200 0	0.225 0
Title: *JBC-P: Developmental Test (DT)/Operational Test (OT) FY 2012 Accomplishments: Laboratories integrated with Huntsville Software Engineering Division (SED) and Marine Corps Tactical Systems Support Activity (MCTSSA) in order to facilitate test and network integration test events. Marine Corps Operational Test and Evaluation Activity (MCOTEA) provided initial test planning support. FY 2013 Plans: Continue laboratories integration with Huntsville SED and MCTSSA in order to facilitate test and network integration test events. MCOTEA support for developmental test and planning/support for operational test. FY 2014 Plans: Continue laboratories integration with Huntsville SED and MCTSSA in order to facilitate test and network integration test events. MCOTEA DT/OT evaluation and documentation.		Articles: 0.605 0	0.400 0	0.400 0
Title: JBC-P: Software Certification and Accreditation FY 2012 Accomplishments: Information assurance efforts supported developmment of information assruance-related required documents. FY 2013 Plans: Information assurance efforts to support certification and accreditation efforts of JBC-P software. FY 2014 Plans:		Articles: 0.490 0	0.400 0	0.525 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
Information assurance efforts to support certification and accreditation efforts of JBC-P software.			
Title: *JBC-P: System Engineering, Programmatic, and Logistics Program Support FY 2012 Accomplishments: Supported personnel and travel. FY 2013 Plans: Support personnel and travel. FY 2014 Plans: Support personnel and travel.		Articles: 0.307 0	0.400 0
		0	0.396 0
Title: *BFSA: Joint Interoperability Testing FY 2012 Accomplishments: Continued Joint interoperability certification with U.S. Army.		Articles: 0.020 0	0.000 0.000
Title: *BFSA: Software Development, Integration and Testing FY 2012 Accomplishments: Conducted software and network developmental efforts for USMC specific requirements, software field user evaluations and associated risk reduction events. FY 2013 Plans: Continue software and network developmental efforts for USMC specific requirements and associated risk reduction events.		Articles: 2.298 0	1.913 0
		0	0.000
Title: *BFSA: Software Certification and Accreditation FY 2012 Accomplishments: Information assurance efforts supported certification and accreditation efforts of Joint Capability Release (JCR) software upgrades. FY 2013 Plans: Information assurance efforts to support certification and accreditation efforts of Joint Capability Release (JCR) software upgrades.		Articles: 0.140 0	0.141 0
		0	0.000
Title: *TCO: System testing and integration to develop additional functional capabilities.		1.306	1.297 1.194

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Articles: Description: Hardware upgrade solutions were researched and documented, in preparation for seamless transition to future technology and increased software capability. FY 2012 Accomplishments: Executed Proof of Concept /backwards compatability Registration and Orchestration Capability Modules (CM). FY 2013 Plans: Update Global capability as enhanced Command Operation Picture (COP) service. Integrate and test ability to exchange data with multiple Command and Control (C2) systems. Execute interoperability between Global and modules. FY 2014 Plans: Develop services linking the COP from GCCS-TCO to other COP viewing tools as a service inside the Combat Operations Center. The GCCS-TCO software will improve interoperability with the Tactical Service Oriented Architecture, allowing COP and Situational Awareness data to be shared between the GCCS-TCO and other C2 systems.		0	0	0
Title: *TCO: Integrate software changes into new system and perform testing. Articles: FY 2012 Accomplishments: Conducted efforts to implement newly developed concepts and technologies for proof of concept.		0.725 0	0.000	0.000
Title: *TCO: Testing and validations of advanced concepts and technologies. Articles: FY 2012 Accomplishments: Continued testing and validation of advanced concepts and technologies. FY 2013 Plans: Continue testing and validation of advanced concepts and technologies. FY 2014 Plans: Continue testing and validation of advanced concepts and technologies.		1.453 0	1.320 0	1.422 0
Title: *IDS: System Development and Testing Articles: FY 2012 Accomplishments:		0.923 0	0.936 0	0.946 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Provided technical support, research studies, and program development documentation in preparation for Material Development Decision. FY 2013 Plans: Provide system integration, testing, and technical program development documentation in preparation for Milestone C FY 2014 Plans: Provide system integration, software development, testing, validation and verification, systems engineering and technical program support				
Title: *AFATDS: AFATDS Software Development and Integration Articles: FY 2013 Plans: Limited AFATDS/BUCS software and interface enhancements. Limited interoperability testing. FY 2014 Plans: Development of increment II adding limited AFATDS/BUCS USMC capabilities or interface enhancments with other C2 systems. Limited interoperability testing.		0.000	1.548 0	1.574 0
Title: *TLDHS: Software Development Articles: FY 2012 Accomplishments: Completed development of two software increments TLDHS software. FY 2013 Plans: Continue the development of the next major software release and migrate to a new operating system. FY 2014 Plans: Continue the development of the next major software release and early protyping of the next operating system migration.		5.123 0	1.911 0	1.950 0
Title: *AFATDS: Information Assurance Support Articles: FY 2013 Plans: Information Assurance Certification and Accreditation activities to ensure confidentiality, integrity, and availability of AFATDS/ BUCS S/W. FY 2014 Plans:		0.000	0.411 0	0.423 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Maintain Information Assurance Certification and Accreditation activities to ensure confidentiality, integrity, and availability of AFATDS/BUCS S/W.				
Title: *TLDHS: Testing and Evaluation Articles: FY 2012 Accomplishments: Performed software interoperability testing for Strikelink version 1.1.6.x Activities included testing of Net Enabled Weapons (NEW), Theater Battle Management Core System (TBMCS) web services, tactical messaging (Link 16, VMF, DACAS Block I) for interoperability and safety compliance. FY 2013 Plans: Perform software interoperability testing for Strikelink version 1.2. Activities include testing of Small Diameter Bomb (SDB), Theater Battle Management Core System (TBMCS) web services, tactical messaging (Link 16, VMF, DACAS Block II) for interoperability and safety compliance. FY 2014 Plans: Perform software interoperability testing for the next version of software. Activities include testing of Small Diameter Bomb (SDB), Theater Battle Management Core System (TBMCS) web services, tactical messaging (Link 16, VMF, DACAS Block II) for interoperability and safety compliance.		2.196 0	0.195 0	0.205 0
Title: *TLDHS: Engineering Research in Support of Software Development Articles: FY 2013 Plans: Analysis of trade studies and market research regarding industry response to a network modem performance specification. FY 2014 Plans: Analysis of Alternatives (AoA) to determine viable hardware candidates capable of hosting a future TLDHS software application on an android operating system.		0.000	0.270 0	0.280 0
Title: *TLDHS - Video Down Link Receiver Prototypes Articles: FY 2013 Plans: Procure Video Down Link Receiver Prototypes to develop a cable interface with existing system, develop a software interface with existing software and perform Electromagnetic Inteferance (EMI) and Environmental Testing to support VDL procurement in FY14.		0.000	0.125 5	0.000
Title: *TLDHS: Software Oversight and Information Assurance Support Articles:		0.198 0	0.435 0	0.597 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2012	FY 2013	FY 2014
<i>FY 2012 Accomplishments:</i> Renewed the authority to operate (ATO) and started the next ATO gate process. Performed TLDHS software code review prior to conduct the testing. Conducted software code review on the Gusto application to comply with Information Assurance requirements. Continues software code review prior to testing, certification and accreditation and to obtain authority to operate (ATO) .												
<i>FY 2013 Plans:</i> Perform TLDHS software code review prior to testing, obtain the next ATO to the Marine Corps and Weapon System Explosives Safety certification.												
<i>FY 2014 Plans:</i> Perform TLDHS software code review prior to testing, obtain the next ATO to operate on the Marine Corps Enterprise Network and conduct safety oversight Video Down-Link Receiver.												
Accomplishments/Planned Programs Subtotals										31.905	21.119	33.019
C. Other Program Funding Summary (\$ in Millions)												
<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>	
• PMC/463109: <i>AFATDS</i>	2.487	2.545	20.903		20.903	25.071	2.714	2.973	2.842	Continuing	Continuing	
• PMC/463117: <i>TLDHS</i>	7.093	4.823	4.224		4.224	4.151	2.223	0.000	0.000	Continuing	Continuing	
• PMC/463023: <i>GCCS/TCO MCHS</i>	9.165	1.381	2.905		2.905	1.270	1.467	3.171	3.228	Continuing	Continuing	
• PMC/463100: <i>GCC/TCO</i>	17.059	8.958	9.836		9.836	11.731	8.471	8.865	9.024	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
MAGTF C2 SA: MAGTF C2 SA is delivering command and control capabilities through bi-annual software releases with major releases in FY13 and FY15 through multiple programs of record. Currently the initial focus is developing the Tactical Service Oriented Architecture (TSOA) software, which provides a common software infrastructure through which services and applications from other programs of record can begin the process of interfacing 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.												
JBC-P: The JBC-P is leveraging the Army's (PM Force Battle Command XXI Brigade and Below (FBCB2) development of the JBC-P software and the Marine Corps' program is contingent upon the Army's development and acquisition strategy. PM FBCB2 will fund research and development for JBC-P unless there are Service												

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unique requirements, which the Marine Corps program office will fund. The Marine Corps' program office will participate in all design and readiness reviews and a joint operational testing events. BFSA: The BFT FoS is leveraging an Army (PM Force Battle Command XXI Brigade and Below (FBCB2)) ACAT II program to deliver a critical battlefield command and control system to the operating forces. These systems operate on both a terrestrial and celestial network and enable tactical units to move more effectively by providing friendly unit identification and location, as well as friendly intent and status. The current focus is on testing and evaluating improved software which will make possible type-1 encryption and a greater bandwidth network. The long term goal is a secured reduced latency system that will greatly improve the battlefield commander's situational awareness and reduce the potential of fratricide. 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. Identity Dominance System (IDS): Currently, the IDS-MC Program Office acquisition strategy is to leverage off the Navy's IDS Program and provide funding to meet Marine Corps requirements. The Marine Corps' program office will participate in all design and readiness reviews and as well as the DOT&E activities. The long-term goal is to equip the Marine with a user-friendly biometric authentication technology that will be employed throughout DoD to deny the enemy freedom of movement within the populace and positively identify known insurgents within an Area of Responsibility (AOR). AFATDS: AFATDS is a Cost Plus Award Fee contract through Army CECOM, Aberdeen Proving Ground, MD. R&D efforts will be a combined effort between the software developer (Raytheon), the Army PM and the USMC of software enhancements for the next planned versions of AFATDS. 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 five Programs of Record (POR) and seven Operational Flight Programs (OFP). <u>E. Performance Metrics</u> Milestone Reviews		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2270: Exp Indirect Fire Gen Supt Wpn Sys					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF C2	C/FFP	NGMS:Herdon, VA	28.385	1.201	Nov 2012	0.000		0.000		-		0.000	0.000	29.586	
MAGTF C2	C/CPFF	SPAWAR:Charleston, SC	36.358	3.872	Jan 2012	3.573	Mar 2013	5.300	Nov 2013	-		5.300	Continuing	Continuing	Continuing
MAGTF C2	WR	NSWC:Panama City, FL	0.460	0.000		0.000		0.300	Nov 2013	-		0.300	Continuing	Continuing	Continuing
MAGTF C2	C/CPFF	GD:Scottsdale, AZ	18.160	0.000		0.000		0.000		-		0.000	0.000	18.160	
MAGTF C2	C/CPFF	Viecore:NJ	0.402	0.000		0.000		0.000		-		0.000	0.000	0.402	
MAGTF C2	C/CPFF	MCSC:Quantico, VA	12.381	2.127	Mar 2012	0.000		7.920	Dec 2013	-		7.920	Continuing	Continuing	Continuing
MAGTF C2	WR	NSWC:Dahlgren, VA	0.000	3.003	Nov 2011	0.685	Jan 2013	3.050	Jan 2014	-		3.050	Continuing	Continuing	Continuing
MAGTF C2	C/CPFF	SPAWAR:San Diego, CA	0.000	0.000		1.007	Apr 2013	1.000	Dec 2013	-		1.000	0.000	2.007	
JBC-P	WR	SPAWAR:Charleston, SC	0.992	0.762	Mar 2012	0.700	Dec 2012	2.950	Dec 2013	-		2.950	Continuing	Continuing	Continuing
JBC-P	C/FFP	MCSC:Quantico, VA	1.118	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
JBCP	C/CPFF	PM FBCB2:Aberdeen Proving Ground, MD	0.283	0.000		0.000		0.000		-		0.000	0.000	0.283	
BFSA	MIPR	PM FBCB2:Aberdeen Proving Grounds, MD	0.000	1.414	Mar 2012	0.250	Jan 2013	0.000		-		0.000	0.000	1.664	
TCO	C/CPFF	SPAWAR:Charleston, SC	0.000	2.759	Apr 2012	2.167	May 2013	2.234	May 2014	-		2.234	0.000	7.160	
IDS	MIPR	NAVSEA/PMS-408:Washington,DC	0.000	0.000		0.186	Nov 2012	0.190	Nov 2013	-		0.190	Continuing	Continuing	Continuing
AFATDS	C/CPAF	Raytheon:Fort Wayne, IN	22.958	0.000		1.548	Jan 2013	1.574	Jan 2014	-		1.574	Continuing	Continuing	Continuing
TLDHS	C/CPFF	Stauder Tech:St. Louis, MO	15.494	5.073	Mar 2012	1.911	Feb 2013	1.950	Feb 2014	-		1.950	Continuing	Continuing	Continuing
TCO	C/FFP	DISA:Fort Meade, MD	0.000	0.725	Apr 2012	0.000		0.000		-		0.000	0.000	0.725	
Subtotal			136.991	20.936		12.027		26.468		0.000		26.468			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems						PROJECT 2270: Exp Indirect Fire Gen Supt Wpn Sys			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks IDS-MC-NAVSEA/PMS408: Provide software development and engineering change proposals in support of USMC requirements.															
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
JBC-P	C/FFP	MCSC:Quantico, VA	0.300	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
BFSA	WR	NSWC Corona:Corona, CA	0.000	0.142	Feb 2012	0.850	Dec 2012	0.000		-		0.000	0.000	0.992	
BFSA	WR	SPAWAR:Charleston, SC	0.000	0.300	Jul 2012	0.470	Dec 2012	0.000		-		0.000	0.000	0.770	
IDS	WR	NSWC CRANE:Crane, IN	0.173	0.000		0.495	Dec 2012	0.496	Dec 2013	-		0.496	0.000	1.164	
IDS	WR	NSWC Dahlgren:Dahlgren, VA	0.250	0.869	Dec 2012	0.255	Dec 2012	0.260	Dec 2013	-		0.260	0.000	1.634	
IDS	C/FFP	MCSC:Quantico, VA	0.600	0.000		0.000		0.000		-		0.000	0.000	0.600	
AFATDS	C/CPFF	MCSC:Quantico	1.935	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
TL DHS	WR	NSWC Dahlgren:Dahlgren, VA	0.557	0.198	Mar 2012	0.000		0.157	Mar 2014	-		0.157	Continuing	Continuing	Continuing
MAGTF C2	C/FFP	Kalman Inc:Virginia Beach, VA	0.000	0.237	Dec 2012	0.000		0.000		-		0.000	0.000	0.237	
MAGTF C2	C/FFP	NSMA:Arlington, VA	0.000	0.523	Feb 2012	0.000		0.000		-		0.000	0.000	0.523	
IDS	C/CPFF	SPAWAR:Charleston, SC	0.000	0.054	Jan 2013	0.000		0.000		-		0.000	0.000	0.054	
MAGTF C2	C/FP	SPAWAR:Charleston, SC	0.000	0.450	Jan 2013	0.000		0.000		-		0.000	0.000	0.450	
Subtotal			3.815	2.773		2.070		0.913		0.000		0.913			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2270: Exp Indirect Fire Gen Supt Wpn Sys					
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks															
IDS - NSWC CRANE and Dahlgren provide engineering support, research studies, validation and verification IDS - MCSC/CEOss commence research studies, and cost analysis activities															
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF C2	WR	MCOTEA:Quantico, VA	0.857	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
MAGTF C2	WR	MCTSSA:Camp Pendleton, CA	4.959	0.622	Jan 2012	1.410	Dec 2012	1.500	Nov 2013	-		1.500	Continuing	Continuing	Continuing
MAGTF C2	WR	NRL:Washington, DC	0.400	0.400	Feb 2012	0.421	Jan 2013	0.000		-		0.000	0.000	1.221	
JBC-P	C/CPFF	MCOTEA:Quantico, VA	0.372	0.364	Mar 2012	0.400	Dec 2012	0.000		-		0.000	Continuing	Continuing	Continuing
JBC-P	WR	MCTSSA:Camp Pendleton, CA	0.048	0.048	Jan 2012	0.025	Dec 2012	0.030	Dec 2013	-		0.030	Continuing	Continuing	Continuing
JBC-P	WR	SPAWAR:Charleston, SC	0.614	0.490	Jan 2012	0.400	Dec 2012	0.425	Dec 2013	-		0.425	0.000	1.929	
JBC-P	MIPR	DISA/JITC:Ft. Huachuca, AZ	0.000	0.000		0.025	Dec 2012	0.030	Dec 2013	-		0.030	0.000	0.055	
JBCP	C/FP	MCSC:Quantico, VA	0.000	0.305	Jul 2012	0.000		0.000		-		0.000	0.000	0.305	
JBCP	MIPR	EPG:Ft. Huachuca, AZ	0.000	0.135	Jun 2012	0.000		0.000		-		0.000	0.000	0.135	
BFSA	WR	MCTSSA:Camp Pendleton, CA	0.474	0.000		0.010	Jan 2013	0.000		-		0.000	Continuing	Continuing	Continuing
BFSA	WR	MCOTEA:Quantico, VA	1.235	0.185	Jan 2012	0.050	Jan 2013	0.000		-		0.000	Continuing	Continuing	Continuing
BFSA	MIPR	DISA/JITC:Ft. Huachuca, AZ	0.070	0.025	Feb 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2270: Exp Indirect Fire Gen Supt Wpn Sys					
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
BFSA	WR	SPAWAR:Charleston, SC	4.499	0.140	Mar 2012	0.141	Dec 2012	0.000		-		0.000	Continuing	Continuing	Continuing
TCO	C/CPFF	SPAWAR:Charleston, SC	0.000	0.000		0.325	Feb 2013	0.330	Jan 2014	-		0.330	Continuing	Continuing	Continuing
TCO	MIPR	JITC:Ft. Huachuca, AZ	0.550	0.000		0.125	Feb 2013	0.052	Feb 2014	-		0.052	0.000	0.727	
AFATDS	WR	MCTSSA:Camp Pendleton, CA	2.431	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
AFATDS	WR	SPAWAR:Charleston, SC	2.678	0.000		0.411	Dec 2012	0.423	Dec 2013	-		0.423	Continuing	Continuing	Continuing
AFATDS	WR	MCOTEA:Quantico, VA	0.580	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
TLDHS	WR	MCOTEA:Quantico, VA	1.527	0.050	Jul 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
TLDHS	WR	SPAWAR:Charleston, SC	0.267	1.583	Nov 2011	0.435	Dec 2012	0.440	Dec 2013	-		0.440	Continuing	Continuing	Continuing
TLDHS	WR	DISA/JITC:Ft. Huachuca, AZ	0.237	0.106	Dec 2011	0.155	Dec 2012	0.160	Dec 2013	-		0.160	Continuing	Continuing	Continuing
TLDHS	WR	NAWCD China Lake:China Lake, CA	0.139	0.014	Oct 2011	0.017	Dec 2012	0.020	Dec 2013	-		0.020	Continuing	Continuing	Continuing
TLDHS	WR	46th Test Squadron:Eglin AFB, FL	0.039	0.000		0.023	Dec 2012	0.025	Dec 2013	-		0.025	Continuing	Continuing	Continuing
TLDHS	C/CPFF	MCSC:Quantico, VA	0.000	0.000		0.125	Feb 2013	0.000		-		0.000	0.000	0.125	
TLDHS	Reqn	NSWC Crane:Crane, IN	0.678	0.493	May 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			22.654	4.960		4.498		3.435		0.000		3.435			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2270: Exp Indirect Fire Gen Supt Wpn Sys					
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF C2	MIPR	CECOM/MITRE:Ft Monmouth, NJ	3.075	2.712	Feb 2012	1.596	Nov 2012	1.623	Dec 2013	-		1.623	Continuing	Continuing	Continuing
JBC-P	C/FFP	MCSC:Quantico, VA	0.075	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
JBC-P	MIPR	CECOM/MITRE:Ft Monmouth, NJ	0.741	0.252	Jan 2012	0.290	Dec 2012	0.300	Dec 2013	-		0.300	Continuing	Continuing	Continuing
JBC-P	Various	MCSC/Travel:Quantico, VA	0.064	0.020	Sep 2012	0.085	Sep 2013	0.000		-		0.000	Continuing	Continuing	Continuing
BFSA	C/FFP	MCSC:Quantico, VA	2.143	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
BFSA	MIPR	CECOM/MITRE:Ft Monmouth, NJ	0.875	0.252	Dec 2011	0.283	Dec 2012	0.000		-		0.000	0.000	1.410	
TLDHS	MIPR	CECOM/MITRE:Ft Monmouth, NJ	0.000	0.000		0.270	Dec 2012	0.280	Dec 2013	-		0.280	Continuing	Continuing	Continuing
Subtotal			6.973	3.236		2.524		2.203		0.000		2.203			
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			170.433	31.905		21.119		33.019		0.000		33.019			
Remarks															

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

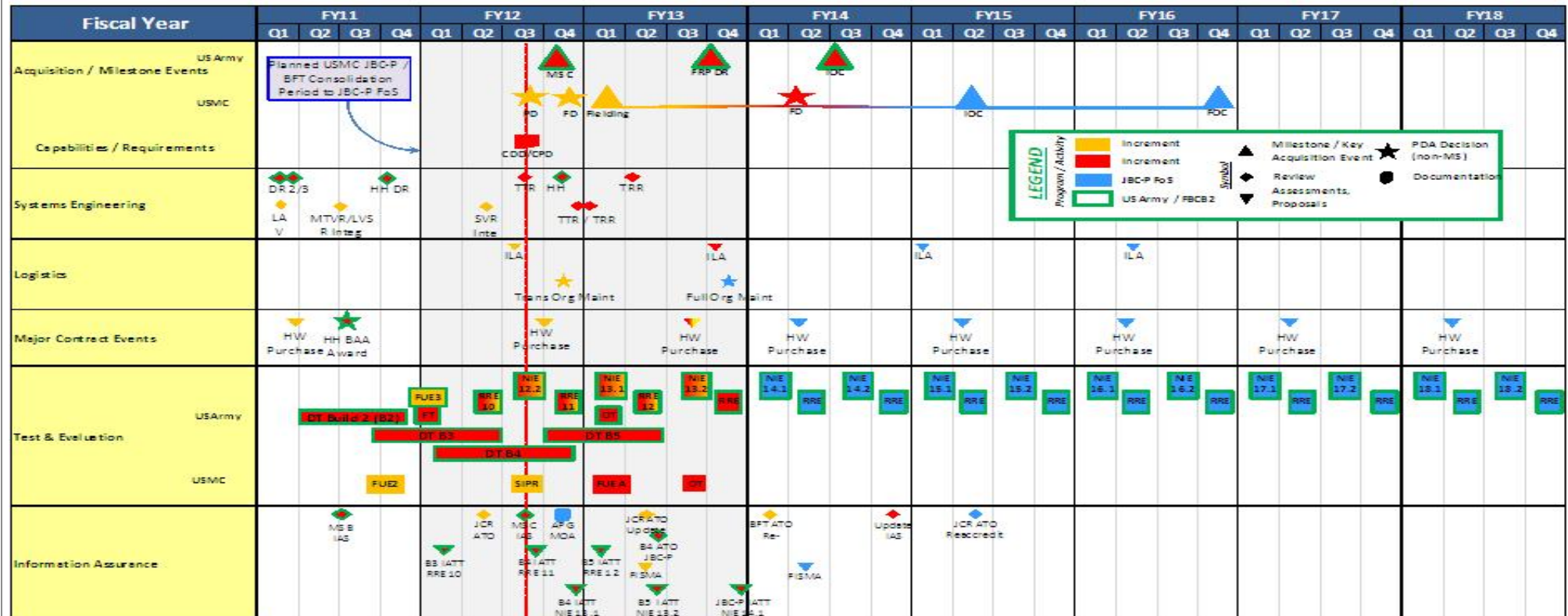
R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2270: Exp Indirect Fire Gen Supt Wpn Sys

BFSA/JBCP FoS Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

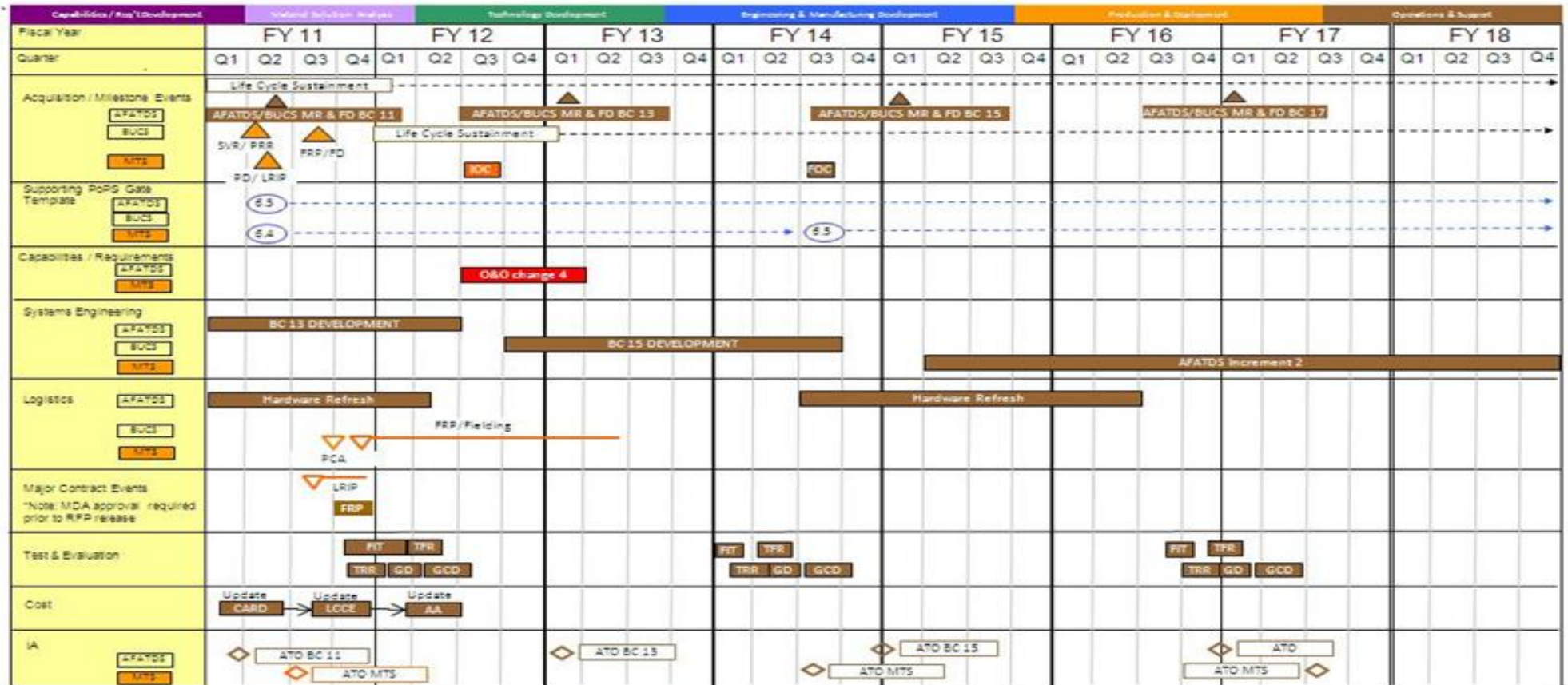
R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2270: Exp Indirect Fire Gen Supt Wpn Sys

AFATDS Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

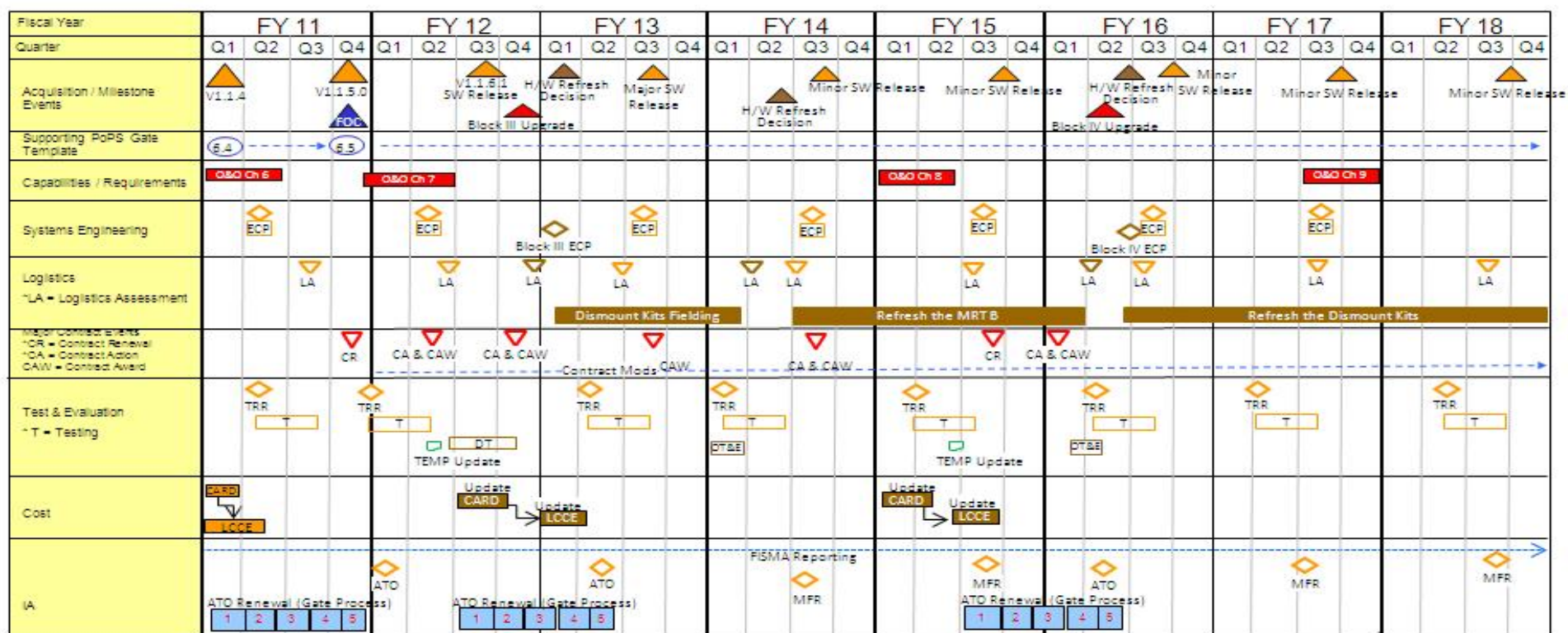
R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2270: Exp Indirect Fire Gen Supt Wpn Sys

TLDHS Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY1319: Research, Development, Test & Evaluation, Navy
BA 7: Operational Systems Development**R-1 ITEM NOMENCLATURE**

