EXHIBIT R-2, RDT&E Budget Item Justification					DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**		PROGRAM ELEMENT (PE) NAME AND NO. **0206313M Marine Corps Communications Systems**						
COST ($ in Millions)	FY08	FY09	FY10	FY10 OCO	FY10 Total			
Total PE Cost	**347.524**	**288.714**	**287.348**	**0.000**	**287.348**			
C2270 Expeditionary Indirect General Support Weapon Systems	**22.043**	**55.044**	**25.826**	**0.000**	**25.826**			
*C2272 Intelligence C2 Systems	**13.897**	**17.712**	**0.000**	**0.000**	**0.000**			
**C2273 Air Operations C2 Systems	**62.476**	**46.422**	**71.432**	**0.000**	**71.432**			
C2274 Command & Control Wargare Systems	**51.250**	**17.603**	**19.887**	**0.000**	**19.887**			
C2275 Joint Tactical Radio Systems	**5.944**	**11.822**	**8.790**	**0.000**	**8.790**			
C2276 Communications Switching and Control Systems	**3.637**	**2.580**	**2.954**	**0.000**	**2.954**			
C2277 System Engineering & Integration	**9.321**	**6.922**	**6.988**	**0.000**	**6.988**			
C2278 Air Defense Weapons Systems	**2.386**	**4.601**	**7.754**	**0.000**	**7.754**			
C2510 MAGTF CSSE & SE	**62.717**	**15.191**	**62.063**	**0.000**	**62.063**			
C3099 Radar Systems	**103.731**	**103.118**	**17.729**	**0.000**	**17.729**			
C9C89 Marine Ground-Air Radar	**0.000**	**0.000**	**63.925**	**0.000**	**63.925**			
C9999 Congressional Adds	**10.122**	**7.699**	**0.000**	**0.000**	**0.000**			
Quantity of RDT&E Articles								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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

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

Note:
*Funds for Project C2272 were realigned to PEs 0206625M/0305232M/0305234M in FY10.
**Reflects correction that moved funds from C2273, PE 0206313M to C2272, PE 0206625M (approved/processed by FMB/PBIS)

EXHIBIT R-2, RDT&E Budget Item Justification			DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT (PE) NAME AND NO. **0206313M Marine Corps Communications Systems**		

B. PROGRAM CHANGE SUMMARY

	FY2008	FY2009	FY2010
Funding:			
FY 2009 President's Budget:	260.719	273.696	189.912
FY 2010 President's Budget:	347.524	288.714	287.348
Total Adjustments:	86.805	15.018	97.436
Summary of Adjustments:			
a. Congressional Adjustments:		-0.762	
- FY08 OCO:	51.144		
b. SBIR/STTR Transfer:	-3.289		
c. Program Adjustments:	38.950	15.780	100.768
d. Rate/Misc Adjustments:			-3.332
Subtotal	86.805	15.018	97.436

EXHIBIT R-2a, RDT&E Project Justification			DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications Systems**		PROJECT NUMBER AND NAME **C2270 Exp Indirect Fire Gen Supt Wpn Sys**

COST ($ in Millions)	Prior Years	FY 2008	FY 2009	FY2010	FY 2010 OCO	FY 2010 TOTAL			
Project Cost									
	35.509	**22.043**	**55.044**	**25.826**	**0.000**	**25.826**			
RDT&E Articles Qty -NA									

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Systems assigned to this project are to be used by commanders and their staffs to process, fuse, and tailor information to assist decision-making and enhance situational awareness. They will integrate and share information from sources both internal and external to the Marine Air-Ground Task Force (MAGTF) to provide a shared understanding of the battle space. Maneuver Command and Control (C2) is the executive layer of decision support that retrieves and fuses information from functional areas. It provides an integrated representation of the battle space or a specific area of concern. The subprojects below develop systems that report unit status and location to the Tactical Combat Operations (TCO) System, and disseminate maneuver information throughout the battle space.

Advanced Field Artillery Tactical Data System (AFATDS)- Consists of fire support Command and Control C2 software fielded on Marine Corps common hardware. AFATDS provides the MAGTF with the ability to rapidly integrate all supporting arms assets into maneuver plans via a digital link utilizing currently fielded communications equipment. AFATDS automates the fire planning, tactical fire direction, and fire support coordination required to support maneuvers from the sea and subsequent operations ashore. 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).

Command and Control Personal Computer (C2PC) - C2PC is the core client and gateway for the Joint Tactical Common Operating Picture Workstation. It is the authoritative data source for the ground common operating picture within the Marine Air Ground Task Force (MAGTF).

Tactical Command Operations System (TCO) - TCO is the principal 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.

Tactical Locator Designation and Handoff System (TLDHS) - Hand-Off System - Provides the ability for Forward Observers (FOs) and Forward Air Controllers (FACs) to: observe their area of interest, quickly and accurately locate ground targets, receive and display Blue Force Situational Awareness information and Fire Support Coordination Measures (FSCMs) on map displays interfaced with C2PC. TLDHS can digitally request and provide digital terminal control for target engagements by field artillery (FA) through AFATDS, close air support (CAS) aircraft, and naval surface fire support (NSFS), and the machine-to-machine interface of the system reduces the potential for fratricide due to human error and by displaying friendly positions and target locations to the terminal controller. TLDHS Block II also provides the capability to designate targets for laser-guided munitions and laser spot trackers. TLDHS Block II is comprised of and integrates two major subsystems: the Targeting Subsystem and the Target Hand-Off Subsystem. USMC Milestone C for TLDHS Block II was June 2005 and Fielding and Full rate Production Decisions were October 2006. Fluctuations of R&D across the FYDP are due to the nature of a spiral development approach.

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

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Systems Development	**0206313M Marine Corps Communications Systems**	**C2270 Exp Indirect Fire Gen Supt Wpn Sys**

Joint Battle Command - Platform (JBC-P) - will provide a single integrated Joint Blue Force Situational Awareness (JBFSA) capability solution for C2, Position Location Information (PLI), Mapping, Messaging, Overlays, and Routes, as required by Joint Requirements Oversight Council Memoranda 163-04, and 161-03. JBC-P will replace, DDACT, MRC, and BFT family of systems.
Blue Force Situational Awareness (BFSA) - is the Marine Corps' Situational Awareness family of systems comprised of the Mounted and Dismounted variants of terrestrial (EPLRS/SINCGARS) systems, and the mounted celestial (SATCOM) system.

Data Automated Communications Terminal (DACT) (BFSA) - is the Marine Corps' Blue Force Tracking Program of Record. It is the primary source of all tactical ground tracks below the Marine battalion, and is the primary provider of Position Location Information (PLI) into the Combat Operations Center (COC) and to Joint forces viewing the Common Operational Picture (COP). DACT is one tool in the Joint Combat ID toolbox that the Marine Commander uses to reduce the potential for fratricide.

The Mounted Refresh Computer (MRC) (BFSA) - MRC is the replacement for the Mounted DACT and consists of a militarized central processing unit with Command and Control Compact Edition (C2CE) software integrated with various tactical vehicle platforms and communications systems through the use of a Vehicle Modification (VM) kit. It is mounted in vehicles from the battalion to the mechanized platoon (HMMWV, AAV, LAV and tanks).

The Dismounted Data Automated Communications Terminal (D-DACT) (BFSA) - The Dismounted DACT is a smaller, lighter handheld device having greater battery life, consisting of the Rugged Personal Digital Assistant (R-PDA) with Windows Command and Control CE (C2CE) software. The Dismounted DACT is intended for the dismounted user at the platoon level. Future DACT improved capabilities for replacement systems will meet stipulated Operational Requirements and OIF-derived Requirements to provide Blue Force Tracking and automated communications support for commander in tactical operations. New capabilities will include Non Line of Sight (NLOS) and enhanced communication paths; improved Graphic User Interface (GUI) software, a larger screen, and Selective Availability Anti-Spoofing Module (SAASM) GPS integration.

Blue Force Tracker (BFT) (BFSA) System is a satellite-based Tracking and Communication System. BFT provides the capability to identify position, track progress, and communicate with the operators of tactical vehicles in OIF/OEF. The BFT is employed at the battalion level below to provide operational commanders with USMC/Army Position Location Information within the area of operations. It is mounted in vehicles at the Battalion level and below down to the individual vehicle (HMMWV, AAV, LAV and tanks).

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

EXHIBIT R-2a, RDT&E Project Justification			DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications Systems**		PROJECT NUMBER AND NAME **C2270 Exp Indirect Fire Gen Supt Wpn Sys**	
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.500**	**0.213**	**0.354**	**0.000**
RDT&E Articles Qty				
TLDHS: Software Development, New Functionality and Sustainment				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.577**	**1.300**	**3.722**	**0.000**
RDT&E Articles Qty				
TLDHS: Test Development and Integration Support				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.207**	**0.587**	**0.232**	**0.000**
RDT&E Articles Qty				
AFATDS: Development of BackUp Computer System (BUCS) & Software (SW)				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**1.000**	**1.000**	**1.168**	**0.000**
RDT&E Articles Qty				
AFATDS: Software Development, Testing, and Integration				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.597**	**3.308**	**2.971**	**0.000**
RDT&E Articles Qty				
AFATDS: Program Management, engineering support and hardware development.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.313**	**0.500**	**0.000**
RDT&E Articles Qty				
AFATDS: MCTSSA tested new Software (SW) and Federation of Systems (FEDOS)				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.300**	**0.300**	**0.000**
RDT&E Articles Qty - Not Applicable				
AFATDS: Development of improved interoperability with USMC and Joint Systems. Enhancement to EMT and C2PC interface.				

EXHIBIT R-2a, RDT&E Project Justification			DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications Systems**		PROJECT NUMBER AND NAME **C2270 Exp Indirect Fire Gen Supt Wpn Sys**	
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.309**	**0.000**	**0.000**
RDT&E Articles Qty				
C2PC: Planned Engineer Change Proposals of the client and gateway				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**4.586**	**9.630**	**2.000**	**0.000**
RDT&E Articles Qty				
MAGTF C2: Engineering, research, development, integration and testing support for 2010 MAGTF release				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**4.669**	**26.117**	**6.000**	**0.000**
RDT&E Articles Qty - Not Applicable				
MAGTF C2: Engineering, research, and development support. This research includes analysis of alternatives such as the Future Combat Systems C2 capabilities and Net Enabled Command and Control. FY09 RDT&E funding is significantly higher to enable front end investment in the development of USMC net centric C2 capabilities.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**7.530**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty				
MAGTF C2: Software Development. FY09 RDT&E funding is significantly higher to enable front end investment in the development of USMC unique services in support of the transition to a Net Centric Environment.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**1.800**	**7.414**	**2.468**	**0.000**
RDT&E Articles Qty				
MAGTF C2: Program Support. System engineering, programmatic, and logistics program support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.190**	**0.921**	**0.074**	**0.000**
RDT&E Articles Qty				
BFSA: Test support				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.091**	**0.100**	**1.234**	**0.000**
RDT&E Articles Qty				
BFSA: Increased Capabilities.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.211**	**2.579**	**0.871**	**0.000**
RDT&E Articles Qty				
BFSA: Software Integration.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**1.630**	**0.000**
RDT&E Articles Qty				
JBC-P: Software Development/Integration.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.529**	**0.000**
RDT&E Articles Qty				
JBC-P: Training Development.				

EXHIBIT R-2a, RDT&E Project Justification			DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications Systems**		PROJECT NUMBER AND NAME **C2270 Exp Indirect Fire Gen Supt Wpn Sys**	
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.085**	**0.263**	**0.230**	**0.000**
RDT&E Articles Qty - Not Applicable				
TCO: System testing and integration to develop additional functional capabilities.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.450**	**0.356**	**0.000**
RDT&E Articles Qty				
TCO: Integrate software changes into new system and perform testing.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.240**	**0.128**	**0.000**
RDT&E Articles Qty				
TCO: Testing and validations of advanced concepts and technologies.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**1.059**	**0.000**
RDT&E Articles Qty				
IDS: Concept and Technology Development				
(U) Total $	**22.043**	**55.044**	**25.826**	**0.000**

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Systems Development	**0206313M Marine Corps Communications Systems**	**C2270 Exp Indirect Fire Gen Supt Wpn Sys**

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL
PMC BLI 463100 MCIOC	0.000	0.548	0.336	0.000	0.336
PMC BLI 463100 AFATDS	6.653	0.859	13.877	2.460	16.337
PMC BLI 463100 BFSA	53.174	130.873	19.389	18.474	37.863
PMC BLI 463100 GCCS	4.750	4.672	7.356	0.000	7.356
PMC BLI 463100 TCO	1.320	0.843	0.772	0.000	0.772
PMC BLI 463100 TLDHS	9.340	1.039	8.090	2.107	10.197
PMC BLI 463100 CAPSET I COC	0.000	2.500	0.000	0.000	0.000

(U) D. ACQUISITION STRATEGY:

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

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

TCO: Contracting is done with various vendors for software test and integration, COTS evaluation and documentation to develop advanced concepts and additional functional capabilities. The PMO conducts quarterly performance reviews. In POM 10, the requirement for R&D decreases, as the requirement for PMC increases.

MAGTF C2 SA: MAGTF C2 SA is a spiraled development of capabilities. The spiral development cycle is 2 years. Spiral 1 Initial Operational Capability (IOC) in 2010 has the following capabilities/attributes: Single integrated air and ground picture; full real time to near real time, and non real time data exchange; integrated fire control. Each spiral will be accepted as an integrated whole, running on the target hardware, following a contractor development test.

DACT: The Program develops software and hardware for two operational domains. The Mounted Refresh Computer (MRC) (IOC for MRC is planned for May 2009) is the replacement for the Mounted DACT and consists of militarized central processing unit with Command and Control Compact Edition (C2CE) software integrated with various tactical vehicle platforms and communications systems through the use of a Vehicle Modification (VM) Kit. It is mounted in vehicles from the battalion to the mechanized platoon (HMMWV, AAV, LAV, and Tanks). AAO of 1905 systems has been procured. The Dismounted DACT (D-DACT) (IOC 2nd Qtr FY05) is a smaller, lighter handheld device having greater battery life, consisting of the Rugged Personal Digital Assistant (R-PDA) with Windows Command and Control CE (C2CE) software. The Dismounted DACT is intended for the dismounted user at the platoon level. 1,108 systems of the acquisition objective of 1,944 have been procured.

JBC-P: Currently, PM FBCB2/BFT is using a broadly defined projected schedule for JBC-P. The Marine Corps' program office will continue to work with the FBCB2 program office in the development of a detailed program schedule. PM FBCB2/BFT will fund research and development for JBC-P unless there are Service unique requirements, which the Marine Corps program office will fund. The Marine Corps' program office will participate in all design and readiness reviews and a joint IOT&E will be conducted.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications Systems**	PROJECT NUMBER AND NAME **C2270 Exp Indirect Fire Gen Supt Wpn Sys**

(U) E. MAJOR PERFORMERS:

TARGET LOCATION DESIGNATION AND HAND-OFF SYSTEM (TLDHS)

Performer	Location	Description	FY2008 Award Date	FY2009 Award Date	FY2010 Award Date
Stauder Technologies	St. Louis, MI	Test and Evaluation	10/07	10/08	10/09

ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEMS (AFATDS)

Performer	Location	Description	Award Date	Award Date	Award Date
Raytheon	Fort Wayne, IN	Develop and Test Software	10/07	05/09	10/09
Raytheon	Fort Wayne, IN	MCTSSA, Software Testing	10/07	05/09	10/09
Raytheon	Fort Wayne, IN	Program Management	03/08	03/09	03/10

TACTICAL COMBAT OPERATIONS (TCO)

Performer	Location	Description	Award Date	Award Date	Award Date
SPAWAR	Charleston, SC	Provide funds to EMA, and SRC for testing of new workstation concept, integration of new software, and final acceptance testing.	11/07	11/08	11/09

MAGTF C2 SA

Performer	Location	Description	Award Date	Award Date	Award Date
NGMS	San Diego, CA	Product Software Development	11/07		
SPAWAR	Charleston, SC	Product Software Development	10/07	04/09	10/09

DATA AUTOMATED COMMERCIAL TERMINAL (DACT)

Performer	Location	Description	Award Date	Award Date	Award Date
NSWC SPAWAR	Charleston, SC	Integration and Program Support	01/08	01/09	01/10
North America	Carlsbad, CA	Training Development	01/08	01/09	01/10
QinetiQ	Stafford, VA	Program Support	01/08	01/09	01/10

BLUE FORCE SITUATIONAL AWARENESS (BFSA)

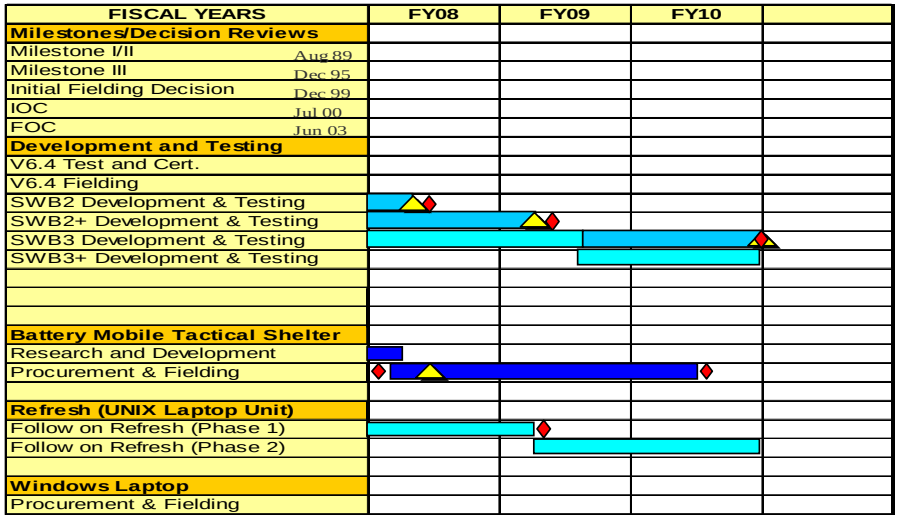
Performer	Location	Description	Award Date	Award Date	Award Date
DRS Tech	Melbourne, FL	Hardware	01/08	01/09	01/10
NGMS	California (SD,LA)	Software	01/08	01/09	01/10

Exhibit R-3 Cost Analysis								DATE: May 2009						
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**		PROGRAM ELEMENT **0206313M Marine Corps Communications Systems**						PROJECT NUMBER AND NAME **C2270 Exp Indirect Fire Gen Supt Wpn Sys**						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
TLDHS	RCP	STAUDER, STL, MO	6.666	1.077	10/07	1.513	03/09	4.076	10/09					
AFATDS	WR	MCTSSA QUANTICO VA	0.600			0.300	05/09	0.300	10/09					
AFATDS	MPR	RAYTHEON FT MONMOUTH	10.583	1.804	10/07	4.408	05/09	4.371	10/09					
AFATDS	MPR	SPAWAR Charleston				0.300	03/09							
AFATDS	RCP	CEOSS CTQ MCSC	1.000			0.500	03/09	0.500	03/10					
C2PC	RCP	NGMS, San Diego	2.420			0.309	12/08							
MAGTF C2	RCP	NGMS, San Diego	0.000	8.814	10/07	1.455	10/08							
MAGTF C2	MIPR	SPAWAR Charleston	0.000	7.077	10/07	13.750	04/09	3.506	10/09					
MAGTF C2	RCP	NSWC Panama City	0.000	0.133	11/07	0.327	12/08							
MAGTF C2	RCP	GD, Scottsdale, AZ	0.000	1.000	11/07	19.943	04/09	3.212	10/09					
MAGTF C2	RCP	Viecore, NJ	0.000	0.402	07/08									
MAGTF C2	RCP	MCSC QUANTICO VA	0.000			6.854	02/09	2.400	02/10					
BFSA	WR/RCP	SPAWAR. Charleston, SC	1.090	0.064	01/08	1.511	10/08	0.905	10/09					
BFSA	RCP	CEOSS CTQ MCSC	0.790			1.068	03/09	1.086	02/10					
BFSA	MPR/FFP	CECOM FT MONMOUTH	0.755	0.210	12/07	0.100	03/09	0.114	11/09					
BFSA	RCP	MCOTEA	0.000	0.140	10/07	0.921	10/08	0.074	10/09					
TCO	MIPR	SPAWAR. Charleston, SC	3.504	0.085	11/07	0.953	11/08	0.714	11/09					
JBC-P	WR/RCP	SPAWAR. Charleston, SC	0.000					1.500	10/09					
JBC-P	RCP	CEOSS CTQ MCSC	0.000					0.159	02/10					
JBC-P	MPR/FFP	CECOM FT MONMOUTH	0.000					0.500	10/09					
JBC-P	MPR	DISA	0.000											
IDS	MPR	SPAWAR. Charleston, SC	0.000					1.059	11/09					
Subtotal Product Dev			**27.408**	**20.806**		**54.212**		**24.476**						
Remarks:														
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
MAGTF C2	RCP	MCSC QUANTICO VA	0.000	0.025	11/07									
MAGTF C2	WR/RCP	MCTSSA	0.000	0.050	11/07			0.250	10/09					
Subtotal Support			**0.000**	**0.075**		**0.000**		**0.250**						
Remarks:														