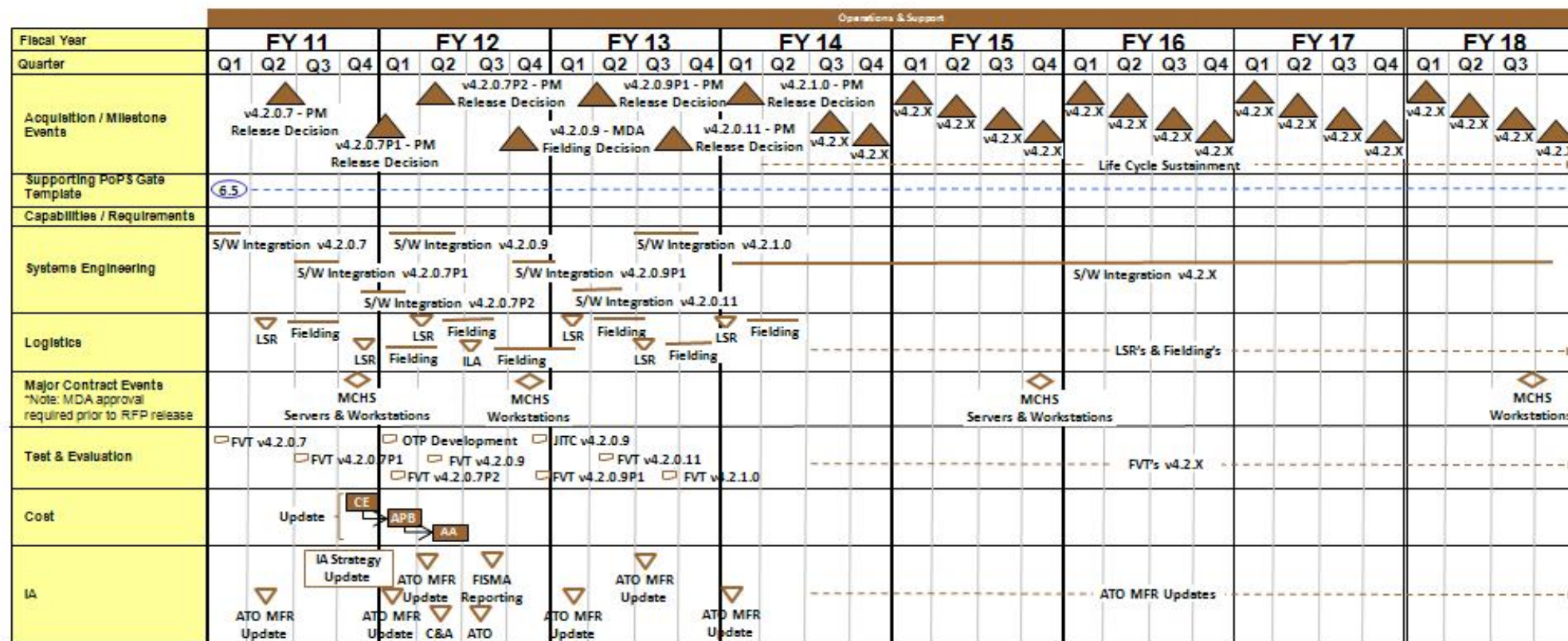
PE 0206313M: Marine Corps Comms Systems

PROJECT

2270: Exp Indirect Fire Gen Supt Wpn Sys



GCCS-TCO Program Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

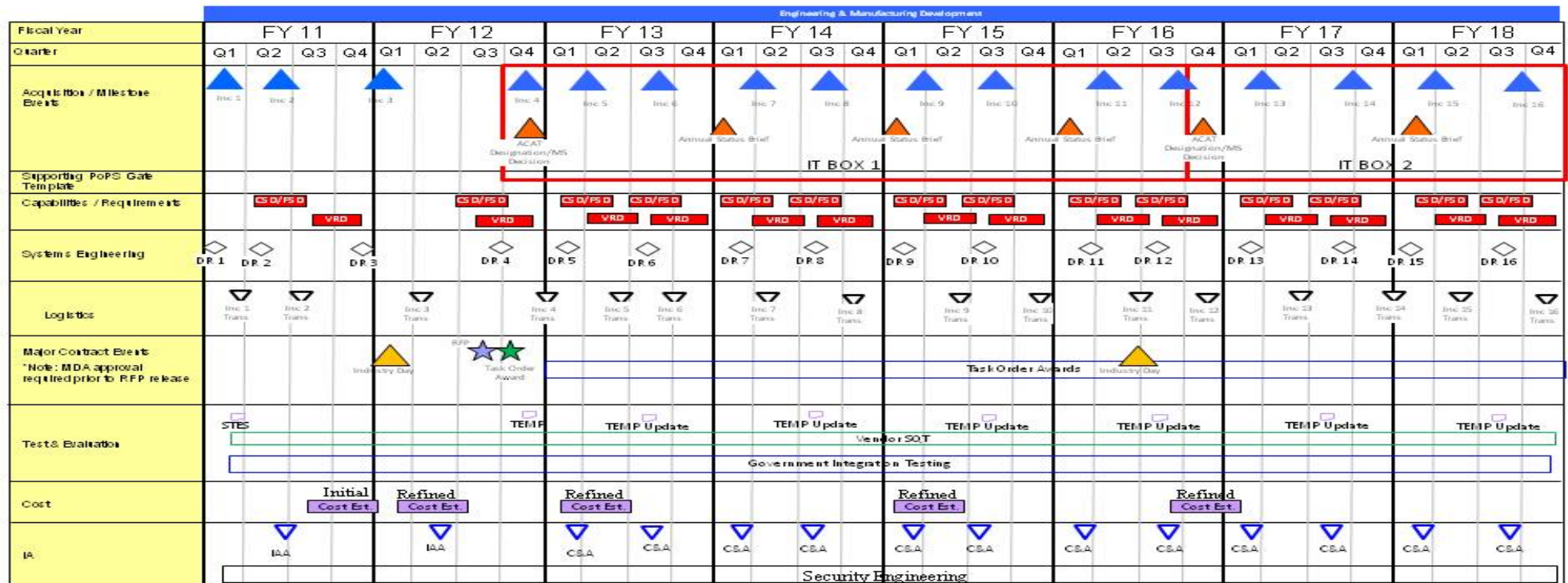
1319: Research, Development, Test & Evaluation, Navy
BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2270: Exp Indirect Fire Gen Supt Wpn Sys



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2270: <i>Exp Indirect Fire Gen Supt Wpn Sys</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2270				
MAGTF C2 SA JTCW 1.1 Release	4	2012	4	2012
MAGTF C2 SA TSOA Increment 3 Release	2	2012	2	2012
MAGTF C2 SA TSOA Increment 4 Release	4	2012	4	2012
MAGTF C2 SA TSOA Increment 5 Release	2	2013	2	2013
MAGTF C2 SA TSOA Increment 6 Release	4	2013	4	2013
MAGTF C2 SA TSOA Increment 7 Release	2	2014	2	2014
MAGTF CS SA TSOA Increment 8 Release	4	2014	4	2014
JBC-P FoS Operational Test	2	2013	2	2013
JBC-P FoS Software and Handheld End User Device Fielding Decison	2	2014	2	2014
BFSA JCR Capability FRP/FD	2	2012	2	2013
TCO Fielding Decision	3	2013	3	2013
AFATDS MC13 (6.8) Software Release	2	2013	4	2013
AFATDS MC15 (6.8.1) Development/Testing	3	2012	1	2015
AFATDS Increment II Software Development	2	2015	3	2018
AFATDS MTS Fielding	1	2012	2	2013
TLDHS 1.1.6.1 S/W Release	3	2012	4	2012
TLDHS Maj S/W Release Decision for 1.2.0.x	3	2013	4	2013

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2273: Air Ops Cmd & Control (C2) Sys			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2273: Air Ops Cmd & Control (C2) Sys	228.138	59.435	94.071	68.669	-	68.669	73.436	24.886	23.853	18.147	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

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

A. Mission Description and Budget Item Justification

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

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

Composite Tracking Network (CTN) - will provide the Marine Air Ground Task Force (MAGTF) Commander a ground based sensor netting solution that significantly improves situational awareness by correlating sensor measurement data (target position, speed, heading, Identification Friend and Foe (IFF), etc.) from local and remote radars in the Cooperative Engagement Capability (CEC) network, which is then provided to the warfighter in the form of composite, real-time, air surveillance tracks. AN/MSQ-143A (V)I - funding will allow CTN to execute transportability testing and conduct a Field User Evaluation (FUE) of this system configuration. These events will wrap up the Testing for this configuration and allow the CTN Program Office to go to the Milestone Decision Authority (MDA) for a fielding decision for this system configuration.

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 Marine Air Ground Task Force

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems	PROJECT 2273: Air Ops Cmd & Control (C2) Sys		
(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). Joint Cooperative Target ID Ground (JCTI-G) - the program was refocused late in FY11 to reflect the results of a JFCOM led AoA that determined the best path to follow for continued reduction of fratricide incidents. Funding to support Fielded and Planned Capability Improvements (FPCI) which will contribute to Combat Identifications (CID) and fratricide mitigation. Army and Marine Corps agreement to support closure of the Fires-On-Dismount fratricide mitigation gap and to refocus on FPCI requirements. Combat Operations Center (COC) AN/TSQ-239 (V)2/3/4 is a deployable, self-contained, modular, scalable and centralized facility which provides digital, shared Command and Control/Situational Awareness functionalities to enhance the Common Operational Picture (COP) for the Command Element, Ground Command Element, Air Combat Element, and Logistics Combat Element. It is a commercial-off-the-shelf integrated hardware solution using unit provided radios, re-hosted tactical data systems, and available Marine Corps prime movers to transport the system. Funds support testing and Information Assurance (IA) certification activities, integration of emerging technology, and On The Move (OTM) capabilities. Remote Video Viewing Terminal (RVVT) - Provides warfighter with video connectivity to multiple types of aerial platforms (Raven B, Puma, Micro-UAS, Shadow, Predator, Fire Scout, and Litening Pod on P-3, AV8-B, and F/A-18). Data is displayed to Regimental Combat Teams (RCT), Forward Observers (FO) and Forward Air Controller (FAC) operators who coordinate with higher headquarters for fires. 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 2012	FY 2013	FY 2014
Title: *JICO Support System: Program Management Support Articles: FY 2012 Accomplishments: Funding supported Program Office travel as an active participant with USAF to support Increment 2 development.		0.381 0	0.000	0.000
Title: *JCTI-G: FPCI Programs Articles: FY 2012 Accomplishments: Funding supported Fielded and Planned Capability Improvements (FPCI) which contributes to Combat Identifications (CID) and fratricide mitigation. Army and Marine Corps agreement to support closure of the Fires-On-Dismount fratricide mitigation gap and to refocus on FPCI requirements.		13.404 0	0.000	0.000
Title: *COC: Continued Capability Solution		3.981	6.304	3.510

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Articles: FY 2012 Accomplishments: Completed (V)1 and OTM design, documentation, and testing. FY 2013 Plans: Conduct analysis of technologies for integration in COC Baseline. FY 2014 Plans: Conduct analysis of technologies for integration in COC Baseline.		0	0	0
Title: *COC: Test and Evaluation Articles: FY 2013 Plans: Funds MCOTEA/JTIC testing and analysis for COC. FY 2014 Plans: Funds MCOTEA/JTIC testing and analysis for COC.		0.000	0.149 0	0.185 0
Title: *CTN: Engineering Development Model (EDM). Articles: FY 2012 Accomplishments: Funded Cooperative Engagement Capability (CEC) accreditation on the USS WASP, SW Maintenance Support, Baseline Development. FY 2013 Plans: Funds CEC WASP Support, SW Maintenance Support, Baseline Development, USG-4B Analysis/Extraction FY 2014 Plans: Funds SW Maintenance Support, Baseline Development, USG-4B Analysis/Extraction, WASP S/W Updates, Data Analysis, Safety, System Engineering. Antenna Trailer Development, Common Array Block - Expeditionary (CAB-E) Antenna Development. The driving factor for the increase in funding in FY14 is the CAD-E Development.		2.234 0	1.019 0	3.517 0
Title: *CTN: Certification of Interfaces Articles: FY 2012 Accomplishments:		3.852 0	1.167 0	3.510 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Funding was expended on Data Collection and Analysis, SW Independent Validation and Verification (IV&V) in preparation for FOT&E from Sept - Oct 2012. FY 2013 Plans: Funds Data Collection and Analysis, CTN integration testing with Common Aviation Command and Control System (CAC2S) and Ground/Air Task Oriented Radar (G/ATOR) Testing FY 2014 Plans: Continue to fund Data Collection and Analysis, CTN integration testing with Common Aviation Command and Control System (CAC2S) and Ground/Air Task Oriented Radar (G/ATOR) Testing. Also funds Common Array Block (CAB) testing/verification/updates and supports an accelerated Mid-Term Inter-operability Improvement Program. Ramp up System-to-System engineering to support interface between CTN. CAC2S, and G/ATOR is the driving factor for the increase in FY14.				
Title: *CTN: Program Management Support. Articles:		0.400 0	1.636 0	3.69 0
FY 2012 Accomplishments: Funding was expended on MCSC Travel, Technical Services Corporation (TSC) support, Operational Test support, and SW support. FY 2013 Plans: Funds MCSC Travel, Dahlgren engineering support, Test support, and SW support. FY 2014 Plans: Funds MCSC Travel, Dahlgren engineering support, test support, and S/W support. Additionally, funding will also support systems engineering and introduction of updates to the software baseline which attributes to the increase in funding from FY13 to FY14.				
Title: *MACCS SUSTAINMENT: TAOM, ADCP and CDLS. Articles:		6.775 0	8.988 0	4.200 0
FY 2012 Accomplishments: Conducted SFT and field 4 new CDLS to each TACC; test and field ADSI v.15; integrate Mode5/S into the TAOM; monitor the DSAN Life Cycle Support (LCS) contract; and repair/replace MERWS and 3:1 shelters as required. Migrate the TAOM/MTAOM software baseline from CMS to C++. Conducted testing and field software baseline as v. 7.0 FY 2013 Plans: Funding supports MITRE Engineering efforts; JITC Support; TAOC Life Cycle Support Contract. FY 2014 Plans:				

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Funding continues to support MITRE Engineering efforts; JITC Support; TAOC Life Cycle Support Contract.				
Title: *RVVT: Preparation of MS C and Full Rate Production and Fielding activities Articles: FY 2012 Accomplishments: Developed a strategy to merge efforts with The Target Location Designation and Handoff System (TLDHS) to meet the fleets need of a combined capability to connect to VideoScout Systems to view video feed. Conduct development and testing efforts for Type I capable static COC VideoScout system (MC/3). FY 2013 Plans: Conduct pre-Milestone activities. Conduct development and testing efforts for Type I capable static COC VideoScout system (MC/3). FY 2014 Plans: The increase in funding from FY13 to FY14 completes pre-Milestone activities. Additionally, conducts development and testing efforts for non-static TLDHS and VideoScout merged system and the next generation of a static COC VideoScout.		2.4950	0.5890	2.6200
Title: *TBMCS: Program management support. Articles: FY 2012 Accomplishments: Funding was expended for Program Management support. FY 2013 Plans: Continue Program Management support. FY 2014 Plans: Continue Program Management support.		0.3320	0.5000	0.5400
Title: *TBMCS: Test and Evaluation for TBMCS Upgrades Joint Interoperability. Articles: FY 2012 Accomplishments: Funding was expended for Test and Evaluation for TBMCS Upgrades Joint Interoperability. FY 2013 Plans: Funding supports Test and Evaluation for TBMCS Upgrades Joint Interoperability. FY 2014 Plans:		0.2300	2.4030	2.6670

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Continue Test and Evaluation for TBMCS Upgrades Joint Interoperability.				
Title: *CAC2S: Program Management Support. Articles: FY 2013 Plans: Funding will be used for program management support which includes business/financial, engineering and logistical support for Phase 1 and 2 efforts. FY 2014 Plans: Continue program management support which includes business/financial, engineering and logistical support for Phase 1 and 2 efforts.		0.000	4.000 0	4.142 0
Title: *CAC2S: Test and Evaluation and Information Assurance Certification. Articles: FY 2012 Accomplishments: Funding was used for Information Assurance certification test scans. FY 2013 Plans: Funds continue to support Phase 2 Information Assurance certification test scans. FY 2014 Plans: Funds continue to support Phase 2 Information Assurance certification test scans. Increase in funding is due to increased phase 2 IA certification test scans to coincide with the four DT events occurring this year.		2.242 0	3.265 0	4.235 0
Title: *CAC2S: EDM, TR, Gov't DT Articles: FY 2012 Accomplishments: Funding was used to award contract in August 2012 to one of the four demonstration contractors performing Phase 2 development and integration of the Sensor Data Subsystem. Funding was expended by Phase 2 SDS contractor and NSWC Crane, Dahlgren and other support activities. FY 2013 Plans: Continue Phase 2 development and integration of the Processing Display Subsystem and Sensor Data Subsystem continues. Four (4) Engineering and Development Models (EDM) will be built by the Phase 2 contractor this year. Funding will be expended by Phase 2 SDS contractor and NSWC Crane, Dahlgren and other support activities. FY 2014 Plans:		4.152 0	37.824 0	18.266 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014
Continue Phase 2 development and integration of the Processing Display Subsystem and Sensor Data Subsystem continues with developmental testing occurring using the EDM's this year. Funding will be expended by Phase 2 SDS contractor and NSWC Crane, Dahlgren and other support activities. Decrease in funding is due to the projected ramp down of the Engineering, Manufacturing and Design Phase of CAC2S Phase 2. Phase 2 production begins 1st Qtr FY15.											
Title: *CAC2S: Software development, DT, FUE, OA. Articles: FY 2012 Accomplishments: Funding was expended to support Phase 2 EDM data and information fusion component hardware. Software development began with the award of the Phase 2 contract in August 2012. FY 2013 Plans: Continue Phase 2 EDM data and information fusion, component hardware integration and software development. FY 2014 Plans: Continue Phase 2 EDM data and information fusion, component hardware integration and software development. Also, four developmental testing events will be supported with this funding. Decrease in funding is due to the projected ramp down of the Engineering, Manufacturing and Design Phase, specifically software development of CAC2S Phase 2. Phase 2 production begins 1st Qtr FY15.									14.436 0	22.800 0	15.215 0
Title: *CAC2S: Engineering, Management and Logistics Support Articles: FY 2012 Accomplishments: Funding was expended for Engineering, Management & Logistics Support FY 2013 Plans: Continue Engineering, Management & Logistics Support FY 2014 Plans: Continue Engineering, Management & Logistics Support									4.521 0	3.427 0	2.371 0
Accomplishments/Planned Programs Subtotals									59.435	94.071	68.669
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• PMC/464017: CTN	7.016	0.100	0.307		0.307	8.832	0.015	0.000	0.000	Continuing	Continuing

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C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• PMC/464002: MACCS Sustainment	17.005	23.114	10.099		10.099	2.861	0.885	0.046	0.047	Continuing	Continuing
• PMC/464003: TBMCS	6.580	3.585	4.465		4.465	3.852	4.685	3.721	3.788	Continuing	Continuing
• PMC/419005: COC	16.848	1.420	16.273		16.273	15.500	15.709	15.319	15.581	Continuing	Continuing
• PMC/464023: RVVT	2.923	0.001	2.195		2.195	5.775	6.952	14.647	14.859	Continuing	Continuing
• PMC/464013: CAC2S	15.864	0.065	0.080		0.080	18.300	26.898	54.700	49.919	Continuing	Continuing
• PMC/700000: CAC2S Initial Spares	0.000	0.000	0.000		0.000	1.700	2.700	3.000	3.400	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
CAC2S will employ an evolutionary acquisition strategy utilizing an incremental and phased approach for development and fielding of the CAC2S. The CPD identifies two increments to achieve the full requirements of CAC2S. The current acquisition strategy addresses Increment I of the CAC2S development process and focuses on the requirements that will modernize the assault and air support, air defense and control, and ACE battle management capabilities of the MACCS. Increment I of the CAC2S will be accomplished through a two phased approach. Phase 1 will address the requirements to establish the baseline CAC2S capabilities for the MACCS and improve AC2 performance and effectiveness. Phase 2 will address the requirements for remaining ACE BMC2 requirements											
Theater Battle Management Core Systems (TBMCS) - TBMCS is an ACAT III, USAF Program with joint interest/oversight. It was mandated by the Chairman, Joint Chiefs of Staff in July 93 for Air Tasking Order (ATO) Interoperability among all services. The USMC will not be letting any competitive contracts for TBMCS, but following the USAF lead, utilizing USAF TBMCS contracts and fielding only the joint modules of TBMCS. As USMC unique requirements are identified and funded, they will be provided to the USAF (to include funding) for inclusion within TBMCS utilizing the USAF delivery order (fixed price) contract. Over the course of the FYDP, the USMC will leverage USAF software support activities vice funding strictly USMC software support.											
MACCS SUSTAINMENT - The acquisition strategy implemented by the MACCS Sustainment Program Office is to maintain the readiness, relevance, and capabilities of the portfolio of post-Milestone C systems through Post Deployment Software Support (PDSS) activities, active refresh of obsolete hardware items, and the implementation of system improvements/modifications in accordance with approved systems engineering processes. Engineering changes to the systems make maximum use of Commercial Off-The-Shelf (COTS), Government Off-The-Shelf (GOTS), and Non-Developmental Items (NDI) in order to decrease risk, leverage developed capabilities and support apparatus, and minimize investment expenditures. These activities are performed by Original Equipment Manufacturer (OEM) commercial entities under contract to Marine Corps Systems Command (MCSC) or by Naval Surface Warfare Center (NSWC) Crane as the MACCS Sustainment Program In-Service Engineering Agent (ISEA). The next major milestone for the MACCS Sustainment Programs is Phase-out or Disposal as the replacement Common Aviation Command and Control System (CAC2S) reaches full operational capability.											

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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. RVVT - Program Office will utilize an existing SPAWAR IDIQ contract to procure Commercial Off-The-Shelf (COTS) capability with limited development required to test interoperability with Manned and Unmanned Air Platforms. 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. There is a continuing developmental effort to evolve the COC into a fully integrated MAGTF C2 capability. FY13 and FY14 supports continual tech refresh, technology insertion, modernization and software upgrade releases. <u>E. Performance Metrics</u> N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2273: Air Ops Cmd & Control (C2) Sys					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CTN	WR	NSWC:Crane, IN	3.736	0.000		0.000		0.044	Mar 2014	-		0.044	0.000	3.780	
CTN	C/CPFF	NAVSEA PEO IWS:Washington, DC	6.956	2.000	Jul 2012	0.754	Jan 2013	3.766	Jan 2014	-		3.766	0.000	13.476	
MACCS Sustainment	Reqn	NGES:Woodland Hills, CA	17.415	0.974	May 2012	1.000	May 2013	2.870	May 2014	-		2.870	Continuing	Continuing	Continuing
MACCS Sustainment	WR	NSWC:Crane, IN	1.664	0.447	Nov 2011	0.000		0.000		-		0.000	0.000	2.111	
MACCS Sustainment	Reqn	KATMAI:Van Nuys, CA	0.000	1.455	Apr 2012	2.126	Jan 2013	0.000		-		0.000	Continuing	Continuing	Continuing
MACCS Sustainment	C/FFP	ULTRA:Austin, TX	0.000	0.000		1.160	Jul 2013	0.000		-		0.000	0.000	1.160	
COC	WR	SPAWAR:Charleston, SC	11.043	0.581	Apr 2012	1.449	Feb 2013	3.510	Jan 2014	-		3.510	Continuing	Continuing	Continuing
COC	Reqn	General Dynamics:Not Specified	27.811	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
COC	Reqn	Coherent:Johnstown, PA	0.299	0.000		0.000		0.000		-		0.000	0.000	0.299	
COC	WR	NSWC:Crane, IN	0.220	0.300	Apr 2012	0.250	Dec 2012	0.000		-		0.000	0.000	0.770	
COC	C/CPIF	TBD:Not Specified	0.305	0.645	Aug 2012	1.152	Mar 2013	0.000		-		0.000	0.000	2.102	
JCTI-G	WR	NSWC:Crane, IN	1.617	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
JCTI-G Pax 1	WR	NAVAIR:Pax River, MD	0.145	0.000		0.000		0.000		-		0.000	0.000	0.145	
JCTI-G Pax 2	Reqn	NAVAIR:Pax River, MD	1.830	0.000		0.000		0.000		-		0.000	0.000	1.830	
JCTI-G FPCI Efforts	Various	Various:Various	10.479	13.404	Mar 2012	0.000		0.000		-		0.000	0.000	23.883	
CAC2S	WR	NSWC:Crane, IN	22.525	0.800	Nov 2012	0.720	Oct 2012	0.500	Nov 2013	-		0.500	0.000	24.545	
CAC2S	C/CPIF	General Dynamics:Quantico, VA	8.603	0.000		0.000		0.000		-		0.000	0.000	8.603	
CAC2S	C/FFP	Phase 2 Contractor:Quantico, VA	20.393	15.000	Sep 2012	57.931	Nov 2012	28.829	Nov 2013	-		28.829	0.000	122.153	

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Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CAC2S	WR	NSWC:Dahlgren, VA	25.519	3.907	Nov 2011	5.300	Nov 2012	5.000	Nov 2013	-		5.000	0.000	39.726	
CAC2S	MIPR	NAVSEA:Washington, DC	0.000	0.656	Jan 2012	0.000		0.000		-		0.000	0.000	0.656	
COC	WR	NSWC:Dahlgren, VA	1.126	1.774	Jan 2012	1.800	Feb 2013	0.000		-		0.000	0.000	4.700	
COC	WR	NSWC:Panama City, FL	0.500	0.681	Jan 2012	0.943	Jan 2013	0.000		-		0.000	0.000	2.124	
Subtotal			162.186	42.624		74.585		44.519		0.000		44.519			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CTN	WR	NSWC:Dahlgren, VA	0.700	0.933	Jan 2012	0.571	Jan 2013	1.550	Jan 2014	-		1.550	0.000	3.754	
CTN	WR	NSWC:PHD	0.224	0.035	Feb 2012	0.000		0.412	Feb 2014	-		0.412	0.000	0.671	
CTN	WR	NSWC:Crane, IN	0.400	0.000		0.000		0.154	Feb 2014	-		0.154	0.000	0.554	
CTN	MIPR	MACS:Quantico, VA	0.140	0.000		0.000		0.000		-		0.000	0.000	0.140	
CTN	WR	NAVSEA:Wallops Island, VA	0.316	0.056	Jan 2012	0.000		0.000		-		0.000	0.000	0.372	
CTN	Various	Travel-TAD:Not Specified	0.755	0.134	Sep 2012	0.100	Sep 2013	0.243	Sep 2014	-		0.243	0.000	1.232	
CTN	WR	SPAWAR:Charleston, SC	0.435	0.000		0.000		0.000		-		0.000	0.000	0.435	
MACCS Sustainment	WR	NSWC:Crane, IN	0.089	0.000		0.949	Dec 2012	0.000		-		0.000	0.000	1.038	
MACCS Sustainment	Reqn	NGES:Woodland Hills, CA	0.000	0.800	Nov 2011	0.500	Nov 2012	0.800	Nov 2013	-		0.800	Continuing	Continuing	Continuing
COC	MIPR	NUWC:Newport, RI	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	
JCTI-G	Reqn	Tecolote:Arlington, VA	1.917	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
CAC2S	WR	Travel-TAD:Not Specified	1.000	0.030	Oct 2011	0.500	Oct 2012	0.425	Oct 2013	-		0.425	0.000	1.955	

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Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CAC2S	WR	NSWC Carderock:Carderock, MD	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	
CAC2S	C/CPAF	AMSSA:APG, Mayland	0.000	0.260	Nov 2011	0.225	Nov 2012	0.225	Nov 2013	-		0.225	0.000	0.710	
CAC2S	WR	SPAWAR:Charleston, SC	0.000	0.110	Nov 2011	0.300	Nov 2012	0.300	Nov 2013	-		0.300	0.000	0.710	
RVVT	C/FFP	QNA:Stafford, VA	1.052	0.543	Mar 2012	0.589	Mar 2013	0.620	Mar 2014	-		0.620	0.000	2.804	
CAC2S	WR	JITC:Fort Huachuca, AZ	0.961	0.025	Nov 2011	0.200	Nov 2012	0.100	Nov 2013	-		0.100	0.000	1.286	
CAC2S	MIPR	MITRE:Boston, MA	4.863	0.765	Nov 2011	1.500	Nov 2012	1.500	Nov 2013	-		1.500	0.000	8.628	
CTN	C/CPFF	NAVSEA PEO IWS:Washington DC	0.000	0.000		0.243	Jan 2013	3.500	Jan 2014	-		3.500	0.000	3.743	
CAC2S	WR	MACCS-X:Camp Pendleton	1.564	0.000		0.000		0.000		-		0.000	0.000	1.564	
CAC2S	WR	MCTSSA:Camp Pendleton	2.606	0.010	Jan 2012	0.500	Nov 2012	0.100	Nov 2013	-		0.100	0.000	3.216	
CAC2S	WR	NSWC Corona:Corona, CA	2.903	0.000		1.200	Nov 2012	1.300	Nov 2013	-		1.300	0.000	5.403	
CTN	WR	NSWC Corona:Corona, CA	0.000	0.000		0.000		0.816	Mar 2014	-		0.816	0.000	0.816	
CAC2S	C/FP	BAH:Stafford, VA	2.003	0.000		0.000		0.000		-		0.000	0.000	2.003	
SIAP	C/FP	RNB Technologies:Stafford VA	5.374	0.000		0.000		0.000		-		0.000	0.000	5.374	
TBMCS	Various	Travel:Not Specified	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	
JSS	WR	MCTSSA:Camp Pendleton	0.183	0.084	Dec 2011	0.000		0.000		-		0.000	0.000	0.267	
CAC2S	C/IDIQ	SPAWAR:Pacific	0.000	0.960	Sep 2012	0.000		0.000		-		0.000	0.000	0.960	
CAC2S	C/FP	RNB Technologies:Stafford, VA	0.000	0.778	May 2012	0.000		0.000		-		0.000	0.000	0.778	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>						R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>						PROJECT 2273: <i>Air Ops Cmd & Control (C2) Sys</i>			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MACCS Sustainment	C/FFP	SPAWAR Charleston:Charleston, SC	0.000	0.963	Aug 2012	0.000		0.000		-		0.000	0.000	0.963	
CAC2S	C/FP	American Systems Corp.:Chantilly, VA	0.000	1.000	Nov 2012	0.000		0.000		-		0.000	0.000	1.000	
Subtotal			27.985	7.486		7.377		12.045		0.000		12.045			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CAC2S	WR	NSWC Port Hueneme:Port Hueneme, CA	0.000	0.139	Nov 2011	0.440	Nov 2012	0.450	Nov 2013	-		0.450	0.000	1.029	
CTN	C/BA	PHD:JITC	0.000	0.000		0.000		0.033	Feb 2014	-		0.033	0.000	0.033	
TBMCS	C/FFP	Lockheed Martin:Colorado Springs, CO	0.000	0.000		2.403	Dec 2012	2.697	Dec 2013	-		2.697	0.000	5.100	
CTN	WR	MCSC CTQ:Quantico, VA	0.025	0.000		0.000		0.000		-		0.000	0.000	0.025	
CTN	WR	PEO IWS 6:St. Petersburg, FL	4.017	2.313	Dec 2011	0.000		0.000		-		0.000	0.000	6.330	
CTN	WR	NSWC Corona:Corona, CA	1.114	0.220	Feb 2012	0.177	Nov 2012	0.000		-		0.000	0.000	1.511	
CTN	WR	NSWC DD:Dahlgren, VA	0.942	0.320	Aug 2012	0.143	Nov 2012	0.000		-		0.000	0.000	1.405	
CTN	C/CPFF	NAVSEA PEO IWS:Washington DC	0.000	0.000		0.298	Jan 2013	0.000		-		0.000	0.000	0.298	
CTN	WR	Fort Huachuca:JITC	0.008	0.035	Mar 2012	0.000		0.000		-		0.000	0.000	0.043	
CTN	WR	MCOTEA:Quantico VA	1.144	0.200	Jan 2012	0.000		0.200	Feb 2014	-		0.200	0.000	1.544	
CTN	WR	MCSC:Quantico, VA	3.876	0.000		0.000		0.000		-		0.000	0.000	3.876	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2273: Air Ops Cmd & Control (C2) Sys					
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CTN	WR	NSWC:Crane, IN	1.064	0.000		0.000		0.000		-		0.000	0.000	1.064	
MACCS Sustainment	WR	Aberdeen Test Center:Aberdeen, MD	0.273	0.211	Nov 2011	0.200	Nov 2012	0.230	Nov 2013	-		0.230	Continuing	Continuing	Continuing
MACCS Sustainment	Reqn	NGES:Woodland Hills, CA	0.914	1.008	Apr 2012	1.516	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
MACCS Sustainment	Various	MCOTEA:Quantico, VA	0.000	0.467	Dec 2011	0.000		0.000		-		0.000	0.000	0.467	
MACCS Sustainment	MIPR	DISA:Not Specified	0.000	0.200	May 2012	0.537	May 2013	0.000		-		0.000	0.000	0.737	
RVVT	WR	SSC-LANT:North Charleston, SC	0.000	1.952	Aug 2012	0.000		2.000	Oct 2013	-		2.000	0.000	3.952	
COC	MIPR	MCOTEA:Quantico, VA	0.728	0.000		0.149	Mar 2013	0.185	Mar 2014	-		0.185	0.000	1.062	
COC	MIPR	JTIC:Fort Huachuca, AZ	0.140	0.000		0.000		0.000		-		0.000	0.000	0.140	
TBMCS	WR	MCOTEA:Quantico, VA	0.560	0.000		0.150	Nov 2012	0.160	Nov 2013	-		0.160	0.000	0.870	
CAC2S	WR	MCOTEA:Quantico, VA	6.350	0.650	Nov 2011	1.000	Nov 2012	1.500	Nov 2013	-		1.500	0.000	9.500	
TBMCS	MIPR	Englin AFB:Englin AFB, FL	0.000	0.230	Jul 2012	0.000		0.000		-		0.000	0.000	0.230	
Subtotal			21.155	7.945		7.013		7.455		0.000		7.455			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CTN	WR	NSWC Dahlgren:Dahlgren, VA	0.000	0.000		1.536	Dec 2012	0.000		-		0.000	0.000	1.536	
CTN	WR	MCSC:Quantico, VA	0.882	0.240	Nov 2011	0.000		0.000	Feb 2014	-		0.000	0.000	1.122	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems						PROJECT 2273: Air Ops Cmd & Control (C2) Sys			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MACCS Sustainment	C/FFP	MCSC:Quantico, VA	0.100	0.250	Jan 2012	1.000	Jul 2013	0.300	Jul 2014	-		0.300	0.000	1.650	
COC	Reqn	MCSC:Quantico, VA	0.057	0.000		0.710	Oct 2012	0.000		-		0.000	0.000	0.767	
CAC2S	MIPR	DTIC: Fort Belvoir, VA:Fort Belvoir, VA	0.000	0.261	Dec 2012	0.000		0.000		-		0.000	0.000	0.261	
CAC2S	C/FFP	QNA: Stafford, VA:Quantico, VA	13.796	0.000		1.500	Apr 2013	4.000	Nov 2013	-		4.000	0.000	19.296	
TBMCS	C/FFP	QNA: Stafford, VA:Quantico, VA	1.977	0.332	Nov 2011	0.350	Nov 2012	0.350	Nov 2013	-		0.350	0.000	3.009	
JSS	Reqn	Travel:Quantico, VA	0.000	0.022	Oct 2011	0.000		0.000		-		0.000	0.000	0.022	
JSS	C/FFP	TASC:Quantico, VA	0.000	0.147	Nov 2011	0.000		0.000		-		0.000	0.000	0.147	
JSS	WR	SPAWAR:Charleston, SC	0.000	0.050	Dec 2011	0.000		0.000		-		0.000	0.000	0.050	
JSS	MIPR	Hanscom AFB:Hanscom AFB	0.000	0.078	Dec 2011	0.000		0.000		-		0.000	0.000	0.078	
Subtotal			16.812	1.380		5.096		4.650		0.000		4.650	0.000	27.938	
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			228.138	59.435		94.071		68.669		0.000		68.669			
Remarks															