Exhibit R-3 Cost Analysis								DATE: **May 2009**						
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**		PROGRAM ELEMENT **0206313M Marine Corps Communications Systems**						PROJECT NUMBER AND NAME **C2270 Exp Indirect Fire Gen Supt Wpn Sys**						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
MAGTF C2	WR/RCP	MCOTEA TESTING	0.000	0.250	10/07	0.282	10/08	0.250	10/09					
MAGTF C2	WR/RCP	MCTSSA	0.000	0.834	11/07	0.550	04/09	0.850	10/09					
BFSA	WR	FMF, MCB Camp Pendleton/MCTSSA	0.196	0.078	01/08									
DACT	RCP	MCOTEA TESTING	0.468											
Subtotal T&E			**0.664**	**1.162**		**0.832**		**1.100**						
Remarks:														
Total Cost			**28.072**	**22.043**		**55.044**		**25.826**						

Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Systems Development	0206313M Marine Corps Communications Systems	C2270 Exp Indirect Fire Gen Supt Wpn Sys

ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEM (AFATDS)



Program Funding Summary

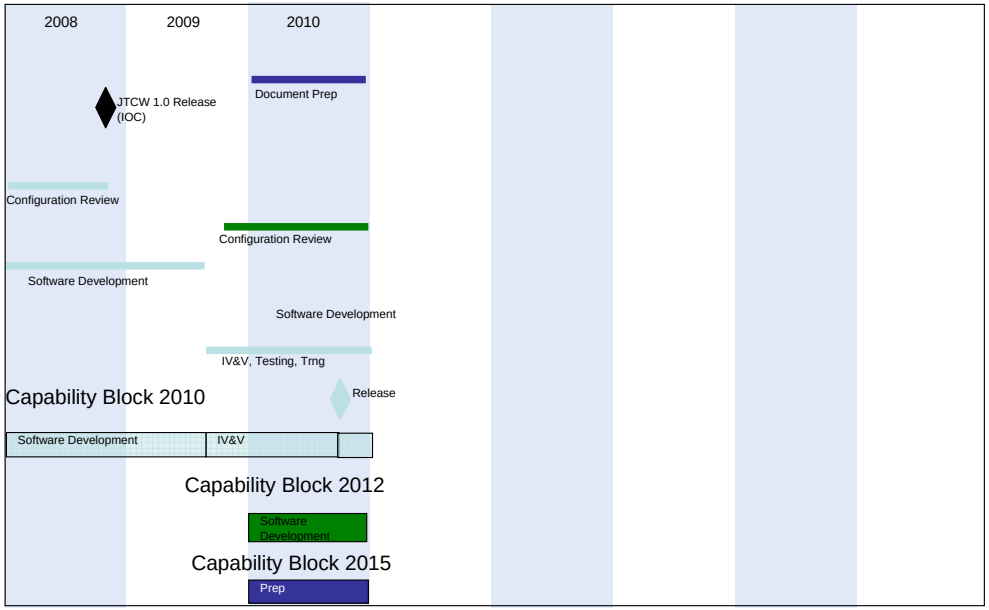
(APPN, BLI #, NOMEN)	FY 2008	FY 2009	FY 2010
(U) RDT&E,N, C2270, AFATDS	1.804	5.508	5.171
(U) PMC BLI, 463100, AFATDS	6.653	0.859	16.337

AFATDS SCHEDULE DETAILS

AFATDS DELIVERY DETAILS		FY 2008	FY 2009	FY 2010
AFATDS Software Block 2 Delivery			2nd Qtr	
AFATDS Software Block 3 Delivery				3rd Qtr
EMT Software Delivery		4th Qtr	3rd Qtr	
BUCS V2.0 Delivery		2nd Qtr		
BUCS follow on Software Delivery			1st Qtr	

Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Systems Development	0206313M Marine Corps Communications Systems	C2270 Exp Indirect Fire Gen Supt Wpn Sys

MAGTF C2 Systems and Applications



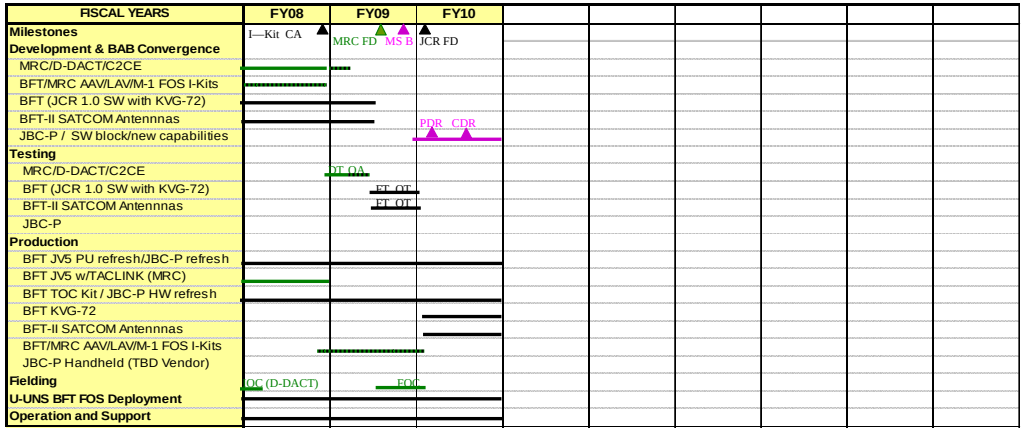
Program Funding Summary
(APPN, BLI #, NOMEN)

	FY 2008	FY 2009	FY 2010
(U) RDT&E,N, C2270, MAGTF C2	18.585	43.161	10.468
(U) RDT&E,N, C2270, C2PC	0.000	0.309	0.000

MAGTF C2 SA SCHEDULE DETAIL	FY 2008	FY 2009	FY 2010
JTCW 1.0 Release	4rd Qtr		
Capability Block 2010 Release			3rd Qtr

Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Systems Development	0206313M Marine Corps Communications Systems	C2270 Exp Indirect Fire Gen Supt Wpn Sys

BFSA/DACT SCHEDULE



Program Funding Summary

(APPN, BLI #, NOMEN)

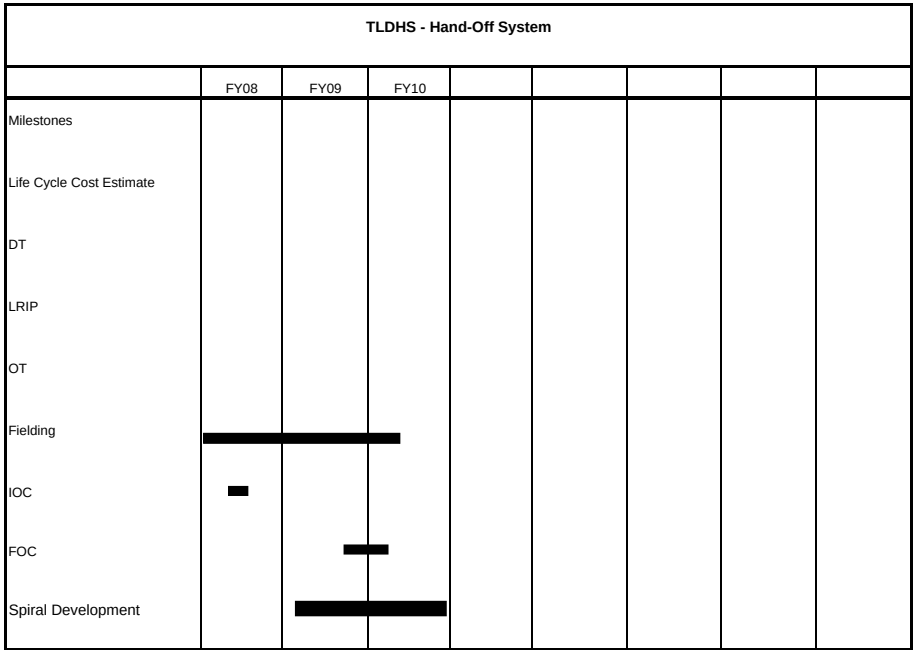
	FY 2008	FY 2009	FY 2010
(U) RDT&E,N, C2270, BFSA	0.492	3.600	2.179
(U) PMC BLI, 463100, BFSA	53.174	130.873	37.863

BFSA/DACT SCHEDULE DETAIL

BFSA Schedule Detail	FY 2008	FY 2009	FY 2010
MRC/D-DACT/C2CE Test		2 QTR	
JCR FT		3 QTR	
JCR OT			1 QTR
JCR MFD			2 QTR
JCR IOC (USMC/USA tactical interoperability & COP)			4 QTR

Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Systems Development	0206313M Marine Corps Communications Systems	C2270 Exp Indirect Fire Gen Supt Wpn Sys

TLDHS SCHEDULE



Program Funding Summary

(APPN, BLI #, NOMEN)	**FY 2008**	**FY 2009**	**FY 2010**
(U) RDT&E,N C2270 TLDHS	1.077	1.513	4.076
(U) PMC BLI 4631000 TLDHS	9.340	1.039	10.197

TLDHS SCHEDULE DETAIL	FY 2008	FY 2009	FY 2010
Initial Operating Capability	2nd Qtr		
Full Operational Capability			3rd Qtr
Spiral Development 1.1.3		1st Qtr	
Spiral Development 1.1.4			4th Qtr

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C2272 Intelligence C2 Systems**

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO				
Project Cost	**13.897**	**17.712**	**0.000**	**0.000**				
RDT&E Articles Qty								

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) Intelligence Command and Control (C2) supports the employment of reconnaissance, surveillance, and target acquisition resources and the timely planning and processing of all-source intelligence. It ensures that all-source tactical intelligence is tailored to meet specific mission requirements. The systems below collect and convert raw intelligence data on the battlefield into processed information and deliver the processed products to the Intelligence Analysis Systems (IAS) for analysis and dissemination.

Global Command and Control System Integrated Imagery and Intelligence (GCCS I3) is a joint program that is designed to enhance the operational Commander's situation awareness and track management through the use of a standard set of integrated, linked tools and services that maximize commonality and interoperability across the tactical theater, and national communities. GCCS-I3 operates in joint and service specific battlespace and is interoperable, transportable, and compliant with the DoD mandated Common Operating Environment (COE).

Distributed Common Ground/Surface System-Marine Corps (DCGS - MC) - formerly known as Distributed Common Ground/Surface-Integration (DCGS-I), is a collection of Service Systems that will contribute to joint and combined warfighter needs for ISR support, with the Global Information Grid (GIG) providing unconstrained communications circa 2010 to support the Department of Defense (DoD) Intelligence, Surevillance and Reconnassiance (ISR) Enterprise end-state. The DCGS Integrated Backbone (DIB) is the architecture that will tie the Service DCGS systems together into one Family of Systems (FOS). The DIB will provide the tools, standards, architecture, and documentation for the DCGS community to achieve a Multi-Intelligence (Multi-INT) (e.g. Imagery Intelligence (IMINT), Signal Intelligence (SIGINT), Measurement/Measuring and Signature Intelligence (MASINT), Counterintelligence/Human Intelligence (CI/HUMINT)), network centric environment with the interoperability to afford individual nodes' access to the information needed to execute their respective missions to include Irregular Warfare. The Marine Corps will conduct DIB integration reseach and development to meet a congressionally mandated implementation deadline.

Trojan Spirit II - is an SHF multi-band satellite communications terminal, available in either HMMWV-mounted or transit case configuration, that provides dedicated tactical communications capability at the TS/SCI and Secret Collateral levels to USMC intelligence units. TROJAN SPIRIT terminals provide connectivity into JWICSs, NSANET and SIPRNET via the TROJAN Network Control Center.

Technical Control Analysis Center (TCAC). The primary mission of the TCAC is to provide the Radio Battalions (RadBn) with an automated Signals Intelligence (SIGINT) processing, analysis, and reporting capability. The TCAC system is designed to receive collected intelligence from tactical, theater and National level producers and provide a multi-source fused intelligence production capability to support the Marine Air Ground Task Force (MAGTF) commander via the Intelligence Analysis System (IAS), as well as the National Security Agency (NSA) and other National consumers.

Joint Surveillance Target Attack Radar (JSTARS) connectivity program will research and integrate a client software connectivity solution which will allow the JSTARS Moving Target Indicator (MTI), Fixed Target Indication (FTI) and Synthetic Aperture Radar (SAR) data to be passed from the JSTARS Common Ground Station (CGS) to lower echelons within the MAGTF. Additionally, The Marine Corps will continue future MTI, CDL and MTI sensor capabilities research and development .

Tactical Remote Sensor System (TRSS-PIP) - TRSS is a suite of hand emplaced and air-delivered unattended sensors, ground relays, and sensor monitoring stations, which are used by the Intelligence Battalions, Ground Sensor Platoons (GSPs). It provides the MEF/MAGTF Commander with an organic capability to conduct unattended, all-weather, semi-covert, ground surveillance of distant areas within his Area of Operations (AO). Through the use of seismic, acoustic, magnetic, infra-red, and imaging sensors, this suite provides an additional surveillance capability of personnel and/or vehicular activity, during tactical pre-assault, assault and post assault operations. TRSS covers gaps in the overall intelligence collection effort and reduces the requirement to employ Marines behind enemy lines for extended periods of time.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C2272 Intelligence C2 Systems**

Team Portable Collection System - Multi-Platform Capable (TPCS-MPC) - is a semi-automated, man/team portable system providing intercept, collection, direction-finding, reporting and collection management to MAGTF commander. It provides special signals intercept, and DF capability for each system and is modular, lightweight and team transportable. The next upgrades will be the multi-platform capability and will allow the system to exploit information from more technically advanced target sets and will provide the MAGTF commander with a modular and scalable carry on/carry off suite of equipment.

Topographic Production Capability (TPC) is an integrated, independently deployed, self-contained terrain analysis system designed for data acquisition, manipulation, analysis and output, providing commanders and staff with geospatial intelligence (GEOINT) support at the Marine Expeditionary Force (MEF) and the Marine Expeditionary Wing (MEW) levels. The TPC configurations consist of Commercial-off-the-Shelf (COTS)/Government-off-the-Shelf(GOTS) software packages, servers, workstations, large-format printing/plotting devices and large-format scanning devices, all mounted in transit cases. The TPC provides critical, timely, and accurate digital and hardcopy geospatial information to support mission planning and execution. The TPC provides the capability to collect, process, exploit, analyze, produce, disseminate, and use all-source geospatical information as a foundation for a Common Operational Picture (COP) for the Marine Air Ground Task Force (MAGTF) Commander. The TPC is used by the Topographic Platoon of the MEF and provides deployable modules down to the Major Subordinate Command (MSC) and the Marine Expeditionary Unit (MEU). It supports the Commander, Joint Task Force or Marine Component Commander. The TPC provides the frame work for the Common Tactical

Tactical Exploitation Group (TEG) - The TEG System is the only tactical imagery exploitation system in the United States Marine Corps (USMC) and is one of the five systems comprising the Distributed Common Ground\Surface System-Marine Corp (DCGS-MC). The modular and scaleable TEG employs a tiered approach comprised of two echelon-tailored configurations: the TEG-Main (TEG-M) and the TEG Remote Workstation (TEG-RWS). The TEG-M receives and processes national, theater, and tactical imagery and supplies the commander and subordinate commanders with exploitation reports and secondary imagery products for tactical operations, strike planning, precision targeting, detection and location of targets of opportunity, and battle damange assessment for restrike planning and intelligence assessment. The TEG-RWS provides imagery support to subordinate units within the MEF that do not require full TEG-M support. The RWS is a portable, deployable stand alone imagery workstation capable of supporting a multitude of mission within the Marine Air Ground Task Force (MAGTF).

Wide Field of View Persistent Surveillance (WFVPS) (formerly ANGEL FIRE) **-** is a capability that supports persistent Inelligence, Surveillance and Reconnaissance (ISR), Improvised Explosive Device (IED) mitigation, and actionable intelligence in urban and other operations (e.g. disaster relief, security, etc). It delivers broad area, near real time, geo-registered imagery down to the tactical level of execution. Consisting of airborne and ground components such as the Airborne payload consists of an imager sensor (currently Electro-Optical (EO), on-board processors, and an air-to-ground communication link. Ground distribution network consist of the ground receive station, servers, storage and viewer client stations. AF is hosted on manned platforms, currently the King Air A-90p pilots fly the plane while the sensors can be controlled from the ground yhrough autonomous software. The USMC objective EFVPS system will reside or an UAS.

MAGTF Secondary Imagery Dissemination System (MSIDS) is the only ground prospective Family of Systems (FoS) that provides organic tactical digital imagery collection, transmission and receiving capability to the MAGTF Commander. MSIDS is comprised of components necessary to enable Marines to capture, manipulate, annotate, transmit or receive images in Near Real Time (NRT), internally with subordinate commands that are widely separated throughout the area of operations and externally with higher adjacent commands. MSIDS capability resides with the MAGTF G/S-2 sections and Ground Reconnaissance Battalions, Light Armored Reconnaissance Battalions, Infantry Battalion Scout Sniper Platoons and Marine Special Operations Command. The MSIDS FoS extends the digital imaging capability to all echelons within the MEF, down to and including battalions and squadrons. Captured images are capable of being forwarded throughout the MAGTF through the use of Base Station Workstation/Communication Interface (BW/CI), Out Station Workstation/Communication Interface (OW/CI) or existing C4ISR architecture. MSIDS FoS is currently employed in every location world-wide where the Marine Corps participates in military operations to include Irregular Warfare. MSIDS is currently, or has r Iraq, Kuwait, Afghanistan, Haiti, Philippines, and Horn of Africa.

Intelligence Equipment Readiness (IER) - The IER provides a responsive capability to alleviate Marine Corps intelligence systems shortfalls created by the rapidly evolving missions, threats and command relationships associated with the Overseas Cintingency Operations (OCO) and 21st Century expeditionary military operations. IER provides for rapid technology insertion, as well as quick reaction training and logistics, to meeting the time sensitive intelligence infrastructure requirements of Marine Corps Operatng Forces and the theater and service intelligence organizations supporting those forces. IER rapidly mitigates intelligence infrastructure shortfalls through exploitation of COTS, GOTS and Non-Developmental Item technology to the greatest extent practical. IER also centralizes support for Marine Corps intelligence infrastructure items and systems that are not separately identified within the program funding lines. IER provides the capability to address requirements that span across the entire Marine Coprs intelligence systems architecture.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C2272 Intelligence C2 Systems**

Intelligence Analysis Systems (IAS) supports the employment of reconnaissance, surveillance, and target acquisition resources and the timely planning and processing of all-source intelligence; it ensures that tactical intelligence is tailored to meet specific mission requirements to include Irregular Warfare.

Counterintelligence (CI) and Human Intelligence (HUMINT) Equipment Program (CIHEP) provides the MAGTF with integrated, standardized, and interoperable information (automated data processing), communication, and specialized equipment to conduct the full spectrum of tactical CI/Force Protection to include Irregular Warfare, HUMINT, and technical collection operations in accordance with (IAW) applicable national oversight directives. CIHEP provides each CI/HUMINT Company (CIHCo) with a suite of state-of-the-market equipment comprised of commercial-off-the-shelf, government-off-the-shelf, and non-developmental items (COTS/GOTS/NDI). It integrates audio, video, imagery, communications, technical surveillance and computer equipment into lightweight, modular, scalable, deployable packages. CIHEP enhances the capability to collect, receive, process, and disseminate CI/HUMINT information from overt, sensitive, technical, tactical, and Force Protection, in the service, joint, and combined forces area of operations.

Intelligence Broadcast Receiver (IBR) provides Marine tactical commanders access to National level Near Real-Time intelligence data provided over the Integrated Broadcast Service. IBR is employed across the MAGTF echelons through the following Host Systems; Intelligence Analysis System; Tactical Air Operations Center; Technical Control and Analysis Center; Tactical Air Command Center; Joint STARS Common Ground Station; Tactical Electronic Reconnaissance Processing and Evaluation System and Common Air Command and Control Systems and Joint Stars Work Station.