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

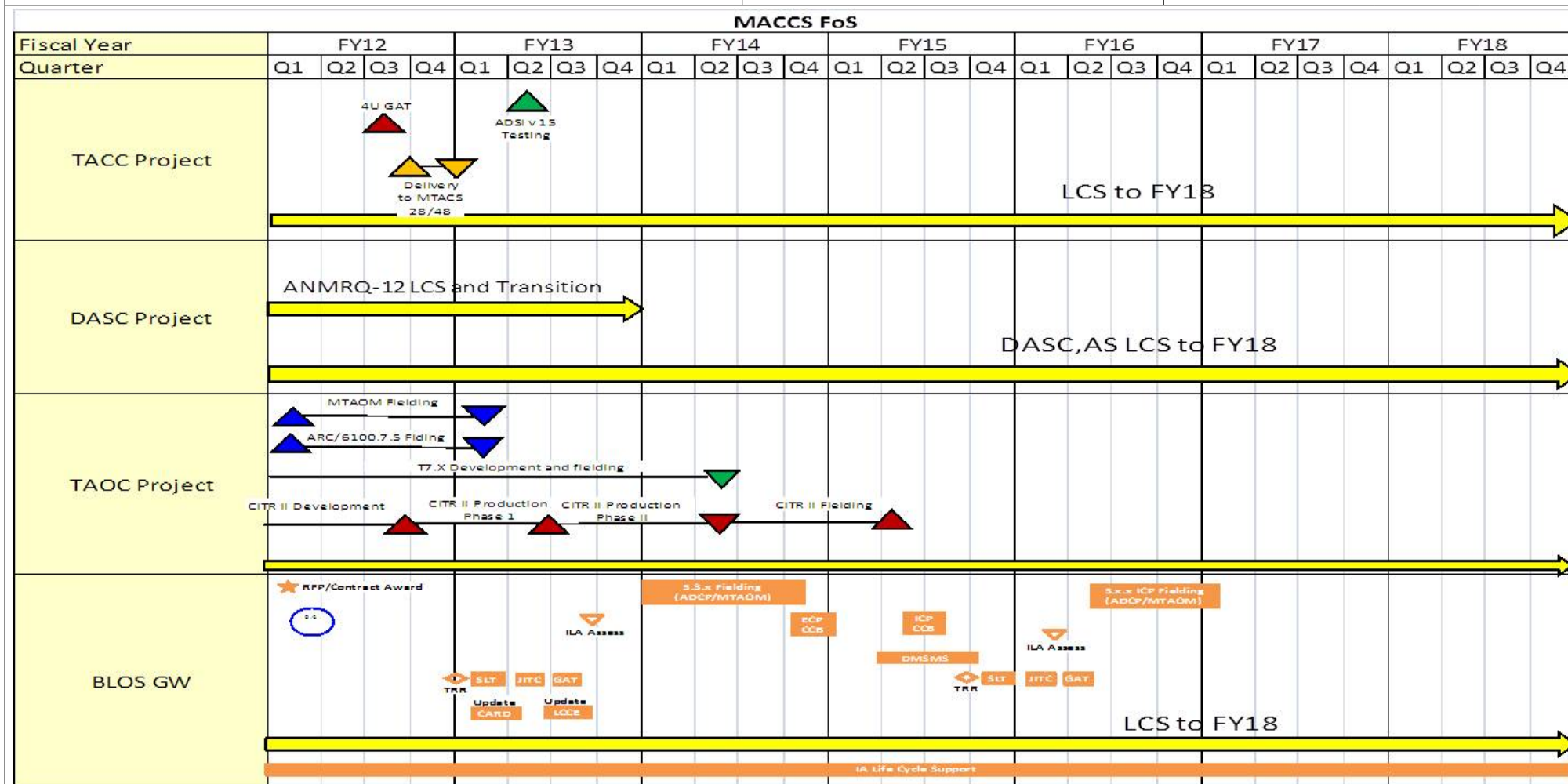
1319: Research, Development, Test & Evaluation, Navy
BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2273: Air Ops Cmd & Control (C2) Sys



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE

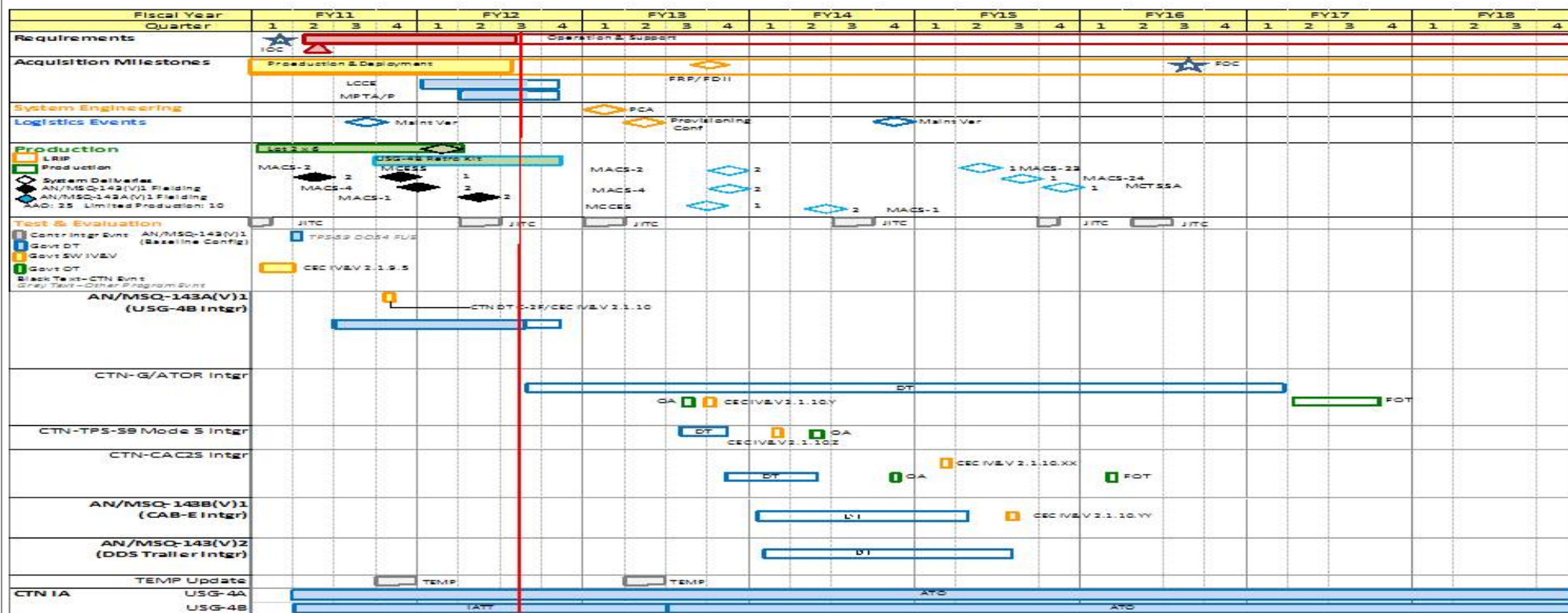
PE 0206313M: Marine Corps Comms Systems

PROJECT

2273: Air Ops Cmd & Control (C2) Sys



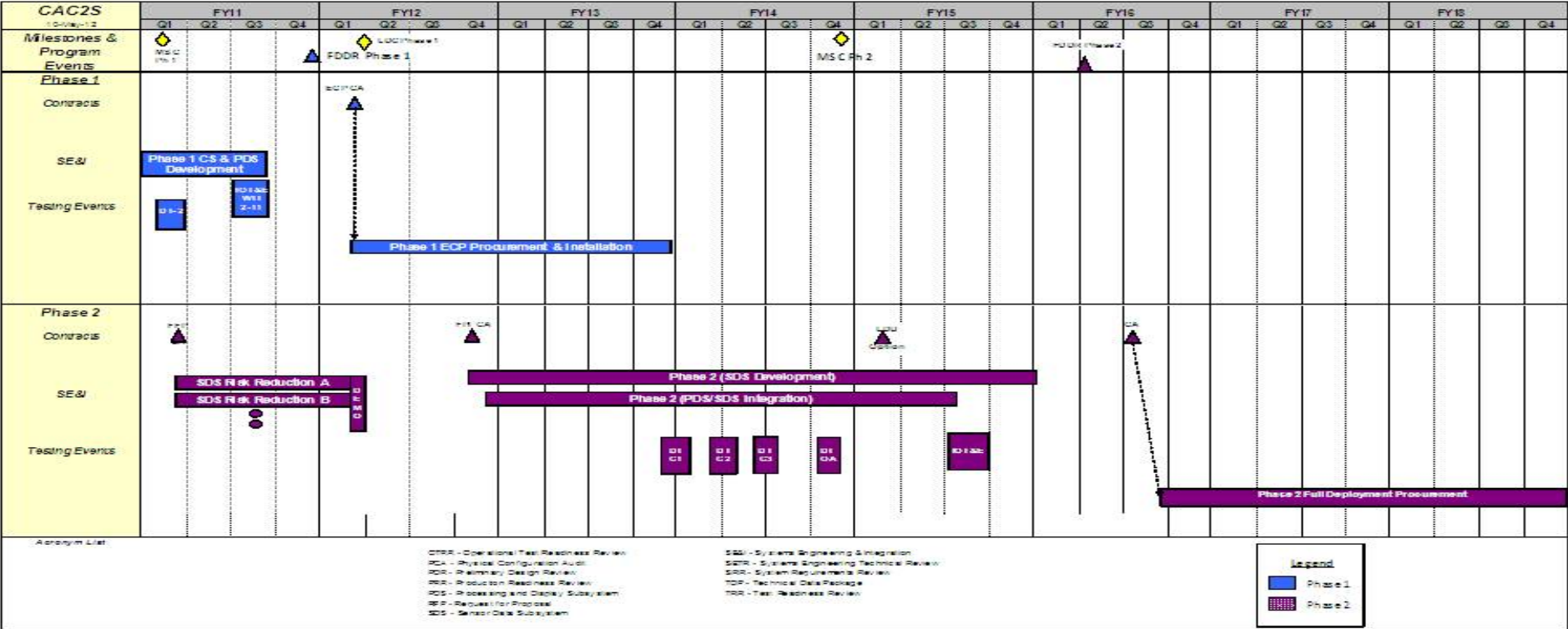
CTN - Program Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems	PROJECT 2273: Air Ops Cmd & Control (C2) Sys

CAC2S Program Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

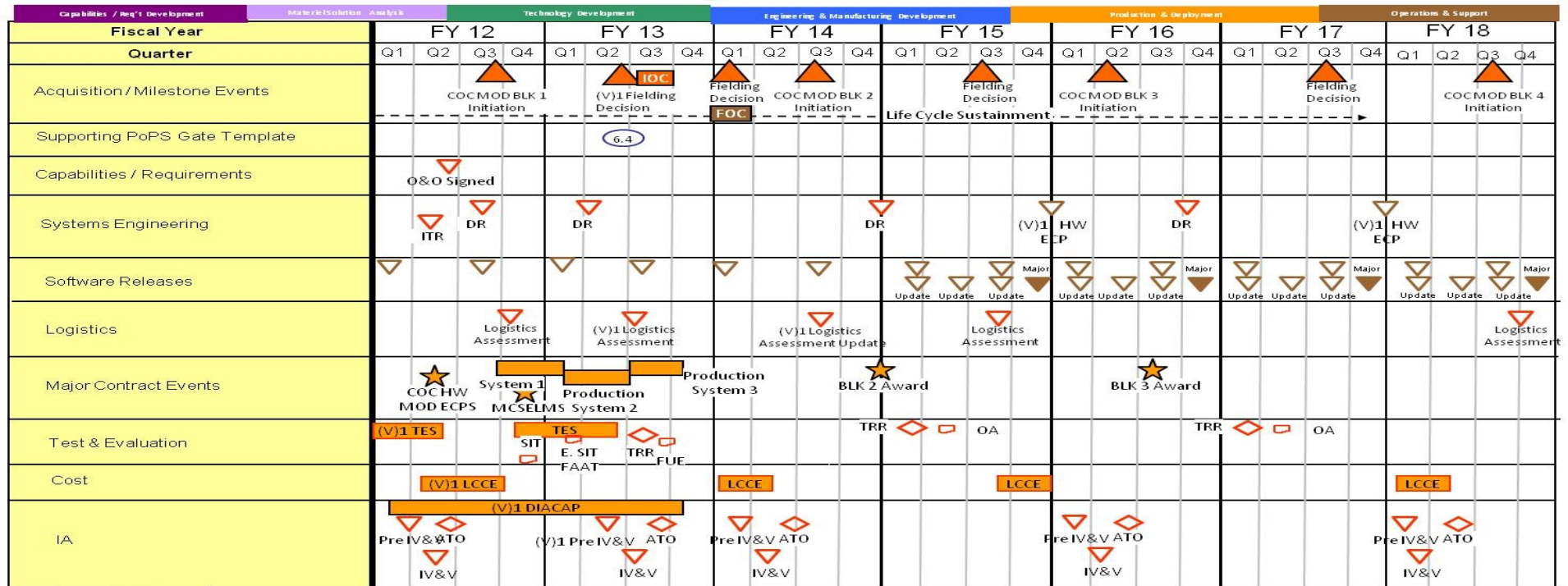
R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2273: Air Ops Cmd & Control (C2) Sys

COC Program Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

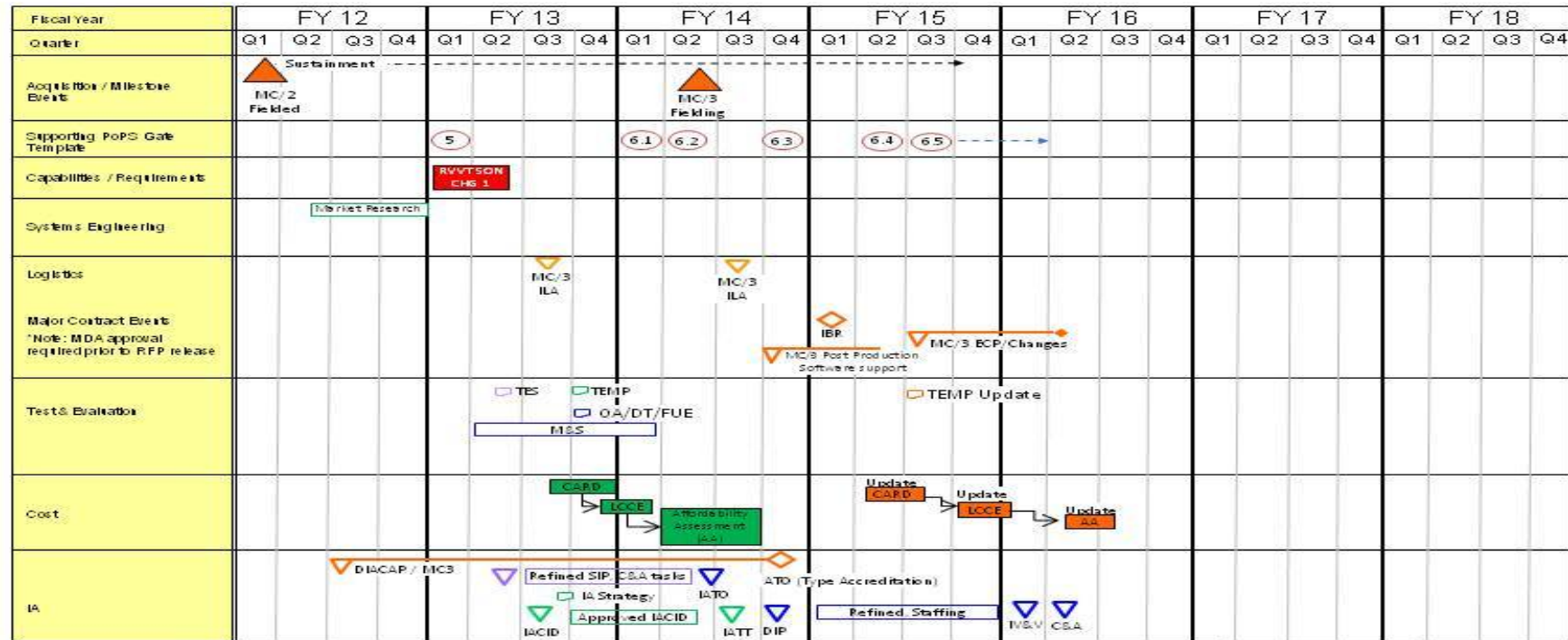
R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2273: Air Ops Cmd & Control (C2) Sys

RVVT Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE

PE 0206313M: *Marine Corps Comms Systems*

PROJECT

2273: *Air Ops Cmd & Control (C2) Sys*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2273				
MACCS Sustainment	1	2012	4	2018
CTN FOC	3	2016	3	2016
CAC2S Phase 1 LDC	1	2012	1	2012
CAC2S Phase 2 IOT&E	3	2015	3	2015
CAC2S Phase 2 LDU	1	2015	1	2015
COC Life Cycle Sustainment	1	2012	4	2017
COC (V) 1 Limited Fielding Decision	2	2013	2	2013
COC (V)1 Field User Evaluation (FUE)	2	2013	2	2013
COC (V)1 IOC	2	2013	2	2013
COC (V) 1 Full Fielding Decision	1	2014	1	2014
COC (V)1 FOC	1	2014	1	2014
COC (V)2 Initiation	3	2014	3	2014
CAC2S Phase 2 Milestone C	4	2014	4	2014
RVVT MDD	1	2013	1	2013
RVVT MS B	1	2015	1	2015
RVVT DT	1	2015	1	2015
RVVT OT&E 2015	3	2015	3	2015
RVVT LRIP	2	2016	2	2017
RVVT FRP	4	2016	1	2018
RVVT MC/3 FIELDING	3	2013	3	2013
RVVT MS C	4	2015	4	2015

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>		PROJECT 2273: <i>Air Ops Cmd & Control (C2) Sys</i>
		Start		End
Events by Sub Project		Quarter	Year	Quarter
				Year
RVVT Next Generation FRP DR		4	2016	4
RVVT Next Generation Fielding		4	2017	4
RVVT OT&E 2018		2	2018	2
MACCS - MTAOM Fielding		1	2012	1
MACCS - ARC/6100.7.5 Fielding		1	2012	1
MACCS - CITRII Production Phase I		4	2012	4
MACCS - CITRII Production Phase II		2	2013	2
MACCS - CITR II Fielding		2	2014	2
MACCS - BLOS GW 5.3.x Fielding (ADCP/MTAOM)		1	2014	1
MACCS - BLOS GW 5.x.x ICP Fielding (ADCP/MTAOM)		2	2016	2
CTN FRP		4	2013	4
CTN DT		3	2012	3
CTN AN/MSQ-142(V)1 Fielding		4	2013	4

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2274: Command & Control Warfare Sys			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2274: Command & Control Warfare Sys	19.071	25.624	32.052	11.234	-	11.234	10.397	10.209	10.206	10.363	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

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

A. Mission Description and Budget Item Justification

COUNTER RADIO-CONTROLLED IMPROVISED EXPLOSIVE DEVICE (RCIED) ELECTRONIC WARFARE (USMC CREW) Systems are modular, programmable, multi-band radio-frequency jammers designed to deny enemy use of selected portions of the radio frequency spectrum to counter Radio-Controlled IEDs. CREW mounted systems are capable of being integrated into all Marine Corps Tactical Ground Vehicles. USMC CREW 2.1 CREW Vehicle Receiver/Jammer (CVRJ) mounted and 3.1 Thor III man portable systems are currently fielded to meet current threats in all theaters of operation. The 2.1 mounted systems are being upgraded to a Band C capability beginning with fielding commencing FY12. In FY12 the program will transition to the enduring requirement to support worldwide deployment of USMC CREW systems. The JCREW systems shall function as a single integrated system with common architecture that will counter the continued evolution of enemy threats. This program is an ongoing effort to develop new techniques, improve capabilities, enhance software and develop waveform load sets to counter evolving threats and prevent technology obsolescence. FY14 funding increases by \$4.53M from FY13.

GROUND-BASED OPERATIONAL SURVEILLANCE SYSTEM (GBOSS) is an incremental development program currently providing persistent, multispectral surveillance sensor packages in Afghanistan. Three variants of G-BOSS exist; 80' tower mounted system (heavy), 20' trailer mounted system (medium/GBL), and man-portable, tripod mounted system (lite/CBL). Each tower employs multiple, self-contained detection and assessment technologies on a single trailer-mounted elevation platform with a multi-spectral sensor suite consisting of: daylight color & infrared imagery (StarSafire III and T-3000), Unattended Ground Sensors (UGS), Manportable Surveillance and Target Acquisition Radar (MSTAR), Communication suite for wireless point to point link, and unmanned aerial vehicle interface (VideoScout). The medium and lite systems provide a subset of the G-BOSS heavy capabilities. G-BOSS is a material solution in response to an Urgent Universal Needs Statement (UUNS) in support of OIF and OEF. FY14 funding reduced by \$24M from FY13 as a result of the suspension of the G-BOSS(E) program.

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

	FY 2012	FY 2013	FY 2014
Title: *USMC CREW - Product Development	2.652	2.410	2.433
Articles:	0	0	0
FY 2012 Accomplishments:			
Conducted efforts to develop waveform/load sets for the mounted CREW 2.1 CVRJ and Band C Upgrade kits; the dismounted CREW 3.1 Thor III; and the Universal Test Sets (UTS) which support each system variant (procured via Joint Improvised Explosive Device Defeat Organization (JIEDDO) and transitioned to USMC for sustainment in FY11). Continued efforts to develop vehicle installation kits for the Band C Upgrade in order to support the integration and installation of the upgrade kits into Marine			

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems		PROJECT 2274: Command & Control Warfare Sys
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				
		FY 2012	FY 2013	FY 2014
Corps vehicle platform. Provided support for waveform/loadsets for Marine Expeditionary Unit Special Operations Capable (MEU (SOC)) systems in support of an Urgent Statement of Need dated 17 May 2011.				
FY 2013 Plans: In FY13 the USMC CREW program will continue the development of waveform/load sets for CREW Legacy systems and the UTS for current theater operations. Continue support efforts to provide loadsets for CREW systems for MEU/Marine Expeditionary Force (MEF) within a non-theater specific/non-wartime Operational TEMPO. Continue to develop vehicle installation kits for the Band C Upgrade in order to support the integration and installation of the upgrade kits into Marine Corps vehicle platform.				
FY 2014 Plans: In FY14 USMC CREW program will continue the development of waveform/load sets for CREW Legacy systems and the UTS for current theater operations. Continue support efforts to provide loadsets for CREW systems for MEU/Marine Expeditionary Force (MEF) within a non-theater specific/non-wartime Operational TEMPO. Continue to develop vehicle installation kits for the Band C Upgrade in order to support the integration and installation of the upgrade kits into Marine Corps vehicle platform.				
Title: *USMC CREW - Support		1.106	1.145	1.163
Articles:		0	0	0
FY 2012 Accomplishments: Conducted systems engineering and integration support required for continued system enhancements. Systems engineering activities included requirement definition, requirement allocation, requirement,traceability, system design, system testing, production support, fielding support, and system upgrade planning.				
FY 2013 Plans: Systems engineering and integration support required for continued system enhancements for CVRJ with Band C, Thor III, and support for the Universal Test Sets procured by JIEDDO and transitioned to USMC CREW in FY12.				
FY 2014 Plans: Systems engineering and integration support required for the CREW Legacy variants.				
Title: *USMC CREW - Test and Evaluation		1.698	1.189	3.285
Articles:		0	0	0
FY 2012 Accomplishments: Conducted efforts to include the required Marine Corps unique testing of capability enhancements to CREW 2.1 CVRJ (Band C Upgrades) and waveform loadsets for the entire USMC CREW portfolio of systems to include CREW 2.1, 3.1 and Universal Test Sets (UTS).				
FY 2013 Plans:				

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2274: <i>Command & Control Warfare Sys</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
FY13 efforts encompass the continued test events in support of the CREW Legacy (2.1, Band C and 3.1) systems and the Universal Test Set (UTS).			
FY 2014 Plans: FY14 efforts encompass continued test events in support of the CREW legacy (2.1, Band C and 3.1) systems and the UTS.			
Title: *USMC CREW - Management			
Articles:		3.809 0	2.749 0
FY 2012 Accomplishments: Completed program oversight, task scheduling, reports and study analysis.			
FY 2013 Plans: Program oversight, task scheduling, reports and study analysis.			
FY 2014 Plans: Program oversight, task scheduling, reports and study analysis.			
Title: *GBOSS - Product Development			
Articles:		14.001 0	22.068 0
FY 2012 Accomplishments: Conducted Technology Readiness Assessments and certification of capability enhancements in support of the IA baseline.			
FY 2013 Plans: Continue Technology Readiness Assessments and integration of capability enhancements per acquisition strategy to update the existing G-BOSS 3.1 systems with a common operating system and equipment interface to increase operational availability.			
Title: *GBOSS - Support			
Articles:		0.414 0	0.861 0
FY 2012 Accomplishments: Conducted Technical engineering services, analysis of alternatives, and research studies to include CARD and LCCE development. Continue the IA accreditation efforts, IA and software management, and associated engineering for incorporation of system enhancements.			
FY 2013 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy									DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems			PROJECT 2274: Command & Control Warfare Sys				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014
Technical engineering services, analysis of alternatives, and research studies to include CARD and LCCE development. Continue the IA accreditation efforts, IA and software management, and associated engineering for incorporation as system enhancements.											
Title: *GBOSS - Test and Evaluation. Articles: FY 2012 Accomplishments: Continue testing, evaluation and design verification/validation of G-BOSS version upgrades FY 2013 Plans: Continue testing, evaluation and design verification/validation of G-BOSS version upgrades									0.760 0	1.080 0	0.000
Title: *GBOSS - Management. Articles: FY 2012 Accomplishments: Provided design oversight, task scheduling, estimate development, reports and test support FY 2013 Plans: Provide design oversight, task scheduling, estimate development, reports and test support for the program office									1.184 0	0.550 0	0.000
Accomplishments/Planned Programs Subtotals									25.624	32.052	11.234
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• PMC 6520: USMC CREW	5.117	198.808	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• PMC 6438: GBOSS	49.682	55.500	0.000		0.000	0.000	0.000	0.000	0.000	0.000	279.907
• PMC 7000: USMC CREW SPARES	0.000	1.537	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
COUNTER RADIO-CONTROLLED IMPROVISED EXPLOSIVE DEVICE (RCIED) ELECTRONIC WARFARE (USMC CREW): USMC CREW 2.1 mounted and 3.1 dismounted Legacy systems provide protection to combat elements in vehicle platforms and on foot. The 2.1 mounted systems are being upgraded to a Band C capability with fielding commencing FY12. 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,											

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2274: <i>Command & Control Warfare Sys</i>
capability upgrades, and installation kits, integration of the enhancements/Vehicle Installation Kits (VIKs) and the tests/government studies required to support these changes. GBOSS. The acquisition approach has been to use existing government contracts (US Navy, US Army, US Air Force) for Commercial-Off-the-Shelf (COTS) and Government-Off-the-Shelf (GOTS) material and services that meet the basic requirements of the UUNS and give priority to materials and services already integrated into an existing or similar architecture. In FY13, the acquisition approach will be to maintain NSWC Crane as the system integrator to leverage their engineering and contracting vehicles for product development and test and evaluation. This approach is the most expeditious to deliver equipment and services to the forces in theater.		
E. Performance Metrics Milestone Reviews		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2274: Command & Control Warfare Sys					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
USMC CREW	MIPR	ARL/ MILTECH:WRIGHT-PATTERSON, OH	0.000	0.393	Feb 2012	0.000		0.000		-		0.000	0.000	0.393	
USMC CREW	C/BOA	NSWC CD:CRANE IN	0.000	0.250	Aug 2012	0.000		0.000		-		0.000	0.000	0.250	
USMC CREW	SS/FFP	NAVSEA:BALTIMORE, MD	2.800	1.789	Dec 2011	2.190	Dec 2012	2.210	Dec 2013	-		2.210	0.000	8.989	
USMC CREW	WR	SSC-A:CHARLESTON, SC	0.323	0.220	Dec 2011	0.220	May 2013	0.223	May 2014	-		0.223	0.000	0.986	
GBOSS	WR	NSWC CD:CRANE, IN	6.550	14.001	Nov 2012	7.068	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
G-BOSS	TBD	MCSC CONTRACT:QUANTICO, VA	0.000	0.000		15.000	Aug 2013	0.000		-		0.000	0.000	15.000	
Subtotal			9.673	16.653		24.478		2.433		0.000		2.433			
Remarks															
USMC CREW NAVSEA: FY12 - FY14 CREW will utilize Johns Hopkins University Applied Physics Laboratories to develop waveform load sets for all CREW systems to continue to counter the evolving RCIED Threats. USMC CREW SSC-A (SPAWAR, Charleston): FY12 - FY14 CREW will utilize SSC-Atlantic to develop mounting solutions in order to integrate mounted systems into all Marine Corps Vehicle platforms GBOSS (NSWC Crane) Systems Integration/Product Development and Systems Engineering Support															
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
USMC CREW	Various	MCSC:QUANTICO, VA	1.562	1.106	Mar 2012	1.145	Mar 2013	1.163	Mar 2014	-		1.163	0.000	4.976	
G-BOSS	WR	NSWC PH:POINT HUENEME, CA	0.000	0.386	Mar 2012	0.000		0.000		-		0.000	0.000	0.386	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>						R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>						PROJECT 2274: <i>Command & Control Warfare Sys</i>			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
G-BOSS	WR	MCTSSA:CAMP PENDLETON, CA	0.000	0.028	Apr 2012	0.000		0.000		-		0.000	0.000	0.028	
G-BOSS	C/FFP	CECOM/MITRE:STAFFORD, VA	0.861	0.000		0.861	Dec 2012	0.000		-		0.000	0.000	1.722	
Subtotal			2.423	1.520		2.006		1.163		0.000		1.163	0.000	7.112	
Remarks USMC CREW MCSC: CEOss Contracts for a Life Cycle cost Estimate and PM subject Matter Expertise USMC CREW NSWCRANE: On and off-site direct systems engineering support, RF Modeling and Simulation, Independent Verification and Validation support for all increments USMC CREW NSWCDahlgren: RADHAZ (Radio Hazard) Studies, Safety and Configuration Management Support G-BOSS NSWCDahlgren: Hardware/Software engineering and System Safety Support															
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
USMC CREW	WR	SSC-A:CHARLESTON, SC	0.550	0.565	Sep 2012	0.335	Dec 2012	0.340	Dec 2013	-		0.340	0.000	1.790	
USMC CREW	Various	NSWC CD:CRANE, IN	0.193	0.100	Mar 2012	0.000		0.000		-		0.000	0.000	0.293	
USMC CREW	C/CPFF	MCSC/MCOTEA:QUANTICO, VA	0.327	0.318	Mar 2012	0.324	Jul 2013	2.412	Nov 2013	-		2.412	0.000	3.381	
USMC CREW	MIPR	YPG:YUMA, AZ	0.809	0.600	May 2012	0.530	Dec 2012	0.533	Dec 2013	-		0.533	0.000	2.472	
USMC CREW	MIPR	SAF/FMBIB:WASHINGTON, DC	0.000	0.115	Sep 2012	0.000		0.000		-		0.000	0.000	0.115	
G-BOSS	MIPR	ATEC:FT. AP HILL, VA	0.010	0.000		0.000		0.000		-		0.000	0.000	0.010	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>						R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>						PROJECT 2274: <i>Command & Control Warfare Sys</i>			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
G-BOSS	C/CPFF	MCSC/ MCOTEA:QUANTICO, VA	0.276	0.000	Mar 2012	0.350	May 2013	0.000		-		0.000	0.000	0.626	
G-BOSS	Various	NSWC CD:CRANE, IN	0.000	0.760	Jan 2012	0.000		0.000		-		0.000	0.000	0.760	
G-BOSS	WR	SSC-A:CHARLESTON, SC	0.100	0.000		0.730	Aug 2013	0.000		-		0.000	0.000	0.830	
Subtotal			2.265	2.458		2.269		3.285		0.000		3.285	0.000	10.277	
Remarks USMC CREW MCOTEA: Provides OT/DT oversight and support for CREW 3.3 systems USMC CREW YPG: Provides Test ranges and results analysis for all CREW systems G-BOSS MCOTEA: provies oversight support for test events G-BOSS NSWC CRANE: will provide testing and evaluation per GBOSS CDD requirements															
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
USMC CREW	C/FFP	MCSC/ CEOSS:QUANTICO, VA	0.274	1.271	Mar 2013	0.000		0.000		-		0.000	0.000	1.545	
USMC CREW	WR	NSWC CD:CRANE, IN	0.967	2.106	Feb 2012	1.511	Nov 2012	3.095	Nov 2013	-		3.095	0.000	7.679	
USMC CREW	WR	NSWC DD:DAHLGREN, VA	0.651	0.432	Jun 2012	1.238	Dec 2012	1.258	Dec 2013	-		1.258	0.000	3.579	
G-B0SS	C/FFP	MCSC:QUANTICO, VA	2.432	0.798	Apr 2012	0.000		0.000		-		0.000	0.000	3.230	
G-B0SS	Various	NSWC DD:DAHLGREN, VA	0.386	0.386	Sep 2012	0.550	Nov 2012	0.000		-		0.000	0.000	1.322	
Subtotal			4.710	4.993		3.299		4.353		0.000		4.353	0.000	17.355	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013					
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems						PROJECT 2274: Command & Control Warfare Sys					
Management Services (\$ in Millions)						FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks																	
USMC CREW MCSC: Provides Program Management support to USMC CREW Program																	
G-BOSS MCSC: Program management Support																	
G-BOSS NSWC Dahlgren: Program management Support																	
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract		
Project Cost Totals			19.071	25.624		32.052		11.234		0.000		11.234					
Remarks																	

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

DATE: April 2013

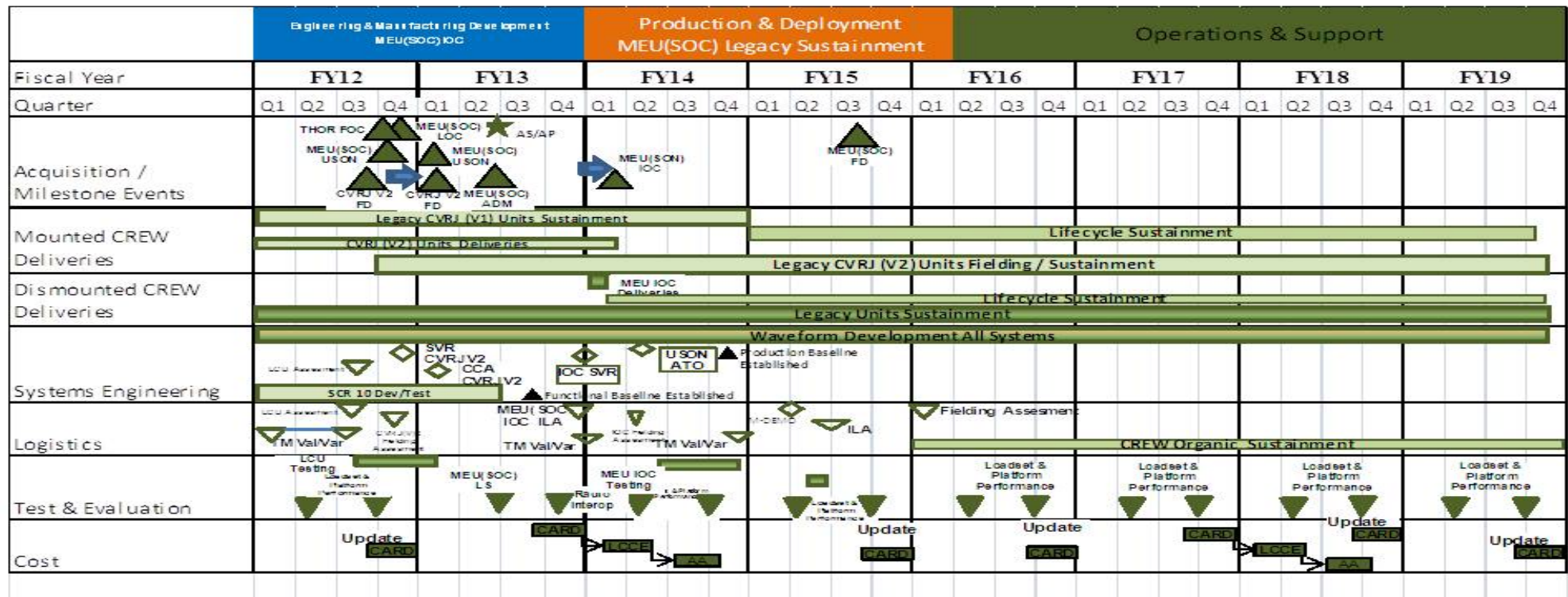
APPROPRIATION/BUDGET ACTIVITY1319: Research, Development, Test & Evaluation, Navy
BA 7: Operational Systems Development**R-1 ITEM NOMENCLATURE**

PE 0206313M: Marine Corps Comms Systems

PROJECT

2274: Command & Control Warfare Sys

USMC CREW Program Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE

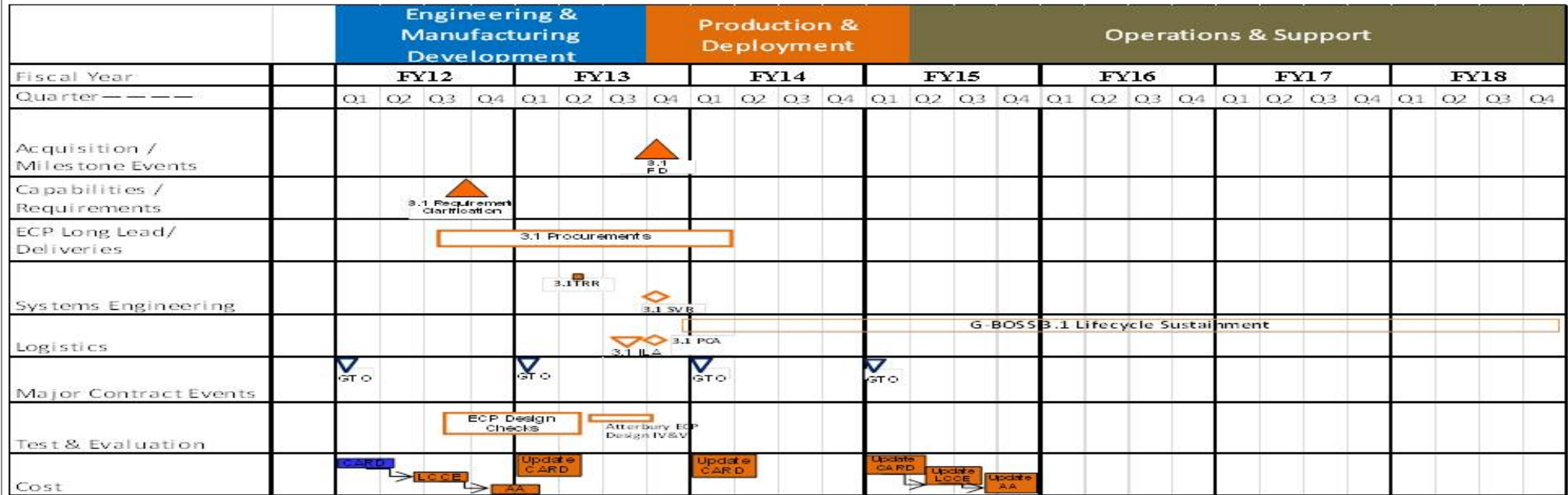
PE 0206313M: Marine Corps Comms Systems

PROJECT

2274: Command & Control Warfare Sys



G-BOSS PROGRAM SCHEDULE



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2274: <i>Command & Control Warfare Sys</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2274				
USMC CREW Waveform Development	1	2012	4	2018
USMC CREW MEU(SOC) SYSTEM ACQUISITION STRATEGY	2	2013	2	2013
USMC CREW MEU(SOC) IOC	2	2014	2	2014
G-BOSS 3.1 Requirements Clarification	3	2012	3	2012
G-BOSS 3.1 Fielding Decision	4	2013	4	2013
USMC CREW MEU(SOC) FIELDING DECISION	3	2015	3	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2275: Joint Tactical Radio System			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2275: Joint Tactical Radio System	7.426	5.280	4.413	21.923	-	21.923	5.353	2.383	3.072	6.176	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

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

A. Mission Description and Budget Item Justification

(U) Tactical Communications Modernization (TCM): TCM was established to procure interim radio systems to bridge the gap between legacy systems and forecasted deliveries from the Joint Tactical Radio System (JTRS) program. The program schedule and budget profile for TCM procures leading edge radio systems to support the primary operational voice and data communications requirements for mounted and dismounted forces. TCM procurements enable an initial joint networking capability and support National Security Agency (NSA) Communications Security (COMSEC) ModernizatNext generation solutions for the Warfighter due to urgent communications requirements and Joint Tactical Radio System (JTRS) schedule delays. Funding provides engineering and test support for both the Wideband Tactical Handheld Radio (THHR), AN/MRC-145B service life extension program and programmatic and technical support to complete an AOA for Terrestrial Wideband Transmission System. Increase of \$1.1M from FY13 to FY14 to purchase test articles and testing for a new requirements document for Wideband Tactical Handheld Radio. This is expected to become a new acquisition program (Wideband THHR).

(U) Networking on the Move (NOTM): Networking-on-the-Move (NOTM) provides the Marine Air-Ground Task Force (MAGTF) communications and networking capabilities On-the-Move (OTM), On-the-Halt (OTH), and the beginning capability for self-forming/self healing, ad hoc mobile networking. NOTM will enable mobile forces to collaborate and access information resources for the exchange of voice, data, and video information. This capability will allow tactical forces to maintain situational awareness by extending data network connectivity while OTM. In addition, NOTM will provide crucial network management capabilities to simplify the planning, configuring, and monitoring of the MAGTF networks, waveforms, and spectrum. FY13 to FY14 increase of \$8.7M will support the incorporation of Ka- and X-band satellite communications capabilities in addition to Network Operations Security Center (NOSC) requirements.

(U) Very Small Aperture Terminal (VSAT): Very Small Aperture Terminal (VSAT) is an integrated Commercial Off-the-Shelf (COTS) satellite communications terminal with a modular architecture that supports drop and insert architecture through scalable and flexible applications. VSAT uses commercial Ku and military Ka frequency bands to provide beyond line-of-sight (BLOS) connectivity to support intra-MAGTF communications (NIPRNET, SIPRNET, and telephony) down to the battalion/squadron level. The primary variant of VSAT is the Support Wide Area Network Terminal Version D (SWAN-D), which itself comes in three modular variants, dependent on MAGTF-size and mission.

(U) Tactical Satellite Comm Terminal (TSCT): Lightweight Multiband Satellite Terminal (LMST)/PHOENIX are quad-band Super High Frequency (SHF) satellite terminals mounted in transit cases and High Mobility Multipurpose Wheeled Vehicles (HMMWVs). With the signing of the SATCOM Collapse (20 May 2011) a dynamic transition will take place to consolidate (3) programs, Lightweight Multiband Satellite Terminal (LMST), Phoenix Tactical SHF Satellite Terminal (TSST), and the Very

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems	PROJECT 2275: Joint Tactical Radio System		
Small Aperture Terminal Large (VSAT-L) into (1) requirement defined as the Universal Satellite Access Tactical Terminal (UnSATT). RDT&E funding will be utilized to research/integrate Joint IP Modems as mandated by DISA to ensure interoperability during the transition process.				
(U) 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) Terrestrial Wideband Transmission Systems (TWTS): Increase in FY14 for Terrestrial Wideband Transmission Systems (TWTS), a capabilities portfolio of terrestrial based wideband transmission systems (formerly known as an TRC-170). Portfolio includes Beyond Line Of Sight (BLOS) system (AN/TRC-170) and Line Of Sight (LOS) systems (AN/MRC-142 (FOS), Troposcatter Support Radio (TSSR), and Wireless Point- to-Point- Link version D (WPPL-D).- The AN/TRC-170 is a transportable BLOS, terrestrial, self-enclosed troposcatter terminal (multichannel) capable of transmitting and receiving digital data over varying distances up to 100 miles. - AN/MRC-142 FoS consists of the AN/MRC-142B (ship to shore) and C variants to provide LOS, two-way, secure voice and data communications up to 35 miles. - WPPL-D is an integrated communications system consisting of Commercial Off-the-Shelf (COTS) radios, antennas, and IP networking equipment that provides NIPR/SIPRNet data connectivity, voice and video services. - TSSR is a multi-channel LOS wireless cable replacement communication system. The TSSR is commonly used in-place of fiber optic or coaxial cable at expeditionary airfields. - TEAMS is a 34-meter telescopic mast system, extending support to various organic LOS systems (AN/MRC142, EPLRS, TAOM, and TSSR) by increasing operational reach by overcoming obstacles to communications.				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				
		FY 2012	FY 2013	FY 2014
Title: TCM : Tactical Communications Modernization		1.239	0.562	1.734
Articles:		0	0	0
FY 2012 Accomplishments: Provided engineering support and preliminary test support for the AN/MRC-145-B and programatic and technical support for development of an AOA for Terrestrial Wideband Transmission System (TWTS).				
FY 2013 Plans: RDTE funding is planned for the MRC 145B engineering support and test and evaluation support.				
FY 2014 Plans: RDT&E funding is planned for the engineering and test and evaluation support for the Wideband Tactical Handheld Radio.				
Title: NOTM: Product Development		0.435	0.802	9.544
Articles:		0	0	0
FY 2012 Accomplishments: Proof of concept development.				
FY 2013 Plans:				

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2275: <i>Joint Tactical Radio System</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
Proof of concept development.			
FY 2014 Plans: Increase in funds will provide development of A/B kits for new vehicle variants and development of Network Operations Security Center (NOSC) for remote operations of the NOTM system.			
Title: NOTM: Test and Evaluation Support		0.200	0.350
Articles:		0	0
FY 2012 Accomplishments: Test and evaluation support of prototype systems and equipment.			
FY 2013 Plans: Funds will provide for engineering and program support.			
FY 2014 Plans: Funds will provide support for proof of concept testing for NOTM Inc 2, and development of test plans.			
Title: NOTM: Engineering Program Support		1.283	1.922
Articles:		0	0
FY 2012 Accomplishments: Development efforts included required acquisition documentation and technical support.			
FY 2013 Plans: Funds will continue to support development efforts and engineering and program support.			
FY 2014 Plans: Funds will provide test and evaluation support from MCOTEA and MCTSSA and continued engineering and program support.			
Title: LMST: Engineering Program Support		0.992	0.316
Articles:		0	0
FY 2012 Accomplishments: Funds for program support, MCOTEA travel to test events, and VSAT X-band development for the SATCOM collapse.			
FY 2013 Plans: Funds will support SATCOM collapse research and testing, MCOTEA support, and continued program engineering support.			
FY 2014 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems	PROJECT 2275: Joint Tactical Radio System		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Funds will continue to provide program engineering support and MCOTEA support.				
Title: VSAT: Test and Evaluation Support Articles: FY 2012 Accomplishments: Continued Development and integration efforts, including DISA Modem Certification and engineering support for VSAT. FY 2013 Plans: Continue development and integration efforts, including DISA Modem Certification and engineering support at MITRE and JITC. FY 2014 Plans: Funds will continue to provide program engineering support at MITRE. Funds also will support testing at JITC and JSEC for ARTSTRAT.		0.939 0	0.363 0	0.374 0
Title: SMART-T - Program Support Articles: FY 2012 Accomplishments: Provided Science & Technology Engineering support for Secure, Mobile, Anti-jam, Reliable Tactical Terminal (SMART-T). FY 2013 Plans: Funding will support test and engineering activities through MCOTEA and MITRE. FY 2014 Plans: Funding will support Multi-service Operational Test and Evaluation (MOT&E) in addition to continued test and engineering support through MCOTEA and MITRE.		0.192 0	0.098 0	0.194 0
Title: TWTS: Test and Evaluation Support Articles: FY 2014 Plans: Funds will provide supoort for MRC-142 testing, validation, and verification in addition to TRC-170 design and test. These activities will support the mitigation of obsolescence of both systems.		0.000	0.000	2.140 0
Title: TWTS: Product Development Articles:		0.000	0.000	4.200 0
FY 2014 Plans:				

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>				PROJECT 2275: <i>Joint Tactical Radio System</i>				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2012	FY 2013	FY 2014
These funds are to support designs to mitigate the obsolescence issues and design service life extension plans for TRC-170 and MRC-142.												
Accomplishments/Planned Programs Subtotals										5.280	4.413	21.923
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost	
• PMC/463300-1: <i>Tactical Satellite LMST</i>	1.389	6.009	1.444		1.444	1.470	1.493	1.511	1.538	0.000	22.248	
• PMC/463300-3: <i>Very Small Aperture Terminal (VSAT)</i>	32.000	18.300	0.688		0.688	5.814	1.526	1.537	1.565	Continuing	Continuing	
• PMC/463300-4: <i>TCM</i>	112.002	66.619	55.537		55.537	89.311	77.983	4.680	4.876	Continuing	Continuing	
• PMC/463300-5: <i>SMART-T</i>	1.665	3.463	0.928		0.928	1.417	1.642	1.051	1.072	Continuing	Continuing	
• PMC/463300-6: <i>TWTS</i>	0.136	3.000	7.280		7.280	5.979	7.464	9.206	9.372	Continuing	Continuing	
• PMC/463100-7: <i>NOTM</i>	0.000	0.000	7.963		7.963	1.000	1.515	9.176	6.287	Continuing	Continuing	
• PMC/700000-1: <i>SMART-T</i>	0.000	0.188	0.174		0.174	0.197	0.200	0.203	0.207	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
(U) D. ACQUISITION STRATEGY:												
(U) Tactical Communications Modernization (TCM): - Provides for the testing and evaluation of next generation tactical radio systems supporting the AN/MRC-145 service life extension program.												
(U) Networking on the Move (NOTM): NOTM will use an evolutionary acquisition strategy and pursue a competitive firm fixed price contract that leverages Commercial-Off-The-Shelf (COTS) and Government-Off-The-Shelf (GOTS) technology to procure, sustain and meet emerging requirements of the system. The design of the system provides for internal growth capability through an open system architecture enabling technology refresh to extend the system's life, maintain interoperability, Information Assurance (IA) compliance, and reduce costs due to Diminishing Manufacturing Sources and Material Shortages (DMSMS). It is envisioned that technology refresh will occur on the NOTM hardware and software periodically due to component obsolescence, user-driven requests for improvements, IA compliance, and mission-related requirements. Refresh will include investments to incorporate evolving capability to ensure compatibility with other systems, create lighter more efficient equipment, and keep pace with evolving software requirements. End-of-life equipment refresh is expected throughout the program's life cycle and may be managed through kit purchases, replacement through Engineering Change Proposals (ECPs), or as replacement parts as equipment is repaired.												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2275: <i>Joint Tactical Radio System</i>
(U) Very Small Aperture Terminal (VSAT): VSAT systems are currently in fielding and sustainment phases. VSAT systems primarily support operations on costly commercial SATCOM bandwidth. Some additional military SATCOM frequencies (Ka-band) have already been incorporated into the large, trailer mounted VSAT systems to alleviate reliance on commercial SATCOM bandwidth procurements. Additional military Ka-band upgrades to smaller variants of VSAT systems are pending. Additionally, VSAT systems have been recently identified as the platform required to support operations on military X-band SATCOM frequencies as other X-band capable systems reach obsolescence. In order to subsume the capabilities lost in the phase out of the obsolete systems, VSAT systems require ECPs to incorporate X-band capability in addition to upgrading ancillary subsystems. ECPs will involve procurement of COTS upgrade kits that are designed and integrated in accordance with government owned drawings and specifications. Contract delivery orders will be awarded to competent bidders on US Army PM Warfighter Information Network-Tactical multi-award IDIQ contracts on a FFP basis. The majority of candidate upgrade kits and components exist as previously awarded CLINs on current contracts. Upon determination of final configuration of upgraded SATCOM terminal, program office will use the same US Army contracting vehicles to procure the approved quantity of new terminals to replace the obsolete terminals being phased out. (U) Tactical Satellite Comm Terminal (TSCT) - LIGHTWEIGHT MULTIBAND SATELLITE TERMINAL (LMST)/PHOENIX: With the signing of the SATCOM Collapse (20 May 2011), the Marine Corps will consolidate (3) programs, Lightweight Multiband Satellite Terminal (LMST), Phoenix Tactical SHF Satellite Terminal (TSST), and the Very Small Aperture Terminal Large (VSAT-L) into (1) requirement defined as the Universal Satellite Access Tactical Terminal (UnSATT). The acquisition strategy for the Lightweight Multi-band Satellite Terminal (LMST) and Phoenix program is to sustain terminals to maintain joint interoperability through FY17. (U) Secure Mobile Anti-Jam Reliable Tactical-Terminal (SMART-T): SMART-T is an Army led, ACAT II program. The Program Manager MC3 is the Marine Corps Program Decision Authority (PDA). The Marine Corps SMART-T has fielded the full Authorized Acquisition Objective (AAO) of 42 terminals and 32 AN/PSQ-17 Network Planning tools. SMART-T will be upgraded for compatibility with Advanced Extremely High Frequency (AEHF) waveforms and data rates. The SMART-T AEHF upgrade kits were procured in 2007. The required AN/PYQ-19 network planning tools will be procured in June 2012 and 2Q FY13. The AEHF capable SMART-Ts and planning tools will replace the legacy SMART-Ts; the AEHF SMART-T AAO will remain the same as that of the legacy system. MCLC is the Depot Level Source of Repair for SMART-T terminals as well as the warranty administrator for the AEHF upgrade kit components and the AN/PYQ-19 network planning tools. Terminal out of warranty repair for legacy components will be executed, when necessary, using the Army National Maintenance Contract. (U) Tactical Wideband Communication Systems (TWTS): - Require R&D to proceed with development of modern Beyond Line Of Sight (BLOS) system to replace the TRC-170. These funds are identified to cover system developmental activities along with different test activities to include durability (life), interoperability, performance and operational activities.		
E. Performance Metrics		
N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2275: Joint Tactical Radio System					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
NOTM Development	C/FFP	MCSC, QinetiQ NA:Stafford, VA	0.000	0.860	Dec 2011	0.000		0.000		-		0.000	0.000	0.860	
NOTM Development	C/FFP	SPAWAR:Charleston, SC	0.000	0.000		0.450	May 2013	2.325	Dec 2013	-		2.325	0.000	2.775	
NOTM NOSC Development	TBD	TBD:TBD	0.000	0.000		0.000		7.219	Feb 2014	-		7.219	Continuing	Continuing	Continuing
TWTS (MRC-142 design)	C/FFP	SPAWAR:Charleston, SC	0.000	0.000		0.000		2.200	Jan 2014	-		2.200	0.000	2.200	
TWTS (TRC-170)	C/FFP	SPAWAR:Charleston, SC	0.000	0.000		0.000		2.000	Mar 2014	-		2.000	0.000	2.000	
Subtotal			0.000	0.860		0.450		13.744		0.000		13.744			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
NOTM Engineering Support	FFRDC	US Army, MITRE:Stafford, VA	0.000	0.000		1.236	Dec 2012	1.400	Dec 2013	-		1.400	0.000	2.636	
LMST Contractor Support	C/FFP	MCSC, QinetiQ NA:Stafford, VA	0.000	0.805	Aug 2012	0.100	Apr 2013	0.100	Apr 2014	-		0.100	0.000	1.005	
VSAT Development and Integration	FFRDC	US Army, MITRE:Stafford, VA	4.337	0.270	Jan 2012	0.293	Dec 2012	0.034	Dec 2013	-		0.034	0.000	4.934	
TCM-Engineering Support	SS/UCA	US Army, MITRE:Stafford,VA	0.181	0.181	Feb 2012	0.181	Dec 2012	0.181	Dec 2013	-		0.181	0.000	0.724	
TCM Progamatic and Development Support	C/FFP	SSC-Atlantic:Charleston, SC	0.000	0.824	Oct 2012	0.000		0.000		-		0.000	0.000	0.824	
LMST Engineering Support	FFRDC	US Army, MITRE:Stafford, VA	2.606	0.000		0.166	Dec 2012	0.212	Dec 2013	-		0.212	0.000	2.984	
NOTM Contract Support	C/FFP	MCSC, QinetiQ NA:Stafford, VA	0.000	0.858	Mar 2012	0.938	Apr 2013	1.250	Apr 2014	-		1.250	0.000	3.046	
VSAT Contractor Support	C/FFP	MCSC, QinetiQ NA:Stafford, VA	0.043	0.270	Apr 2012	0.000		0.000		-		0.000	0.000	0.313	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>						R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>						PROJECT 2275: <i>Joint Tactical Radio System</i>			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SMART-T Contractor Support	FFRDC	US Army, MITRE:Stafford, VA	0.000	0.192	Mar 2012	0.068	Dec 2012	0.154	Dec 2013	-		0.154	0.000	0.414	
Subtotal			7.167	3.400		2.982		3.331		0.000		3.331	0.000	16.880	
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
VSAT Test Support	MIPR	JITC:Ft. Huachuca, AZ	0.000	0.399	Mar 2012	0.070	Mar 2013	0.210	Mar 2014	-		0.210	0.000	0.679	
NOTM Test Support	Allot	MCTSSA:Camp Pendleton, CA	0.000	0.200	Dec 2011	0.450	Feb 2013	0.500	Feb 2014	-		0.500	0.000	1.150	
SMART-T	WR	MCOTEA:Quantico, VA	0.000	0.000		0.030	Nov 2012	0.020	Nov 2013	-		0.020	0.000	0.050	
SMART-T	SS/FFP	US Army, PM WIN-T:Aberdeen, MD	0.000	0.000		0.000		0.020	Feb 2014	-		0.020	0.000	0.020	
LMST	MIPR	JITC:Ft Huachuca, AZ	0.000	0.000		0.050	Aug 2013	0.000		-		0.000	0.000	0.050	
VSAT Test Support	MIPR	JSEC:APG, MD	0.000	0.000		0.000		0.130	Oct 2013	-		0.130	0.000	0.130	
NOTM	WR	MCOTEA:Quantico, VA	0.000	0.000		0.000		0.275	Nov 2013	-		0.275	0.000	0.275	
TCM WIDEBAND Handheld	TBD	TBD:TBD	0.000	0.000		0.000		1.553	Apr 2014	-		1.553	0.000	1.553	
TWTS (MRC-142)	Allot	MCTSSA:Camp Pendleton, CA	0.000	0.000		0.000		0.500	Jan 2014	-		0.500	0.000	0.500	
TWTS (MRC-142)	WR	MCOTEA:Quantico, VA	0.000	0.000		0.000		0.080	Mar 2014	-		0.080	0.000	0.080	
LMST	WR	MCOTEA:Quantico, VA	0.000	0.187	Sep 2012	0.000		0.000		-		0.000	0.000	0.187	
TWTS (MRC-142)	MIPR	JITC:Ft. Huachuca, AZ	0.000	0.000		0.000		0.546	Jul 2014	-		0.546	0.000	0.546	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>							R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>					PROJECT 2275: <i>Joint Tactical Radio System</i>			

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
TWTS (TRC-170)	MIPR	US Airforce, PMO:Warren Robbins, GA	0.000	0.000		0.000		0.381	Jan 2014	-		0.381	0.000	0.381	
TWTS (TRC-170)	Allot	MCTSSA:Camp Pendleton, CA	0.000	0.000		0.000		0.633	Dec 2013	-		0.633	0.000	0.633	
TCM MRC-145B Test Support	C/FFP	SPAWAR:Charleston, VA	0.259	0.234	Sep 2012	0.381	Mar 2013	0.000		-		0.000	0.000	0.874	
Subtotal			0.259	1.020		0.981		4.848		0.000		4.848	0.000	7.108	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	7.426	5.280	4.413	21.923	0.000	21.923			

Remarks

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

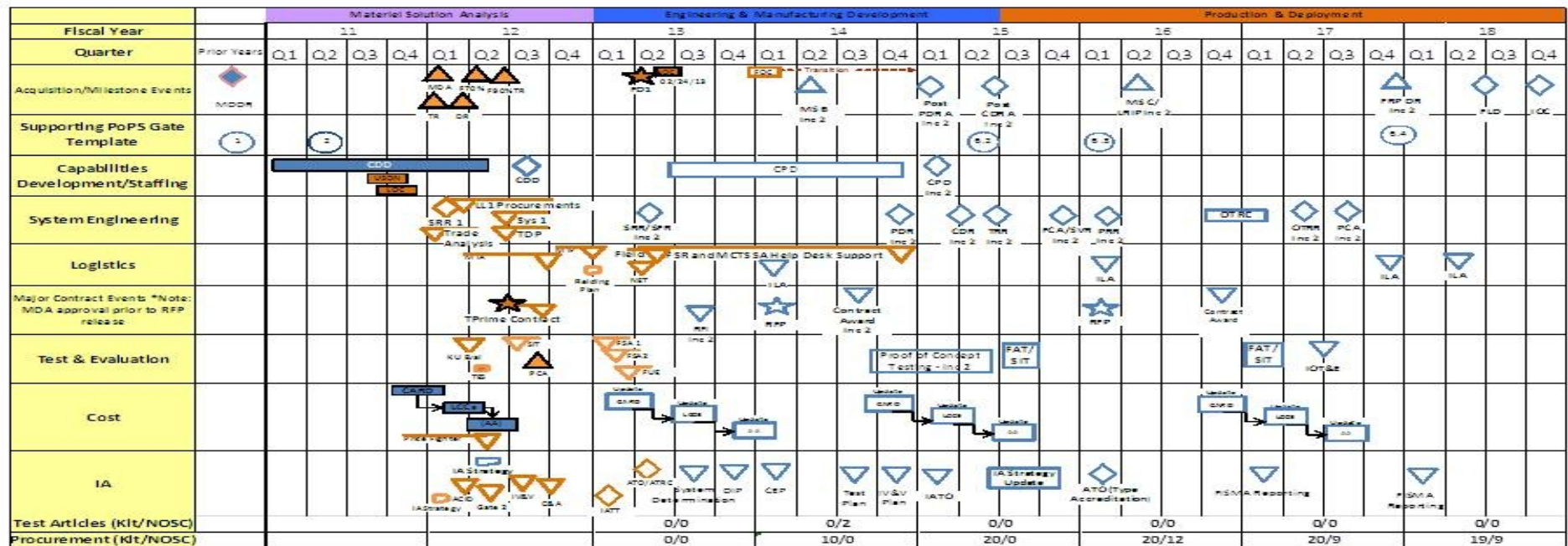
R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2275: Joint Tactical Radio System

NOTM Program Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

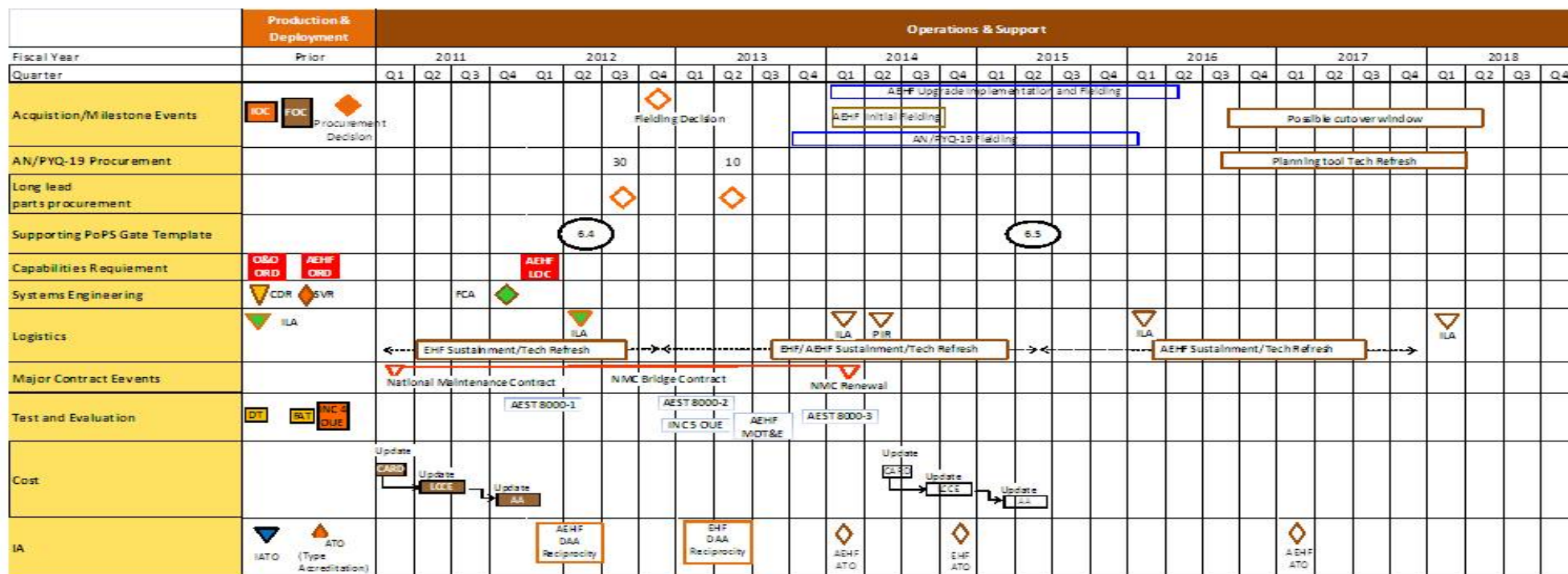
R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2275: Joint Tactical Radio System