Tactical Exploitation of National Capabilities (TENCAP) is a program designed to enhance the ability of tactical Marine Corps forces to exploit the capabilities of national intelligence-gathering systems. Congressionally directed, it requires close liaison with the intelligence community and involves complex and highly-sensitive activities.

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.041**	**0.434**	**0.000**	**0.000**
RDT&E Articles Qty				

GCCS-I3: Program Support, Integration and Software Engineering

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.612**	**0.000**	**0.000**
RDT&E Articles Qty				

GCCS-I3: Software Engineering Support

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.080**	**0.000**	**0.000**
RDT&E Articles Qty				

GCCS-I3: Engineering/Acq Logistics Support

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.100**	**0.000**	**0.000**
RDT&E Articles Qty				

GCCS-I3: Program Testing

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.086**	**0.000**	**0.000**
RDT&E Articles Qty				

DCGS-MC - USMC DCGS Testing and Evaluation Support.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.262**	**0.290**	**0.000**	**0.000**
RDT&E Articles Qty				

DCGS-MC - Research and Development and Integration Efforts.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**		PROJECT NUMBER AND NAME **C2272 Intelligence C2 Systems**	
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.300**	**0.290**	**0.000**	**0.000**
RDT&E Articles Qty				
DCGS-MC - Engineering and Technical Services.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**3.384**	**3.625**	**0.000**	**0.000**
RDT&E Articles Qty				
DCGS-MC - Design and Development of Hardware and Enterprise Services and test and development support to include Studies, analysis and evaluation.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.264**	**0.431**	**0.000**	**0.000**
RDT&E Articles Qty				
TROJAN SPIRIT: Engineering and Technical Support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**1.000**	**1.389**	**0.000**	**0.000**
RDT&E Articles Qty				
TCAC: Software development, integration and testing for TCAC with COE 4.X and future releases.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.053**	**0.058**	**0.000**	**0.000**
RDT&E Articles Qty				
TCAC: Program Management Support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.092**	**0.186**	**0.000**	**0.000**
RDT&E Articles Qty				
JSTARS: Engineering and Technical, Management Support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.050**	**0.000**	**0.000**
RDT&E Articles Qty				
JSTARS: Future MTI capability into JSTARS ground elements.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.451**	**0.000**	**0.000**
RDT&E Articles Qty				
TRSS-PIP: Software development of HHPM and Low Cost Imager; Improved Air Delivered Sensor (IADS) II; Encoder Transmitter Unit (ETU); Windows 2000 migration; and RSMS ver				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.129**	**0.020**	**0.000**	**0.000**
RDT&E Articles Qty				
TRSS-PIP: Management support - MCSC				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.360**	**0.135**	**0.000**	**0.000**
RDT&E Articles Qty				
TRSS-PIP: Development of Imaging Processor Board II				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty				
TRSS-PIP: Development of Urban Sensor Sets				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.103**	**0.000**	**0.000**
RDT&E Articles Qty				
TRSS-PIP: Support IOT&E and Increment II efforts.				

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**		PROJECT NUMBER AND NAME **C2272 Intelligence C2 Systems**	
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty				
TPCS-MPC: EDM Design.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty				
TPCS-MPC: System development.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.450**	**0.000**	**0.000**
RDT&E Articles Qty				
TPCS-MPC: Training development and test support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**1.167**	**0.567**	**0.000**	**0.000**
RDT&E Articles Qty				
TPCS-MPC: Program support and management.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.260**	**0.318**	**0.000**	**0.000**
RDT&E Articles Qty				
TPC: Integration of Hardware and Software of Spiral Development Support				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.033**	**0.049**	**0.000**	**0.000**
RDT&E Articles Qty				
TPC: Contractor Support for Integration and Re-engineering Support				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.345**	**0.320**	**0.000**	**0.000**
RDT&E Articles Qty				
TEG: Engineering, development, integration, test and security accreditation and integrated logistics support for Enhanced and TEG-RWS functionality.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.075**	**0.227**	**0.000**	**0.000**
RDT&E Articles Qty				
TEG: Development and integration of required upgrades/interfaces to accommodate emerging airborne imagery sensor.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.313**	**0.339**	**0.000**	**0.000**
RDT&E Articles Qty				
TEG: Program Management and Technical support for T&E of program refresh.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.061**	**0.063**	**0.000**	**0.000**
RDT&E Articles Qty				
TEG: Development and integration of video capture and exploitation capability.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.214**	**0.116**	**0.000**	**0.000**
RDT&E Articles Qty				
TEG: Development and integration of mandated DCGS/DIB interfaces and communication architectures.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.083**	**0.234**	**0.000**	**0.000**
RDT&E Articles Qty				
TEG: Development of man-portable and reduced form-factor Common Data Link (CDL) capability.				

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**		PROJECT NUMBER AND NAME **C2272 Intelligence C2 Systems**	
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.591**	**0.329**	**0.000**	**0.000**
RDT&E Articles Qty				
TEG: Engineering/technical management and Infrastructure/Team IMINT shared costs.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.164**	**0.156**	**0.000**	**0.000**
RDT&E Articles Qty				
TEG: Development and integration of mandated Joint interoperability and architectures to include IPv6, GIG and others.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.106**	**0.000**	**0.000**
RDT&E Articles Qty				
WFVPS (**ANGEL FIRE):** Engineering and Technical Support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.104**	**0.216**	**0.000**	**0.000**
RDT&E Articles Qty				
MSIDS: Program Management and technical support for product development of program hardware and software refresh.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.023**	**0.047**	**0.000**	**0.000**
RDT&E Articles Qty				
MSIDS: Engineering support for program engineering group.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.016**	**0.207**	**0.000**	**0.000**
RDT&E Articles Qty				
IER: Program Management and Technical Support				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.269**	**0.430**	**0.000**	**0.000**
RDT&E Articles Qty				
IAS MOD KIT: Software Engineering and Management Support				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.517**	**0.633**	**0.000**	**0.000**
RDT&E Articles Qty				
IAS MOD KIT: Program, Logistic and Admin Support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.037**	**0.039**	**0.000**	**0.000**
RDT&E Articles Qty				
CIHEP: Engineering, Integration and Technical support for technical refresh and update of program hardware/software upgrades.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.067**	**0.091**	**0.000**	**0.000**
RDT&E Articles Qty				
CIHEP: Program Management Support for the technical refresh and update of program hardware/software upgrades.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.084**	**0.000**	**0.000**
RDT&E Articles Qty				
IBR: Engineering and technical service support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.250**	**0.000**	**0.000**
RDT&E Articles Qty				
IBR: Test and Evaluation of USB ENTR.				

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C2272 Intelligence C2 Systems**

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.150**	**0.000**	**0.000**
RDT&E Articles Qty				

IBR: Contract and Program Support.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**2.719**	**3.800**	**0.000**	**0.000**
RDT&E Articles Qty				

TENCAP: Program support and management; evaluate national intelligence data systems for MAGTF applicability.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.804**	**0.151**	**0.000**	**0.000**
RDT&E Articles Qty				

TENCAP: Technical assessments of emerging national data dissemination capabilities.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.150**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty				

TENCAP: Evaluate the utility of emerging exploitation, automated and manual target recognition and detection tools.

(U) Total $	**13.897**	**17.712**	**0.000**	**0.000**

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name		FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 Total
PMC BLI 474700 Intel Support Eq	DCGSI	0.000	0.115			
PMC BLI 474700 Intel Support Eq	TROJAN SPIRIT	11.629	6.498			
PMC BLI 465200 Mod Kit	TCAC	9.065	0.000			
PMC BLI 465200 Mod Kit	JSTARS	6.286	0.000			
PMC BLI 474700 Mod Kit	TCAC	0.000	4.007			
PMC BLI 474700 Mod Kit	JSTARS	0.000	2.381			
PMC BLI 474700 Intel Support Eq	TRSS-PIP	62.265	12.307			
PMC BLI 474700 Intel Support Eq	TPCS	8.723	9.294			
PMC BLI 474700 Intel Support Eq	TPC	19.081	3.200			
PMC BLI 474700 Intel Support Eq	JSIPS - TEG	19.567	1.359			
PMC BLI 474700 Intel Support Eq	WFVPS	16.189	0.000			
PMC BLI 474700 Intel Support Eq	MSIDS	1.580	5.340			
PMC BLI 465200 Mod Kit	IER	5.876	0.000			
PMC BLI 465200 Mod Kits	IAS MOD Kit	15.286	0.000			
PMC BLI 474700 Mod Kit	IER	4.331	1.740			
PMC BLI 474700 Mod Kits	IAS MOD Kit	0.000	1.059			
PMC BLI 474700 Intel Support Eq	RREP	1.907	7.245			
PMC BLI 474700 Intel Support Eq	CIHEP	18.622	5.091			
PMC BLI 474700 Intel Support Eq	IBR	0.441	3.148			
PMC BLI 474700 Intel Support Eq	TSCM	2.339	0.000			

(U) Related RDT&E:

(U) PE 0301301L (Department of Defense Intelligence and Information Systems/Military Intelligence Integrated Data System/Integrated Data Base I and II)
(U) PE 0604270A (Intelligence and Electronic Warfare Common Sensor (IEWCS), TACJAM-A)
(U) PE 0305885G (Tactical Cryptologic Program)
(U) PE 0603730A (Tactical Surveillance System - Advanced Development), Army TENCAP, Project D560
(U) PE 0603766A (Tactical Electronic Surveillance System - Advanced Development), Army TENCAP, Project D907
(U) PE 0604740A (Tactical Surveillance System - Engineering Development), OSD TENCAP, Project D662
(U) PE 0902398M (United States Special Operations Command), Chariot Program
(U) PE 0605867N (SEW Surveillance/Reconnaissance Support), Project Z1034

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Sys Dev	**0206313M Marine Corps Communication Systems**	**C2272 Intelligence C2 Systems**

(D) ACQUISITION STRATEGY:

(U) ACQUISITION STRATEGY GCCS-I3: This program promotes and ensures interoperability among USMC Intelligence Systems. Engineering and technical support is provided to PM Intel systems integration efforts for incorporation of the Common Operating Environment (COE) and GCCS-I3 software baseline. An Intelligence Integration Facility has been established at the Integrated Team Solution Facility. As such, this facility will be used as the hub for the entire integration effort of the GCCS-I3 initiative.

(U) ACQUISITION STRATEGY DCGS-MC: The Marine Corps DCGS-MC project officer will leverage off of the USAF DCGS 10.2 Research, Development Test and Evaluation (RDT&E) effort and focus on the development of the DCGS Integrated Backbone (DIB) for the DCGS-MC. Additionally, the DCGS-MC will leverage off of MAGTF Legacy system DIB compliancy efforts.

(U) ACQUISITION STRATEGY TROJAN SPIRIT: Procure and continuously improve USMC TROJAN SPIRIT systems to meet evolving Marine Corps operational needs while maintaining interoperability with the Army TROJAN Network and maintaining, as closely as practical, configuration common to the Army TROJAN SPIRIT systems.

(U) ACQUISITION STRATEGY TCAC: The acquisition of components for the TCAC will maximize the use of existing equipment, NDI/COTS/GFE equipment/software. The integration effort for TCAC hardware components will be accomplished under the control of the SSA, MCSC. Software integration and support will be accomplished by contractors under the control of the Project Officer. These activities report to and are directed by the Program Manager, Intelligence Systems, Marine Corps Systems Command (MARCORSYSCOM). Maintenance support will be managed by MARCORLOGBASES Albany and MCSC, Albany and through separate contractual agreements.

(U) ACQUISITION STRATEGY JSTARS: JSTARS will utilize ongoing Army and Navy JSTARS contracts for development of client software, future CDL, MTI and MTI Sensor capabilities. IPv6 research was conducted in conjunction with other services and agencies. Incremental Development Plan (IDP) efforts will continue to the JSTARS software baseline. SPAWAR-Charleston, SC will oversee the integration and testing of these development efforts, ensuring USMC Command, Control, Communications, Computers and Intelligence (C4I) architecture capability. On-site contractor logistical support will be provided through the General Dynamics Intelligence, Information Command and Control, Equipment and Enhancements (ICE2) Equipment Logistics Support Contract out of Warner-Robbins Air Force Base, GA. Post Deployment Software Support (PDSS) will be provided through the Communications-Electronics Command (CECOM), Ft Monmouth, NJ and SPAWAR-Charleston, SC. Surveillance Control Data Link (SCDL) antenna and Ground Data Terminal (GDT) support will be through Cubic Defense Systems, San Diego, CA, via a General Dynamics support contract.

(U) ACQUISITION STRATEGY TRSS: The TRSS are typically Non-Developmental Item (NDI) integration efforts, making maximum use of the efforts of hardware and software initially developed by other DoD organizations and programs. The initial phases of each Increments are cost-plus fixed-fee efforts, while the production phase, which encompasses the production, fielding, training and initial support of the systems, are firm-fixed price efforts.

(U) ACQUISITION STRATEGY TPCS: TPCS, the ever-increasing sophistication of target threats and information technology necessitates an evolutionary acquisition approach. TPCS will make incremental improvements through maximum use of COTS, GOTS and NDI. These technology insertions and product improvements will ensure the Radio Battalions maintain cutting edge technologies and collection capabilities.

(U) ACQUISITION STRATEGY TPC: The TPC program will reach Full Operational Capability in FY06 with the fielding of TPC to the Marine Corp Intelligence Activity. The TPC will refresh and upgrade the existing TPC equipment as technology advances. As new technology emerges, the current fielded systems will need incremental hardware and software refreshes to sustain operational requirements and to meet the ORD requirement of compliancdee with the NGA US Imagery and Geospatial Information System. The TPC program uses existing Government contracts for hardware/software developmet and integration. Full-time contractor support is provided through the Commercial Enterprise Omnibus Support Services (CEOss) contract. Additionall full time engineering and integration support is provided by Northrop Grumman Information Technology TASC through the Information Technology Omnibus Procurement II (ITOP II) contract under the auspices of the MCSC Information Technology Modernization 2000 (ITM2K) Project Office.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C2272 Intelligence C2 Systems**

(U) ACQUISITION STRATEGY TEG: The TEG Program Office leverages the advantages of its multi-service common software baseline and inherent Joint service interoperability. Development, integration, interoperability, security certification and accreditation and acquisition is divided between three prime contractors: Northrop Grumman Electronic Systems, Baltimore, MD (NGB) (through a classified contract); Space and Naval Warfare Systems Center, Charleston, SC (SSCC), and MTC Services Corporation. An incremental refresh is currently ongoing for the TEG Main. A subsequent spiral refresh will occur in FY09 for the TEG-RWS in order to keep systems modern and modular to meet emerging technologies.

(U) ACQUISITION STRATEGY ANGEL FIRE: MCCDC maintains sponsorship of the Angel Fire UUNS. Marine Corps funds Air Force Research Lab to support the United States Air Force (USAF) in the development of subsequent sensor spirals as a technology demonstration supporting Marines operating in the CENTCOM AOR. In keeping with the Program Decision Memorandum (PDM) of November 2007. Development, integration, interoperability and testing are divided between AFRL, Los Alamos National Laboratory (LANL) and the NRL.

(U) ACQUISITION STRATEGY MSIDS: A complete refresh of systems commenced in 3QTR FY02 and reached Full Operational Capability (FOC) in 2QTR FY03. Subsequent "increment refreshes" are under way in order to keep the systems from becoming unreliable and unsupportable. The increment refresh approach will effectively leverage technological advances. Each increment of upgrades will refresh 1/3 of the fielded components.

(U) ACQUISITION STRATEGY IER: This program seeks to support a wide range of technology solutions based on the requests received from the Operating Forces and/or PM Intelligence Program of Record. The request must require solution evaluation beyond merely acquisition to be recommended as an ISR candidate. Each request will be validated by the ISR team and approved by the Project Officer and PM Intel before solution evaluation begins. The ISR program will use COTS/GOTS/NDI solutions to the greatest extent possible.

(U) ACQUISITION STRATEGY IAS: The IAS program uses existing Government contracts for hardware and software development and integration. The system is comprised primarily of Commercial Off-the-Shelf (COTS) and Government Off-The-Shelf (GOTS) equipment. The IAS FoS utilizes an evolutionary strategy to ensure periodic incorporation of state-of-the-art technology that meets both current and future Marine Corps intelligence requirements while maintaining system readiness and reliability.

(U) ACQUISITION STRATEGY CIHEP: CIHEP will use the Integrated Team Solutions Facility for hardware and software upgrades as necessary. CIHEP will coordinate acquisition of communications equipment with the Program Manager Communications section for planned upgrades to the Communications Module. SPAWAR, Charleston will be utilized for the technology dictates.

(U) ACQUISITION STRATEGY IBR: In house contracts will be used to conduct engineering studies and test and evaluation activities associated with the Marine Corps implementation of the Integrated Broadcast Service, Common Message Format, ENTR integration and test and evaluation.

(U) ACQUISITION STRATEGY TENCAP: Work will be led in-house. Necessary contractor support will be acquired using already existing contracts.

(U) E. MAJOR PERFORMERS:

GLOBAL COMMAND AND CONTROL SYSTEM INTEGRATED IMAGERY AND INTELLIGENCE (GCCS I3)

FY 08 Navy Systems Management Activity (NSMA),MTC Stafford, VA. Provides funds for Engineering and Program support services.
SPAWAR, CHARLESTON, SC. Provides development, upgrades, integration, research and analysis for system refresh.
FY 09 Navy Systems Management Activity (NSMA),MTC Stafford, VA. Continue to provide funds for Engineering and Program support services.
SPAWAR, Charleston, SC. Continue development, upgrades, integration, research and analysis for system refresh.

DCGS-I

FY08 NSMA, MTC, Stafford, VA Integrated Teams Solution Facility, Stafford, VA Provided funds for Engineering & technical services, for DIB integration, and integration support.
MARCORSYSCOM, (MCSC), Quantico, VA Provided funds for studies and analysis for the DIB integration.
FY09 NSMA, MTC, Stafford, VA Integrated Teams Solution Facility, Stafford, VA Continue to provide Engineering & technical services, studies, analysis and evaluation for DIB integration, and integration support.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Sys Dev	**0206313M Marine Corps Communication Systems**	**C2272 Intelligence C2 Systems**

TROJAN SPIRIT

FY08 NSMA, MTC Stafford, VA - Provides funds for P3I prototype, technical and Engineering support to include EOA, DT and OT.
FY09 NSMA, MTC Stafford, VA - Continue to provide funds for P3I prototype, technical and Engineering support.

TACTICAL CONTROL AND ANALYSIS CENTER (TCAC)

FY 08 NAVY SYSTEMS MANAGEMENT ACTIVITY (NSMA) (MTC, Stafford, VA) Software development, integration and testing
NAWC, Provided program management support.
MCOTEA. Provided testing support.
MARCORSYSCOM, (MCSC), Quantico, VA (CEOSS) Provides funds for Engineering Support.
FY 09 NAVY SYSTEMS MANAGEMENT ACTIVITY (NSMA) (MTC, Stafford, VA) Continue to provide software development, integration and testing for future releases.
MCOTEA. Continue to provide testing support.
MARCORSYSCOM, (MCSC), Quantico, VA (CEOSS) Continue to provide funds for Engineering Support.

JOINT SURVEILLANCE TARGET ATTACK RADAR (JSTARS)

FY 08 MARCORSYSCOM, (MCSC), Quantico, VA Provides funds for engineering support.
SPAWAR, Charleston, S.C. Provides funds for client software connectivity solution, future MTI, CDL, MTI sensor capabilities research and development
NSMA, (MTC, Stafford, VA), Provides engineering and technical support for development of software dissemination capability.
FY 09 SPAWAR, Charleston, S.C. Continue to provide funds for client software connectivity solution, future MTI, CDL, MTI sensor capabilities research and development.
NSMA, VA, Continue to provide engineering and technical support.

TACTICAL REMOTE SENSOR SYSTEM (TRSS)

FY08 NAVY SYSTEMS MANAGEMENT ACTIVITY (NSMA), Crystal City, VA. Provided for engineering and integration support.
FY09 NAVY SYSTEMS MANAGEMENT ACTIVITY (NSMA), Crystal City, VA. Continue to provided for engineering and integration support.

TEAM PORTABLE COLLECTION SYSTEM - MULTI-PLATFORM CAPABLE (TPCS-MPC)

FY08 SPAWAR, CHARLESTON, S.C. Provided funds for prime systems integrator for TPCS-MPC EDM.
NSMA (MTC), Stafford, VA, Provided funds for program management and engineering support services
FY09 SPAWAR, CHARLESTON, S.C. Continue to provide funds for prime systems integrator for TPCS-MPC EDM.
NSMA (MTC), Stafford, VA, Continue to provide funds for program management and engineering support services
MCOTEA. Provided Testing Support.

TOPOGRAPHIC PRODUCTION CAPABILITY (TPC)

FY 08 MARCORSYSCOM, (MCSC), Quantico, VA Provided funds to TBD for continues integration and re-engineering support in support of modernization and technology refresh.
NAVY SYSTEMS MANAGEMENT ACTIVITY (NSMA), (MTC, Stafford, VA), Provided funds for engineering & technical management support.
FY 09 MARCORSYSCOM, (MCSC), Quantico, VA Continue to provide funds to TBD for continues integration and re-engineering support in support of modernization and technology refresh.
NAVY SYSTEMS MANAGEMENT ACTIVITY (NSMA), (MTC, Stafford, VA), Continue to provide funds for engineering & technical management support.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Sys Dev	**0206313M Marine Corps Communication Systems**	**C2272 Intelligence C2 Systems**

TACTICAL EXPLOITATION GROUP (TEG)

FY08 ARMY SPACE PROGRAM OFFICE, Washington, DC. Classified contract.
NAVY SYSTEMS MANAGEMENT ACTIVITY (NSMA), (MTC, Stafford, VA), Provided funds for engineering & technical management support.
MARCORSYSCOM, (MCSC), Quantico, VA (CEOSS) Provided funds for Program and technical support.
MARCORSYSCOM, (MCSC), Quantico, VA MCOTEA Provided funds for Testing and support.
Office of Naval Research (ONR), Arlington, VA - Provided funds for Program and technical support.
FY09 ARMY SPACE PROGRAM OFFICE, Washington, DC. Classified contract.
NAVY SYSTEMS MANAGEMENT ACTIVITY (NSMA), (MTC, Stafford, VA), Continue to provide funds for engineering & technical management support.
MARCORSYSCOM, (MCSC), Quantico, VA (CEOSS) - Continue to provide funds for Program and technical support.
MARCORSYSCOM, (MCSC), Quantico, VA MCOTEA - Continue to provide funds for Testing and support.
Office of Naval Research (ONR), Arlington, VA - Continue to provide funds for Program and technical support.

ANGEL FIRE
MANPACK SIDS (MP SIDS)

FY 08 Navy Systems Management Activity (MTC, Stafford, VA). Provides funds for engineering and program management support.
MARCORSYSCOM, (MCSC), Quantico, VA (CEOSS) Provides funds for Engineering Support.
FY 09 Navy Systems Management Activity (MTC, Stafford, VA). Continue to provide funds for engineering and program management support.

INTELLIGENCE EQUIPMENT READINESS (IER)

FY08 SPAWAR, CHARLESTON, S.C. Provides funds for engineering, testing, evaluation and training support.
FY09 SPAWAR, CHARLESTON, S.C. Continue to provide funds for engineering, testing, evaluation and training support.

INTELLIGENCE ANALYSIS SYSTEM (IAS)

FY08 SPAWAR, CHARLESTON, S.C. Provides funds for development, upgrades, integration, research and analysis of hardware for system refresh.
Navy Systems Management Activity (MTC, Stafford, VA). Provides funds for Integration and hardware upgrade study.
FY09 SPAWAR, CHARLESTON, S.C. Continue to provide funds for development, upgrades, integration, research and analysis of hardware for system refresh.
Navy Systems Management Activity (MTC, Stafford, VA). Continue to provide funds for Integration and hardware upgrade study.

INTELLIGENCE BROADCAST RECEIVER (IBR)

FY 09 NSMA, MTC, Stafford, VA - Provides for Program Management support for tech refresh and upgrade of program hardware and software.
MCOTEA - Provide funds for testing and evaluation support.

COUNTERINTELLIGENCE AND HUMAN INTELLIGENCE (HUMINT) EQUIPMENT PROGRAM (CIHEP)

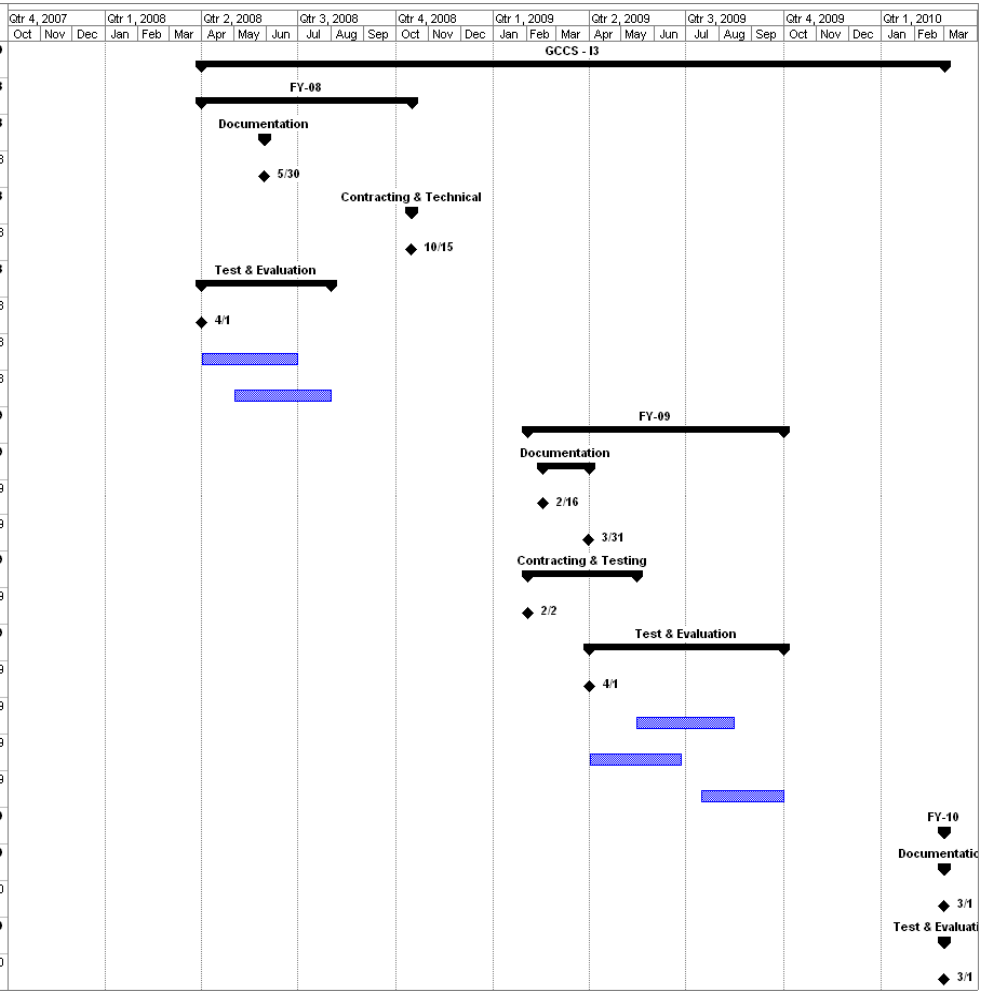
FY08 NSMA, MTC, Stafford, VA - Provides for Pgm Mgmt support for tech refresh and upgrade of program hardware and software.
MARCORSYSCOM, (MCSC), Quantico, VA (CEOSS) Provides funds for Program and technical support.
FY09 NSMA, MTC, Stafford, VA - Continue to provide for Pgm Mgmt support for tech refresh and upgrade of program hardware and software.
MARCORSYSCOM, (MCSC), Quantico, VA (CEOSS) Continue to provide funds for Program and technical support.

Exhibit R-3 Cost Analysis				DATE: May 2009							
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA 7 Operational Sys Dev		PROGRAM ELEMENT 0206313M Marine Corps Communications Systems						PROJECT NUMBER AND NAME C2272 Intelligence C2 Systems			
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date		
TENCAP	Various	Titan	25.055	3.673	12/07	3.951	12/08				
TPCS	RCP	SPAWAR	5.793	0.000		0.300	12/08				
TRSS-PIP	RCP	VARIOUS	2.668	0.053	03/08	0.451	12/08				
JSTARS	WR/MPR	SPAWAR	0.000	0.019	12/07	0.115	12/08				
DCGSI	RCP	NSMA (MTC)	8.731	2.835	11/07	3.371	11/08				
JSIPS - TEG	MPR	VARIOUS	12.452	1.533	02/08	1.445	02/09				
Subtotal Product Development			54.699	8.113		9.633					
Remarks:											
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date		
TRSS-PIP	RCP	VARIOUS	11.071	0.436	01/08	0.155	01/09				
DCGS	RCP	VARIOUS	0.000	0.843	11/07	0.620	11/08				
MSIDS	RCP	VARIOUS	0.000	0.127	10/07	0.263	11/08				
TPC	RCP	VARIOUS	1.955	0.293	12/07	0.367	12/08				
TROJAN SPIRIT	RCP	NSMA (MTC)	0.794	0.264	12/07	0.431	12/08				
TPCS	RCP	NSMA (MTC)	7.916	1.167	12/07	0.567	12/08				
CIHEP	RCP	VARIOUS	0.125	0.104	01/08	0.130	01/09				
IAS MOD KIT	RC/WR	VARIOUS	3.818	0.786	01/08	1.063	01/09				
GCCS I3	RCP	VARIOUS	5.325	0.041	02/08	1.146	02/09				
TCAC	RCP	VARIOUS	3.418	0.871	12/07	1.322	12/08				
IBR	RCP	VARIOUS	0.286	0.000		0.484	01/09				
IER	WR	SPAWAR, Charleston	1.536	0.016	01/08	0.207	01/09				
ANGEL FIRE	RCP	VARIOUS	16.600	0.000		0.106	VAR				
JSTARS	RCP	VARIOUS	0.101	0.073	VAR	0.121	VAR				
Subtotal Support			52.945	5.021		6.982					
Remarks:											
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date		
TRSS-PIP	RCP	MCOTEA	0.452	0.000		0.103	01/09				
DCGS	RCP	MCOTEA	0.000	0.268	12/07	0.300	12/08				
TCAC	RCP	MCOTEA	0.060	0.025	11/07	0.125	11/08				
GCCS I3	MPR	JITC	0.199	0.000	10/07	0.080	10/08				
TPCS	MIPR	MCOTEA	1.137	0.000	02/08	0.150	10/08				
TEG	MIPR	MCOTEA	0.338	0.313	02/08	0.339	02/09				
Subtotal T&E			2.186	0.606		1.097					
Remarks:											
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date		
DCGS	RCP	MCSC	2.280	0.000		0.000					
TCAC	WR	NAWC	0.506	0.157	11/07	0.000					
Subtotal Management			2.786	0.157		0.000					
Remarks:											
Total Cost			112.616	13.897		17.712					

Exhibit R-4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	0206313M Marine Corps Communications Systems	C2272 Intelligence C2 Systems

GCCS-I3 MILESTONE CHART

ID	Task Name	Duration	Start	Finish
1	**GCCS - I3**	**500 days?**	**Tue 4/1/08**	**Mon 3/1/10**
2	**FY-08**	**142 days?**	**Tue 4/1/08**	**Wed 10/15/08**
3	**Documentation**	**1 day?**	**Fri 5/30/08**	**Fri 5/30/08**
4	SEP Update	1 day?	Fri 5/30/08	Fri 5/30/08
5	**Contracting & Technical**	**1 day?**	**Wed 10/15/08**	**Wed 10/15/08**
6	PDR	1 day?	Wed 10/15/08	Wed 10/15/08
7	**Test & Evaluation**	**88 days?**	**Tue 4/1/08**	**Thu 7/31/08**
8	TRR	1 day?	Tue 4/1/08	Tue 4/1/08
9	C & A Process	65 days?	Tue 4/1/08	Mon 6/30/08
10	IOT & E PII	66 days?	Thu 5/1/08	Thu 7/31/08
11	**FY-09**	**173 days?**	**Mon 2/2/09**	**Wed 9/30/09**
12	**Documentation**	**32 days?**	**Mon 2/16/09**	**Tue 3/31/09**
13	SEP Update	1 day?	Mon 2/16/09	Mon 2/16/09
14	Temp Review	1 day?	Tue 3/31/09	Tue 3/31/09
15	**Contracting & Testing**	**75 days?**	**Mon 2/2/09**	**Fri 5/15/09**
16	CDR	11 days?	Mon 2/2/09	Fri 5/15/09
17	**Test & Evaluation**	**131 days?**	**Wed 4/1/09**	**Wed 9/30/09**
18	TRR	1 day?	Wed 4/1/09	Wed 4/1/09
19	C & A Process	66 days?	Fri 5/15/09	Fri 8/14/09
20	IOT & E PI	63 days?	Wed 4/1/09	Fri 6/26/09
21	IOT & E PII	56 days?	Wed 7/15/09	Wed 9/30/09
22	**FY-10**	**1 day?**	**Mon 3/1/10**	**Mon 3/1/10**
23	**Documentation**	**1 day?**	**Mon 3/1/10**	**Mon 3/1/10**
24	SEP Update	1 day?	Mon 3/1/10	Mon 3/1/10
25	**Test & Evaluation**	**1 day?**	**Mon 3/1/10**	**Mon 3/1/10**
26	TRR	1 day?	Mon 3/1/10	Mon 3/1/10



Line Item No. & Name (APPN, BLI #, NOMEN)	FY 2008	FY 2009	FY 2010
(U) RDT&E,N 0206313M/0206625M, C2272	0.041	1.226	

Exhibit R-4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	**0206313M Marine Corps Communications Systems**	**C2272 Intelligence C2 Systems**

GCCS-I3	2008	2009	
Documentation	3Q		
SEP Upgrade	3Q		
Conracting and Technical	4Q		
PDR		1Q	
Test & Evaluation	3Q		
TRR	3Q		
C & A Process	3Q		
IOT & E PII	3Q		
Documentation		2Q	
SEP Upgrade		2Q	
Temp Review		3Q	
Conracting and Technical		2Q	
CDR		2Q	
Test & Evaluation		3Q	
TRR		3Q	
C & A Process		3Q	
IOT & E PII			

Exhibit R-4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	**0206313M Marine Corps Communications Systems**	**C2272 Intelligence C2 Systems**

DCGS MILESTONE CHART

EVENTS	FY08				FY09				FY10			
MILESTONES	A									B		
CDD Approved									△			
CPD												
Testing & Reviews												
DT											1	
FAT												
Test Readiness Review												
IOT&E												
Contracts												
Contract Award	▲											
Production and Fielding												
Limited Deployment												
Full Deployment												
Fielding												

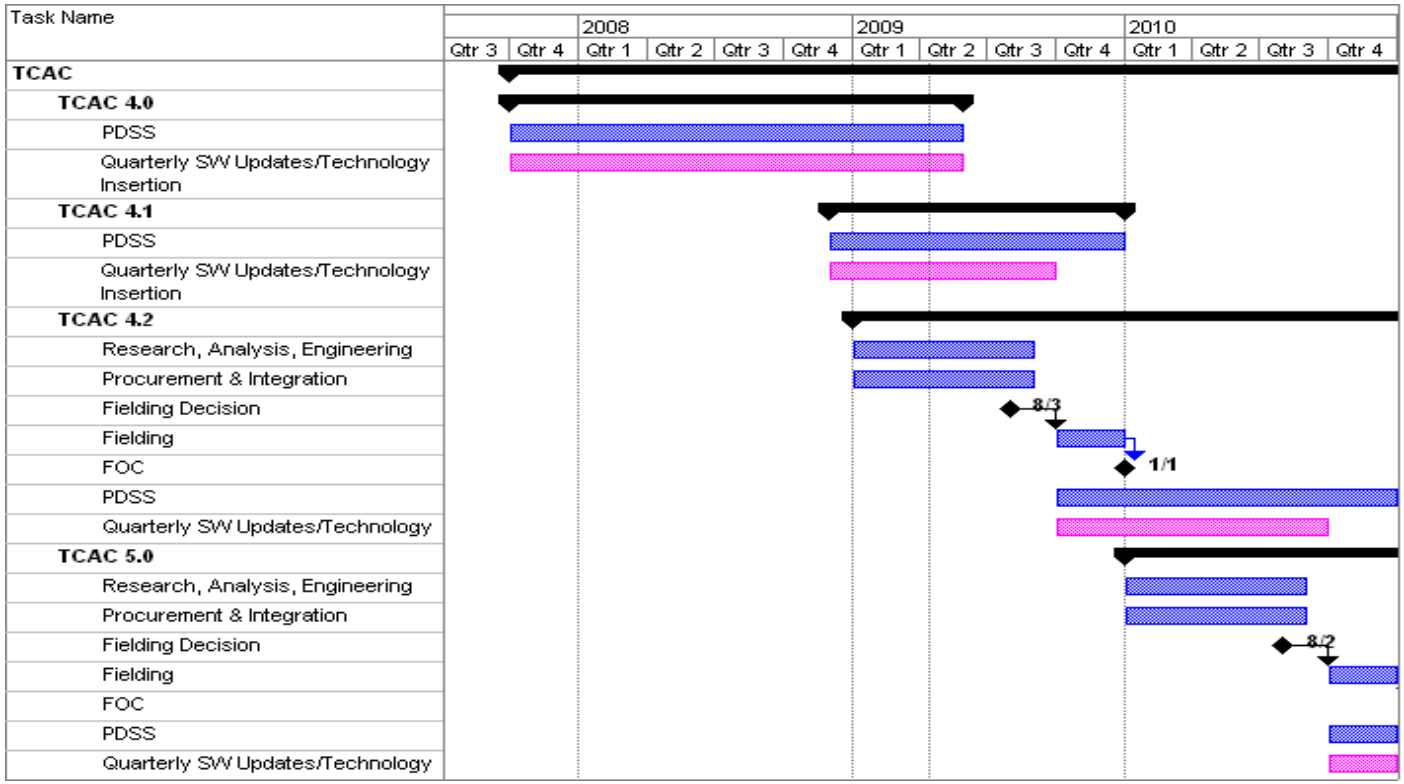
Line Item No. & Name (APPN, BLI #, NOMEN)	FY 2008	FY 2009	FY 2010
(U) RDT&E,N (0206313M/0206625M)	3.946	4.291	
(U) PMC BLI 474700 Intell Supp Equip DCGS	0.000	0.115	

Exhibit R-4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	**0206313M Marine Corps Communications Systems**	**C2272 Intelligence C2 Systems**

DCGS	2008	2009	2010
MILESTONES A	A		B
CDD Approved			2Q
CPD			
Testing & Reveiws			
DT			1Q
FAT			
Test Readiness Review			
IOT&E			
Contracts			
Contract Award	1Q		
Production and Fielding			
Limited Deployment			
Full Deployment			
Fielding			

Exhibit R-4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	**0206313M Marine Corps Communications Systems**	**C2272 Intelligence C2 Systems**

TCAC MILESTONE CHART



Program Funding Summary (APPN, BLI #, NOMEN)	FY 2008	FY 2009	FY 2010
(U) RDT&E,N (0206313M/0206625M)	1.053	1.447	
(U) PMC BLI 465200 Mod Kits TCAC	9.065		
(U) PMC BLI 474700 Intel Support Equip TCAC	0.000	4.007	

Exhibit R-4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	0206313M Marine Corps Communications Systems	C2272 Intelligence C2 Systems