AEHF SMART-T SCHEDULE



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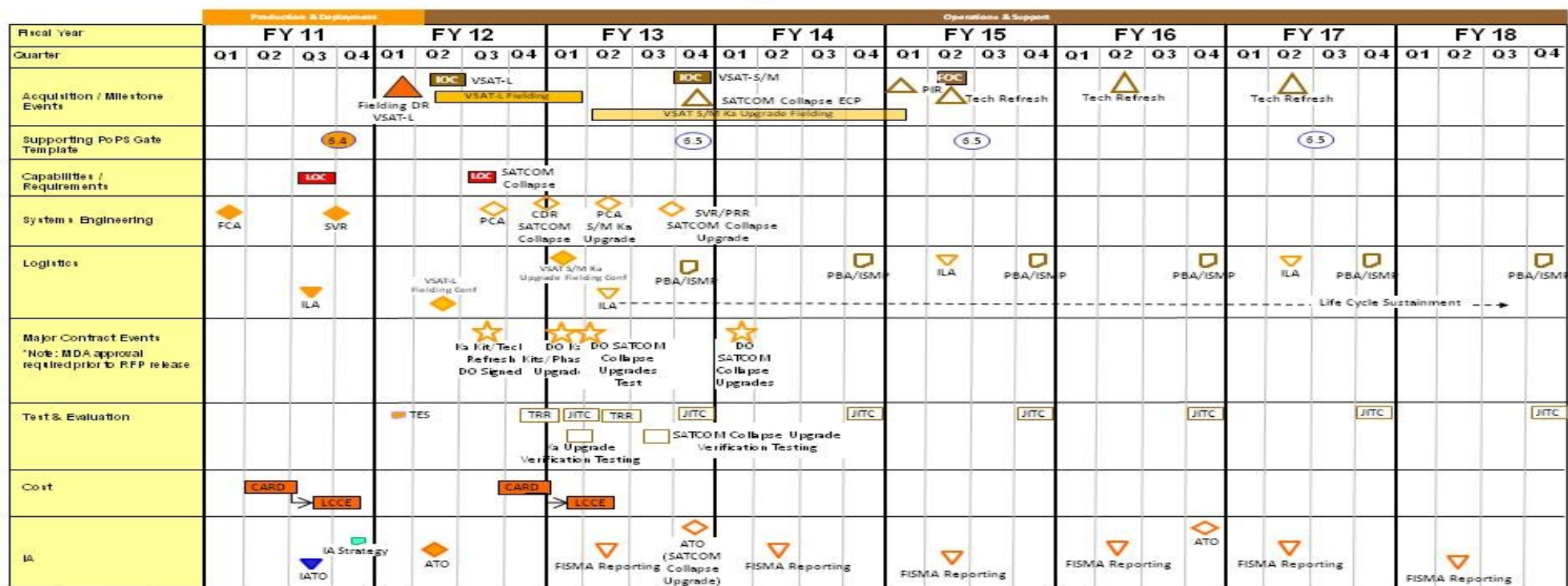
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PE 0206313M: *Marine Corps Comms Systems*
Navy

DATE: April 2013

R-1 ITEM NOMENCLATURE

PE 0206313M: *Marine Corps Comms Systems*

2275: *Joint Tactical Radio System*

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE

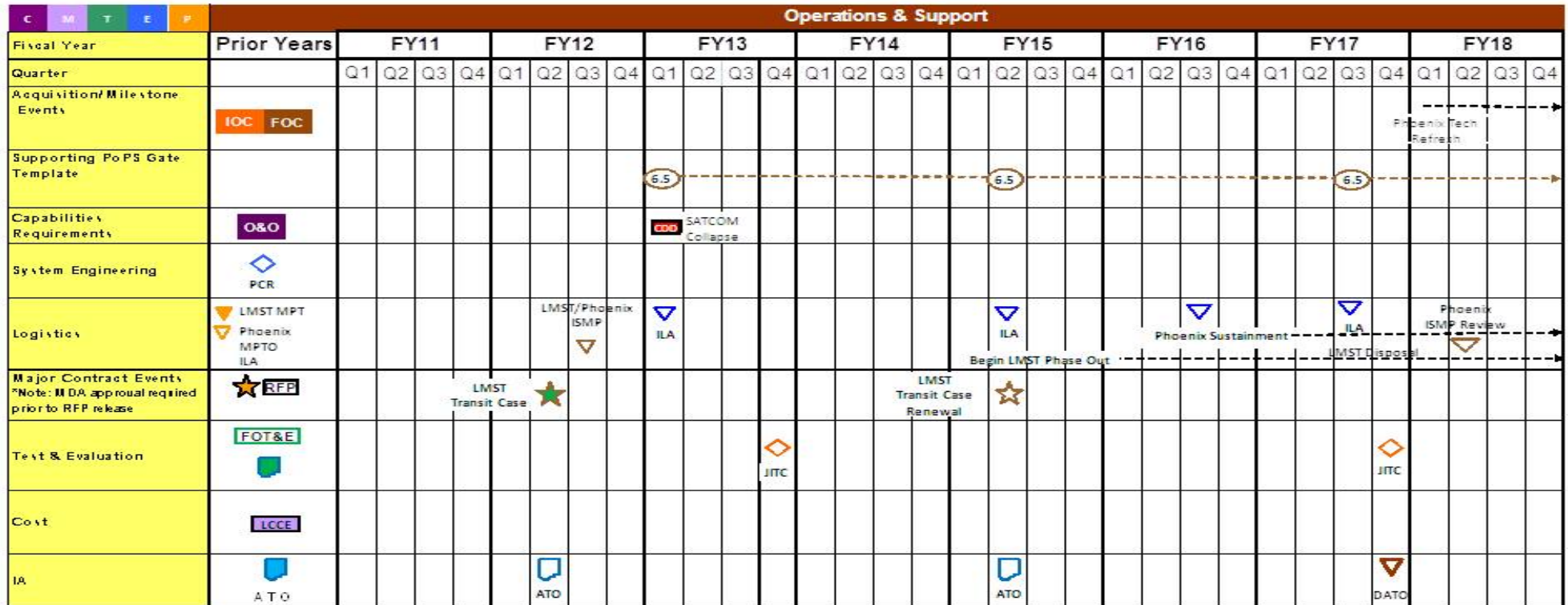
PE 0206313M: Marine Corps Comms Systems

PROJECT

2275: Joint Tactical Radio System



LMST/Phoenix Program Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms

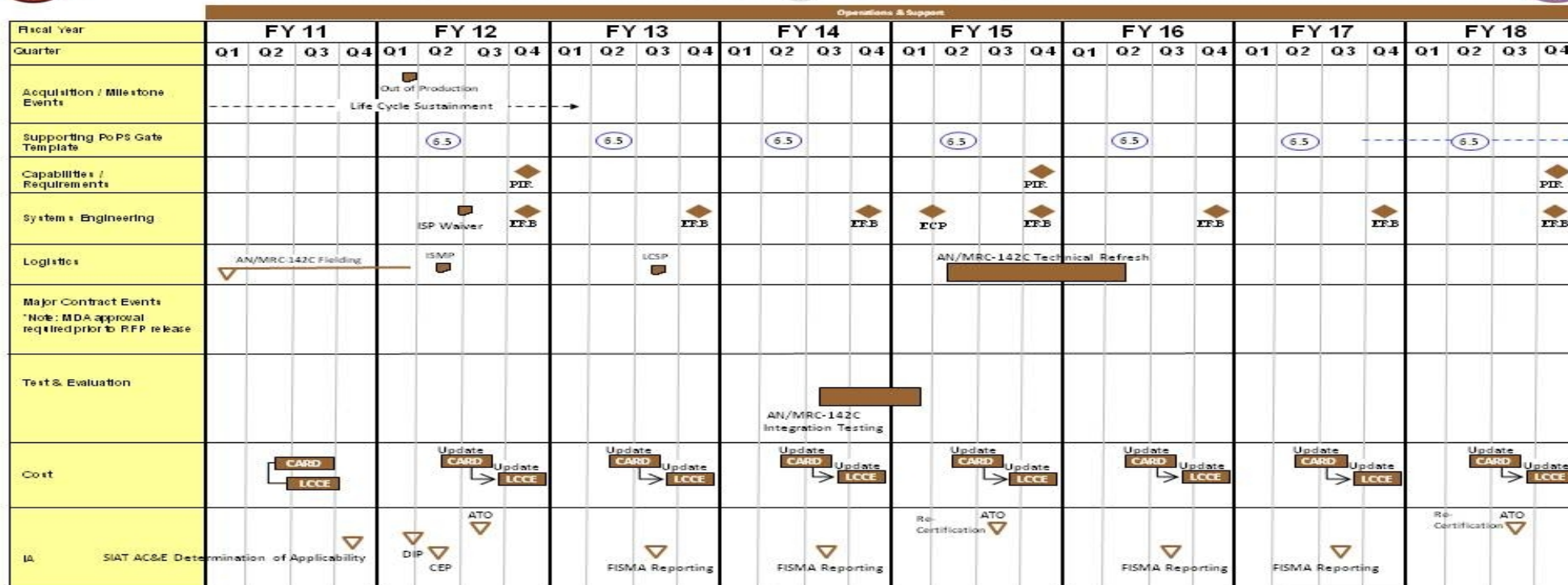
Systems

PROJECT

2275: Joint Tactical Radio System



MRC-142 Program Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2275: Joint Tactical Radio System



TWTS TRC-170 Program Schedule

	Operations & Support																																			
Fiscal Year	FY 11				FY 12				FY 13				FY 14				FY 15				FY 16				FY 17				FY 18							
Quarter	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Acquisition / Milestone Events	Life Cycle Sustainment				Out of Production																															
Supporting PoPS Gate Template					6.3				6.3				6.3				6.3				6.3				6.3				6.3							
Capabilities / Requirements					LOC				PIR												PIR								PIR							
Systems Engineering	SIAT ACSE Determination of Applicability				Obsolescence White Paper				ERB				ECP				ERB				ERB				ERB				ECP				ERB			
Logistics					ILA								ILA								ILA								ILA							
Major Contract Events																																				
Test & Evaluation																																				
Cost	CARD				Update CARD				Update CARD				Update CARD				Update CARD				Update CARD				Update CARD				Update CARD				Update CARD			
IA					ATO				FISMA Reporting				FISMA Reporting				Re-Certification				FISMA Reporting				FISMA Reporting				Re-Certification							

Legend

- ★ MDA Decision Approval (non-ED)
- ◆ Review
- Documentation
- ▲ Milestone / Key Acquisition Event
- ▼ Assessments, Proposals

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY1319: 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

THHR Program Schedule

	Operations & Support																															
Fiscal Year	Prior Years	FY12				FY13				FY14				FY15				FY16				FY17				FY18+						
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Acquisition/Milestone Events	IOC 2001	FOC 2010													Life Cycle Sustainment												Disposal					
PoPs Gate		6.5			6.5			6.5			6.5			6.5			6.5			6.5			6.5			6.5			6.5			
Capabilities/Requirements	MNS ORD	SONs UUNs																														
Systems Engineering							SR		ECP	TR	ECP				ECP				ECP				ECP				ECP					
Logistics	ILA VRC-110 2003 PRC-152 2003	IOD 2010	MPTA			ISMP	MPTP		MPTA/P Update		ILA	ISMP				ILA								ILA								
Major Contract Events	★ RFP Award	DOs			▼ LMI RFP	▼ LMI Contract Award																										
Test and Evaluation	JITC Waiver						MIL-STD 883C Testing									Operational Testing				JITC Waiver								JITC Waiver				
	Verification Testing						Regression Testing				Regression Testing				Regression Testing				Regression Testing				Regression Testing				Regression Testing					
Information Assurance	ATO Waivers						ATO AN/PRC-148				IATT								ATO AN/PRC-148								ATO AN/PRC-148					
Cost			PLCCE				BCA		PLCCE																							

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2275: <i>Joint Tactical Radio System</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2275				
TCM-WB THHR Life Cycle Sustainment	1	2012	2	2018
TCM-WB THHR SRR	1	2013	1	2013
TCM-WB THHR TRR	1	2013	1	2013
TCM-WB THHR ECP	3	2014	3	2014
TCM-WB THHR MIL-STD 810 Testing	1	2014	1	2014
TCM-WB THHR Operational Testing	3	2014	3	2014
NOTM CDD	3	2012	3	2012
NOTM CARD/LCCE/Affordability Assessment	1	2013	1	2014
NOTM Proof of Concept Testing Increment 2	3	2014	2	2015
NOTM PDR Increment 2	4	2014	4	2014
NOTM MS B Increment 2	2	2014	2	2014
NOTM EMD RFI	3	2013	3	2013
NOTM EMD RFP	1	2014	1	2014
NOTM EMD Contract Award	3	2014	3	2014
NOTM LRIP Increment 2 RFP	1	2016	1	2016
NOTM LRIP Increment 2 Contract Award	4	2016	4	2016
NOTM LRIP Increment 2 FRP	4	2017	4	2017
VSAT Large IOC	2	2012	2	2012
VSAT Large Fielding	2	2012	1	2013
VSAT S/M Ka-band FRP/Fielding	2	2013	1	2015
VSAT Small/Medium IOC	4	2013	4	2013

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems		PROJECT 2275: Joint Tactical Radio System
		Start		End
Events by Sub Project	Quarter	Year	Quarter	Year
VSAT SATCOM Collapse Upgrades Test Articles Award	2	2013	2	2013
VSAT JITC Test Event (DICE 3)	4	2013	4	2013
VSAT SATCOM Collapse Ka Kits/ Phase IV Upgrades Award	1	2013	1	2013
VSAT Ka-band FOC	2	2015	2	2015
VSAT Tech Refresh	2	2015	2	2015
VSAT SATCOM Collapse ECP Award	1	2014	1	2014
LMST SATCOM Collapse LOC	3	2012	3	2012
LMST JITC Certifications	4	2013	4	2013
LMST (Phoenix) JITC Certifications	4	2013	4	2013
LMST & Phoenix ATO	2	2015	2	2015
LMST Phase-out	1	2016	4	2017
LMST (Phoenix) Tech Refresh	1	2018	4	2018
SMART-T Inc 5 Operational User Evaluation	4	2012	2	2013
SMART-T AEST-2 Launch	4	2012	2	2013
SMART-T AEST 3 Launch	4	2013	2	2014
SMART-T AEHF Planning Tool (PYQ-19) Fielding	4	2013	1	2016
SMART-T AEHF Terminal Fielding	1	2014	2	2016
SMART-T AEHF MOT&E	2	2013	4	2013
TWTS (MRC-142) Intergration Testing	3	2014	1	2015
TWTS (MRC-142) ERB (4th qtr each year)	4	2012	4	2018
TWTS (MRC-142) ECP	1	2015	1	2015
TWTS (MRC-142) Tech Refresh	2	2015	2	2016
TWTS (MRC-142) ATO (3rd qtr every 3 years)	3	2012	3	2018
TWTS (TRC-170) PIR (3rd qtr every 3 years)	4	2012	4	2018
TWTS (TRC-170) ECP	1	2014	1	2014

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>		PROJECT 2275: <i>Joint Tactical Radio System</i>
		Start		End
Events by Sub Project		Quarter	Year	Quarter
TWTS (TRC-170) ILA		3	2014	3
TWTS (TRC-170) Intergration Testing		1	2014	2
TWTS (TRC-170) Obsolescence Management Techinal Refresh		1	2015	4

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2276: Comms Switching and Control Sys			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2276: Comms Switching and Control Sys	24.280	4.121	8.327	15.405	-	15.405	11.114	7.767	5.083	5.171	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

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

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) 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 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

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems	PROJECT 2276: Comms Switching and Control Sys	
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) 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.			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: NPM: SPEED Development and Enhancements Articles: FY 2012 Accomplishments: Continued future enhancements to software to maintain relevancy with emerging communication technology. FY 2013 Plans: Funds will support recomplete of SPEED contract for software development and program support. FY 2014 Plans: Funds will provide additional enhancements and capabilities within the SPEED software (Spectrum 21 online), testing through MCTSSA, and research on additional software applications to be utilized within NPM.	0.695 0	0.978 0	1.940 0
Title: NPM: Program Management Support Articles: FY 2014 Plans: Funds provide for program support.	0.000	0.000	0.400 0
Title: TSM: Engineering and Program Support Articles: FY 2012 Accomplishments:	0.408 0	0.317 0	0.324 0

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems		PROJECT 2276: Comms Switching and Control Sys
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				
Provided support for Engineer Change Proposal (ECP) integration and development testing, and continued engineering and program support efforts. FY 2013 Plans: Funds will provide for Information Assurance, Interoperability testing, and continued engineering and program support. FY 2014 Plans: Funds will provide for Voice Over IP (VoIP) testing, and continued engineering and program support.		FY 2012	FY 2013	FY 2014
Title: ECCS: Product Development Articles: FY 2012 Accomplishments: Funds are being used to purchase ECCS Production Representative Units for Test and Evaluation (T&E) purposes. Performing activity will be responsible for associated Information Assurance and Environmental Safety and Occupational Health (ESOH) tasks. FY 2013 Plans: Funds will provide for development of the Block 1 Consolidated Base Station (CBS).		0.500 0	0.770 0	0.000
Title: ECCS: Test and Evaluation Support Articles: FY 2012 Accomplishments: Funds will support ECCS Block 1 creation of Test Plan, Procedures, and Test Reports. FY 2013 Plans: Funds will provide support for testing of the Block 1 Consolidated Base Station (CBS) at MCTSSA and participation in Joint Interoperability Test Center (JITC) test events. FY 2014 Plans: Funds will continue to provide support for testing of the Block 1 CBS and participation in Joint Interoperability Test Center (JITC) test events.		0.500 0	0.409 0	0.500 0
Title: ECCS: Engineering and Program Support Articles: FY 2012 Accomplishments: Conducted engineering and program support. FY 2013 Plans:		0.037 0	0.934 0	1.405 0

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems	PROJECT 2276: Comms Switching and Control Sys	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Funds will support development of the Block 1 Consolidated Base Station (CBS) documentation , and continued engineering and program support.				
FY 2014 Plans: Funds will support integration and testing of the Block 1 CBS, and continued engineering and program support.				
Title: DDS-M: Program Engineering Support Articles:		0.514 0	0.517 0	3.732 0
FY 2012 Accomplishments: Provided program engineering support for DDS-M systems.				
FY 2013 Plans: Funds will support the IPV6 MCTSSA lab which provides interoperability validation of networking components within the IPV6 arena.				
FY 2014 Plans: Funds will support the Edge Boundary Controller initiative (DISA mandated) that provides a proxy service for real-time services which include VTC and Voice Over IP (VoIP) in addition to continued engineering program support.				
Title: DDS-M: Test and Evaluation Support Articles:		0.338 0	0.510 0	0.500 0
FY 2012 Accomplishments: JITC Joint Interoperability Testing and MCOTEA participation in DT events; First Article Testing (FAT) and Systems Integration Testing (SIT) in support of independent user evaluations.				
FY 2013 Plans: Continue Joint Interoperability Testing Command (JITC) and MCOTEA participation in DT events (2 DoD Interoperability Communications Exercises (DICE)).				
FY 2014 Plans: Funds will provide support for JITC and MCOTEA participation in OT events, (2 DoD Interoperability Communications Exercises (DICE)).				
Title: DDS-M Program Management Support Articles:		1.128 0	1.444 0	1.300 0
FY 2012 Accomplishments:				

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Funds will support research and development at MCTSSA for virtualization initiative Engineering Change Proposal (ECP) which includes modifications to the ASM and DSM modules of the DDS-M Core. FY 2013 Plans: Funds will support research at MCTSSA/MITRE on the effects of collapsing the networking capability in the VSAT and absorbing the requirement into the DDS-M. The research will include ensuring the current routers within the modules can support the increased payload required of the VSAT equipment. FY 2014 Plans: Funds will provide research and development at MCTSSA for concept of employment/operations for the implementation of the Edge Controller Boundary (EBC) capability within the IAM modules.				
Title: JECCS: Engineering and Program Support Articles: FY 2013 Plans: Funds will support development of Engineering Change Proposal (ECP) packages and continued engineering and program support. FY 2014 Plans: Funds will support research, development, and implementation of required crypto hardware/wiring; software regression testing; and continued engineering and program support.		0.000	0.077 0	2.755 0
Title: JECCS: Test and Evaluation Support Articles: FY 2013 Plans: Funds will support testing activities at MCTSSA. FY 2014 Plans: Funds will support participation in Joint Interoperability Testing Center (JITC) DoD Interoperability Communications Exercise (DICE) events in accordance with Joint Staff requirements and continued testing activities at MCTSSA.		0.000	0.040 0	0.689 0
Title: DTC: Engineering and Development Support Articles: FY 2012 Accomplishments: Continued engineering program support efforts. FY 2013 Plans:		0.001 0	2.180 0	1.360 0

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>				PROJECT 2276: <i>Comms Switching and Control Sys</i>			

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2012	FY 2013	FY 2014
Funds will support Engineering Change Proposals (ECPs), software integration, and continued engineering and program support.						
FY 2014 Plans: Funds will support engineering and further development of additional IP/Black Core routing, ECPs, and continued engineering and program support.						
Title: DTC: Test and Evaluation Support Articles:				0.000	0.151 0	0.500 0
FY 2013 Plans: Funds provide for Information Assurance updates and Joint Interoperability Testing.						
FY 2014 Plans: Funds will provide engineering and program support, IV&V testing, system verification review, and Authority to Operate re-accreditation.						
Accomplishments/Planned Programs Subtotals				4.121	8.327	15.405

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• PMC/4634-1: <i>TSM</i>	18.205	22.100	18.103		18.103	1.307	0.869	0.000	0.000	0.000	169.052
• PMC/4634-2: <i>ECCS</i>	0.000	0.300	4.777		4.777	12.657	4.420	3.020	2.983	0.000	38.436
• PMC/4634-5: <i>DDS-M</i>	98.153	32.353	12.980		12.980	73.681	63.225	44.785	47.521	0.000	372.698
• PMC/4634-6: <i>DTC</i>	16.695	3.295	3.656		3.656	3.329	4.519	6.591	6.709	0.000	44.794
• PMC/4634-7: <i>JECCS</i>	0.000	5.200	5.192		5.192	1.746	1.776	9.913	10.091	0.000	33.918
• PMC/4634-8: <i>NPM</i>	0.000	0.000	0.750		0.750	0.000	0.000	0.000	0.000	0.000	0.750
• PMC/4630-1: <i>TSM/CCR</i>	0.000	0.000	1.838		1.838	0.000	0.000	0.000	0.000	0.000	1.838
Remarks											
D. Acquisition Strategy											
(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 incremental development with the goal of releasing one new version of software annually. The SPEED contract method is through a sole source Blanket Purchase Agreement (BPA) using Fixed Price Task Orders based on the developer's GSA schedule for man-hours. FY13 to FY14 increase will support the award of a new contract and incorporation of additional capabilities and functionality into the SPEED software in accordance with user requirements.											

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2276: <i>Comms Switching and Control Sys</i>
(U) Transition Switch Module (TSM): TSM calls for the identification, integration, and testing of commercial switching technologies of sufficient maturity to improve system performance or meet emerging user requirements. Seeks commercial solutions that are fully compatible and interoperable with other Communication Networking Systems (CNS) programs that are fielded and/or being fielded e.g., DTC, TDN, Joint Enhanced Core Communication System (JECCS) etc. (U) Expeditionary Command and Control Suite (ECCS): ECCS will use an evolutionary acquisition strategy and pursue a competitive firm fixed price contract. Major focus will be on interoperability and compatibility with existing systems and components. R&D effort will focus on integrating and testing 'miniaturized' versions of existing components. Emerging technologies such as VoIP and Secure Wireless will also be addressed in the out year R&D effort. (U) TDN Data Distribution System - Modular (DDS-M): 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. FY13 to FY14 increase will support Edge Boundary Controller initiative which supports information assurance concerns when implementing voice-over-ip (VoIP) solutions. In addition, funds will be used to research technology obsolescence replacement end items. (U) Joint Enhanced Core Communications System-Refresh (JECCS-R): The JECCS-R acquisition strategy is based upon an evolutionary acquisition where most components are Commercial Off-the-Shelf (COTS). As an evolutionary acquisition, the JECCS will continue to be upgraded and improved as technology advances. Software version upgrades will be included. COTS and GOTS will be used to the maximum extent possible. The task order recipient will be responsible for updating the JECCS-R system operations and maintenance manual, which provides an integrated view of the equipment and interoperation of all components. FY13 to FY14 increase will support the Windows 7 and laptop upgrades, system integration testing, crypto testing and upgrades, fiber optic modem testing and enhancements, and server hardware/software testing and upgrades. (U) Digital Technical Control (DTC): DTC uses an an evolutionary acquisition strategy. As new products and industry standards are produced, they are to be tested and integrated into DTC equipment. Major focus will be on interoperability and compatibility with existing systems and components in the Marine Corps, as well as Joint and Coalition forces. R&D effort will focus on developing and integrating improved versions of existing components, while working toward the end-state of IPV6.		
E. Performance Metrics		
N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2276: Comms Switching and Control Sys					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
NPM (SPEED S/W Development)	C/FFP	MCSC, Northrop Grumman:VA, FL	7.329	0.695	Mar 2012	0.928	Jan 2013	1.773	Nov 2013	-		1.773	Continuing	Continuing	Continuing
ECCS Block 1 Integration	RO	NSWC:Panama City, FL	7.231	0.500	Oct 2012	0.000		0.000		-		0.000	0.000	7.731	
ECCS IA Certifications	WR	MCOTEA:Quantico, VA	6.412	0.000		0.215	Dec 2012	0.215	Mar 2014	-		0.215	0.000	6.842	
JECCS	C/FFP	SPAWAR:Charleston, SC	0.000	0.000		0.000		1.551	Feb 2014	-		1.551	0.000	1.551	
Subtotal			20.972	1.195		1.143		3.539		0.000		3.539			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
TSM Engineering Support	FFRDC	US Army, MITRE:Stafford, VA	0.526	0.108	Jan 2012	0.100	Dec 2012	0.100	Dec 2013	-		0.100	0.000	0.834	
ECCS Engineering Support	FFRDC	US Army, MITRE:Stafford, VA	0.000	0.037	Jan 2012	0.734	Dec 2012	0.430	Dec 2013	-		0.430	Continuing	Continuing	Continuing
ECCS Engineering Support	Allot	MCTSSA:Camp Pendleton, CA	0.000	0.000		0.100	Dec 2012	0.000		-		0.000	0.000	0.100	
DDS-M Engineering Support	Allot	MCTSSA:Camp Pendleton, CA	0.000	0.000		0.300	Feb 2013	0.250	Feb 2014	-		0.250	0.000	0.550	
DDS-M Engineering Support	TBD	TBD:TBD	0.000	0.000		0.000		3.306	Mar 2014	-		3.306	Continuing	Continuing	Continuing
DDS-M Engineering Support	C/FFP	SPAWAR:Charleston, SC	0.000	1.355	Sep 2012	0.217	Dec 2012	0.250	Dec 2013	-		0.250	0.000	1.822	
DTC Engineering Support	FFRDC	US Army, MITRE:Stafford, VA	0.000	0.001	Jan 2012	2.180	Dec 2012	1.490	Dec 2013	-		1.490	0.000	3.671	
WFN-T Engineering Support	FFRDC	US Army, MITRE:Stafford, VA	1.882	0.000		0.000		0.000		-		0.000	0.000	1.882	
Subtotal			2.408	1.501		3.631		5.826		0.000		5.826			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE				PROJECT					
1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						PE 0206313M: Marine Corps Comms Systems				2276: Comms Switching and Control Sys					
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
NPM T&E	Allot	MCTSSA:Camp Pendleton, CA	0.000	0.000		0.050	Mar 2013	0.200	Mar 2014	-		0.200	Continuing	Continuing	Continuing
TSM	C/FFP	SPAWAR:Charleston, SC	0.000	0.000		0.217	Mar 2013	0.224	Mar 2014	-		0.224	0.000	0.441	
ECCS T&E	WR	MCOTEA:VA	0.000	0.000		0.315	Jan 2013	0.280	Jan 2014	-		0.280	0.000	0.595	
ECCS T&E	MIPR	JITC:Ft. Huachuca, AZ	0.000	0.000		0.094	Jan 2013	0.080	Mar 2014	-		0.080	0.000	0.174	
DDS-M T&E	WR	MCOTEA:VA	0.000	0.000	Mar 2012	0.100	Mar 2013	0.100	Mar 2014	-		0.100	0.000	0.200	
DDS-M T&E	MIPR	JITC:Ft. Huachuca, AZ	0.000	0.080	May 2012	0.410	Mar 2013	0.400	Mar 2014	-		0.400	0.000	0.890	
JECCS	Allot	MCTSSA:Camp Pendleton, CA	0.000	0.000		0.047	Jan 2013	0.308	Jan 2014	-		0.308	0.000	0.355	
JECCS	MIPR	JITC:Ft. Huachuca, AZ	0.000	0.000		0.000		0.100	Feb 2014	-		0.100	0.000	0.100	
DTC	WR	MCOTEA:Quantico, VA	0.000	0.000		0.051	Mar 2013	0.170	Mar 2014	-		0.170	0.000	0.221	
DTC T&E	MIPR	JITC:Ft. Huachuca, AZ	0.000	0.000		0.100	May 2013	0.100	May 2014	-		0.100	0.000	0.200	
DTC	Allot	MCTSSA:Camp Pendleton, CA	0.000	0.000		0.000		0.100	Feb 2014	-		0.100	0.000	0.100	
WFN-T T&E	MIPR	JITC:Ft. Huachuca, AZ	0.900	0.000		0.000		0.000		-		0.000	0.000	0.900	
ECCS T&E	WR	NSWC:Panama City, FL	0.000	0.500	Oct 2012	0.000		0.000		-		0.000	0.000	0.500	
Subtotal			0.900	0.580		1.384		2.062		0.000		2.062			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
NPM Program Support	C/FFP	MCSC, QinetiQ:VA	0.000	0.000		0.000		0.367	Apr 2014	-		0.367	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>						R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>						PROJECT 2276: <i>Comms Switching and Control Sys</i>			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ECCS Program Support	C/FFP	MCSC, QinetiQ:VA	0.000	0.000		0.655	Apr 2013	0.900	Apr 2014	-		0.900	Continuing	Continuing	Continuing
DDS-M Program Support	C/FFP	MCSC, QinetiQ:VA	0.000	0.545	Sep 2012	1.444	Apr 2013	1.226	Apr 2014	-		1.226	Continuing	Continuing	Continuing
JECCS Program Support	C/FFP	MCSC, QinetiQ:VA	0.000	0.000		0.070	Apr 2013	1.485	Apr 2014	-		1.485	0.000	1.555	
TSM Program Support	C/FFP	MCSC, QinetiQ:VA	0.000	0.300	Sep 2012	0.000		0.000		-		0.000	0.000	0.300	
Subtotal			0.000	0.845		2.169		3.978		0.000		3.978			
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			24.280	4.121		8.327		15.405		0.000		15.405			
Remarks															