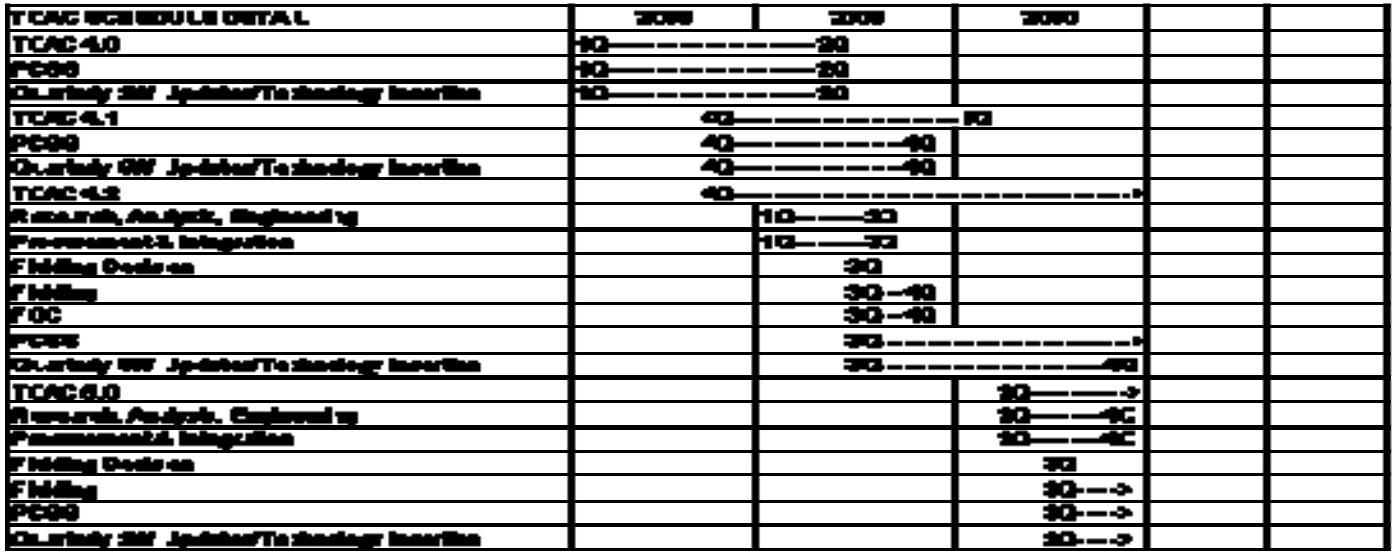
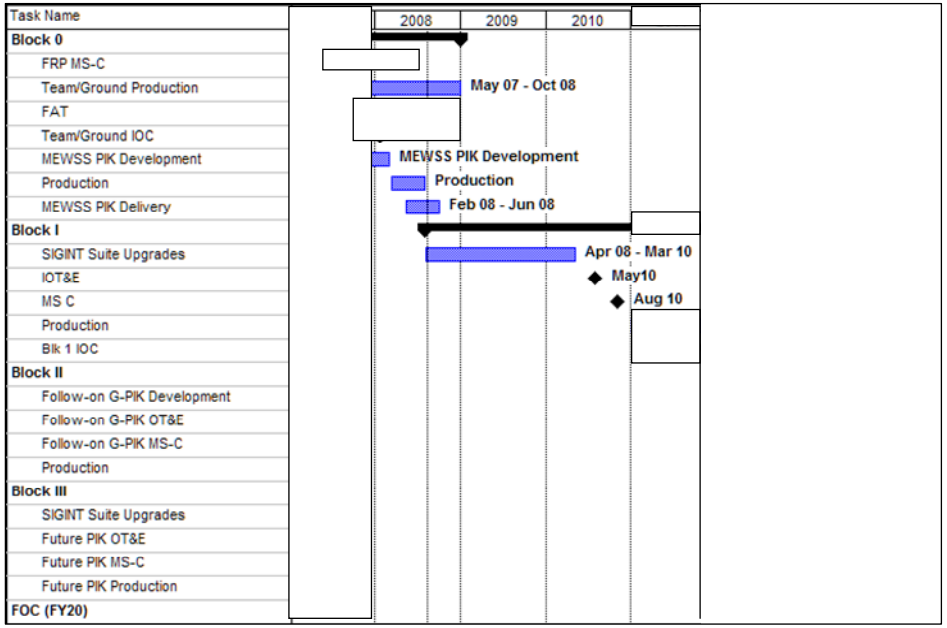


Exhibit R-4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	**0206313M Marine Corps Communications Systems**	**C2272 Intelligence C2 Systems**

TPCS



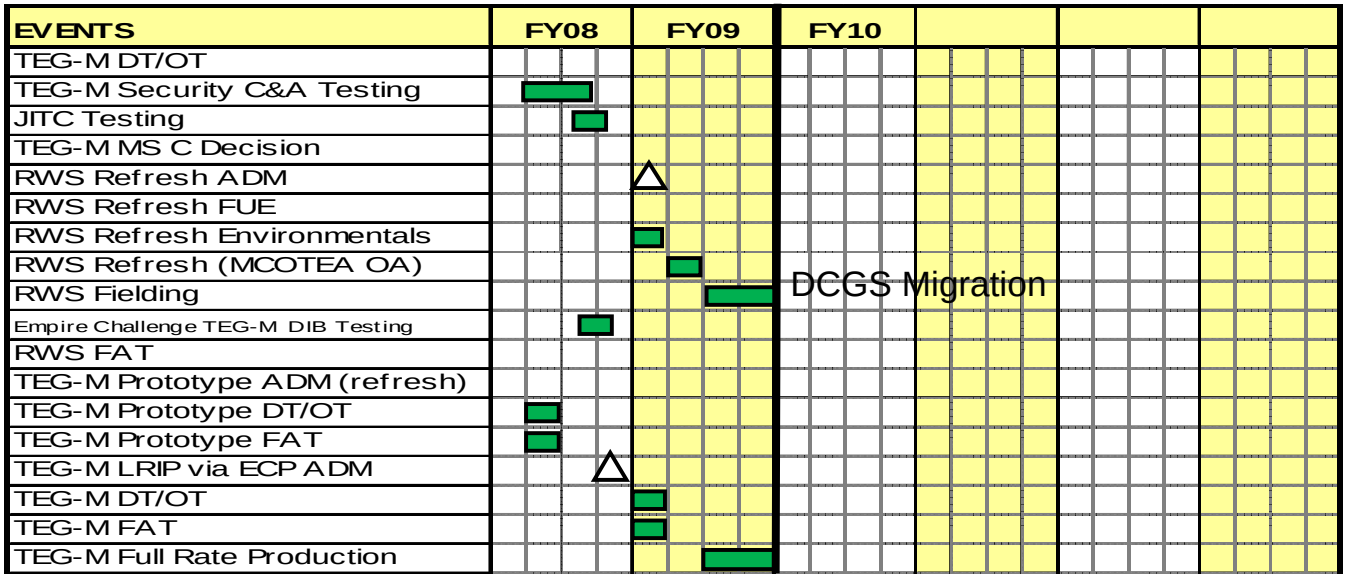
Program Funding Summary (APPN, BLI #, NOMEN)	FY 2008	FY 2009	FY 2010
(U) RDT&E,N (0206313M/0206625M)	1.167	1.017	
(U) PMC BLI 474700 Intel Support Equip TPCS	8.723	9.294	

Exhibit R-4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	**0206313M Marine Corps Communications Systems**	**C2272 Intelligence C2 Systems**

TPCS-MPC SCHEDULE DETAIL	2008	2009	2010
Team Ground Production			
FAT			
Team/Ground IOC			
MEWSS PIK Development			
Productio n	2Q		
MEWSS Delivery PIK Delivery	2Q		
Block 1	3Q		
SIGINT Suite Upgrades	3Q		
IOT&E			3Q
MS C			4Q
Production			
Block 1 IOC			
Block 2			
Follow-on G-PIK Development			
Follow-on G-PIK OT&E			
Follow-on G-PIK MS C			

Exhibit R-4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	**0206313M Marine Corps Communications Systems**	**C2272 Intelligence C2 Systems**

TEG MILESTONE CHART



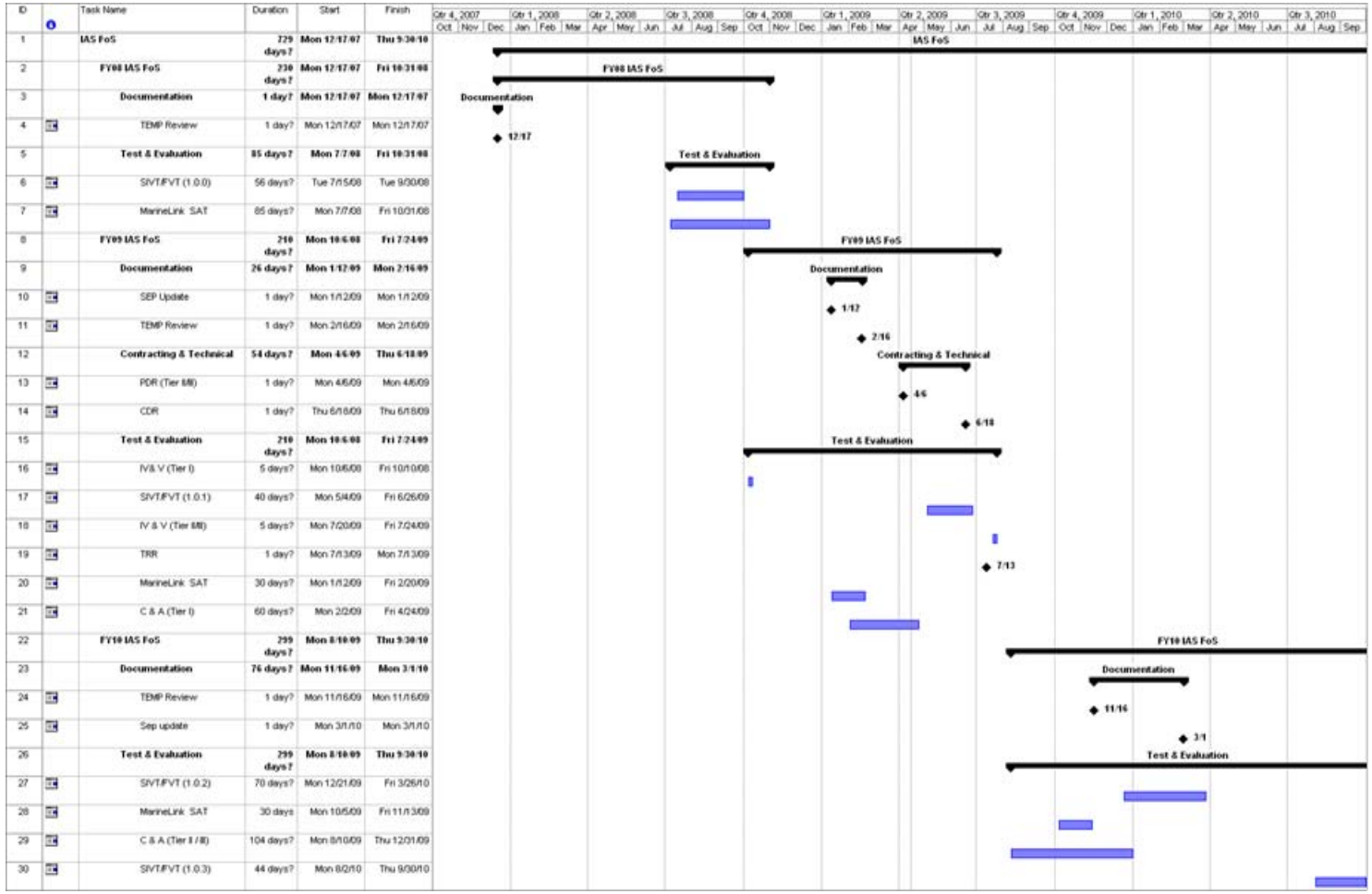
Program Funding Summary (APPN, BLI #, NOMEN)	FY 2008	FY 2009	FY 2010
(U) RDT&E,N (0206313M/0206625M)	1.846	1.784	
(U) PMC BLI 474700 Intel Support Equip TEG	19.567	1.359	

Exhibit R-4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	**0206313M Marine Corps Communications Systems**	**C2272 Intelligence C2 Systems**

TEG FoS	2008	2009	2010				
TEG-M DT/OT							
TEG-M Security C&A Testing	2Q---3Q						
JITC Testing	3Q----4Q						
TEG-M MS C Decision							
RWS Refresh ADM		1Q					
RWS Refresh FUE							
RWS Refresh Environmentals		1Q					
RWS Refresh (MCOTEA OA)		2Q					
RWS Fielding		3Q----4Q					
Empire Challenge TEG-M DIB Testing	3Q----4Q						
RWS FAT		3Q					
TEG-M Prototype ADM (refresh)							
TEG-M Prototype DT/OT	2Q						
TEG-M Prototype FAT	2Q						
TEG-M LRIP via ECP ADM		4Q					
TEG-M DT/OT		1Q					
TEG-M FAT		1Q					
TEG-M Full Rate Production		3Q----4Q					

Exhibit R-4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	0206313M Marine Corps Communications Systems	C2272 Intelligence C2 Systems

IAS MILESTONE CHART



Program Funding Summary (APPN, BLI #, NOMEN)	FY 2008	FY 2009	FY 2010
(U) RDT&E,N (0206313M/0206625M)	0.786	1.063	
(U) PMC BLI 474700 Intel Support Equip IAS	0.000	1.059	
(U) PMC BLI 465200 Mod Kits IAS	15.286		

Exhibit R-4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	**0206313M Marine Corps Communications Systems**	**C2272 Intelligence C2 Systems**

IAS FOS SCHEDULE DETAIL	2008	2009	2010					
IOS Fos								
Documentation	1Q							
Temp Review	1Q							
Test & Evaluation	1Q							
S/W Integration & Test - 1.0	4Q							
MarineLink SAT		1Q						
FY09-IOS Refresh (IOSv2A)								
Documentation		2Q						
SEP Update		2Q						
Temp Review		2Q						
Contracting and Technical		3Q						
PDR		3Q						
CDR		3Q						
Test & Evaluation								
IV&V (Tier I)		1Q						
SWFVT (1.0.1)		2Q						
IV&V (TIER II)		3Q						
TRR		3Q						
MarineLink SAT		4Q						
C&A (Tier I)		2Q						
FY10 - IAS FoS								
Documentation								
SEP Update			1Q					
Temp Review			1Q					
Test & Evaluation			2Q					
S/W Integration & Test - 2.0								
MarineLink SAT			1Q					
C&A (Tier I)			1Q					
SWFVT (1.0.3)			1Q					

EXHIBIT R-2a, RDT&E Project Justification					DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications Systems**					PROJECT NUMBER AND NAME **C2273 Air Operations C2 Systems**		
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL			
Project Cost	**62.476**	**46.422**	**71.432**	**0.000**	**71.432**			
RDT&E Articles Qty Not Applicable								

(U) A. **MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:**

The Composite Tracking Network (CTN) - will provide the Marine Air Ground Task Force (MAGTF) Commander a ground based sensor netting solution that significantly improves situational awareness by correlating sensor measurement data (target position, speed, heading, Identification Friend and Foe (IFF), etc.) from local and remote radars in the Cooperative Engagement Capability (CEC) network, which is then provided to the warfighter in the form of composite, real-time, air surveillance tracks.

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

Single Integrated Air Picture (SIAP) - is the product of fused, common, continual, unambiguous tracks of airborne objects within the surveillance area. A SIAP will be achieved through the use of a model-based architecture computerized specification (the Integrated Architecture Behavior Model, or IABM). The IABM provides the common architectural standard (Platform-Independent Model, or PIM) for systems that make up the joint SIAP SoS. Each of the Services, through their respective SIAP program offices, develops Platform-Specific Models (PSM) of the IABM that are used to develop SIAP solutions for incorporation into Service-designated platforms.

Theater Battle Management Core Systems (TBMCS) - provides the commander the automated tools necessary to generate, disseminate, and execute the Air Tasking Order (ATO), as mandated by the Chairman, Joint Chiefs of Staff in July 1993. It is an evolutionary acquisition, allowing for the rapid development/fielding of hardware and software to meet today's rapidly advancing technology. It is fielded to all four Marine Tactical Air Command Squadrons (MTACS) and the supporting establishment.

Battlefield Target Identification Device (BTID) - In FY08 and beyond - will be a cooperative battlefield target identification device that employs encrypted, Ka band, millimeter wave, question and answer technology. It will consist of interrogator and transponder antennae, transceiver, and communications/electrical interface unit. It will be fielded as three variants: interrogaror/transponder system for Expeditionary Fighting Vehicle (EFVs), Light Amphibious Vehicles (LAVs), and M1A1s; interrogator-only for Heavy Machine Gun (HMG), Anti-Tank Guided Missile (ATGM), and Target Location Data Hand-off System (TLDHS); and transponder-only system for combat support and combat service support vehicles. When fielded, mounted weapon systems will have the capability to identify targets as friendly or unknown, at ranges to 6 km, before engaging them. They and all other designated vehicles will also possess the capability to rapidly identify themselves as friendly to weapon systems equipped with comparable systems prior to being engaged. As a result, incidents of fratricide and collateral damage will decline, while the range at which targets may be engaged without fear of misidentification will increase dramatically. The system will be interoperable with Joint, Allied, and Coalition forces' cooperative targ

TIER I UAS - This program procures a capability for unmanned aircraft systems (UAS) to provide the company/detachment level with airborne reconnaissance to aid in detecting, identifying and engaging or avoiding enemy units. The UAS gather and transmit imagery of the tactical situation in near-real time at a range of up to ten kilometers. The Dragon Eye (DE) UAS was selected as the material solution for the SURSS Block 0 requirement and the Raven B UAS was selected as the solution for SURSS Block 1 requirement. Raven B is a five pound, hand launched, reusable vehicle with a wing span of 55 inches. As with the DE System, the air vehicle flies at an altitude of 300-500 feet above ground at a speed of approximately 35 knots. This system has a maximum duration of 90 minutes. A SURSS Block 1 Acquisition (RSTA) Kit, one Field Repair Kit (FRK), and one Initial Spares Package (ISP). The RSTA kit is used for mission planning, autonomous flight operations and mission product archiving. This is a joint US ARMY/USSOCOM Program. Funding moved to Program Element 0206625M, 2272 in FY10 and beyond.

Combat Operations Center (COC) AN/TSQ-239 (V)2/3/4 is a deployable, self-contained, modular, scalable and centralized facility which provides digital, shared Command and Control/Situational Awareness functionalities to enhance the Common Operational Picture (COP) for the Command Element, Ground Command Element, Air Combat Element, and Logistics Combat Element. It is a commercial-off-the-shelf integrated hardware solution using unit provided radios, re-hosted tactical data systems, and available Marine Corps prime movers to transport the system. FY10 funds required for H/W refresh for Golf model 2010 upgrades. Funding also supports 2 MEB Urgent Universal Needs Statement (UUNS) (Mar 09) to include OEF supplemental kits of various configurations, Tactical Collaboration Work Station (TCWS) integration (MCCDC) LOC and OIF Force retrograde.

TIER II/UAS - This is a combined Navy (PE#0305204N) and Marine Corps (PEs#0206313M/#0206625M) budget submission. The Tier II/UAS is a new start program that will provide persistent, Intelligence, Surveillance, and Reconnaissance (ISR) support for tactical level maneuver decisions and unit level force defense/force protection for Navy ships and Marine Corps land forces. This system will fill the ISR capability shortfalls identified by the Navy Small Tactical Unmanned Aircraft System (STUAS) and Marine Corps Tier II UAS efforts. Consisting of four air vehicles, two ground control stations, multiple payloads, and associated launch, recovery and support equipment this system will support the Navy missions including building the Recognized Maritime Picture, Maritime Security Operations, Maritime Interdiction Operations, and support of Navy units operating from sea/shore in the GWOT and the Marine Cops close range (<50 nautical miles (nm)) UAS enabling enhanced decision-making and improved integration with ground schemes of maneuver. This submission is the Marine Corps portion of the program and has been coordinated with the Navy budget submission PE# 0305204N. This program was moved to Program Element 0206625M in FY10 and beyond.

Remote Video Viewing Terminal (RVVT) - Provides warfighter with video connectivity to multiple types of aerial platforms (Pioneer, Dragon Eye, Raven B, Shadow, Predator, Fire Scout, and Litening Pod on P-3, AV8-B, and F/A-18). Data is displayed to Regimental Combat Teams and Forward Air Controller operators who coordinate with higher headquarters for fires. Program Office is pursuing a MS B in FY10.

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).

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 communications before, during and after operations.

EXHIBIT R-2a, RDT&E Project Justification			DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications Systems**		PROJECT NUMBER AND NAME **C2273 Air Operations C2 Systems**	
B. Accomplishments/Planned Program				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**2.184**	**0.200**	**0.665**	**0.000**
RDT&E Articles Qty				
CTN: Engineering Development Model (EDM) hardware and software development and support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**4.289**	**0.000**	**7.975**	**0.000**
RDT&E Articles Qty				
CTN: System and software development. Interface design development for CTN interfaces to Common Aviation Command and Control System (CAC2S) and the AN/TPS-59 long range radar, G/ATOR and FoS upgrades.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**1.019**	**1.137**	**2.530**	**0.000**
RDT&E Articles Qty				
CTN: Testing and Evaluation: Developmental Testing, Operational assessment, and Interoperability Test and Evaluation (IOT&E) support. Certification of interfaces.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**1.001**	**0.174**	**2.160**	**0.000**
RDT&E Articles Qty				
CTN: Program management support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**6.416**	**1.571**	**0.484**	**0.000**
RDT&E Articles Qty				
MACCS SUSTAINMENT: Hardware obsolescence upgrades for the TAOM, SAAWF, TIU, MCIU, ADCP, CIS and CDLS.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**4.448**	**2.270**	**0.766**	**0.000**
RDT&E Articles Qty				
MACCS SUSTAINMENT: Planned software sustainment for the TAOM, ADCP and CDLS.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.218**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty				
MACCS SUSTAINMENT: Engineering and technical support services for government DT & OT. System engineering discrepancy report corrections, IA certification, and logistics and training development of system operation and maintenance manuals.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**2.460**	**0.000**	**3.185**	**0.000**
RDT&E Articles Qty				
SIAP: Service portion of the System Engineering process to develop Joint SIAP capability. Includes support to engineering initiatives as well as test/evaluation of SIAP Joint Program Office products. Development of engineering products/documents and DoD Architecture Framework Products (TVs, SVs)				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.062**	**0.000**
RDT&E Articles Qty				
JICO Support System: Planned Software Sustainment & Integration Support				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.028**	**0.000**
RDT&E Articles Qty				
JICO Support System: Engineering and Technical Support Services for Government DT and OT				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.402**	**0.000**
RDT&E Articles Qty				
JICO Support System: Program Management Support				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2011
Accomplishment/Effort Subtotal Cost	**0.326**	**0.287**	**0.220**	**0.000**
RDT&E Articles Qty				
TBMCS: USMC TBMCS development.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2011
Accomplishment/Effort Subtotal Cost	**0.300**	**0.203**	**0.180**	**0.000**
RDT&E Articles Qty				
TBMCS: MCTSSA TBMCS software support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2011
Accomplishment/Effort Subtotal Cost	**0.343**	**0.260**	**0.366**	**0.000**
RDT&E Articles Qty				
TBMCS: Program management support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2011
Accomplishment/Effort Subtotal Cost	**0.193**	**0.077**	**0.083**	**0.000**
RDT&E Articles Qty				
TBMCS: Test and Evaluation for TBMCS Upgrades Joint Interoperability.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.700**	**0.942**	**1.852**	**0.000**
RDT&E Articles Qty				
BTID: Program management support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.890**	**0.920**	**0.500**	**0.000**
RDT&E Articles Qty				
BTID: Joint component led SDD.				

EXHIBIT R-2a, RDT&E Project Justification			DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications Systems**		PROJECT NUMBER AND NAME **C2273 Air Operations C2 Systems**	
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**2.265**	**0.552**	**0.227**	**0.000**
RDT&E Articles Qty				
BTID: SDD Developmental Test Articles.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.080**	**0.080**	**0.100**	**0.000**
RDT&E Articles Qty				
BTID: Life Cycle Cost Estimate.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.234**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty				
TIER I: Frequency issues occurred in OIF. Funding was utilized to develop Video Down-Link Upgrades.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.033**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty				
TIER I: Battery Testing.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.176**	**0.000**	**0.000**
RDT&E Articles Qty				
TIER I: Mini digital data-Link development for small aircraft systems.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.200**	**0.200**	**0.000**	**0.000**
RDT&E Articles Qty				
TIER I: Funds programmed for the ongoing ACTD to apply lessons learned from OEF/OIF to assist in the development of new concepts of operations (CONOPS) and tactics, techniques and procedures (TTP).				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**1.804**	**1.562**	**5.830**	**0.000**
RDT&E Articles Qty				
COC: Continued capability solution module testing and ECP development as COC evolves into a MAGTF C2 COC in support of OEF/OIF and RWOT.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.925**	**0.725**	**1.326**	**0.000**
RDT&E Articles Qty				
COC: Program Management Support				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.077**	**0.080**	**0.000**	**0.000**
RDT&E Articles Qty				
TIER II UAS: Integration of common UAS ground control station with Marine Corps C4I network.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.620**	**0.620**	**0.000**	**0.000**
RDT&E Articles Qty				
TIER II UAS: MCCDC Support				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.200**	**0.214**	**0.000**	**0.000**
RDT&E Articles Qty				
TIER II UAS: Operational Testing (OT)				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty				
TIER II UAS: Development, testing and evaluation of Tier II UAS and payloads.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**3.763**	**10.772**	**0.000**	**0.000**
RDT&E Articles Qty				
TIER II UAS: Navy Program Management Support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.771**	**1.843**	**0.000**	**0.000**
RDT&E Articles Qty				
TIER II UAS: Program Management Support .				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**5.820**	**2.118**	**3.900**	**0.000**
RDT&E Articles Qty				
CAC2S: Program management support.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**1.579**	**1.456**	**2.350**	**0.000**
RDT&E Articles Qty				
CAC2S: System development testing, operational assessment, and live interface testing in accordance with continued sensor interface/integration, communications interface/interoperability validation. Additionally, regression testing following DT & OT				

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications Systems**	PROJECT NUMBER AND NAME **C2273 Air Operations C2 Systems**	

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**16.032**	**7.605**	**13.056**	**0.000**
RDT&E Articles Qty				

CAC2S: Design, Development and Testing of Engineering Developmental Models (EDM). Contract activities to complete System Development and Demonstration (SDD) to include Trouble Reports (TR) corrections following Gov't DT. Additionally, MROC

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**2.501**	**9.026**	**19.771**	**0.000**
RDT&E Articles Qty				

CAC2S: Data and information fusion componet hardware and software development and support, including developmental testing, field user evaluations and operational assessments.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.785**	**1.352**	**2.750**	**0.000**
RDT&E Articles Qty				

CAC2S: Engineering, Management & Logistics Support

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.664**	**0.000**
RDT&E Articles Qty				

RVVT: Preparation of MS C and Full Rate Production and Fielding activities

(U) Total Cost $	**62.476**	**46.422**	**71.432**	**0.000**

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL
(U) PMC, BLI #464000, CTN	10.365	15.761	24.871		24.871
(U) PMC, BLI #464000, MACCS	58.819	2.586	6.347	0.075	6.422
(U) PMC, BLI #464000, TBMCS	1.786	3.889	3.455		
(U) PMC, BLI #464000, TIER I UAS	13.444	0.000	0.000		0.000
(U) PMC, BLI #474700, TIER I UAS	0.000	15.348	0.000		0.000
(U) PMC, BLI #4757000, TIER I UAS	0.000	0.000	28.580	13.000	41.580
(U) RDT&E,N P.E. #0305232M, C2272	0.000	0.000	0.553		0.553
(U) RDT&E,N P.E. #0305234M, C2272	0.000	0.000	18.763		18.763
(U) PMC, BLI #4757000, TIER II UAS	0.000	0.000	13.823		13.823
(U) PMC, BLI #464000, BTID	0.000	6.361	0.000	0.000	0.000
(U) PMC, BLI #419000, COC	132.079	39.387	19.832	0.000	19.832
(U) PMC, BLI #464000, CAC2S	47.360	9.928	4.086		
(U) APN, BLI # 044400 STUAS	0.000	0.000	10.099		10.099
(U) PMC, BLI # 464000, RVVT	0.000	0.000	6.325		6.325

(U) D. ACQUISITION STRATEGY:

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

CTN - The USMC's CTN acquisition strategy is to participate in the USN's program procurement and testing, making necessary modifications to support the Marine Corps' requirement.

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. This 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

BTID - Economy of scales dictate a strategy that highly leverages Joint/coalition evolutionary development and acquisition efforts. The Coalition Combat ID Advanced Concept Technology Demonstration (CCID ACTD) completed in October 2005 resulted in a process that evaluated the Military Utility of a Standard NATO Agreement (STANAG) 4579 Compliant millimeter wave (mmW) Target Identification system and other technologies with the objective of identifying the best system to satisfy the Marine Corps requirement. The resultant analysis and action by the Army Marine Corps Board in March 2006 directed a combined Service program with the Army (PD TIMS) as the Component Lead Program. During FY07 the JFCOM sponsored Bold Quest exercise refined the BTID Ground-to-Ground requirement. In July 2008 the Army and the Marine Corps signed a Memorandum of Agreement which outlines the path to execute the program. The Army will be the lead for the Combined Program. The USMC will resource unique Marin Corps integration and programmatic requirements through the System Development and Demonstration (SDD) Program Phase. In Jan 2009, USD AT&L designated BTID as a Special Interest program.

Single Integrated Air Picture (SIAP) - is a systems engineering effort that will be utilized to reduce risk and increase interoperability for legacy and future USMC Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems. A SIAP capability will be acheived through Service implementation of the Integrated Architecture Behavior Model (IABM) into their C4ISR systems. The IABM is an executable specification that unambiguously defines the functions needed to process, store, and update aerospace tracks and associated data over both existing tactical data links and emerging higher performance IP-routed packet-switched networks to support tactical engagements in a Joint and Coalition warfighting environment.

Theater Battle Management Core Systems (TBMCS) - TBMCS is an ACAT 1AC, 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.

TIER I UAS, formerly known as Small Remote Scouting System**(SURSS) -** The Program Office is pursuing a rapid acquisition approach to quickly field new technology and capabilities to the warfighter. The strategy is to use evolutionary acquisition with two incremental developments to meet the final desired SURSS requirements. The SURSS Block 0, Dragon Eye, was the first increment and is currently fielded to deployed units. For the Block 1 increment the USMC adopted the USSOCOM Rucksack Portable UAV (RPUAV) ORD, which meets the USMC's requirement and began migrating to the joint materiel solution, the Raven B. The Army Program Manager for Unmanned Aircraft Systems is the program manager of record. By leveraging off of this joint program already in the production phase, the USMC is able to rapidly field systems to deployed warfighters.

TIER II UAS - The program office expects to utilize a competitive acquisition approach to quickly field a capability with limited development. Spiral development will be utilized to field a system fully compliant with documented requirements.

RVVT - Program initiation in FY10 with entrance into the acquisition process at MS C. Anticipate MS C and intial contract award in late FY10. The program office expects to utilize a competitive acquisition approach to quickly field a capability with limited development. Spiral development will be utilized to field a system fully compliant with documented requirements

COC - The Combat Operations Center (COC) AN/TSQ-239 (V)2/3/4 is the foundation of USMC C2, meeting near term communications and network requirements in OEF, OIF and RWOT. There is a continuing developmental effort to evolve the COC into a fully integrated MAGTF C2 capability.

EXHIBIT R-2a, RDT&E Project Justification			DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications Systems**		PROJECT NUMBER AND NAME **C2273 Air Operations C2 Systems**

(U) E. Major Performers:

Performer	Location	Description	FY 2008 Award Date	FY 2009 Award Date	FY 2010 Award Date
COC					
General Dynamics	Scottsdale, AZ	System Development	Jan 2008	Jan 2009	Jan 2010
SPAWAR	Charleston, SC	Support Services	Jan 2008	Jan 2009	Jan 2010
Coherent Systems	Lexington Park, MD	System Development	Jan 2008		
BTID					
NSWC	Crane, IN	Engineering Services	Jan 2008	Nov 2008	Nov 2009
GDIT	Stafford, VA	MCSC/MCCDC Spt	Jan 2008	Dec 2008	Dec 2009
SIAP					
RNB Technologies	Stafford, VA	Engineering/Analysis	May 2008	Dec 2008	
MACCS					
NGES	Woodland Hills, CA	TAOC Engineering	Jun 2008	Jun 2009	Jun 2010
NAVSEA PEO IW	Patuxent River MD	In Service Engineering	Dec 2008		
NSWC	Crane IN	Engineering services	Apr 2008		
JSS					
MCTSSA	Camp Pendelton, CA	HW and SW Test Support			Oct 2009
NSWC	Crane, IN	System Integration Support			Oct 2009
CEOss (TBD)	TBD	Program Support			
TIER I					
Wright Patterson A	WPAFB Ohio	Eng Serv - Digital Data Link	Apr 2008		
NSWC Dahlgren	Dahlgren VA	Eng Serv -Wearable Computer Ves	Dec 2007	Apr 2009	
NATICK	Redstone AL	Engineering Services	Mar 2008		
TBD	TBD	Product Development			Mar 2010
CTN					
NSWC	Crane IN	Mobility platform integ.	Jan 2008	Dec 2008	
Lockheed Martin	Syracuse NY	Radar Integration			
Science Applications International Corporation	St. Petersburg, FL	Antenna development and production			
Northrop	Stafford, VA	CEOss Support			
Raytheon	Raytheon	H/W and S/W Test Support			
NSWC	Dahlgren, VA	S/W CM Support			
CAC2S					
NSWC	Crane IN				
NSWC	Dahlgren, VA				
General Dynamics	Scottsdale, AZ	SE Services		Jun-09	
General Dynamics	Columbia, MD	SE Services		Jun-09	
TBD		SDS Integration			Aug-10
RVVT					
MCCDC	Quantico VA	Reqirements definition			Jan 2010
OEM	TBD	Engineering Services			Mar 2010

Exhibit R-3 Cost Analysis Date: **May 2009**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	**0206313M Marine Corps Communications Sys**	**C2273 Air Operations C2 Systems**

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY10 Award Date
MACCS SUSTAINMENT	RCP	NGES, Woodland Hills, CA	10.924	3.525	06/08	2.275	06/09	0.788	06/10
MACCS SUSTAINMENT	MIPR	NSWC Crane		1.648	04/08				
MACCS SUSTAINMENT	RCP	NAVSEA PEO IWS 6		1.500	12/08				
JSS	MIPR	NSWC Crane						0.062	10/09
SIAP	RCP	MCSC, Quantico, VA	46.146	0.935	02/08			2.699	02/10
SIAP	RCP	IAMD, Huntsville (Tier I)	0.000	1.230	02/08				
TBMCS	MIPR	ESC, Hanscom AFB	0.723	0.275	01/08	0.205	01/09	0.205	01/10
TBMCS	MIPR	Greater Hampton, VA	0.100	0.279	03/08	0.195	03/09	0.200	03/10
CTN	WR	NSWC, Crane, IN	5.015	2.173	10/07	0.200	01/09	5.920	
CTN	WR	NAVSEA PEO IWS 6		3.435	01/08			2.000	
COC	WR	SPAWAR, Charleston	6.187	0.183	01/08	0.687	01/09	4.870	01/10
COC	RCP	General Dynamics	22.199	1.975	01/08	1.600	01/09	2.186	01/10
COC	RCP	Coherent, Johnstown, PA	0.000	0.299	01/08				
COC	WR	NSWC, Crane, IN	0.000	0.220	01/08				
TIER II	WR	MCTSSA, San Diego, CA		0.077	01/08	0.080	01/09		
BTID	WR	NSWC, Crane, IN	1.968	0.890	01/08	0.920	11/08	1.500	11/09
BTID	WR	USMC/Army Contractor				0.552	01/10		
BTID	WR	NAVAIR, Pax River, MD		0.145	09/08				
BTID	RCP	NAVAIR, Pax River, MD		1.830	09/08				
TIER I	MIPR	Wright Patterson AFB OH		0.219	04/08				
TIER I	WR	NASW, Dahlgren VA		0.015	12/07	0.257	04/09		
TIER I	MP	NATICK RedStone AL		0.200	03/08				
CAC2S	RCP	Raytheon, San Diego, CA	156.105	15.244	10/07	0.000	n/a		
CAC2S	WR	SPAWAR (Charleston)	4.762	0.302	10/07	0.300	01/09	0.500	01/10
CAC2S	WR	DAHLGREN	2.056	1.161	10/07	6.109	01/09	11.562	01/10
CAC2S	WR	SPAWAR (San Diego)	56.662	0.166	10/07	0.000	n/a		
CAC2S	RCP	NCTSI	0.098	0.030	12/07	0.000	n/a	0.250	01/10
RVVT	RCP	OEM	0.000	0.000		0.000		0.169	03/10
Subtotal Product Development			**312.945**	**37.956**		**13.380**		**32.911**	

Remarks

Exhibit R-3 Cost Analysis															
					Date:				May 2009						
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT					PROJECT NUMBER AND NAME								
RDT&E, N /BA 7 Operational Sys Dev		0206313M Marine Corps Communications Sys					C2273 Air Operations C2 Systems								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY10 Award Date						
MACCS Sustainment	WR	NGES, Woodland Hills, CA	2.697	0.126	06/08	0.363	06/09	0.127	06/10						
MACCS Sustainment	RCP	CRI, Van Nuys, CA	1.200	1.984	01/08										
MACCS Sustainment	RCP	Katmai, Van Nuys, CA		0.606	07/08	1.203	01/09	0.335	01/10						
MACCS Sustainment	WR	NSWC, Crane, IN	3.272	1.011	01/08										
JSS	WR	MCTSSA, CPndltn,CA						0.028	10/09						
SIAP	RCP	RNB Technologies, Stafford, VA		0.165	05/08			0.486	02/10						
SIAP	MIPR	NSWC, Crane, IN		0.130	08/09										
TBMCS	WR	MCTSSA, CPndltn,CA	0.115	0.243	11/07	0.175	11/08	0.180	11/09						
TIER I	WR	NSWC, Carderock, MD		0.000	02/08										
TIER I	RCP	MCSC, Quantico, VA		0.000		0.119	03/09								
TIER II	C/FP	Eagan Mcallister, Lexington		0.620	01/07	0.620	01/09								
BTID	RCP	MCSC, Quantico, VA		1.070	01/08	1.022	12/08	1.077	12/09						
CTN	WR	NSWC, Dahlgren, VA	0.000	0.425	11/07			0.570	11/09						
CTN	WR	NSWC, PHD		0.241	01/08										
CTN	WR	NGMS, Stafford, VA		0.300	01/08										
CTN	WR	SPAWAR		0.046	01/08										
CTN	WR	AF Cost Analysis Branch		0.084	01/08										
CAC2S	WR	MCSC, Quantico, VA	4.051												
CAC2S	WR	MCSC, Quantico, VA	2.812												
CAC2S	RCP	MCSC, Quantico, VA	4.258	0.308	10/07	3.000	06/09	1.133	08/10						
CAC2S (TAD)	RCP	MCSC, Quantico, VA						0.500	11/09						
CAC2S	WR	NSWC, Crane, IN	1.272	1.026		9.220	01/09	17.816	10/09						
CAC2S	WR	JITC	0.471	0.179		0.200	01/09	0.600	01/10						
CAC2S	RCP	Lockheed Martin	0.914												
CTN	RCP	Lockheed, Syracuse, NY	0.000	0.100	01/08										
RVVT	MIPR	MCCDC	0.000	0.000		0.000		0.200	11/09						
Subtotal Support			**21.062**	**8.664**		**15.922**		**23.052**							
Remarks:															

Exhibit R-3 Cost Analysis Date: **May 2009**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	**0206313M Marine Corps Communications Sys**	**C2273 Air Operations C2 Systems**

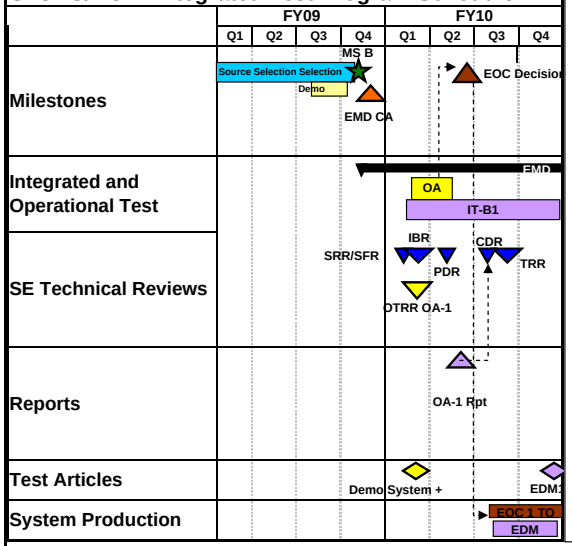
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY10 Award Date					
CTN	WR	NWAS, Corona, CA	0.594	0.467	11/07	0.200	11/08	0.470	11/09					
CTN	WR	Aberdeen Test Center		0.079	01/08	0.110	11/09							
CTN	WR	NATICK		0.012	01/08	0.030	11/09							
CTN	WR	John Hopkins APL		0.114	01/08			0.150	02/10					
CTN	WR	JTIC						0.050	02/10					
CTN	WR	MCTSSA						0.040	02/10					
CTN	WR	NSWC Crane						0.300	02/10					
CTN	WR	NAVSEA PEO IWS 6						0.200	02/10					
CTN	WR	DT				0.197	02/09	1.000	02/10					
CTN	WR	MACS-24		0.057	01/08			0.100	02/10					
CTN	WR	MCOTEA TESTING	0.055	0.315	07/08	0.600	07/09	0.370	07/10					
COC	MIPR	MCOTEA TESTING	0.590					0.100	01/10					
TIER II	WR	MCOTEA TESTING		0.200	02/08	0.214	12/08							
BTID	WR	MCOTEA TESTING						0.102	11/09					
MACCS SUSTAINMENT	WR	NSWC, Crane, IN	0.030	0.168	01/08									
TIER I	WR	NSWC, Carderock, MD		0.033	02/08									
TBMCS	WR	MCOTEA TESTING	0.177	0.121	01/08	0.077	01/09	0.082	01/10					
CAC2S	MIPR	MITRE	2.068	0.117	10/08	0.978	01/09	1.500	11/09					
CAC2S	WR	MACCS X	0.920	0.044	10/08	0.000	n/a	0.500	01/10					
CAC2S	WR	MCTSSA, CPndltn, CA	1.356			0.500	n/a	1.000	12/09					
CAC2S		MCOTEA TESTING	2.150	1.400	10/08	0.500	01/09	0.750	03/10					
CAC2S	RCP	PAX RIVER		0.013	10/08									
CAC2S	WR	NWAS, Corona, CA	0.000	0.907		0.750	01/09	1.816	11/09					
RVVT	MIPR	MCOTEA TESTING	0.000	0.000		0.000		0.169	11/09					
Subtotal T&E			**7.291**	**4.047**		**4.156**		**8.699**						