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

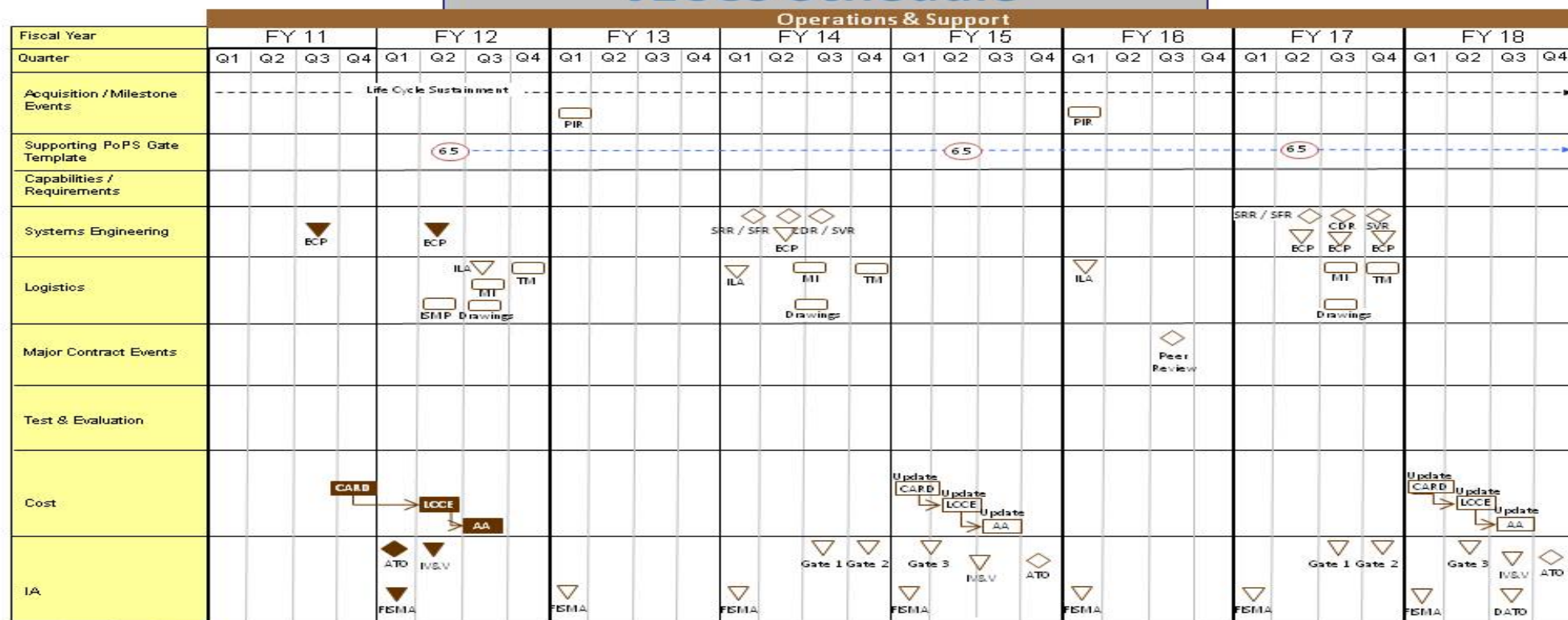
R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2276: Comms Switching and Control Sys

JECCS Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

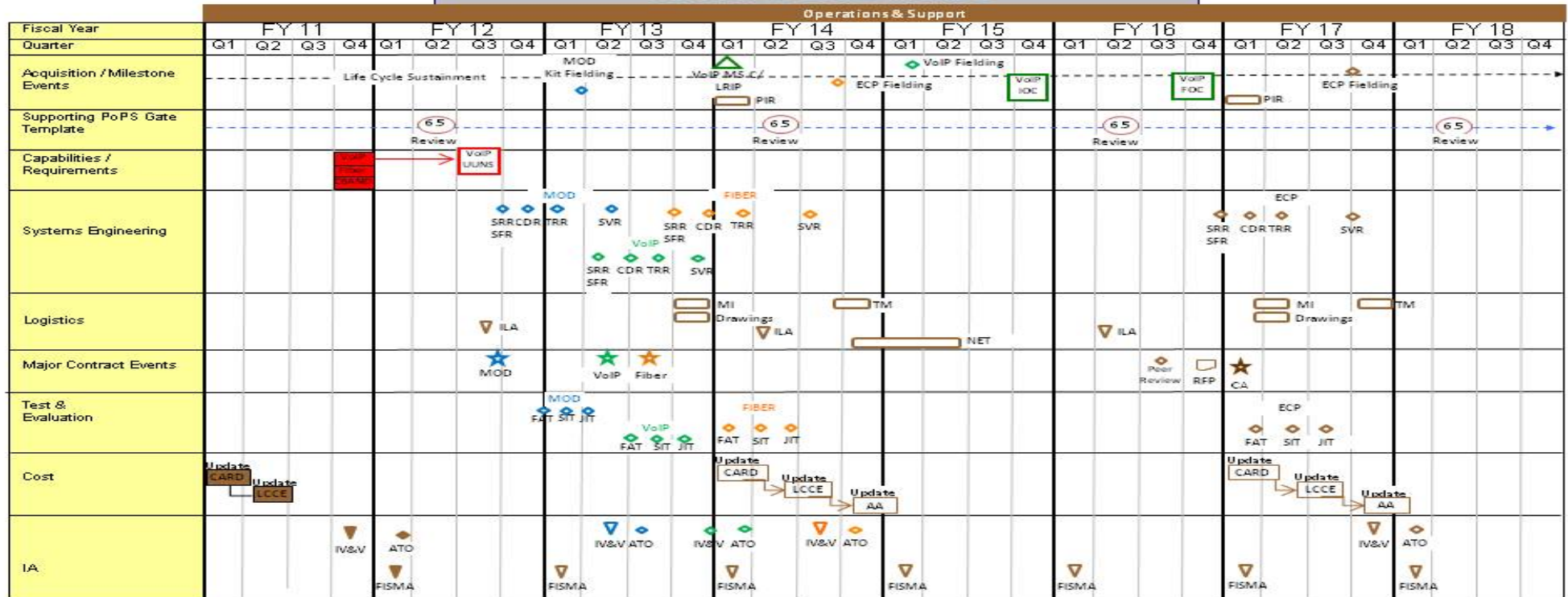
R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2276: Comms Switching and Control Sys

TSM Schedule



Legend

- ★ MDA Decision Approval (non-MS)
- ◆ Review
- Documentation
- ▼ Assessments, Proposals
- ▲ Milestone / Key Acquisition Event
- Modification (BCP)
- Voice over Internet Protocol (VoIP)
- Fiber Optic (BCP)

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PE 0206313M: *Marine Corps Comms Systems*
Navy

R-1 Line #188

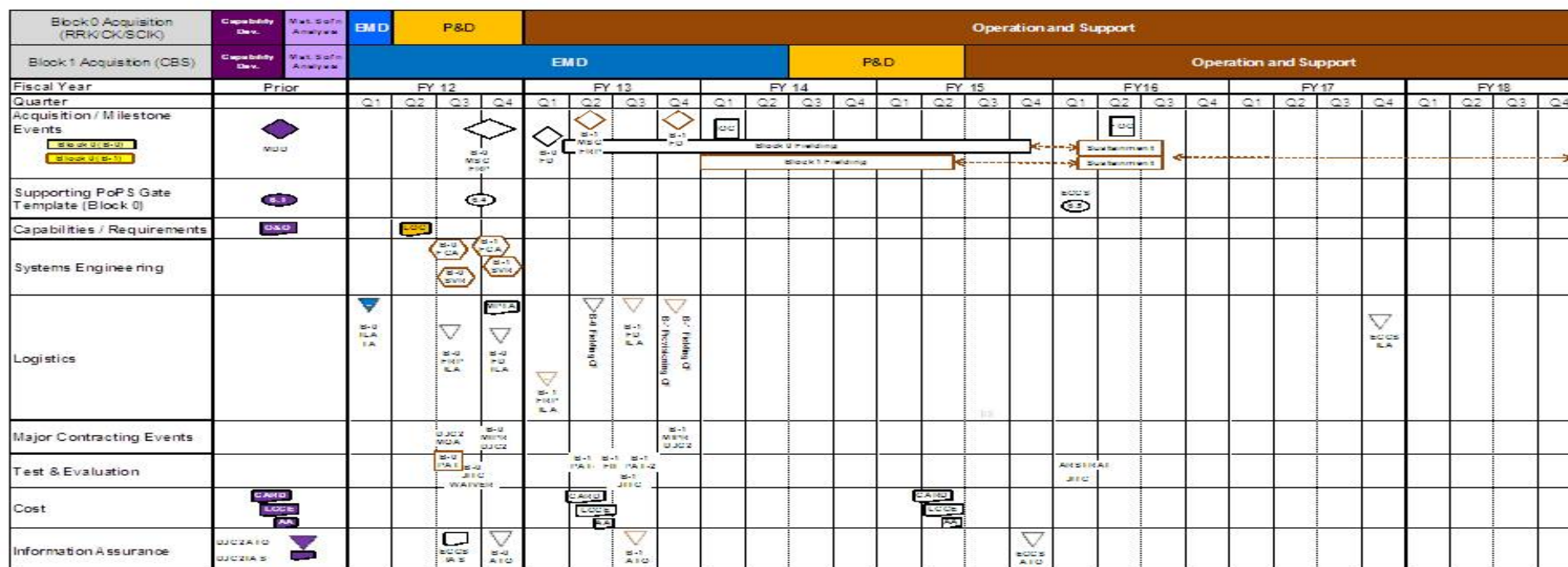
R-1 ITEM NOMENCLATURE

PE 0206313M: *Marine Corps Comms Systems*

2276: Comms Switching and Control Sys

*As of 4 May 2012

ECCS Program Schedule



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE

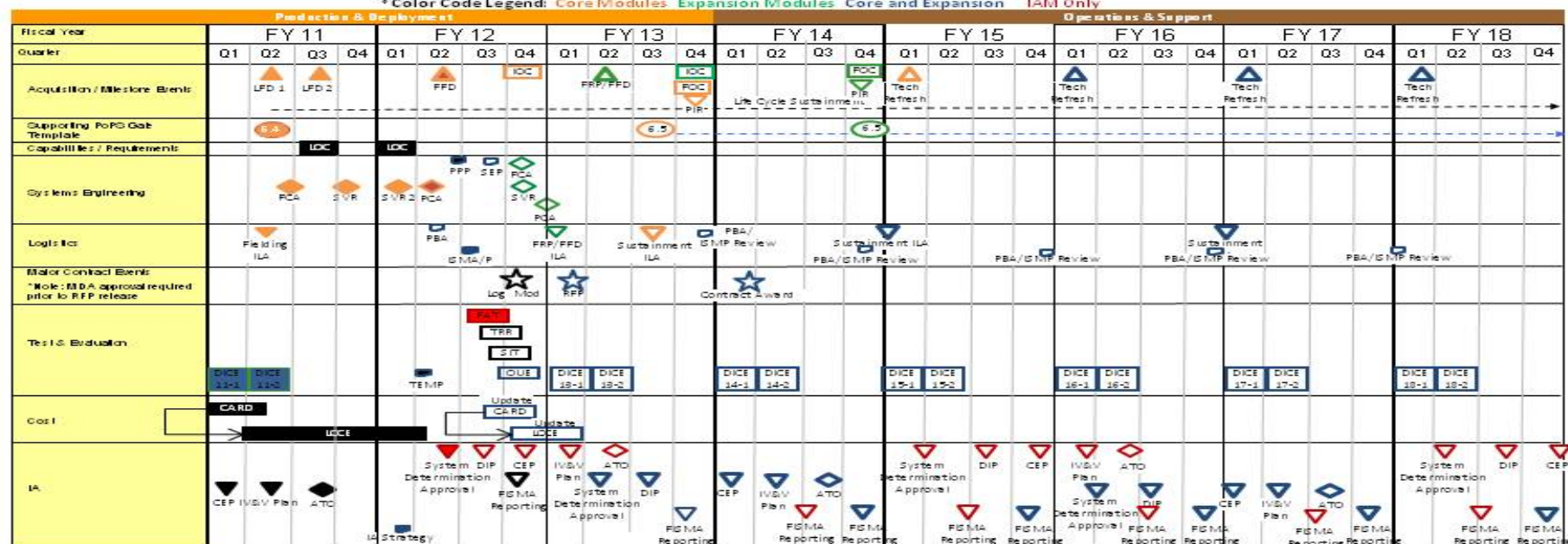
PE 0206313M: Marine Corps Comms Systems

PROJECT

2276: Comms Switching and Control Sys

TDN DDS Program Schedule

* Color Code Legend: Core Modules Expansion Modules Core and Expansion IAM Only



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

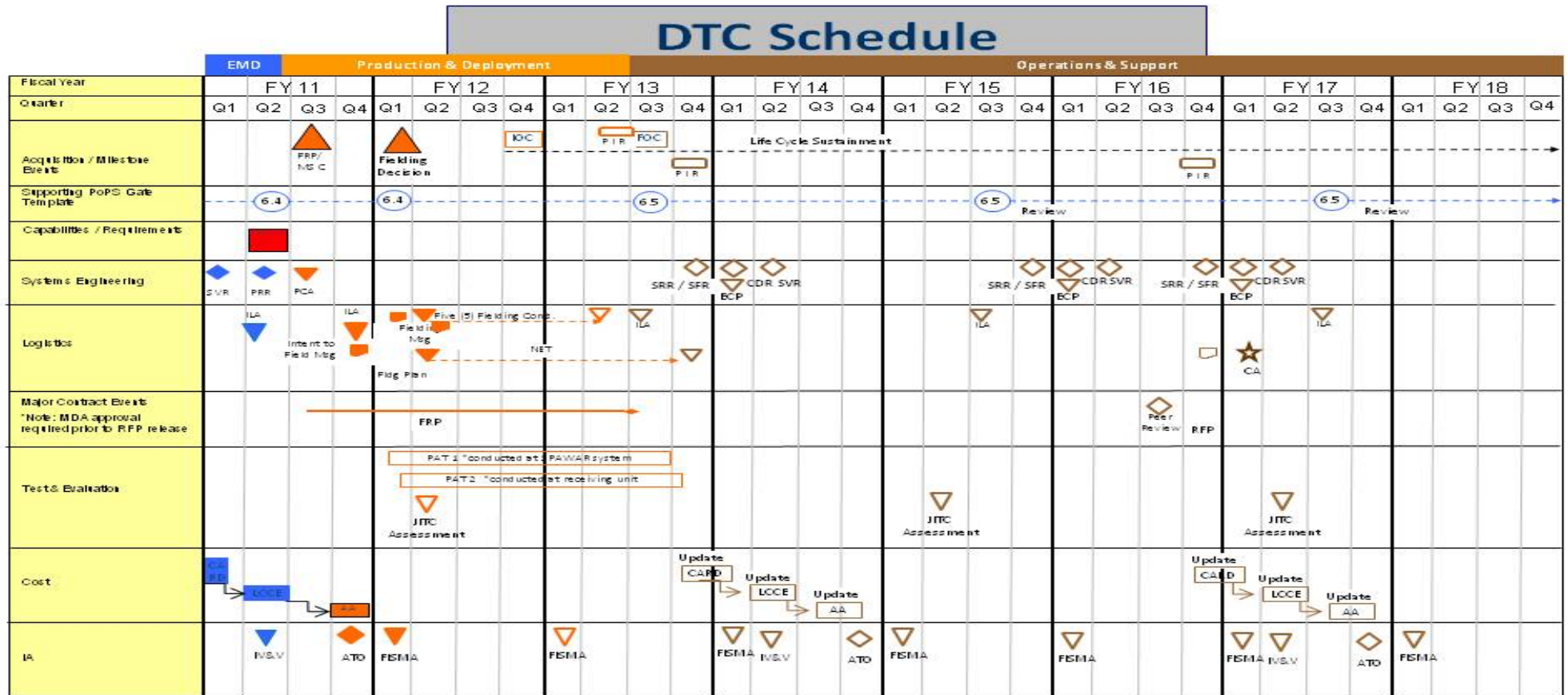
1319: Research, Development, Test & Evaluation, Navy
BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2276: Comms Switching and Control Sys



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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

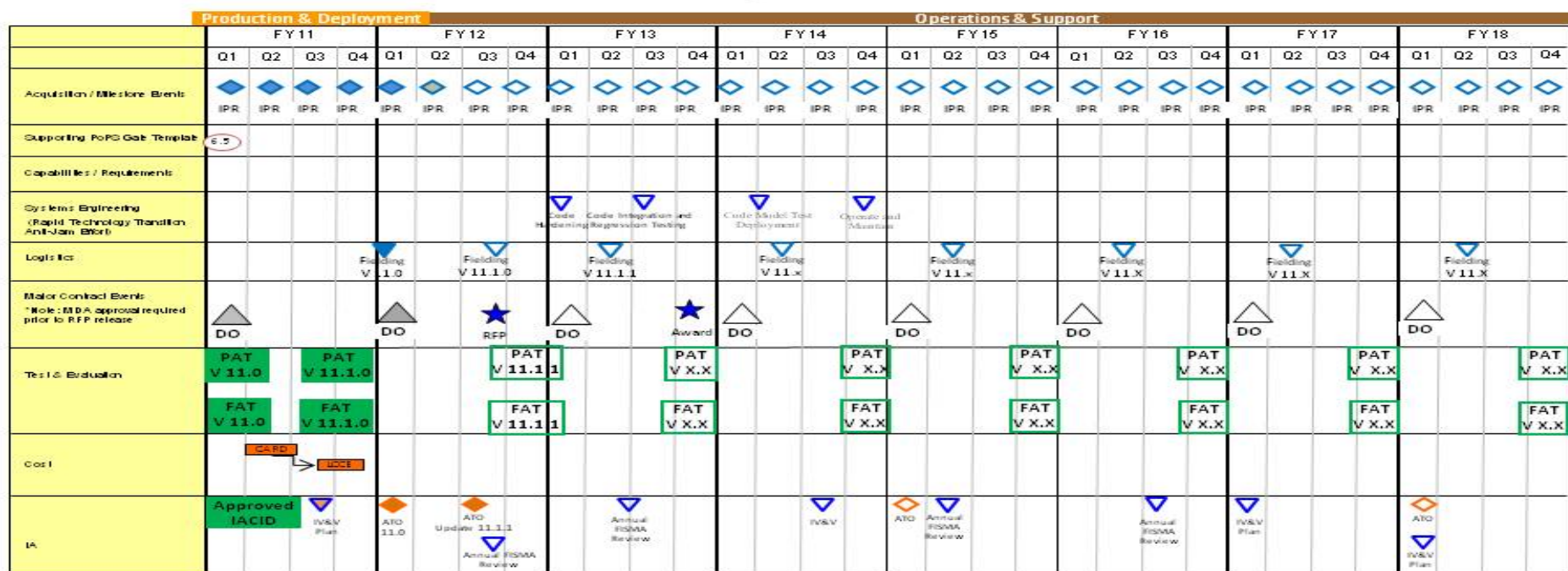
R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

2276: Comms Switching and Control Sys

NPM Program Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2276: <i>Comms Switching and Control Sys</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2276				
NPM/SPEED IPR (one per quarter)	1	2012	4	2018
NPM/SPEED Fielding - Ver 11.1.1	2	2013	2	2013
NPM/SPEED Fielding - Ver 11.X (one new version per FY)	2	2014	2	2018
NPM/SPEED RFP	3	2012	3	2012
NPM/SPEED Contract Award	4	2013	4	2013
NPM/SPEED Developmental Test - PAT (4th QTR each FY)	4	2012	4	2018
NPM/SPEED Operational Test - FAT 1 (1st QTR each FY)	4	2012	4	2018
NPM/SPEED ATO for 11.1.1	3	2012	3	2012
TSM SRR/SFR VoIP	2	2013	2	2013
TSM CDR VoIP	3	2013	3	2013
TSM Contract Award VoIP	2	2013	2	2013
TSM FAT/SIT/JITC VoIP	3	2013	4	2013
TSM SVR VoIP	4	2013	4	2013
TSM MSC VoIP	1	2014	1	2014
TSM Contract Award Fiber	3	2013	3	2013
TSM SRR/SFR Fiber	4	2013	4	2013
TSM CDR Fiber	4	2013	4	2013
TSM FAT/SIT/JITC Technology Fiber	1	2014	2	2014
TSM SVR Fiber	3	2014	3	2014
ECCS Block 0 MS C/FRP	4	2012	4	2012
ECCS Block 0 Fielding Decision	1	2013	1	2013

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>		PROJECT 2276: <i>Comms Switching and Control Sys</i>
		Start		End
Events by Sub Project		Quarter	Year	Quarter
				Year
ECCS Block 0 SVR		4	2012	4
ECCS Block 0 ATO		4	2012	1
ECCS Block 1 MS C/FRP		2	2013	2
ECCS Block 1 Fielding Decision		4	2013	4
ECCS Block 1 ATO		3	2013	3
ECCS IOC		1	2014	1
ECCS FOC		2	2016	2
TDN DDS-M Core Modules - IOC		4	2012	4
TDN DDS-M - Core Modules - FOC		4	2013	4
TDN DDS-M - Recompete RFP		1	2013	1
TDN DDS-M - Contract Award		1	2014	1
TDN DDS-M - Core Module Tech Refresh/Fielding		1	2015	1
DDS-M Expansion Module Production Decision		2	2013	2
DDS-M Expansion Module Fielding Decision		2	2013	2
DDS-M Expansion Module IOC		4	2013	4
DDS-M Expansion Module FOC		4	2014	4
JECCS ECP (laptop upgrades)		2	2012	2
JECCS SRR		1	2014	1
JECCS CDR		2	2014	2
JECCS SVR		3	2014	3
JECCS ECP (promina 800 software upgrades)		2	2014	2
DTC NET		4	2012	1
DTC IOC		4	2012	4
DTC FOC		3	2013	3
DTC PIR OPFOR		2	2013	2

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>		PROJECT 2276: <i>Comms Switching and Control Sys</i>
		Start		End
Events by Sub Project		Quarter	Year	Quarter
DTC CDR		1	2014	1
DTC ECP		1	2014	1

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2277: System Engineering and Integration			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2277: System Engineering and Integration	9.434	10.923	6.171	11.626	-	11.626	6.637	6.648	6.588	6.692	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

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

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 of hardware and software which is uniform and standard across programs.

Expeditionary Energy Office (E2O): Energy is a top priority for the USMC and one of the six pillars of Modernization for the Corps identified by the Commandant. In 2009 the Commandant established 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 directly support execution of the USMC Expeditionary Energy Strategy and Implementation Plan (Mar 2011), and priorities identified in the USMC Expeditionary Energy Water and Waste Initial Capabilities Document/Capabilities Based Assessment (Sept 2011), as well as Science and Technology Objectives identified in the 2012 USMC S&T Strategic Plan. The Marine Corps program aligns with Commandant's Planning Guidance 2010, the National Defense Authorization Act 2009, DoD directives and SECNAV goals. This funding will support the achievement of the Strategy, and the activities of the USMC Experimental Forward Operating Base process, managed by the E2O.

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). This effort also covers interoperability and testing of tactical message standards such as MILSTD 6017 Variable Message Format used between the US Army and USMC; and Coalition message formats the Joint Command, Control, Consultation Information Exchange Data Model (JC3IEDM).

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)

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems	PROJECT 2277: System Engineering and Integration		
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.				
Marine Civil Information Management (MARCIM) is a discipline of information management comprised of people, process, and technology. Civil information managers leverage the process of Planning, Collection, Consolidation, Analysis, Production, and Sharing of civil information with technology to support the visualization and understanding of the civil environment to the military commander's decision making process. This program is a new start in FY14.				
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 emergent systems with systems already fielded, and to conduct critical engineering analysis capable of isolating and correcting capability deficiencies and optimize system of systems performance.				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Title: Expeditionary Energy Office (E2O)		2.583	2.448	2.128
Articles:		0	0	0
FY 2012 Accomplishments: This funding directly supported execution of the USMC Expeditionary Energy Strategy and Implementation Plan, and priorities identified in the USMC Expeditionary Energy Water and Waste Initial Capabilities Document/Capabilities Based Assessment, as well as Science and Technology Objectives identified in the 2012 USMC S&T Strategic Plan. FY12 major funding activities included the design, integration, and fabrication of the MTRV Auxiliary Power Unit (APU) and heating, ventilation, and air conditioning (HVAC). FY12 funding activities also included the experimentation, development, and demonstration of the Mobile Power Solar (MSP) system, follow-on technology support for ExFOB , and the Analysis of Alternatives (AoA) for MAGTF Expeditionary Hybrid Power Systems (MeHPS).				
FY 2013 Plans: FY13 funds will support the USMC Expeditionary Energy Strategy and Implementation Plan, and priorities identified in the USMC Expeditionary Energy Water and Waste Initial Capabilities Document/Capabilities Based Assessment, as well as Science and Technology Objectives identified in the 2012 USMC S&T Strategic Plan. Using these priority roadmaps, E2O will invest in R&D programs to advance Strategy goals. Priority areas for investment include, but are not limited to: Energy harvesting; hybrid power; efficient heating and cooling of people, equipment and water; energy storage; energy efficient vehicles; energy metering and monitoring and decision tools; energy efficient shelters and sustainment.				
FY 2014 Plans: FY14 funds will support the USMC Expeditionary Energy Strategy and Implementation Plan, and priorities identified in the USMC Expeditionary Energy Water and Waste Initial Capabilities Document/Capabilities Based Assessment, as well as Science and				

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2277: <i>System Engineering and Integration</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
Technology Objectives identified in the 2012 USMC S&T Strategic Plan. Using these priority roadmaps, E2O will invest in R&D programs to advance Strategy goals. Priority areas for investment include, but are not limited to: Energy harvesting; hybrid power; efficient heating and cooling of people, equipment and water; energy storage; energy efficient vehicles; energy metering and monitoring and decision tools; energy efficient shelters and sustainment.			
Title: JINTACCS: JCS and OASD/NII Data Links Testing.		1.049	1.007
Articles:		0	0
FY 2012 Accomplishments: JINTACCS: DC SIAT and MCTSSA completed the review and update of all IT Standards applicable to the USMC and maintained the data environment to ensure all developed solution architectures associated the appropriate technical IT standards in their DODAF Standards View. DC SIAT led the Army - Marine Corps C2 interoperability Systems Engineering IPT to align the use of JVMF and VMF messaging standards to create interoperability between the DoD ground force systems (FBCB2 (VMF), JTCW (JVMF), GCCS (OTH Gold), TBMCS/AFATDS (USMTF), and aviation tactical data links. DC SIAT also led the development of a data model converter application to create interoperability between the NATO JC3IEDM data model to theC2PC (VMF) system allowing coalition interoperability at the dismounted level.			
FY 2013 Plans: JINTACCS: DC SIAT and MCTSSA will continue to review and update all IT Standards applicable to the USMC and maintain the architectural data environment to ensure all developed solution architectures are associated with the appropriate technical IT standards in their DODAF Standards View. DC SIAT will continue to lead the Army - Marine Corps C2 interoperability Systems Engineering IPT to align the use of JVMF and VMF messaging standards to create interoperability between the DoD ground force systems (FBCB2 (VMF), JTCW (JVMF), GCCS (OTH Gold), TBMCS/AFATDS (USMTF), and aviation tactical data links. This effort will expand to incorporate the ability to use Tactical Service Oriented approaches to mediate data across multiple environments / domains (Air/Mobile platform/Dismounted/Stationary command posts). DC SIAT will continue to lead the development of data model converter applications to create Standard Agreement 4677 on interoperability between the NATO JC3IEDM data model to the C2PC (VMF) system allowing coalition interoperability at the dismounted level.			
FY 2014 Plans: JINTACCS: DC SIAT and MCTSSA will continue to review and update all IT Standards applicable to the USMC and maintain the architectural data environment to ensure all developed solution architectures are associated with the appropriate technical IT standards in their DODAF Standards View. DC SIAT will continue to lead the Army - Marine Corps C2 interoperability Systems Engineering IPT to align the use of JVMF and VMF messaging standards to create interoperability between the DoD ground force systems (FBCB2 (VMF), JTCW (JVMF), GCCS (OTH Gold), TBMCS/AFATDS (USMTF), and aviation tactical data links. This effort will expand to incorporate the ability to use Tactical Service Oriented approaches to mediate data across multiple environments / domains (Air/Mobile platform/Dismounted/Stationary command posts). DC SIAT will continue to lead the			

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2277: <i>System Engineering and Integration</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
development of data model converter applications to create Standard Agreement 4677 on interoperability between the NATO JC3IEDM data model to the C2PC (VMF) system allowing coalition interoperability at the dismounted level.			
Title: SEIC: Engineering and Technical Support		5.634	2.716
Articles:		0	0
FY 2012 Accomplishments: MAGTF SEI&C: Mode 5/S - Coordinated across multiple stakeholders to include CD&I (C2ID, FPID), DC/Aviation, PEO-LS, PG-11, NAVAIR, etc. to define a Service-wide engineering strategy to deliver mode 5/S capability for the Marine Corps. Products included study analysis paper and briefings. Programs affected included: TPS-59, G/ATOR, CTN, CAC2S, MACCS Sustainment, ATNAVICS, etc. MOWASP (Mechanization of Warehousing and Storage Procedures)- MOWASP is an IBM 370 hosted application. Based on LOGCOM claims that an emerging IBM operation system upgrade would render the program inoperable unless critical changes were made with an estimated cost of ~\$5M, the LCE War Room technical team investigated the impact of the operating system upgrade and determined that no impact would result, and provided actionable decision-quality data to support a coordinated SES position between LOGCOM, I&L and MCSC. MOWASP was determined to be viable until the capabilities it provides are replaced by GCSS-MC Increment II. MAGTF Chat- The divergence of Chat applications across the Marine Corps enterprise was becoming epidemic with obvious cost, interoperability and IA implications: there are over a dozen duplicative instantiations across MCSC programs. The GCE War Room coordinated across the Marine Corps enterprise to neck down to a single application that met IA requirements and reduced cost throughout. 2011 MAGTF C2 Road Map- Provided foundational support and technical leadership necessary to initiate and publish the HQMC's CD&I C2 Road Map in concert with C2ID. Based upon the interdependency analysis, the MAGTF C2 baseline, and other cross-syscom products provided by SE&IC, the roadmap successfully advocated a system of systems perspective and positively influenced key funding decisions across the warfighting PEB for POM 14. CAC2S-MACCS Sustainment- Based on C2ID initiative to maintain the MACCS Family of Systems to 2025 and cancel CAC2S Increment I, Phase 2 as an affordability measure. The ACE War Room led the analysis to determine the feasibility of maintaining the software and refreshing the hardware configuration out to 2025. Independent Cost Analysis of sustaining and upgrading MACCS is on-going. Results briefed to DC/Aviation and ASN-RDA.			