Remarks:

Exhibit R-3 Cost Analysis			Date: May 2009											
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA 7 Operational Sys Dev**		PROGRAM ELEMENT **0206313M Marine Corps Communications Sys**					PROJECT NUMBER AND NAME **C2273 Air Operations C2 Systems**							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY10 Award Date					
TBMCS	FFP	QNA, Stafford, VA	0.911	0.244	01/08	0.175	03/09	0.182	03/10					
CTN	WR	MCSC, Quantico, VA	0.284	0.285	10/07	0.174	10/08	2.160	10/09					
CTN	IDIQ	NGMS, Stafford, VA	2.527	0.361	11/07									
TIER II	IDIQ	QNA, Stafford, VA		0.741	03/08	1.000	12/08							
TIER II	WR	MCSC, Quantico, VA		0.030	01/08	0.636	01/09							
TIER II	WR	NSWC, Dahlgren VA				0.182	10/08							
TIER II	TBD	Navy PMA-263		3.763	01/08	10.797	01/09							
MACCS Sustainment	FFP	QNA, Stafford, VA		0.514	11/07									
JSS	WR	MCSC, Quantico, VA						0.102	10/09					
JSS	RC	TBD						0.300	03/10					
COC	IDIQ	NGMS, Stafford, VA	4.001	0.052	01/07									
CAC2S	IDIQ	NGMS, Stafford, VA	21.946											
CAC2S	IDIQ	QNA, Stafford, VA		5.596	01/08			3.900	11/09					
CAC2S	RCP	NOBLIS	4.646											
CAC2S	RCP	Booze Allen Hamilton	0.717	0.224										
RVVT	IDIQ	QNA Stafford	0.000	0.000		0.000		0.126	03/10					
Subtotal Management			**35.032**	**11.810**		**12.964**		**6.770**						
Remarks:														
Total Cost			**376.330**	**62.476**		**46.422**		**71.432**						

EXHIBIT R4/4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA 7 Operational Sys Development	PROGRAM ELEMENT NUMBER AND NAME 0206625M USMC Intelligence/Electronic War Sys (MIP)	PROJECT NUMBER AND NAME C2273 Air Operations C2 Systems
TIER II UAS PROGRAM SCHEDULE		

STUAS/Tier II Integrated Test Program Schedule



Program Funding Summary (APPN, BLI#, NOMEN)	FY 2008	FY 2009	FY 2010
(U) PMC, BLI #475700, TIER II UAS	0.000	0.000	13.823
(U) RDT&E,N, C2273, TIER II UAS	5.431	13.529	0.000
(U) RDT&E,N, C2272, TIER II UAS	0.000	0.000	18.763

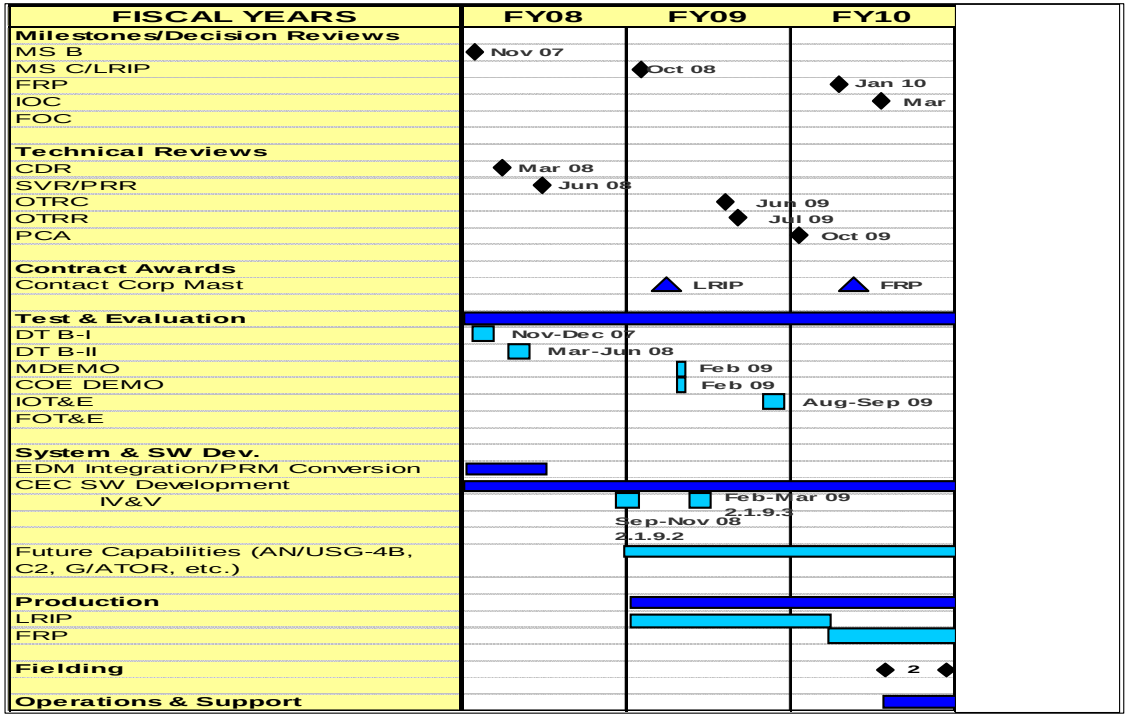
EXHIBIT R4/4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA 7 Operational Sys Development**	PROGRAM ELEMENT NUMBER AND NAME **0206625M USMC Intelligence/Electronic War Sys (MIP)**	PROJECT NUMBER AND NAME **C2273 Air Operations C2 Systems**

TIER II UAS Schedule Profile

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
MS B				4Q				
MS C								
Marine Corps IOC								
Navy IOC								
Solicitation				2Q				
Contract Award				4Q				
Demo System					1Q			
Test Assets					4Q			
Testing					2Q-4Q			
Milestone B Docs				3Q-4Q				
Milestone C Docs					3Q-4Q			
LRIP								
FRP								

Exhibit R-4/4a Schedule Profile/Detail		Date: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA 7 Operational Sys Dev**	PROGRAM ELEMENT **0206313M Marine Corps Communications Sys**	PROJECT NUMBER AND NAME **C2273 Air Operations C2 Systems**

CTN PROGRAM SCHEDULE



Program Funding Summary	FY 2008	FY 2009	FY 2010
(APPN, BLI #,			
(U) RDT&E,N, C2273, CTN (formally CEC)	8.493	1.511	13.33
(U) PMC, BLI #464000, CTN	10.365	15.761	24.871

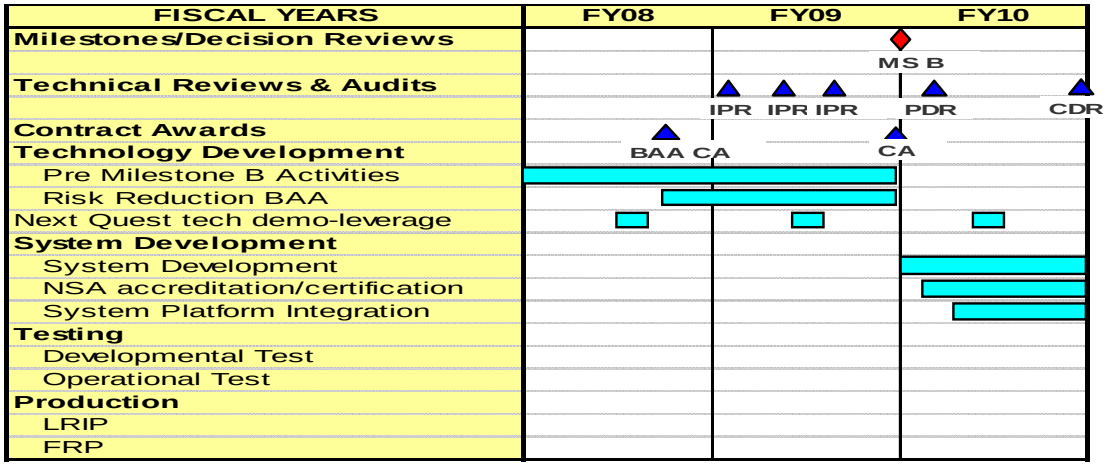
Exhibit R-4/4a Schedule Profile/Detail		Date: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA 7 Operational Sys Dev**	PROGRAM ELEMENT **0206313M Marine Corps Communications Sys**	PROJECT NUMBER AND NAME **C2273 Air Operations C2 Systems**

CTN SCHEDULE DETAIL

CTN SCHEDULE DETAIL	FY 2008	FY 2009	FY 2010			
Milestone A (1st Qtr FY02)						
Concept & Technology Development						
Milestone B		1st Qtr FY09				
System Development and Demonstration						
DT B-I	1st Qtr					
DT B-II	3rd Qtr					
Miletone C	4th Qtr					
IOT&E		2nd Qtr				
Production	3rd Qtr**********					
Delivery		3rd Qtr**********				
IOC			1st Qtr			
FOC						

Exhibit R-4/4a Schedule Profile/Detail		Date: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA 7 Operational Sys Dev**	PROGRAM ELEMENT **0206313M Marine Corps Communications Sys**	PROJECT NUMBER AND NAME **C2273 Air Operations C2 Systems**

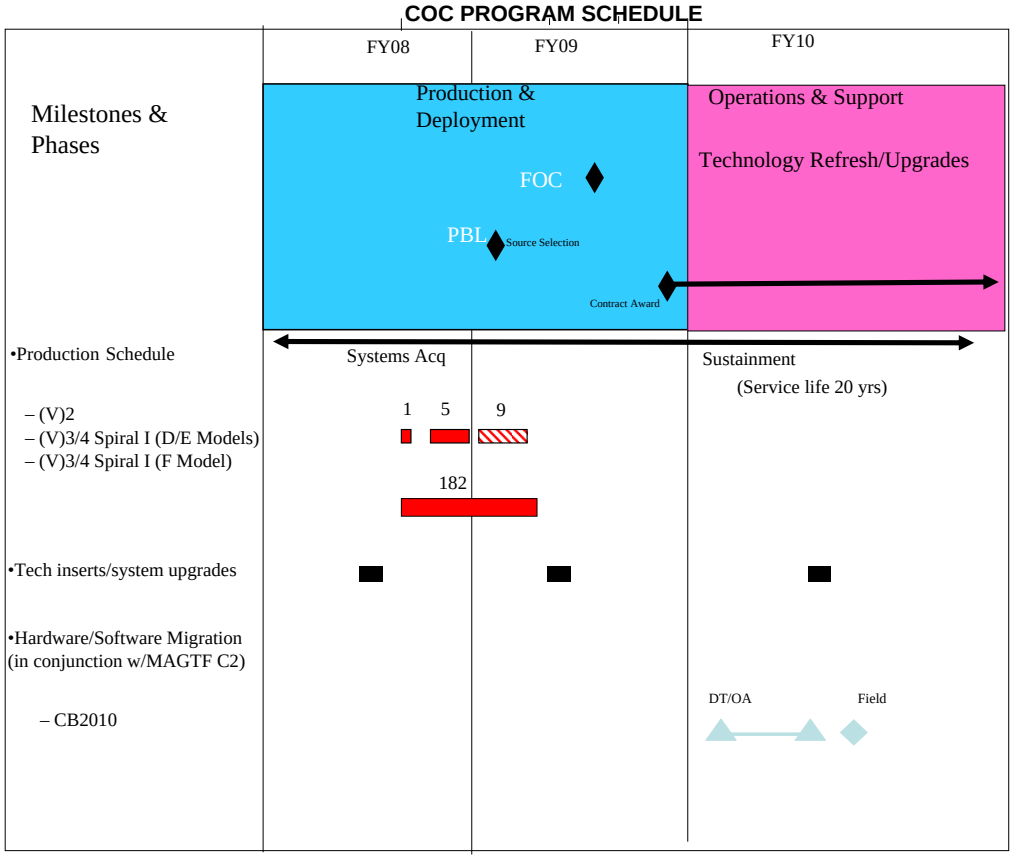
BATTLEFIELD TARGET IDENTIFICATION DEVICE PROGRAM SCHEDULE



Program Funding Summary (APPN, BLI#, NOMEN)	FY 2008	FY 2009	FY 2010
(U) RDT&E,N, C2278, BTID	0.000	0.030	0.000
(U) RDT&E,N, C2273, BTID	3.935	2.494	2.679
(U) PMC, BLI # 464000, BTID	0.000	6.361	0.000

BTID SCHEDULE	FY 2008	FY 2009	FY 2010			
Milestone A						
Milestone B			1st Qtr			

Exhibit R-4/4a Schedule Profile/Detail		Date: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA 7 Operational Sys Dev**	PROGRAM ELEMENT **0206313M Marine Corps Communications Sys**	PROJECT NUMBER AND NAME **C2273 Air Operations C2 Systems**



Program Funding Summary (APPN, BLI #,	FY 2008	FY 2009	FY 2010
(U) RDT&E,N, C2273, COC	2.729	2.287	7.156
(U) PMC, BLI #419000, COC	132.079	39.387	19.832

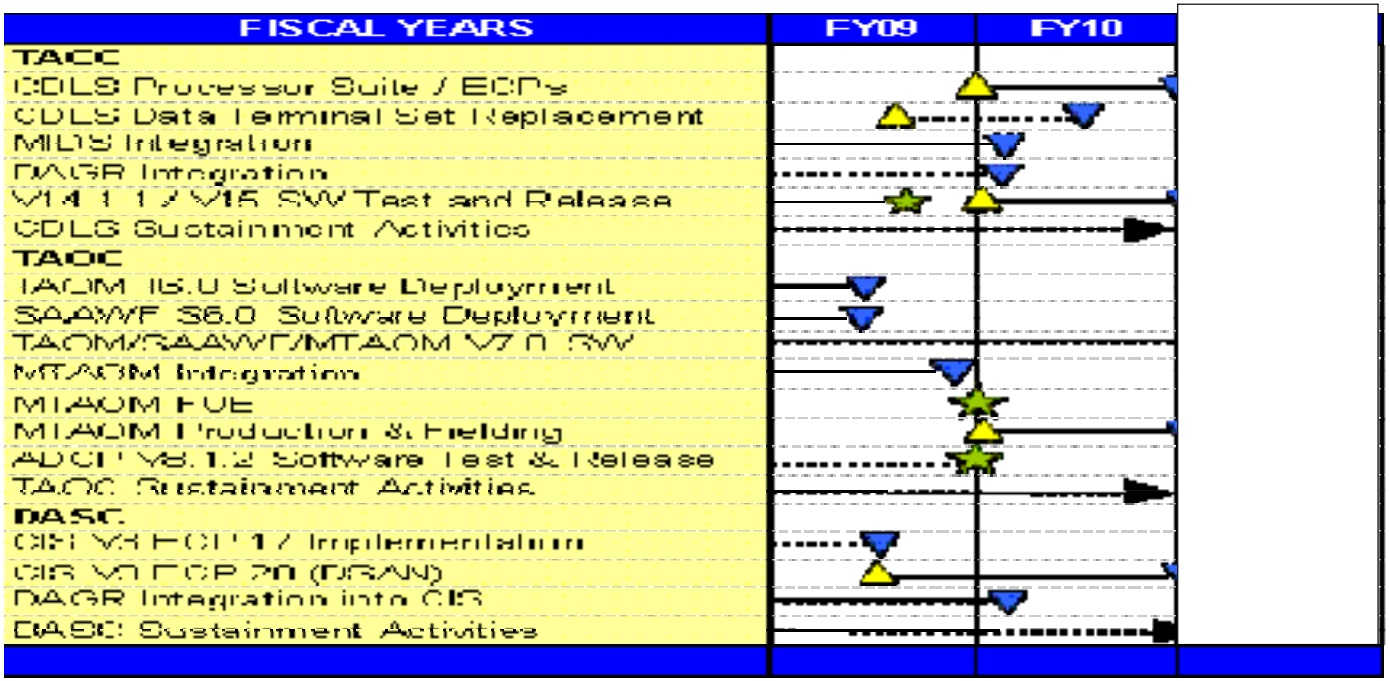
Exhibit R-4/4a Schedule Profile/Detail		Date: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Sys Dev	**0206313M Marine Corps Communications Sys**	**C2273 Air Operations C2 Systems**

COC SCHEDULE DETAIL

COC SCHEDULE DETAIL				FY 2008	FY 2009	FY 2010					
Milestone B (2nd Qtr FY 02)											
Milestone C (3rd Qtr FY03)											
IOT&E	(1st Qtr 06)										
FRP Decision (1st Qtr 06)											
IOC (2nd Qtr 07)											
Production Deliveries											
FOC						2nd Qtr					
CB 2010											

Exhibit R-4-4a Project Schedule/Detail		DATE: MAY 2009
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA 7 Operational Systems Development	PROGRAM ELEMENT 0206313M Marine Corps Communications Systems	PROJECT NUMBER AND NAME C2273 Air Operations C2 Systems

MACCS PROGRAM SCHEDULE



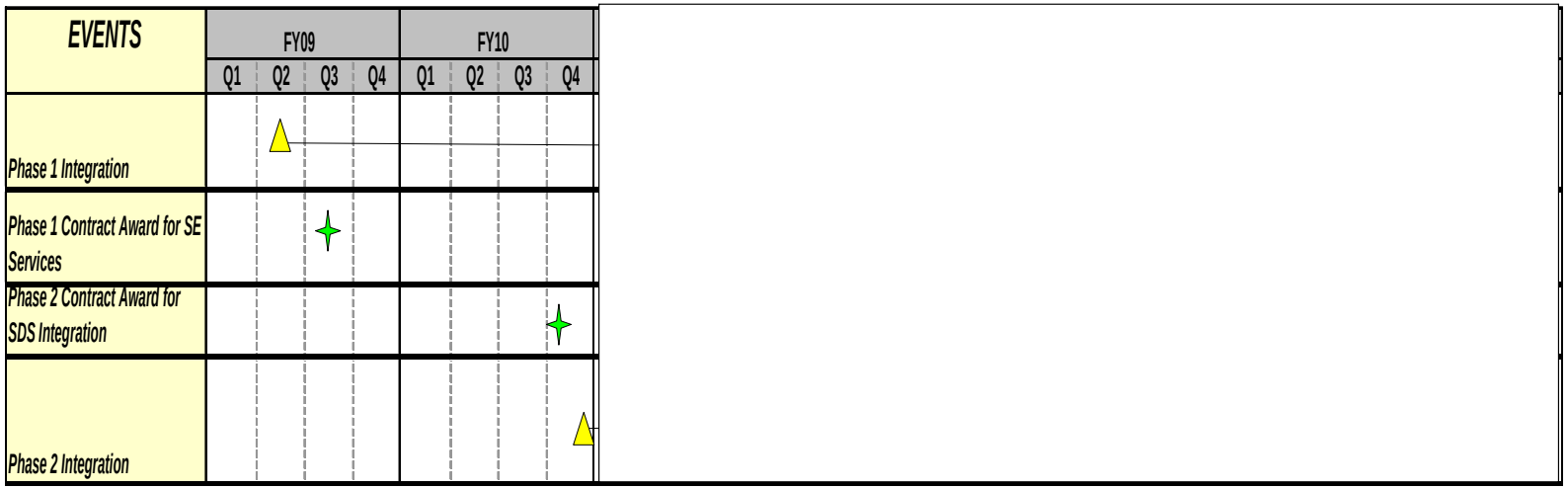
Program Funding Summary (APPN, BLI #, NOMEN)	FY 2008	FY 2009	FY 2010
(U) RDT&E,N, C2273, MACCS	11.082	3.846	1.272
(U) PMC, BLI #464000, MACCS	59.376	2.586	6.422

Exhibit R-4-4a Project Schedule/Detail		DATE: MAY 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA 7 Operational Systems Development**	PROGRAM ELEMENT **0206313M Marine Corps Communications Systems**	PROJECT NUMBER AND NAME **C2273 Air Operations C2 Systems**

MACCS Schedule Detail	FY 2008	FY 2009	FY 2010			
CDLS Hardware Refresh and ECPs		3d Qtr	4th Qtr			
ADSI Software version releases		4th Qtr	4th Qtr			
MRQ-12 Production (Qty. 10)		2d Qtr				
TAOM SW version T6 Release	4th Qtr					
SAAWF SW Version S6 Release	4th Qtr					
MRQ-12 ECP 17	4th Qtr					
MRQ-12 ECP 20		2d Qtr				
LMS-MT Fielding & Training		3rd Qtr				
ADCP SW Version 8.1.2 Release	4th Qtr					
TAOC Sustainment	Throughout FYDP **********					
TACC Sustainment	Throughout FYDP **********					
DASC Sustainment	Throughout FYDP **********					
MTAOM Production		3rd Qtr				

Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA 7 Operational Systems Development	**0206313M Marine Corps Communications Systems**	**C2273 Air Operations C2 Systems**

CAC2S PROGRAM SCHEDULE



Program Funding Summary (APPN, BLI #, NOMEN)	**FY 2008**	**FY 2009**	**FY 2010**
(U) RDT&E,N, C2273, CAC2S	26.717	21.557	41,827
(U) PMC, BLI #464000, CAC2S	47.360	9.928	4,086

CAC2S SCHEDULE DETAIL	FY 2008	FY 2009	FY 2010					
Milestone B (completed 1st Qtr FY03)								
SDD								
Milestone C	1st Qtr							
Phase 1 Contract Award for SE Services		3rd Qtr						
Phase 2 Contract Award for SDS Integration			4th Qtr					
Phase 2 Integration			4th Qtr					

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009							
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Comm Systems**	PROJECT NUMBER AND NAME **C2274 Command & Control Warfare Systems**							
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO					
Project Cost	**51.250**	**8.903**	**19.887**	**0.000**					
RDT&E Articles Qty	**N/A**	**N/A**	**N/A**	**N/A**					

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) Command and Control (C2) Warfare Project includes the following tactical electronic intercept, direction finding, and electronic attack systems:
Counter RCIED Electronic Warfare (USMC CREW) provides full spectrum protection against high and low power threats. USMC CREW systems are capable of being integrated in all Marine Corps Tactical Ground Vehicles. This program is an ongoing effort to develop new techniques, improve capabilities, enhance software and develop upgrades to counter evolving threat and prevent technology obsolenscence.