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems	PROJECT 2277: System Engineering and Integration		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Deploying Group System Integration Test (DGSIT)- Coordinated across programs/systems to provide SMEs and technical expertise directly to MEUs, and in some cases the MEFs, during their pre-deployment work-ups to ensure their fielded Tier 1 and Tier 2 systems are fully functional/interoperable. These efforts support either 7 or 8 pre-deployments exercises per year and have successfully indentified, isolated and resolved several hundred technical integration/interoperable issues that would have potentially been discovered during real-world operations. DGSIT coordinators and SMEs routinely receive accolades by MEF/MEU commanders or their staffs for not only resolving interoperability issues but also for the intrinsic training benefits associated with working through the issues.				
GCSS-MC- Based on MROC tasking to define off ramps for GCSS-MC R1.2, The LCE War Room identified a series of potential solutions to achieve R1.2 functionality with much less risk. Cost analysis of potential solutions is ongoing as detailed configurations their system architectures are documented.				
FY 2013 Plans: MAGTF SEI&C: Engineering and technical support for configuration management of MAGTF C4I systems. Review and submittal of multiple Integration Support Plans (ISPs) and Tactical ISPs (TISPs). Pre-deployment assistance to I MEF and multiple MEUs. Participation in ForceNet, NCES, GIGES, and other Joint DoD initiatives. Plans are for continued activities to support the interoperability and jointness of the USMC Enterprise IT/NSS systems. FY13 level of funding is needed to accomplish the technical objectives for integration and interoperability between MAGTF systems and systems of systems. Provide support to establish and execute a MAGTF Integration War Room which will serve as a forum for aligning and integrating capability development activities. Alignment and integration activities will extend to Naval and Joint processes and will reinforce existing capability development processes via systems engineering, operational architecture, requirements transition, and knowledge management methodologies.				
FY 2014 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 14 increased level of funding is needed to provide MAGTF Systems Integration and System of Systems Engineering expertise in support of delivering integrated MAGTF capabilities for the Marine Corps.				
Title: MARCIM: Marine Civil Information Management		0.000	0.000	0.825
Articles:				0
FY 2014 Plans:				

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy							DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>			PROJECT 2277: <i>System Engineering and Integration</i>			

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2012	FY 2013	FY 2014
Develop new technology through various research efforts at the MAGTF Experimentation Center.						
Title: JDEP: Develop Certifications and Conduct MAGTF C4I Capability Articles:				1.657 0	0.000	0.000
FY 2012 Accomplishments: JDEP: Conducted development of the MAGTF C4I Capability Certification process which involved the creation of capability based test threads. Additionally, created Joint Test Threads and participated in a JFCOM sponsored joint distributed test event.						
Accomplishments/Planned Programs Subtotals				10.923	6.171	11.626

C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2014</u>	<u>FY 2014</u>	<u>FY 2014</u>						<u>Cost To</u>
<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Complete</u>	<u>Total Cost</u>
• 462000: <i>MARCIM</i>	0.000	0.256	0.499		0.499	0.256	0.264	0.264	0.268	0.000	1.807
Remarks											
D. Acquisition Strategy N/A											
E. Performance Metrics N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems						PROJECT 2277: System Engineering and Integration			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MARCIM	WR	MEC:HI	0.000	0.000		0.000		0.825	Oct 2013	-		0.825	0.000	0.825	
Experimental Forward Operating Base	WR	NSWC:Various	1.300	1.654	Aug 2012	1.280	Oct 2012	1.182	Oct 2013	-		1.182	Continuing	Continuing	Continuing
Experimental Forward Operating Base	WR	NRL:Wash, DC	0.270	0.250	Aug 2012	0.265	Jan 2013	0.224	Jan 2014	-		0.224	Continuing	Continuing	Continuing
JINTACCS	C/FP	NSWC:Dahlgren, VA	0.070	0.000		0.000		0.000		-		0.000	0.000	0.070	
Subtotal			1.640	1.904		1.545		2.231		0.000		2.231			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
JINTACCS	C/FFP	NSWC:Dahlgren, VA	0.000	0.000		0.557	Apr 2013	0.571	Apr 2014	-		0.571	Continuing	Continuing	Continuing
MAGTF SEI&C	C/FP	SPAWAR:Charleston, SC	0.000	0.500	Aug 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
MAGTF SEI&C	C/FP	QNA:Stafford, VA	3.680	0.000		1.313	Apr 2013	4.600	Apr 2014	-		4.600	Continuing	Continuing	Continuing
MAGTF SEI&C	C/FP	MCSC:Quantico, VA	0.800	0.000	Apr 2012	0.440	Apr 2013	1.600	Apr 2014	-		1.600	Continuing	Continuing	Continuing
MAGTF SEI&C	WR	NSWC:Dahlgren, VA	0.449	0.835	Apr 2012	0.413	Apr 2013	1.417	Apr 2014	-		1.417	Continuing	Continuing	Continuing
JDEP	C/FP	NSWC:Dahlgren, VA	1.152	0.813	Apr 2012	0.000		0.000		-		0.000	0.000	1.965	
JDEP	C/FP	OSEC:Carlsbad, CA	0.300	0.000	Apr 2012	0.000		0.000		-		0.000	0.000	0.300	
JINTACCS	C/FP	MCTSSA:Cmp Pendtton CA	0.513	0.709	Apr 2012	0.450	Apr 2013	0.485	Apr 2014	-		0.485	Continuing	Continuing	Continuing
Subtotal			6.894	2.857		3.173		8.673		0.000		8.673			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
JINTACCS	WR	SPAWAR:Chartleston, SC	0.000	0.340	Jul 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2277: System Engineering and Integration					
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MAGTF SEI&C	C/FP	NRL:Wash, DC	0.000	0.400	Jun 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Experimental Forward Operating Base	WR	MCWL:Quantico, VA	0.600	0.100	Aug 2012	0.603	Oct 2012	0.491	Oct 2013	-		0.491	Continuing	Continuing	Continuing
Experimental Forward Operating Base	WR	ATC:Aberdeen, MD	0.300	0.379	Sep 2012	0.300	Jan 2013	0.231	Jan 2014	-		0.231	Continuing	Continuing	Continuing
Experimental Forward Operating Base	C/FP	MCSC:Quantico, VA	0.000	0.100	Aug 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Experimental Forward Operating Base	C/FP	NAVFAC:Port Hueneme, CA	0.000	0.100	Sep 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
JDEP	WR	SSCC:Charleston, SC	0.000	0.844	Jul 2012	0.000		0.000		-		0.000	0.000	0.844	
MAGTF SEI&C	MIPR	CECOM:Aberdeen, MD	0.000	3.899	Apr 2012	0.550	Apr 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			0.900	6.162		1.453		0.722		0.000		0.722			
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			9.434	10.923		6.171		11.626		0.000		11.626			
Remarks															

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2278: Air Defense Weapons System			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2278: Air Defense Weapons System	33.700	2.129	1.993	3.041	-	3.041	3.498	3.475	3.499	3.555	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
Ground Based Air Defense Transformation (GBAD-T) - Based upon the deployment of the Low Altitude Air Defense (LAAD) Battalions and their employment of the Stinger Missile, GBAD-T transforms Air Defense equipment through technology insertion and equipment repackaging to address capability gaps as the result of equipment obsolescence and the emergent and evolving threats to the Marine Air Ground Task Force (MAGTF).												
GBAD-T consists of three efforts: 1) systems engineering support of currently fielded LAAD equipment/assets; 2) fielding 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 2012	FY 2013	FY 2014	
Title: *GBAD TRANSFORMATION: Program Management Services Articles: FY 2012 Accomplishments: Continued Information Assurance and research into Optics. FY 2013 Plans: Complete Information Assurance and research into Optics. FY 2014 Plans: N/A									1.063	0.705	0.398	
									0	0	0	
Title: *GBAD TRANSFORMATION: Product Development Articles:									0.075	0.297	2.400	
									0	0	0	
FY 2012 Accomplishments:												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy							DATE: April 2013					
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems			PROJECT 2278: Air Defense Weapons System					
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2012		FY 2013		FY 2014	
Researched advanced Identification Friend or Foe Identification. FY 2013 Plans: Research into follow on weapon system. FY 2014 Plans: Research and demonstration of follow on weapon system.												
Title: *GBAD TRANSFORMATION: Integration Development (Missile Integration) FY 2012 Accomplishments: Multiple vendor and Government participation in a Government sponsored GBAD capabilities demonstration. FY 2013 Plans: Develop ECP's for A-MANPADS Increment I hardware/software upgrades. Develop Mounted Optics replacement.							Articles: 0.791 0		0.791 0		0.000 0	
Title: *GBAD TRANSFORMATION: Support Costs (MCTSSA/MCCDC/Crane/Dahlgren support) FY 2012 Accomplishments: GBAD-T conducted Health Assesments at the LAAD Battalions and the Stinger School house, ensuring Operational Readiness is maintained. FY 2013 Plans: GBAD-T will continue Health Assessments at the LAAD Battalions and the Stinger School house, ensuring Operational Readiness is maintained. FY 2014 Plans: GBAD-T will continue Health Assessments at the LAAD Battalions and the Stinger School house, ensuring Operational Readiness is maintained.							Articles: 0.200 0		0.200 0		0.243 0	
Accomplishments/Planned Programs Subtotals							2.129		1.993		3.041	
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost	
• PMC/300600: GBAD-T	12.287	11.054	15.713		15.713	25.723	11.580	10.481	10.666	Continuing	Continuing	

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>					R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>			PROJECT 2278: <i>Air Defense Weapons System</i>			
C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2014</u>	<u>FY 2014</u>	<u>FY 2014</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Complete</u>	<u>Total Cost</u>
<u>Remarks</u>											
D. Acquisition Strategy GBAD TRANSFORMATION: A-MANPADS Increment I is an Abbreviated Acquisition Program (AAP), GBAD-T affects 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											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2278: Air Defense Weapons System					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GBAD-T	WR	NSWC:Crane.IN	3.424	0.000		0.000		0.000		-		0.000	0.000	3.424	
GBAD-T	MIPR	Army:AMRDEC	4.991	0.000		0.000		0.500	Dec 2013	-		0.500	Continuing	Continuing	Continuing
GBAD-T	MIPR	PMA-259:China Lake	2.375	0.000		0.000		0.000		-		0.000	0.000	2.375	
GBAD-T	Various	VARIOUS:VARIOUS	5.548	0.000		0.000		0.000		-		0.000	0.000	5.548	
GBAD-T	WR	NSWC:Crane,IN (PAS-13 HW)	1.469	0.000		0.000		0.000		-		0.000	0.000	1.469	
GBAD-T	C/FP	EG&G:Stafford, VA	0.489	0.000		0.000		0.000		-		0.000	0.000	0.489	
GBAD-T	C/FP	DRS Tech:Palm Bay, FL	0.215	0.000		0.000		0.000		-		0.000	0.000	0.215	
GBAD-T	C/FP	Raytheon:San Diego, CA	3.700	0.000		0.000		0.000		-		0.000	0.000	3.700	
GBAD-T	C/FP	GDIT:Stafford, VA	0.539	0.075	Nov 2011	0.297	Nov 2012	1.900	Dec 2013	-		1.900	Continuing	Continuing	Continuing
GBAD-T	C/FP	L3:San Diego, CA	1.473	0.000		0.000		0.000		-		0.000	0.000	1.473	
Subtotal			24.223	0.075		0.297		2.400		0.000		2.400			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GBAD-T	WR	NSWC:Crane, IN	0.726	0.200	Jan 2012	0.200	Jan 2013	0.243	Dec 2013	-		0.243	Continuing	Continuing	Continuing
GBAD-T	C/FP	MCCDC:Quantico, VA	1.910	0.000		0.000		0.000		-		0.000	0.000	1.910	
GBAD-T	WR	MCTSSA:Camp Pendleton, CA	0.220	0.000		0.000		0.000		-		0.000	0.000	0.220	
GBAD-T	WR	MCSC:Quantico, VA	0.128	0.000		0.000		0.000		-		0.000	0.000	0.128	
GBAD-T	C/FP	MCOTEA:Quantico, VA	0.257	0.000		0.000		0.000		-		0.000	0.000	0.257	
JFIIT	SS/FP	RNB:Stafford, VA	1.425	0.000		0.000		0.000		-		0.000	0.000	1.425	
JFIIT	WR	MCSC:Quantico, VA	0.130	0.000		0.000		0.000		-		0.000	0.000	0.130	
Subtotal			4.796	0.200		0.200		0.243		0.000		0.243			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY							R-1 ITEM NOMENCLATURE				PROJECT				
1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development							PE 0206313M: Marine Corps Comms Systems				2278: Air Defense Weapons System				
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GBAD-T	C/FFP	MCSC:Quantico, Va	0.791	0.791	Oct 2011	0.791	Dec 2012	0.000		-		0.000	0.000	2.373	
GBAD-T	MIPR	WSMR:NM	0.872	0.000		0.000		0.000		-		0.000	0.000	0.872	
GBAD-T	MIPR	Not Specified:Aberdeen, MD	0.047	0.000		0.000		0.000		-		0.000	0.000	0.047	
GBAD-T	C/FP	MCOTEA:Quantico, VA	0.672	0.000		0.000		0.000		-		0.000	0.000	0.672	
GBAD-T	MIPR	NATC:NM	0.710	0.000		0.000		0.000		-		0.000	0.000	0.710	
Subtotal			3.092	0.791		0.791		0.000		0.000		0.000	0.000	4.674	
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GBAD-T	C/FFP	SPAWAR:Charleston SC	0.659	0.659	Oct 2011	0.320	Dec 2012	0.200	Dec 2013	-		0.200	Continuing	Continuing	Continuing
GBAD-T	C/FP	MCSC:Quantico, VA	0.930	0.404	Oct 2011	0.385	Dec 2012	0.198	Dec 2013	-		0.198	Continuing	Continuing	Continuing
Subtotal			1.589	1.063		0.705		0.398		0.000		0.398			
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			33.700	2.129		1.993		3.041		0.000		3.041			
Remarks															

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

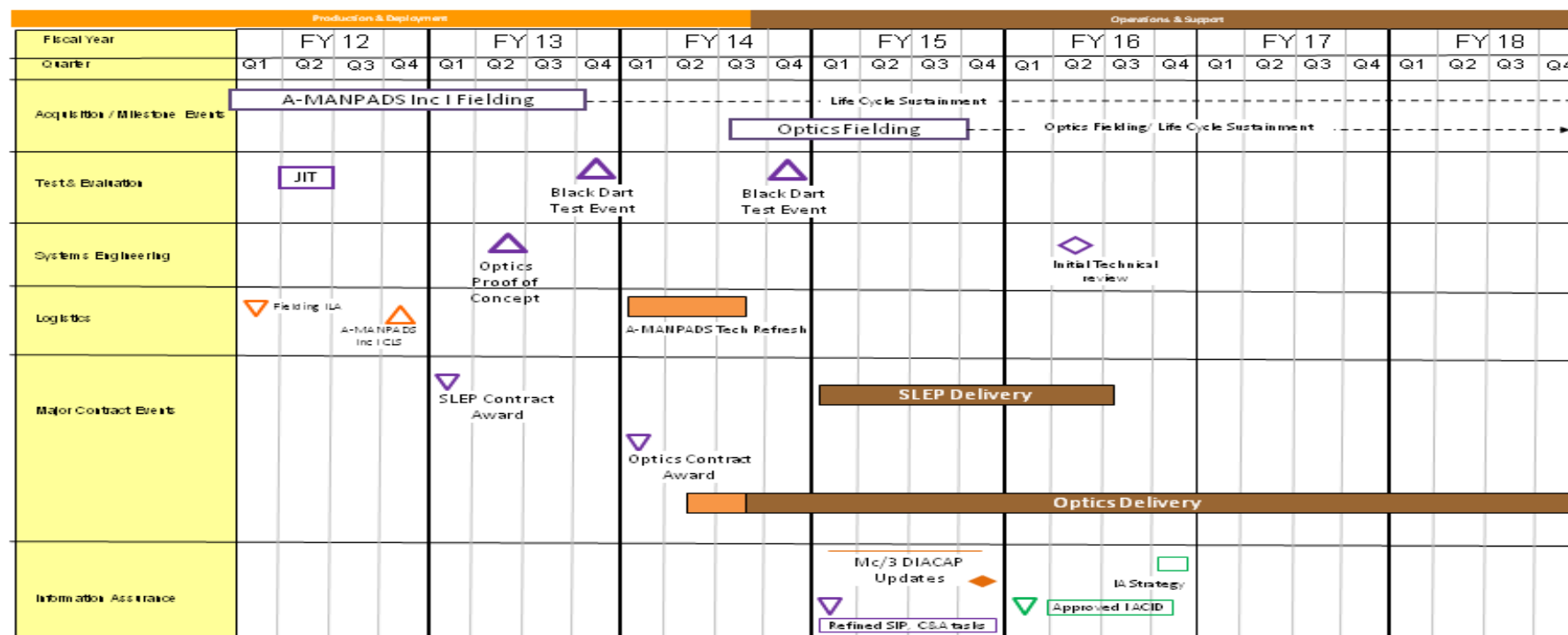
2278: Air Defense Weapons System

MARINE CORPS SYSTEMS COMMAND

EQUIPPING THE WARFIGHTER TO WIN



Ground Base Air Defense-Transformation (GBAD-T) Acquisition Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2278: <i>Air Defense Weapons System</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2278				
AMANPADS FIELDING	1	2012	4	2013
SLEP CONTRACT AWARD	1	2013	1	2013
OPTICS PROOF OF CONCEPT	2	2013	2	2013
AMANDPADS TECH REFRESH	1	2014	3	2014
BLACK DART JOINT TEST EVENT FY13	4	2013	4	2013
OPTICS CONTRACT AWARD	1	2014	1	2014
OPTICS DELIVERY	2	2014	4	2018
BLACK DART JOINT TEST EVENT FY14	4	2014	4	2014
SLEP DELIVERY	1	2015	3	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2510: MAGTF CSSE & SE			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2510: MAGTF CSSE & SE	214.097	40.415	25.231	3.526	-	3.526	4.176	3.668	3.048	3.381	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
(U) The Marine Air Ground Task Force (MAGTF) Combat Service Support Element & Supporting Establishment (CSSE & SE) consists of mutually supporting Logistics Information Technology (IT) programs that support force deployment, planning, and execution; sustainment and distribution; and contributes to the Combatant Commander's Common Operating Picture to support rapid accurate decision making.												
MARINE CORPS COMMON HARDWARE SUITE (MCHS) provides Commercial-Off-The-Shelf (COTS) workstations (desktop/laptop), servers and other IT hardware to support the Operating Force and other non-Navy Marine Corps Intranet (NMCI) Marine Corps customers. MCHS provides support for two principal groups: 1) Approximately 50 United States Marine Corps (USMC) Tactical and Functional Programs of Record that use COTS IT hardware as part of their fielded systems; and 2) Tactical and other Marine Corps customers not supported by NMCI such as Marine Corps Forces, Europe/Marine Corps Forces, Korea and stand-alone Marine Corps units and schoolhouses. The goal of the program is to enhance overall IT system interoperability and lower the total cost of ownership by centralizing procurement of COTS IT hardware, reducing the number of different configurations of computers, and providing worldwide integrated logistics support for all fielded MCHS hardware. Rapid technology insertion provides ability to develop, test, and evaluate COTS hardware and software configurations for rapid fielding purposes.												
GLOBAL COMBAT SUPPORT SYSTEM-MARINE CORPS (GCSS-MC) is the physical implementation of the enterprise Information Technology (IT) architecture designed to support both improved and enhanced Marine Air Ground Task Force (MAGTF) Combat Support Services (CSS) functions and MAGTF Commander and Combatant Commanders/Joint Task Force (CC/JTF) combat support information requirements. The initial program includes all transactional CSS systems related to Supply Chain Management (SCM) and Enterprise Asset Management (EAM) functionality enabled with Service Management functions. When combined, these capabilities are referred to as Logistics Chain Management (LCM) or GCSS-MC/LCM. The primary goal of GCSS-MC/LCM is to provide the capabilities specified in the Logistics Operational Architecture (Log OA). The result of enabling the Log OA is the retirement of legacy applications. The GCSS-MC/LCM exposes timely mission information to Marine Corps operational and CSS commanders, CC/JTF commanders and their staffs and other authorized users. It exposes information interoperability and common logistics information applications and services across functional areas. GCSS-MC/LCM allows operating forces commanders to base decisions on complete logistics information and make decisions in concert with specific operational tasks.												
The GCSS-MC/LCM program is procuring capabilities by increments. GCSS-MC/LCM Increment 1 is a subset of the total requirement that focuses on Logistics Management and Execution with Logistics Command and Control requirements necessary to perform those functions in a deployed environment. GCSS-MC/LCM Increment 1 is global in scope and it can be deployed under any circumstances, during peace or war, independent of geographical location. The GCSS-MC/LCM Increment 1 Capability Development Document (CDD), dated 25 May 2005 and approved in December 2005, establishes the requirements for the entire GCSS-MC												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2510: <i>MAGTF CSSE & SE</i>
portfolio. Key objectives of the CDD include the following: (1) Deliver integrated functionality across supply, maintenance, transportation, finance, engineering, health, acquisition and manpower systems in accordance with the Marine Corps Logistics Operational Architecture; (2) Provide timely information to Marine Corps operational and CSS commanders, CCs and Joint JTF commanders and their staffs and other authorized users; (3) Allow Operating Forces (OPFORS) commanders to base decisions on complete logistics information and make decisions in concert with specific operational tasks; and (4) Provide users and operators of logistics processes access to information and applications across the spectrum of conflict regardless of location. TRANSPORTATION SYSTEMS PORTFOLIO (TSP) supports the various ongoing and continuing efforts to modernize legacy USMC logistics systems including joint interoperability testing and certification and development to ensure compliance with information assurance testing and certification requirements. Legacy systems include joint programs supporting deployment and sustainment of theater assets as well as existing USMC legacy systems. Joint interoperability testing and certification is an ongoing and continuous requirement that is critical to ensuring all TSP applications are interoperable with other Department of Defense and Joint Services systems. There are also ongoing and continuing efforts to ensure that the legacy TSP applications comply with the latest information assurance requirements. TSP applications are continually updating their security posture through software enhancements based upon the latest cyber threats. Also, mandatory DOD compliance with software patches ensure TSP systems are in compliance with new information assurance vulnerability assessments and ensure data integrity, confidentiality and availability. JOINT FORCE REQUIREMENTS GENERATOR II (JFRG II) is a Global Command and Control System (GCCS) software application designed to provide DOD with a Joint Services, state-of-the-art, integrated, and deployable Automated Information System (AIS) that supports strategic force movements. JFRG II provides rapid development of force data to satisfy operational planning and execution requirements. It serves as the essential link between service force requirements and validated/sourced unit data. JFRG II permits multi-level planning with entry of equipment and personnel data, transportation/movement data, and the phasing of the total force throughout the entire movement timeline. JFRG II contains an exhaustive joint data library and interfaces directly with the Joint Operation Planning and Execution System (JOPES). JFRG II can generate standard, executive, and ad hoc reports, perform database queries, and export or import data from Transportation Coordinators' Automated Information for Movement System (TC-AIMS) II, MAGTF Deployment Support System (MDSS) II, War Reserve System (WRS) and JOPES. JFRG II operates and functions in a classified 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'		

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2510: <i>MAGTF CSSE & SE</i>
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 local implementations.) 2. Web-basing and Web Services make AITs software applications much more adaptable to the ongoing and future changes in the Marine Corps procurement and financial management systems that are being implemented in accordance with the Department's Business Enterprise Architecture. 3. A centralized infrastructure will allow for greater data sharing, allowing one AIT data read to be re-used multiple times to support multiple Automated Information Systems (AIS). 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 voice, video and data transport services via each installation's infrastructure. These data services include support for but are not limited to: telephony (including voice over internet protocol), video-teleconferencing, integrated services digital network, Marine Corps enterprise network, energy monitoring control systems, intrusion detection systems, access control systems, fire alarm control networks and fleet training systems. This includes supporting systems such as optical networks, telecommunications management systems, primary power, voice mail, teleconferencing, and outside plant infrastructure. ELECTRONIC MAINTENANCE SUPPORT SYSTEM (EMSS) is composed of several main components including Electronic Maintenance Devices (EMD), regional servers, deployment servers, charger racks, and ruggedized deployment cases. EMSS is a rugged organizational-level (O-level), light-weight, one-man portable maintenance device capable of supporting multiple platforms and systems across maintenance communities. EMSS provides a Commercial Off-The-Shelf (COTS) hardware device equipped with network interfaces, Built-In-Test/Built-In-Test Equipment (BIT/BITE) interfaces, and Software Defined Test Instrument (SDTI) General Purpose Electronic Test Equipment (GPETE) capabilities. These hardware capabilities will enable commercial or custom DoD and USMC software capabilities including Interactive Electronic Technical Manuals (IETMs), Computer Based Training (CBT), access to Subject Matter Experts (SMEs) over USMC networks, and other maintenance applications to be hosted on EMSS. With these capabilities, maintainers will make more informed decisions, thereby sustaining force readiness over time.		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		
Title: BASE TELECOM (BTI)		
Articles:		
FY 2012 Accomplishments:		
Provided test and evaluation (T&E) engineering support for unique systems such as multiplexing technology or other Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems. This support provided		
	FY 2012	FY 2013
	0.445	0.460
	0	0
		FY 2014
		0.473
		0

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems	PROJECT 2510: MAGTF CSSE & SE		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
designs for telecommunications systems modification and solutions to complex problems, calculations, and research standards in support of system modernization. FY 2013 Plans: Continue test and evaluation (T&E) engineering support for unique systems such as multiplexing technology or other Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems. This support will provide designs for telecommunications systems modification and solutions to complex problems, calculations, and research standards in support of system modernization. Additionally, these funds will be utilized for optical domain test equipment to support testing efforts. FY 2014 Plans: Participate 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 DISA Approved Products List (APL).				
Title: MARINE CORPS COMMON HARDWARE SUITE (MCHS) FY 2012 Accomplishments: Conducted trend analysis on reported failures of fielded COTS hardware and rapid technology insertion. Developed, tested and evaluated COTS hardware and software configurations for rapid fielding purposes.		1.578 0 Articles:	0.000	0.000
Title: GCSS-MC LOGISTICS CHAIN MANAGEMENT (GCSS-MC) FY 2012 Accomplishments: Completed Increment 1, Deployed Release 1.2 SIDT&E, Government Development Test & Evaluation (GDT&E) and FOT&E. Began the start of the GCSS-MC baseline upgrade from Oracle eBusiness Suite Release 11 to Release 12. FY 2013 Plans: GCSS-MC/LCM Increment 1 reported a critical change based on schedule as defined by 10 U.S.C. Chapter 144A. The Full Deployment Decision event has slipped more than a year past the Program Manager's estimate based on the 31 December 2011 MAR (Dec 2012). The Increment 1 program schedule critical change was caused by significant technical challenges surrounding Release 1.2 Deployed capability requirements. While the Release 1.2 hardware/software baseline continued to mature throughout FY12, additional Development and Operational Test (D&OT) events required to validate the automated Task Organization and Data Synchronization functionalities of the deployed capability were not successful. The critical change team kickoff meeting occurred on 29 Jan 2013 and the evaluation is ongoing.		33.743 0 Articles:	21.326 0	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems		PROJECT 2510: MAGTF CSSE & SE		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2012	FY 2013	FY 2014
Continue the GCSS-MC baseline upgrade from Oracle eBusiness Suite Release 11 to Release 12 with the award of the system integrator contract.						
Title: TRANSPORTATION SYSTEMS PORTFOLIO (TSP) Articles: FY 2012 Accomplishments: Validated the force deployment planning and execution requirements based on a letter of clarification received from CD&I; drafted a performance work statement for a consolidated support contract. Started a business case analysis for the consolidated contract strategy to be awarded by 2ndqtr FY13.				1.112 0	0.000	0.000
Title: JOINT FORCES REQUIREMENT GENERATION II (JFRG II) Articles: FY 2012 Accomplishments: FY12 funds supported JFRG Engineering Change Proposals (ECP) development. Contract planned to award by AUG 2013. FY 2013 Plans: FY13 funds will be utilized to implement Global Force Management Data Initiatives (GFMDI) FY 2014 Plans: FY14 funds will continue the GFMDI efforts.				0.255 0	0.175 0	0.185 0
Title: PUBLIC KEY INFRASTRUCTURE (PKI) Articles: FY 2012 Accomplishments: FY12 funding provided for continued testing, correction of deficiencies, and implementation of PKI requirements for tactical applications as well as MCEITS and SIPRNET capabilities. FY 2013 Plans: FY13 funding will provide for continued testing, correction of deficiencies, and implementation of PKI requirements for tactical applications as well as MCEITS and SIPRNET capabilities FY 2014 Plans: FY14 funding will provide for continued testing, correction of deficiencies, and implementation of PKI requirements for tactical applications as well as MCEITS and SIPRNET capabilities				1.517 0	1.214 0	0.262 0
Title: AUTOMATED IDENTIFICATION TECHNOLOGY (AIT)				1.765	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy									DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems			PROJECT 2510: MAGTF CSSE & SE				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2012	FY 2013	FY 2014		
Articles:							0				
FY 2012 Accomplishments: During FY12 AIT upgraded the aRFID consolidated server infrastructure to be able to demonstrate the receipt and processing of passive RFID (pRFID) reader input, as well as implemented a dashboard capability to monitor the devices on the edge and produce metrics and reports.											
Title: ELECTRONIC MAINTENANCE SUPPORT SYSTEM (EMSS)							0.000	2.056	2.606		
Articles:								0	0		
FY 2013 Plans: Commence Research and Development for the Block II version of the Electronic Maintenance Support Systems to include all subcomponents. The program office will conduct studies and initiate the transition to the Block II using a Pre-Planned Product Improvement (P3I) version of EMSS. Focus areas will be deployed wireless capability, advanced diagnostics software applications, and IETM software development.											
FY 2014 Plans: Will continue Research and Development to establish interfaces with built in test systems residing on various weapon system platforms. The program office will conduct studies and research using a Pre-Planned Product Improvement (P3I) version of EMSS. Focus areas will be deployed wireless capability, advanced diagnostics software applications, and IETM software development.											
Accomplishments/Planned Programs Subtotals							40.415	25.231	3.526		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• PMC/BLI 463000 MCHS: MCHS	9.072	19.570	2.288		2.288	2.079	2.166	2.245	2.285	Continuing	Continuing
• PMC/BLI 461700 GCSS: GCSS-MC	13.897	24.034	0.541		0.541	3.228	16.565	7.519	7.654	Continuing	Continuing
• PMC/BLI 463000 PKI: PKI	0.001	0.001	0.000		0.000	0.000	0.428	0.000	0.000	Continuing	Continuing
• PMC/BLI 461700 AIT: AIT	3.990	0.157	0.163		0.163	0.351	0.163	0.246	0.250	Continuing	Continuing
• PMC/BLI 463500 BTI: BTI	21.151	22.135	14.593		14.593	25.231	23.947	20.467	20.591	Continuing	Continuing
• PMC/BLI 418100: EMSS	1.915	7.425	5.974		5.974	4.696	4.604	4.367	4.446	Continuing	Continuing
• PMC/BLI 463500 PKI: PKI	0.392	1.318	1.304		1.304	1.450	1.494	1.607	1.636	Continuing	Continuing
• PMC/BLI 463000 TSP: TSP	0.873	0.000	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy									DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2510: MAGTF CSSE & SE			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Remarks											
D. Acquisition Strategy											
MARINE CORPS HARDWARE SUITE (MCHS) ensures computer hardware in the Operating Forces keeps pace with industry computer hardware technical improvements. Analyses of technical alternatives are periodically required in order to determine how to best meet emerging customer requirements. GLOBAL COMBAT SUPPORT SYSTEM-MARINE CORPS (GCSS-MC) is pursuing an Evolutionary Acquisition (EA) strategy in order to field operationally suitable and supportable capabilities in the shortest time possible that meets the Logistics Advocate goals. EA offers the fastest method to field this highest of advocate priorities and allows for requirements to be time-phased as the users become more familiar with the strengths and weaknesses of the fielded system. In addition to quicker fielding, an EA approach is particularly well suitable for software intensive programs and offers these benefits: rapid delivery of an initial capability with the explicit intent of delivering continuously improving capabilities in the future and a reduction in the "cycle time" from identification of emergent user requirements, priorities and fielding. The GCSS-MC acquisition strategy will deliver capabilities in increments. Each increment capability will follow a complete acquisition process in accordance with the DOD 5000 publications and OSD's Enterprise Integration roadmap. Increments will include emergent user priorities, advanced technology improvements and expanded functionality. Each increment will repeat the complete acquisition program cycle going through a milestone (MS) C Full Rate Production Decision Review. Increment 1 is divided into two major independent releases: Enterprise Release 1.1 and Deployed Access Release 1.2. This approach differs from the original plan of delivering one release due to the technical complexities related to the overall scope of the solution. More substantial software improvement/system upgrades will be fielded with each Increment as required and prioritized by the user community. TRANSPORTATION SYSTEMS PORTFOLIO (TSP) conducts research and development currently executed under multiple contracts ending at various times across the FYDP. These contracts support the testing of the joint deployment and sustainment systems along with the USMC legacy systems. JOINT FORCES REQUIREMENT GENERATOR II (JFRG II) conducts research and development currently executed under a three-year contract ending November 2013. PUBLIC KEY INFRASTRUCTURE (PKI) is a DOD ACAT IAM Program. At the service level, the USMC PKI program is being managed as an Abbreviated Acquisition Program. Based on an Assistant Secretary of Defense Acquisition Decision Memorandum, DOD PKI development will be conducted through a series of block upgrades. The functional enhancement, changes will result in increased capability and functionality for PKI and increase the levels of security and assurance which affects mitigation of identified risks. There are thirteen functional and five assurance enhancements. Additionally, PKI functionality will be expanded to the SIPRNET. AUTOMATED IDENTIFICATION TECHNOLOGY (AIT) hardware in the Operating Forces keeps pace with industry computer hardware technical improvements. AIT will support all aspects of active Radio Frequency Identification (aRFID) and passive RFID (pRFID). AIT evaluates emerging technologies, new equipment, and performs integration analysis and testing.											

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2510: <i>MAGTF CSSE & SE</i>
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). ELECTRONIC MAINTENANCE SUPPORT SYSTEM (EMSS) will conduct technology development, market research, and prototype product improvement capability to support additional MOS requirements. <u>E. Performance Metrics</u> N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 2510: MAGTF CSSE & SE					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Development (EMSS)	TBD	TBD:TBD	0.000	0.000		0.500	Jul 2013	0.000		-		0.000	Continuing	Continuing	Continuing
JFRG II	C/FFP	TBD:TBD	0.000	0.255	Aug 2013	0.175	Mar 2014	0.185	Mar 2014	-		0.185	0.000	0.615	
Research and Development (EMSS)	TBD	TBD:TBD	0.000	0.000		0.000		2.106	Feb 2014	-		2.106	0.000	2.106	
GCSS LCM Increment 1 Application	C/T&M	Oracle USA:Reston, VA	178.985	15.118	Oct 2011	0.000		0.000		-		0.000	0.000	194.103	
GCSS LCM Increment 1 Training Development	C/FP	EDO:Stafford, VA	2.500	0.000		0.000		0.000		-		0.000	0.000	2.500	
PKI	C/FFP	Various:Various	6.815	1.517	Aug 2012	1.214	Sep 2013	0.262	Sep 2014	-		0.262	Continuing	Continuing	Continuing
AIT	C/FFP	Northrop Grumman IT:Williamsburg, VA	6.983	1.765	Aug 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
VAR	Various	Various:Various	17.601	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
GCSS LCM Oracle eBusiness Suite Release 12 Upgrade	C/FP	SPAWAR:Charleston, SC	0.000	17.700	Sep 2012	21.326	Jul 2013	0.000		-		0.000	0.000	39.026	
Subtotal			212.884	36.355		23.215		2.553		0.000		2.553			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Software Support (EMSS)	WR	NSWC, Crane:Crane, Indiana	0.000	0.000		0.563	Jul 2013	0.500	Dec 2013	-		0.500	Continuing	Continuing	Continuing
Various Studies (EMSS)	Various	Various:Various	0.000	0.000		0.993	Jul 2013	0.000		-		0.000	Continuing	Continuing	Continuing
VAR (TSP)	Various	Various:Various	1.213	1.112	Mar 2013	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			1.213	1.112		1.556		0.500		0.000		0.500			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy													DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>							R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>				PROJECT 2510: <i>MAGTF CSSE & SE</i>				

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MCHS	MIPR	SPAWAR:Charleston, SC	0.000	1.578	Mar 2012	0.000		0.000		-		0.000	0.000	1.578	
GCSS LCM Increment 1 DT/OT	MIPR	MCTSSA:Oceanside, CA	0.000	0.225	Jan 2013	0.000		0.000		-		0.000	0.000	0.225	
GCSS LCM Increment 1 DT/OT	MIPR	JTIC:Fort Huachuca, AZ	0.000	0.700	Nov 2012	0.000		0.000		-		0.000	0.000	0.700	
BTI	WR	ISEC:Fort Detrick, MD	0.000	0.445	Sep 2012	0.460	Jun 2013	0.473	Jun 2014	-		0.473	Continuing	Continuing	Continuing
Subtotal			0.000	2.948		0.460		0.473		0.000		0.473			

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	214.097	40.415	25.231	3.526	0.000	3.526			

Remarks

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

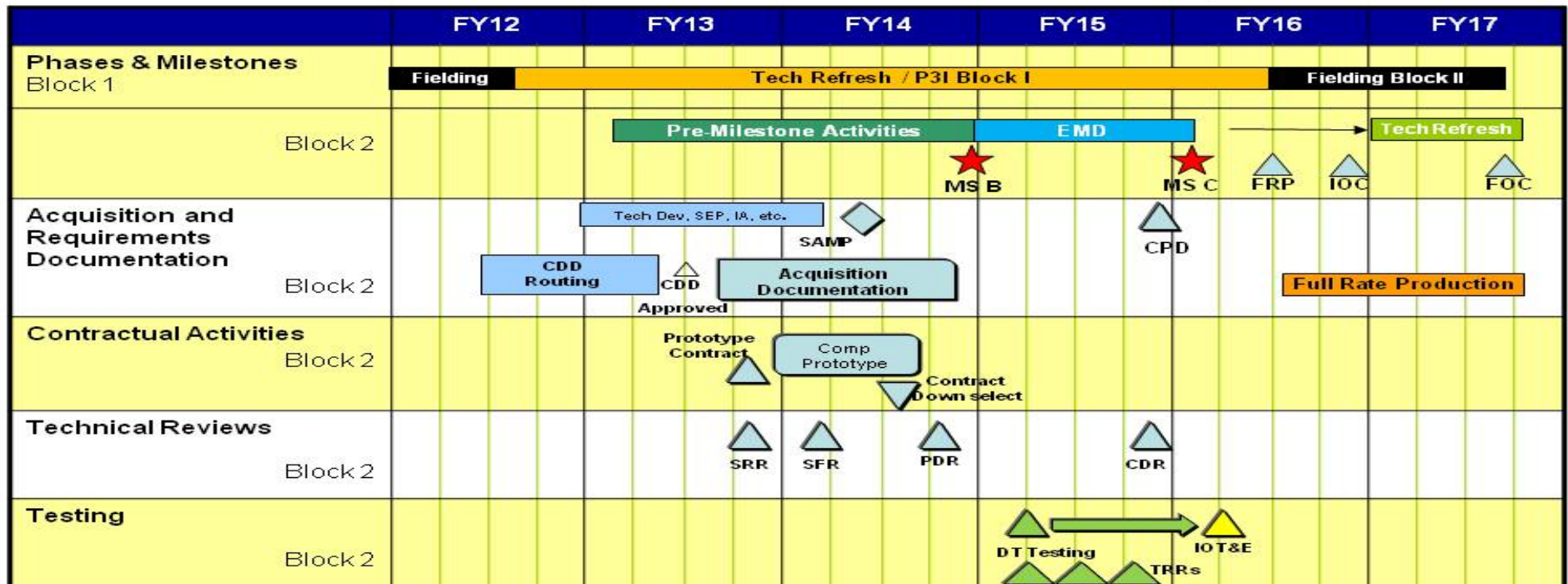
PROJECT

2510: MAGTF CSSE & SE



MARINE CORPS SYSTEMS COMMAND
UNITED STATES MARINE CORPS

EMSS P3I/Block II Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 2510: <i>MAGTF CSSE & SE</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 2510</i>				
Milestone B	4	2014	4	2014
Milestone C	1	2016	1	2016
Full Rate Production Decision	2	2016	2	2016
Initial Operational Capability (IOC)	4	2016	4	2016
Full Operational Capability (FOC)	3	2017	3	2017
Developmental Testing	1	2015	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 3099: Radar System			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3099: Radar System	116.834	31.545	25.677	10.310	-	10.310	19.507	12.271	15.978	17.754	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
Long Range Radar (AN/TPS-59) - The AN/TPS-59 is a three dimensional ground-based sensor that can detect and track long range Air Breathing Targets (ABT) at ranges of 300 nautical miles and Tactical Ballistic Missiles (TBM) at ranges of 400 nautical miles. The system is experiencing increasing obsolescence and Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues. The program will use a Post Production Support (PPS) contract to develop engineering changes to resolve DMSMS and incorporate Mode 5 Identification Friend or Foe (IFF) per DOD mandate.												
Family of Target Acquisition Systems (FTAS) - The FTAS provides the MAGTF the capability to locate, identify, and attack enemy indirect fire weapons systems and observe and direct friendly artillery fire. The FTAS consists of the AN/TPQ-46 Firefinder Radar, the AN/TPQ-49 Lightweight Counter Mortar Radar, and the AN/TSQ-267 Target Processing Set. The FTAS is critical in the execution of counterfire and the integration of target acquisition information enabling attack by MAGTF assets. The FTAS also provides artillery firing units the ability to conduct artillery registration and other friendly fire missions. The FTAS encompasses the equipment required to support target acquisition within the target acquisition platoon and is resident in the headquarters battery of each artillery regiment. The program will continue to address engineering issues that arise due to DMSMS items within the FTAS.												
Short/Medium Range Air Defense Radar (SHORAD or AN/TPS-63) - The AN/TPS-63 is a two-dimensional, medium-range, medium altitude, transportable radar system which is doctrinally employed as a tactical gap-filler or as an early warning system for early deployment into the operational area. It has a 360-degree air surveillance capability at a range of 160 miles and complements the co-employed AN/TPS-59 three-dimensional, long-range, air surveillance radar system. The program will develop engineering change proposals related to improved system reliability with the specific purpose of meeting increased fleet operational requirements.												
Three Dimensional Expeditionary Long Range Radar (3DELRR) - The Three-Dimensional Expeditionary Long-Range Radar (3DELRR) is a USAF program established to develop a lightweight, expeditionary, transportable, long-range surveillance radar system capable of detecting Airborne Ballistic Targets (ABTs) and Theatre Ballistic Missiles (TBMs). Marine Corps personnel are providing technical, engineering, and programmatic support, as well as, source selection support to the U.S. Air Force 3DELRR program. The program support consists of program management, engineering, logistics, test, and requirements activities.												
Virtual Warfare Center (VWC) Support - The project team conducts fully interactive simulated wargames at the Virtual Warfare Center (VWC) in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area. The VWC provides a venue for the exploration of advanced engagement concepts focused on persistent forward naval engagements in support of the MAGTF and the development of associated												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems	PROJECT 3099: Radar System		
Joint and Service specific tactics, techniques, and procedures (TTPs). VWC support encompasses a set of integrated fire control (IFC) activities that also includes concept/CONOPS development, family of systems architecture development, and systems engineering/integration efforts.				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Title: AN/TPS-59 : Develop Engineering Change Proposals		9.721	9.786	1.687
Articles:		0	0	0
Description: The program will address Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues by continuing use of a Post Production Support (PPS) contract as well as use of Other Government Agencies/Navy Labs. The AN/TPS-59 modification will address DMSMS and the DOD mandated Mode 5 Implementation of the AN/TPS-59 Radar System.				
FY 2012 Accomplishments: Continued development of IFF Mode 5, 1A5 Antenna Power Cabinet Engineering Change Proposals, Software Integration, and initiated Ops Console Study.				
FY 2013 Plans: Will continue software integration, studies, and efforts to address obsolescence and DMSMS issues.				
FY 2014 Plans: Will continue software integration, studies, and efforts to address obsolescence and DMSMS issues. The reduction from FY13 to FY14 is a result of fewer DMSMS initiatives scheduled in FY14.				
Title: AN/TPS-59 : Management Service Support		4.131	2.700	0.000
Articles:		0	0	
FY 2012 Accomplishments: Provided program management and technical support for Long Range Radar efforts.				
FY 2013 Plans: Continuing program management and technical support for Long Range Radar efforts. Reduction from FY 2012 to FY 2013 due to decrease in requirements.				
Title: AN/TPS-59: Test and Evaluation		0.485	0.160	0.000
Articles:		0	0	
FY 2012 Accomplishments: MCOTEA- Mode 5 and Software Maintenance Testing Events, NAWCAD - Mode 5 Testing Support including CAS Flight Support, Civil Air Patrol (CAP) - Testing Support.				
FY 2013 Plans:				

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems	PROJECT 3099: Radar System		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
NAWCAD - Mode 5 Testing Support including CAS Flight Support, Civil Air Patrol (CAP) - Testing Support.				
Title: AN/TPS-59 : Engineering and Technical Support Articles: FY 2012 Accomplishments: MITRE/NSWC Dahlgren - Engineering Support, NSWC Crane - Sustainment Support, NSWC Crane/Dahlgren/Port Hueneme - Independent Assessment Study, SPAWAR - IA Support, MCCDC CD&I - Requirements Support, MCSC - Program Office Travel, Lockheed Martin - Post Production Services and Support. FY 2013 Plans: MITRE/NSWC Dahlgren/NSWC Crane - Engineering Support, SPAWAR - IA Support, MCCDC CD&I - Requirements Support, MCSC - Program Office Travel, Lockheed Martin - Post Production Services and Support. FY 2014 Plans: MITRE/NSWC Dahlgren/NSWC Crane - Engineering Support, SPAWAR - Engineering Support, MCCDC CD&I - Requirements Support, MCSC - Program Office Travel, Lockheed Martin - Post Production Services and Support.		8.714 0	7.109 0	5.594 0
Title: SHORAD: Engineering and Technical Support Articles: Description: Provide configuration management to the current systems by on-site visits and field configuration surveys. Continuing development effort to resolve ongoing DMSMS and obsolescence issues. FY 2012 Accomplishments: NSWC Dahlgren/Crane - Engineering Support. Continued development of solutions for DMSMS and obsolescence issues based on results of Baseline/Life Extension Study. FY 2013 Plans: NSWC Dahlgren/Crane - Engineering Support. Continue to develop solutions for DMSMS and obsolescence issues based on results of Baseline/Life Extension Study. FY 2014 Plans: NSWC Dahlgren/Crane - Engineering Support. Address outstanding ECP issues.		0.201 0	0.489 0	0.187 0
Title: FTAS: Engineering and Technical Support Articles: FY 2012 Accomplishments:		1.571 0	0.646 0	0.582 0

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>		PROJECT 3099: <i>Radar System</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2012	FY 2013	FY 2014
NSWC Dahlgren - Engineering Support for the FTAS supported Sensor Management and Collaboration Tool (SMACT) Development, and Government liason with Fires Software Engineering Directorate (FSED) Ft. Sill. Aberdeen Proving Ground (APG)- M116A3 MOD Trailer Capabilities Validation. Tobyhanna Army Depot (TYAD)- AN/TPQ-46 MILTOPE Computer Refresh Engineering Change Proposal (ECP).					
FY 2013 Plans: Tobyhanna Army Depot (TYAD)- ECP development on the AN/TSQ-267. NSWC Dahlgren - Engineering Support for the Family of Target Acquisition systems, and Government liason with Fires Software Engineering Directorate (FSED) Ft. Sill. Tobyhanna Army Depot (TYAD)- AN/TPQ-46 MILTOPE Computer Refresh Engineering Change Proposal (ECP). MCSC Albany - Program Travel in support of Equipment and Logistics SME.					
FY 2014 Plans: Tobyhanna Army Depot (TYAD)- Continuation of ECP development on the AN/TSQ-267 and ECP development on the AN/TPQ-49. NSWC Dahlgren - Engineering Support for the Family of Target Acquisition systems, and Government liason with Fires Software Engineering Directorate (FSED) Ft. Sill. MCSC Albany - Program Travel in support of Equipment and Logistics SME.					
Title: 3DELRR: Management Service Support			1.985	1.851	0.000
Articles:			0	0	
Description: Provides for programmatic and technical support to U.S. Air Force 3DELRR Program.					
FY 2012 Accomplishments: Provided program management and technical support to U.S. Air Force 3DELRR Program.					
FY 2013 Plans: Continuing program management and technical support to U.S. Air Force 3DELRR Program.					
Title: VWC: Testing Support			4.737	2.936	2.260
Articles:			0	0	0
FY 2012 Accomplishments: Conducted fully interactive simulated wargames (Nimble Fire) at the Virtual Warfare Center (VWC) in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area. Delivering USMC IFC architecture Phase II products. Conducted systems integration of IFC related systems in analysis venues. Conducted systems engineering of IFC related C2, sensors, networks, and weapons. Transitioning technical workspace to new facility as part of the BRAC. VWC was a new start in FY12.					
FY 2013 Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy								DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>				PROJECT 3099: <i>Radar System</i>			

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continuation of simulated wargames at the Virtual Warfare Center (VWC) in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area.			
<i>FY 2014 Plans:</i> Continuation of simulated wargames at the Virtual Warfare Center (VWC) in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area.			
Accomplishments/Planned Programs Subtotals	31.545	25.677	10.310

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• PMC/465003: <i>AN/TPS-59</i>	49.706	38.916	10.009		10.009	13.426	30.996	21.796	20.668	Continuing	Continuing
• PMC/465005: <i>FTAS</i>	5.388	3.145	3.004		3.004	2.228	2.284	2.609	2.374	Continuing	Continuing
• PMC/465007: <i>SHORAD (AN/TPS-63)</i>	7.425	3.685	1.713		1.713	0.976	1.421	0.728	0.741	Continuing	Continuing
• PMC/463000: <i>AN/TPS-59 MCHS</i>	0.124	0.100	0.107		0.107	0.098	0.121	0.143	0.146	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
Long Range Radar (AN/TPS-59) - The AN/TPS-59 is a three dimensional ground-based sensor that can detect and track long range Air Breathing Targets (ABT) at ranges of 300 nautical miles and Tactical Ballistic Missiles (TBM) at ranges of 400 nautical miles. The system is experiencing increasing obsolescence and Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues. The program will use a Post Production Support (PPS) contract as well as Other Government Agencies (OGA) to develop engineering changes to resolve DMSMS and incorporate Mode 5 Identification Friend or Foe (IFF) per DOD mandate.											
Virtual Warfare Center (VWC) Support - The project team conducts fully interactive simulated wargames at the Virtual Warfare Center (VWC) in St. Louis, MO, in order to quantify family of systems performance and how it impacts effectiveness in the Integrated Air and Missile Defense (IAMD) mission area. VWC support encompasses a set of integrated fire control (IFC) activities that also includes concept/CONOPS development, family of systems architecture development, and systems engineering/integration efforts. These efforts are led by ONR.											
E. Performance Metrics											
Milestone Reviews											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 3099: Radar System					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59	C/CPFF	LOCKHEED MARTIN:SYRACUSE, NY	61.938	9.721	May 2012	1.867	May 2013	0.000		-		0.000	0.000	73.526	
AN/TPS-59	WR	TBD:TBD	0.000	0.000		2.625	Jul 2013	0.000		-		0.000	0.000	2.625	
AN/TPS-59	WR	NSWC:CRANE, IN	0.000	0.000		5.294	Feb 2013	1.687	Feb 2014	-		1.687	Continuing	Continuing	Continuing
AN/TPS-63	C/CPFF	NORTHROP GRUMMAN:WARNER ROBINS, GA	1.444	0.201	May 2012	0.000		0.000		-		0.000	0.000	1.645	
Subtotal			63.382	9.922		9.786		1.687		0.000		1.687			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59	C/CPFF	MCCDC CDI:QUANTICO, VA	0.788	0.355	May 2012	0.450	May 2013	0.400	May 2014	-		0.400	0.000	1.993	
AN/TPS-59	WR	NSWC:DAHLGEN, VA	4.100	2.743	Mar 2012	1.370	Jan 2013	1.378	Apr 2014	-		1.378	Continuing	Continuing	Continuing
AN/TPS-59	Various	SPAWAR:CHARLESTON, SC	3.244	0.563	Dec 2012	0.222	Dec 2012	0.500	Oct 2013	-		0.500	Continuing	Continuing	Continuing
AN/TPS-59	MIPR	MITRE:BEDFORD, MA	2.925	0.757	Dec 2011	0.932	Dec 2012	0.850	Dec 2013	-		0.850	Continuing	Continuing	Continuing
AN/TPS-59	Various	MCSC:QUANTICO, VA	1.000	0.084	Oct 2011	0.125	Oct 2012	0.250	Oct 2013	-		0.250	Continuing	Continuing	Continuing
AN/TPS-59	C/CPFF	LOCKHEED MARTIN:SYRACUSE, NY	6.000	2.137	Apr 2012	2.419	Apr 2013	1.425	Apr 2014	-		1.425	Continuing	Continuing	Continuing
AN/TPS-59	C/CPFF	MCSC COMP:QUANTICO, VA	3.142	1.362	Mar 2012	1.591	Mar 2013	0.791	Mar 2014	-		0.791	Continuing	Continuing	Continuing
AN/TPS-59	WR	NSWC:CRANE, IN	1.536	0.696	May 2012	0.000		0.000		-		0.000	0.000	2.232	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE				PROJECT					
1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						PE 0206313M: Marine Corps Comms Systems				3099: Radar System					
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59	WR	NSWC:PHD VA BEACH DETACHMENT, VA	0.000	0.017	Mar 2012	0.000		0.000		-		0.000	0.000	0.017	
FTAS	WR	NSWC:DAHLGREN, VA	6.163	1.036	Jan 2012	0.250	Apr 2013	0.206	Jan 2014	-		0.206	Continuing	Continuing	Continuing
FTAS	MIPR	APG:ABERDEEN, MD	2.418	0.262	Apr 2012	0.000		0.000		-		0.000	0.000	2.680	
FTAS	MIPR	TYAD:TOBYHANNA, PA	0.000	0.219	Dec 2012	0.346	Apr 2013	0.326	Jan 2014	-		0.326	Continuing	Continuing	Continuing
FTAS	WR	NSWC:CRANE, IN	1.850	0.000		0.000		0.000		-		0.000	0.000	1.850	
FTAS	Various	MCSC:QUANTICO, VA	2.024	0.054	Oct 2011	0.050	Oct 2012	0.050	Oct 2013	-		0.050	0.000	2.178	
AN/TPS-63	WR	NSWC:CRANE, IN	0.209	0.000		0.150	Jun 2013	0.000		-		0.000	0.000	0.359	
VWC	C/CPFF	MCSC:ONR; ST LOUIS, MO	0.000	4.737	Oct 2011	2.936	Dec 2012	2.260	Dec 2013	-		2.260	0.000	9.933	
AN/TPS-63	WR	NSWC:DAHLGREN, VA	0.775	0.000		0.075	Jan 2013	0.000		-		0.000	0.000	0.850	
AN/TPS-63	MIPR	USA:TOBYHHANNA, PA	0.150	0.000		0.164	Mar 2013	0.187	Mar 2014	-		0.187	Continuing	Continuing	Continuing
AN/TPS-63	WR	NAVAIR:NAWCAD: PAXTUXENT RIVER, MD	0.000	0.000		0.100	Dec 2012	0.000		-		0.000	0.000	0.100	
Subtotal			36.324	15.022		11.180		8.623		0.000		8.623			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59	C/CPFF	MCSC:MCOTEA QUANTICO VA	0.690	0.346	Dec 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
AN/TPS-59	MIPR	USAF:MAXWELL AFB AL	0.000	0.017	Jun 2012	0.020	Dec 2012	0.000		-		0.000	0.000	0.037	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy													DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY							R-1 ITEM NOMENCLATURE				PROJECT				
1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development							PE 0206313M: Marine Corps Comms Systems				3099: Radar System				
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59	WR	NAWCAD:PAX RIVER MD	0.000	0.061	Aug 2012	0.140	Mar 2013	0.000		-		0.000	0.000	0.201	
AN/TPS-59	WR	NAVAIR:PAX RIVER MD	0.000	0.061	Apr 2012	0.000		0.000		-		0.000	0.000	0.061	
Subtotal			0.690	0.485		0.160		0.000		0.000		0.000			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/TPS-59	C/CPFF	MCSC:GENERAL DYNAMICS QUANTICO VA	13.654	4.131	Jun 2012	2.700	Jun 2013	0.000		-		0.000	0.000	20.485	
AN/TPS-59 (3 DELRR)	C/CPFF	MCSC:GENERAL DYNAMICS QUANTICO VA	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	
FTAS	WR	MCSC:QUANTICO VA	0.504	0.000		0.000		0.000		-		0.000	0.000	0.504	
3DELRR	C/CPFF	MCSC:GENERAL DYNAMICS QUANTICO VA	0.280	1.985	Jun 2012	1.851	Jun 2013	0.000		-		0.000	0.000	4.116	
Subtotal			16.438	6.116		4.551		0.000		0.000		0.000	0.000	27.105	
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			116.834	31.545		25.677		10.310		0.000		10.310			
Remarks															

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 3099: <i>Radar System</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3099				
AN/TPS-59 PPM II MS-C/Fielding Decision	3	2014	3	2014
AN/TPS-59 PPM II IOC	4	2014	4	2014
AN/TPS-59 PPM II FOC	1	2016	1	2016
AN/TPS-59 PPM II Life Cycle Sustainment	2	2015	4	2018

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 9C89: Marine Ground-Air Radar			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9C89: Marine Ground-Air Radar	248.235	102.455	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	350.690
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
Note												
Program Element change in FY13 from 0206313M to 0204460M												
A. Mission Description and Budget Item Justification												
The Ground/Air Task Oriented Radar (G/ATOR) is multi-role, ground-based, expeditionary radar that replaces five legacy radar systems for the Marine Air Ground Task Force. It satisfies the Marine Air Command and Control System and the Ground Counter Fire/Counter Battery capabilities. The G/ATOR replaces the AN/TPS-63 and complements the AN/TPS-59 long range radar and will provide mobile, multi-functional, three-dimensional surveillance of air breathing targets, detection of cruise missiles and UAS, and the cueing of air defense weapons. The G/ATOR contributes to the extension of Sea Shield/Sea Strike by surveillance and detection of enemy air threats not seen by Navy sensors in the littorals by participating in a cooperative engagement network of sensors and shooters. G/ATOR enables Integrated Fire Control (IFC) and provides engage/fire on remote capability. G/ATOR surveillance coverage with IFC will provide unprecedented reach, volume and precision in the execution of Operational Maneuver From The Sea, allowing Naval forces to project and sustain power deep inland. Funding for this effort was moved to PE 0204460M in FY13 and beyond.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: *G/ATOR: Contractor Technical, Development Engineering/EDM									78.305	0.000	0.000	
Articles:									0			
FY 2012 Accomplishments:												
Finished System I&T, conducted Environmental Qualification Test (EQT), finished PQT, delivered Engineering Development Model (EDM) to the Government (DD250 sign off), started Anti-Tamper (AT) planning, assisted the government in development of the LRIP configuration in support of Transition to LRIP, conducted Production Readiness Review (PRR) and began producibility enhancement efforts to include design, prototype development and integration/regression testing of Gallium Nitride (GaN) based Transmit/Receive (T/R) modules and associated technology insertion efforts.												
Title: *G/ATOR: Test and Evaluation									3.769	0.000	0.000	
Articles:									0			
FY 2012 Accomplishments:												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 9C89: Marine Ground-Air Radar				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2012	FY 2013	FY 2014
Finished System I&T, conducted Environmental Qualification Test (EQT), finished PQT, provided support for the beginning of Developmental Testing 1B (DT1B).												
Title: *G/ATOR: Program Office Management & Travel Costs Articles:										6.113 0	0.000	0.000
FY 2012 Accomplishments: Continued Program Office Support and travel efforts in support of system development and test.												
Title: *G/ATOR: Government Technical Support Articles:										10.741 0	0.000	0.000
FY 2012 Accomplishments: Continued support from these activities to enable program execution: MITRE, NSWC Dahlgren, NSWC Crane, NSWC PHD, MARCORSYSCOM and MCOTEA												
Title: *G/ATOR: Engineering, Management, & Logistics Support Articles:										3.527 0	0.000	0.000
FY 2012 Accomplishments: Finished engineering, management & logistics program office support under existing contract with GDIT. Awarded new contract and continued engineering, management & logistics program office support with new contract vehicle.												
Accomplishments/Planned Programs Subtotals										102.455	0.000	0.000
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost	
• PMC/465000: GRND/AIR TASK ORIENTED RADAR	4.246	90.348	99.325		99.325	74.830	236.165	237.381	229.000	0.000	971.295	
• RDTE/0604504N: Air C: MATCAL S	0.000	0.000	3.000		3.000	0.000	0.000	0.000	0.000	0.000	3.000	
• RDTE/0204460M: GRND/AIR TASK ORIENTED RADAR	0.000	75.088	78.208		78.208	77.413	74.653	49.969	19.968	0.000	375.299	
• PMC/700000: SPARES - G/ATOR	0.000	0.000	7.500		7.500	6.800	18.900	21.200	26.300	0.000	80.700	
Remarks												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 9C89: <i>Marine Ground-Air Radar</i>
<u>D. Acquisition Strategy</u> The Ground/Air Task Oriented Radar (G/ATOR) is multi-role, ground-based, expeditionary radar replacing five legacy radar systems and provides the USMC Air Defense and Air Surveillance (AD/AS), Counterfire/Targeting, and Air Traffic Control capability. The AD/AS development effort, competitively awarded in 2007, is scheduled for Milestone C in the 4th Qtr of FY13. Development of the Counterfire/Targeting capability was initiated in FY 10 with a RFI to industry followed by a Business Case Analysis (BCA) to select the most cost effective procurement strategy. The results of the BCA indicated that a sole source contract to NGSC was the most cost effective solution. Consequently, the J&A has been submitted reflecting the results of the BCA, and the contract award is scheduled for the first Qtr of FY 14. In FY13, a BCA will be performed to determine the optimum strategy for development of the Air Traffic Control mission with a targeted development contract to be awarded in FY 15.		
<u>E. Performance Metrics</u> N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems						PROJECT 9C89: Marine Ground-Air Radar			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	C/CPIF	NORTHROP GRUMMAN SYSTEMS CORPORATION:LINTHICUM HEIGHTS, MD	195.803	78.305	Dec 2011	0.000		0.000		-		0.000	0.000	274.108	
Subtotal			195.803	78.305		0.000		0.000		0.000		0.000	0.000	274.108	
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	MIPR	MITRE:BOSTON, MA	3.055	1.402	Dec 2011	0.000		0.000		-		0.000	0.000	4.457	
G/ATOR	WR	NSWC-DAHLGREN:DAHLGREN,VA	21.319	10.741	Dec 2011	0.000		0.000		-		0.000	0.000	32.060	
G/ATOR	WR	NSWC-CRANE:CRANE, IN	1.474	0.250	Dec 2011	0.000		0.000		-		0.000	0.000	1.724	
G/ATOR	C/FP	MCSC:QUANTICO, VA	0.414	0.300	Dec 2011	0.000		0.000		-		0.000	0.000	0.714	
G/ATOR	WR	NSWC-PHD:DAM NECK, VA	0.569	1.575	Dec 2011	0.000		0.000		-		0.000	0.000	2.144	
Subtotal			26.831	14.268		0.000		0.000		0.000		0.000	0.000	41.099	
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	C/CPIF	MCOTEA:QUANTICO, VA	1.372	0.536	Dec 2011	0.000		0.000		-		0.000	0.000	1.908	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0206313M: Marine Corps Comms Systems				PROJECT 9C89: Marine Ground-Air Radar					
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	C/FP	GENERAL DYNAMICS:STAFFORD, VA	1.550	0.600	Dec 2011	0.000		0.000		-		0.000	0.000	2.150	
G/ATOR	WR	NSWC-CORONA:CORONA, CA	0.718	0.612	Dec 2011	0.000		0.000		-		0.000	0.000	1.330	
G/ATOR	MIPR	US ARMY ABERDEEN:PROVING GROUND, MD	2.050	1.600	Dec 2011	0.000		0.000		-		0.000	0.000	3.650	
G/ATOR	MIPR	NAVAL SURFACE WEAPONS COMBAT CNTR:WALLOPS ISLAND, VA	1.600	0.421	Dec 2011	0.000		0.000		-		0.000	0.000	2.021	
Subtotal			7.290	3.769		0.000		0.000		0.000		0.000	0.000	11.059	
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
G/ATOR	C/FP	MCSC:MCSC-QUANTICO, VA	4.151	0.346	Dec 2011	0.000		0.000		-		0.000	0.000	4.497	
G/ATOR	Various	MCSC:QUANTICO, VA	0.724	0.424	Sep 2012	0.000		0.000		-		0.000	0.000	1.148	
G/ATOR	C/FP	GENERAL DYNAMICS:STAFFORD, VA	12.587	4.905	May 2012	0.000		0.000		-		0.000	0.000	17.492	
GATOR	C/FP	MCSC:QUANTICO, VA	0.849	0.438	Dec 2011	0.000		0.000		-		0.000	0.000	1.287	
Subtotal			18.311	6.113		0.000		0.000		0.000		0.000	0.000	24.424	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy										DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>					R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>					PROJECT 9C89: <i>Marine Ground-Air Radar</i>			
	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	248.235	102.455		0.000		0.000		0.000		0.000	0.000	350.690	
Remarks													

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

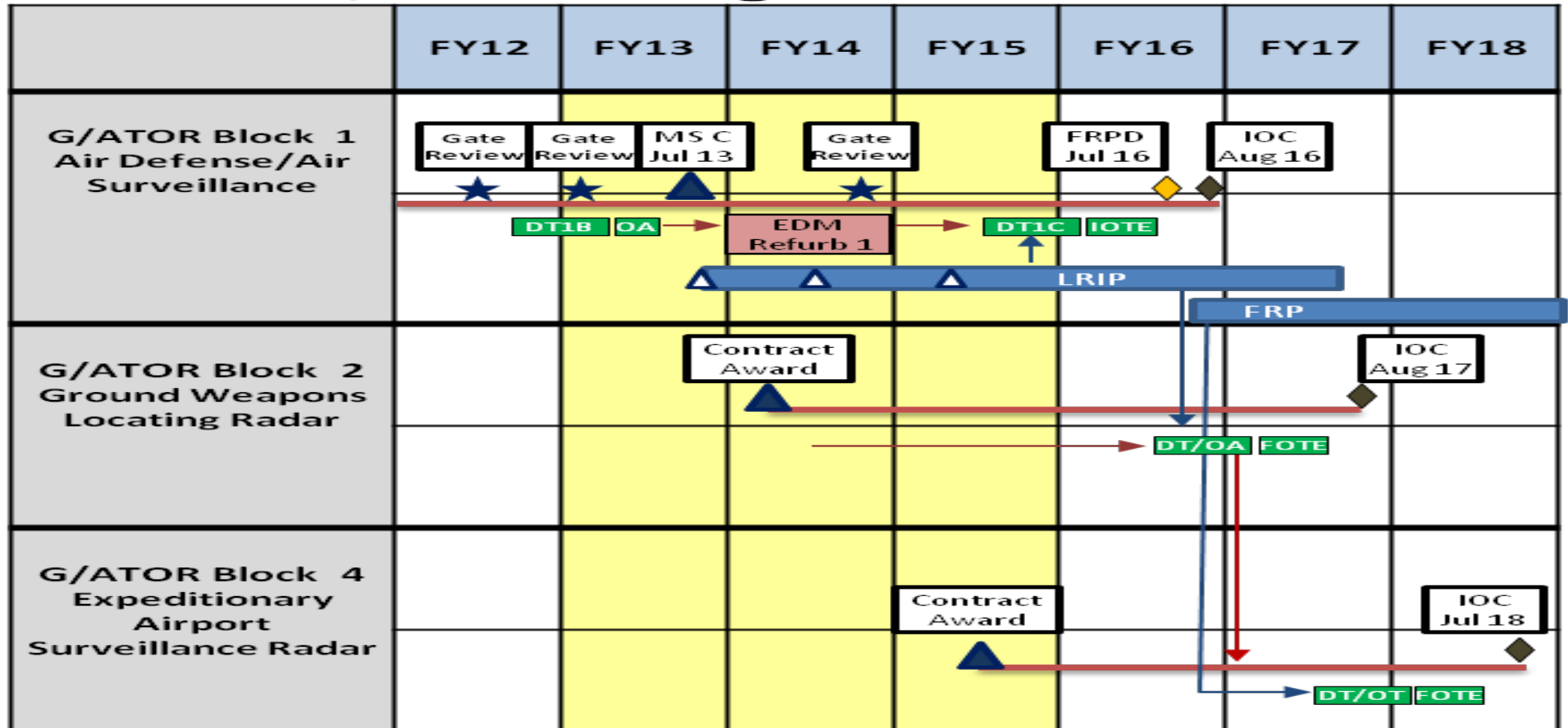
R-1 ITEM NOMENCLATURE

PE 0206313M: Marine Corps Comms Systems

PROJECT

9C89: Marine Ground-Air Radar

G/ATOR Program Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0206313M: <i>Marine Corps Comms Systems</i>	PROJECT 9C89: <i>Marine Ground-Air Radar</i>	

Schedule Details

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