*** Radio Reconnaissance Equipment Program (RREP)** provides the Radio Battalions, Radio Reconnaissance Platoons (RRP) and the Marine Corps Forces Special Operations Command (MARSOC) Direct Support Team with mission unique Signals Intelligence/Ground Electronic Warfare (SIGINT/EW) Equipment suites. The latest suite of equipment, the SIGINT Suite 3 (SS-3) is comprised of technology and equipment necessary to prosecute advanced wireless signals. The RRP Marines are trained and equipped to support the full spectrum of Marine Expeditionary Unit Special Operations Capable (MEU SOC) mission profiles as well as provide real time, imbedded support to any special operations scenario. This provides the supported commander greater flexibility in employing his SIGINT assets when the use of conventional Radio Battalion assets are not feasible. RREP is currently maintaining the SS-3 using a spiral development approach that inserts the latest technology into the suite as it becomes mature and MARSOC.This enables the SS-3 to remain a current platform against emerging threats.

Communication Emmitter Sensing and Attacking System (CESAS)/(FLAMES) The AN/ULQ-30 CESAS is an advanced Electronic Attack (EA) system that can be mounted in a variety of platforms including High Mobility Multi-Purpose Wheeled Vehicles (HMMWV), waterborne platforms, helipcopters, and the MV-22. The system provides Marine Air-Ground Task Forces (MAGTFs) with the capability to detect, disrupt and deny enemy radio communications during amphibious assaultsand subsequent operations ashore. The system is being integrated into existing armored vehicle assets, currently M1151s and into an MRAP vehicle by FY10.

GROUND-BASED OPERATIONAL SURVEILLANCE SYSTEM (GBOSS) – This program provides persistent (24/7) tracking of objects of interest through the use of a unique, 360-degree, high resolution, day/night surveillance capability for enhanced target recognition and situational awareness, which enables timely and appropriate response options (direct air attack, indirect fire, and ground patrol/attack). Each system can operate independently and consists of five main components: elevated platform, multi-spectral sensor suite, radar sensor systems suite, as well as a ground control system (GCS) and a remote ground station (RGS). The elevated platform is a 106-foot tower. The optical sensor consists of an Electro-Optic color daytime camera, an Infrared black and white day or night camera, spotter scope, a laser range finder (LRF) and a laser pointer (LP). The radar sensor systems are modular and composed of tailorable sensor groups using multiple ground-sensing technologies (doppler, thermal, seismic, acoustic, audio) consisting of multimode sensors for detection, location and classification to perform mission tasks such as perimeter defense, surveillance and situational awareness. The Remote Ground Station allows the user to operate from a significant distance away from the system.

*** RREP moves to PE 0206625M, C2272, Intelligence C2 Systems in FY10 and out.**

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**9.824**	**5.244**	**5.581**	
RDT&E Articles Qty				
USMC CREW - Product Development				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**3.945**	**1.121**	**1.276**	
RDT&E Articles Qty				
USMC CREW - Support				

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Comm Systems**	PROJECT NUMBER AND NAME **C2274 Command & Control Warfare Systems**			
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost		**1.223**	**0.575**	**0.575**	
RDT&E Articles Qty					
USMC CREW - Test and Evaluation					
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost		**0.825**	**0.624**	**0.639**	
RDT&E Articles Qty					
USMC CREW - Management					
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost		**0.473**	**0.919**	**0.000**	
RDT&E Articles Qty					
RREP - Project Management and Technical support for Research and Testing of New Technology for System Refresh.					
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost		**2.279**	**0.700**	**0.000**	
RDT&E Articles Qty					
CESAS - Training					
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost		**2.709**	**1.200**	**0.000**	
RDT&E Articles Qty					
CESAS - Testing Support					

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Comm Systems**	PROJECT NUMBER AND NAME **C2274 Command & Control Warfare Systems**			
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost		**2.000**	**3.720**	**0.000**	
RDT&E Articles Qty					
CESAS - Enhanced Electronic Warfare Capability					
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost		**0.250**	**1.000**	**0.000**	
RDT&E Articles Qty					
CESAS - Develop TTPs					
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost		**1.500**	**2.500**	**0.000**	
RDT&E Articles Qty					
CESAS - Integration of the M1165					
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost		**7.500**	**0.000**	**3.816**	
RDT&E Articles Qty					
GBOSS - Product Development					
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost		**7.200**	**0.000**	**1.000**	
RDT&E Articles Qty					
GBOSS - Support					
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost		**4.100**	**0.000**	**5.000**	
RDT&E Articles Qty					
GBOSS - Test and Evaluation.					
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost		**7.422**	**0.000**	**2.000**	
RDT&E Articles Qty					
GBOSS - Management.					
(U) Total $		**51.250**	**14.403**	**19.887**	

(U) C. OTHER PROGRAM FUNDING SUMMARY:

	Line Item No. & Name	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 Total
(U)	PMC BLI 465200 Mod Kit FLAMES (CESAS)	10.563	0.000	0.000		0.000
(U)	PMC BLI 474700 Mod Kit FLAMES (CESAS)	0.000	8.876	0.000		0.000
(U)	PMC BLI 643800 Phy Sec Equip (GBOSS)	203.857	26.344	0.000	1.700	1.700
(U)	PMC BLI 474700 Intel Spt Equip (RREP)	1.907	7.245	1.081		1.081
(U)	PMC BLI 652000 EOD Sys (USMC CREW)	183.36	214.645	11.181		11.181

(U) Related RDT&E:

(U) PE 0206625M, C2272 RREP	0.000	0.000	0.819		0.819

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Sys Dev	**0206313M Marine Corps Comm Systems**	**C2274 Command & Control Warfare Systems**

(U) D. ACQUISITION STRATEGY:

Counter RCIED Electronic Warfare (USMC CREW) Continue to develop new techniques, improve capabilities, enhance software and develop upgrades to counter evolving threat and prevent technology obsolenscence. Activities include waveform development, non-recurring engineering for system enhancements and capability upgrades, integration of the enhancements and the tests/ government studies required to support these changes. This will upgrade of existing systems to the next technology sprial (CREW 2.1).

RREP: The Radio Reconnaissance Equipment Program (RREP) SIGINT Suite -3 (SS-3) is the fourth generation of Radio Reconnaissance Equipment. Previous systems were developed as repackaged and hardened Commercial Off-The-Shelf (COTS) items. The Radio Reconnaissance Teams (RRT) used systems for three years and replaced the entire suite with the next generation of equipment. An equipment refresh every three years allowed the RRTs to take advantage of the newest commercial single channel scanner technology when the previous generation of equipment required replacement. The SS-3 will focus on the use of the technology and equipment necessary to prosecute advanced wireless communications devices and begin spiral development. RREP will incorporate and integrate cutting edge technologies through the use of COTS/Government off the Shelf (GOTS) and Non-Development Items (NDI) components.

CESAS: Designated an ACAT IV (T) Program (December 2006) and represents the state-of-the-art available in a tactical Electronic Warfare (EW) platform. Its components are suitable for integration into multiple ground and air platforms. It is designed to operate with other CESAS platforms to detect and attack threat emitters, as well as, being mission configured to work cooperatively with multiple ground and airborne platforms to attack target emitters. CESAS also leverages previous integration experience from the Team Portable Collection System (TPCS) program for commonality of equipment and cooperative communications capabilities.

GBOSS: The acquisition approach has been to use existing government contracts (U.S Army/U.S. 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. This approach is the most expeditious to deliver equipment and services to the forces in theater.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Sys Dev	**0206313M Marine Corps Comm Systems**	**C2274 Command & Control Warfare Systems**

(U) E. MAJOR PERFORMERS:

COUNTER RADIO CONTROLLED IMPROVISED EXPLOSIVE DEVICE ELECTRONIC WARFARE (USMC CREW)

FY08 NAVSEA, (JHUAPL), Baltimore, MD Provide radio frequency engineering and test support.
NSWC, (Dahlgren), Dahlgren, VA Provide co-site mitigation for fielded assets and test support.
NSWC, (CRANE), Crane, IN Provide logistics, radio frequency mapping and engineering support.
SPAWAR, Charleston, NC Provide system integration, test support, and logistics
FY09 NAVSEA, (JHUAPL), Baltimore, MD Continue to provide radio frequency engineering and test support.
NSWC, (Dahlgren), Dahlgren, VA Continue to provide co-site mitigation for fielded assets and test support.
NSWC, (CRANE), Crane, IN Continue to provide logistics, radio frequency mapping and engineering support.
SPAWAR, Charleston, NC Continue to provide system integration, test support, and logistics
FY10 NAVSEA, (JHUAPL), Baltimore, MD Continue to provide radio frequency engineering and test support.
NSWC, (Dahlgren), Dahlgren, VA Continue to provide co-site mitigation for fielded assets and test support.
NSWC, (CRANE), Crane, IN Continue to provide logistics, radio frequency mapping and engineering support.
SPAWAR, Charleston, NC Continue to provide system integration, test support, and logistics

RADIO RECONNAISSANCE EQUIPMENT PROGRAM (RREP)

FY08 NSMA, (MTC), ITsFAC, Stafford, VA. Provided integration facility and program management support
NSWC, Crane, Provided System Engineering support, begin development of DAR S/W and H/W Solution
FY09 NSMA, (MTC), ITsFAC, Stafford, VA. Continue to provide integration facility and program management support
NSWC, Crane, Continue to provide System Engineering support, begin development of DAR S/W and H/W Solution

COMMUNICATION EMMITTER SENSING AND ATTACKING SYSTEM (CESAS/FLAMES)

FY08 NSMA, (MTCSC), Stafford, VA. Provided integration facility and program management support
FY08 NAVSEA, Provides research and development of techniques, tactics and procedures
SPAWAR, Charleston, SC Provides system integration, test support, and logistics

TEAM GROUND BASED OPERATIONAL SURVEILLANCE SYSTEM

FY08 NSWC (Crane) Provide systems integration, test support, prototype hardware
NAVAIR UAS system integration, test support, logistics
PM NV (Ft. Belvoir) Provide co-site mitigation for expeditionary systems integration
NSWC (Dahlgren) Provide engineering and test support

FY10 NSWC (Crane) Provide systems integration, test support, prototype hardware
NAVAIR UAS system integration, test support, logistics
PM NV (Ft. Belvoir) Provide co-site mitigation for expeditionary systems integration
NSWC (Dahlgren) Provide engineering and test support

Exhibit R-3 Cost Analysis				DATE: May 2009											
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA 7 Operational Sys Dev		PROGRAM ELEMENT 0206313M Marine Corps Comm Systems				PROJECT NUMBER AND NAME C2274 Command & Control Warfare Systems									
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date						
USMC CREW	RCP	NAVSEA	0.000	4.249	04/08										
USMC CREW	VAR	Various	0.000	5.575	11/08	5.244	Var	5.581	Var						
RREP	RCP	NSWC, Crane	1.052	0.218	01/08	0.450	01/09								
RREP	RCP	NSMA (MTC)	0.345	0.174	12/07	0.464	12/08								
GBOSS	RCP	NSWC, Crane	0.000	7.500	10/08	0.000		3.816	Var						
CESAS	WR/RCP	NAVSEA	1.995	0.250	10/08	0.250	12/09	0.000							
CESAS	MIPR	PENN STATE	0.000	0.000		0.250	10/09								
CESAS	WR/RCP	NRL	0.000	0.000		0.135	11/09								
CESAS	VAR	Various	0.000	0.000		2.451	Var								
CESAS	RCP	GTRI	0.000	0.500	11/08	0.000		0.000							
CESAS	RCP	NPGS	0.000	0.500	11/08	0.000		0.000							
CESAS	RCP	RNB	0.000	1.000	10/08	0.000		0.000							
Subtotal Product Development			**3.392**	**19.966**		**9.244**		**9.397**							
Remarks:															
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date						
USMC CREW	RCP	Various	0.000	3.086	Var	1.121	Var	1.276	Var						
USMC CREW	WR	NSWC	0.000	0.652	10/08	0.000	Var	0.000	Var						
USMC CREW	RCP	SPAWARSYSCEN	0.000	0.207	10/08	0.000	Var	0.000	Var						
RREP	RCP	MCSC	0.020	0.081	Var	0.005	Var								
CESAS	WR/RCP	SPAWARSYSCEN	3.398	2.459	Var	2.715	12/09								
CESAS	MIPR	NGIT	0.000	0.000		1.214	10/09								
CESAS	VAR	Various	0.000	0.000		0.700	Var								
CESAS	RCP	RNB	0.000	1.529	10/08	0.205	Var								
GBOSS	RCP	NAVAIR	0.000	7.200	10/08	0.000		1.000	Var						
Subtotal Support			**3.418**	**15.214**		**5.960**		**2.276**							
Remarks:															
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date						
USMC CREW	Var	Various	0.000	0.673	Var	0.575	Var	0.575	Var						
USMC CREW	MIPR	YPG/EPG	0.000	0.500	12/08	0	Var	0	Var						
USMC CREW	wr	NSWC,DD	0.000	0.050	12/08	0		0							
GBOSS	RCP	PM NV Ft. Belvoir	0.000	4.100	09/08	0		5.000	Var						
CESAS	WR/RCP	SPAWARSYSCEN	0.000	1.250	Var	0		0.000							
CESAS	WR/RCP	NAVSEA	0.000	0.250	10/08	0		0.000							
CESAS	MIPR	IEWTD	0.000	0.500	12/08	0.500	Var	0.000							
CESAS	MIPR	ABERDEEN	0.000	0.000		0.355									
CESAS	RCP	MCOTEA	0.000	0.500	11/08	0.345	Var	0.000							
Subtotal T&E			**0.000**	**7.823**		**1.775**		**5.575**							
Remarks:															
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date						
USMC CREW	Var	Various	0.000	0.825	Var	0.624	Var	0.639	Var						
GBOSS	RCP	NSWC	0.000	7.422	Var	0.000		2.000	Var						
Subtotal Management			**0.000**	**8.247**		**0.624**		**2.639**							
Remarks:															
Total Cost			**6.810**	**51.250**		**17.603**		**19.887**							

Exhibit 4/4a Schedule Profile/Detail	DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA 7 Operational Sys	PROGRAM ELEMENT NUMBER AND NAME 0206313M MARINE CORPS COMMUNICATIONS SYSTEMS	PROJECT NUMBER AND NAME: C2274 Command & Control Warfare Systems

COUNTER RCIED

INCREMENTS/SPIRALS	Prior	FY08	FY09	FY10
CREW 2.0	MS C			
Milestones			FOC	
Chameleon	8,947			
Hunter	FOC 1,142			
Directional Antenna			CAD 3,000	
CREW 2.1/CVRJ	MS C			
Milestones			CAD	
Contract Award				
Production Readiness Reviews				
Production and Deployment			8,000	
PSI Sustainment Contract			CAD	
Contract Award				
Implementation			CLS/PSI	
JCREW 3.3 (PMS 408)			MS B	
Milestones				
Production Readiness Reviews				
Production and Deployment				
WAVEFORM DEVELOPMENT	WAVEFORM UPDATES TO MEET FUTURE RCIED			

Source/Appr - $M	Prior	FY08	FY09	FY10
USMC	CREW 2.0		Increment 2.1 (CVRJ)	
Procurement	234.66	183.83	214.65	11.18
RDT&E	5.00	15.82	7.57	8.07
O&MMC	50.14	87.00	85.52	44.59
OCF (MRAP/JIEDDO)				
Procurement	758.64	9.32	0.00	0.00
RDT&E	3.47	2.00	0.00	0.00
O&MMC	7.50	12.50	0.00	0.00
	1,059.41	**310.46**	**307.73**	**63.84**

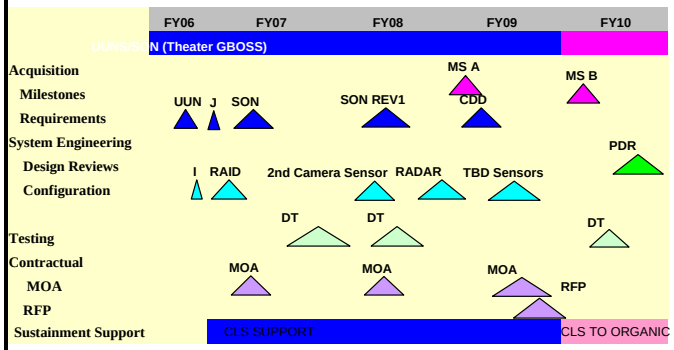
Program Funding Summary

Program Funding Summary (APPN, BLI #, NOMEN)	FY 2008	FY 2009	FY 2010
(U) RDT&E PE	15.817	7.564	8.071
(U) PMC BLI	183.36	214.645	11.181

Exhibit 4/4a Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA 7 Operational Sys D**	PROGRAM ELEMENT NUMBER AND NAME **0206313M MARINE CORPS COMMUNICATIONS SYSTEMS**	PROJECT NUMBER AND NAME: **C2274 Command & Control Warfare Systems**

USMC CREW	FY 2008	FY 2009	FY 2010
CREW 2.0 Waveform Development	1Q - 4Q		
CREW 2.1 MDA Decision		2Q	
CREW 2.1 Waveform Development		1Q - 4Q	1Q - 4Q
JCREW 3.3 Milestone B	4Q		
JCREW 3.3 Milestone C			
JCREW 3.3 FOC			
JCREW 3.3 Waveform Development			
Program Support	1Q - 4Q	1Q - 4Q	1Q - 4Q
Test and Evaluation (all iterations)	1Q - 4Q	1Q - 4Q	1Q - 4Q
Program Management	1Q - 4Q	1Q - 4Q	1Q - 4Q

Exhibit 4/4a Schedule Profile/Detail	DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA 7 Operational Sys	PROGRAM ELEMENT NUMBER AND NAME 0206313M MARINE CORPS COMMUNICATIONS SYSTEMS	PROJECT NUMBER AND NAME: C2274 Command & Control Warfare Systems



Program Funding Summary

	2008	2009	2010
(U) RDT&E PE 0206313M MC	26.222	0	11.816
(U) PMC BLI	203.857	8.984	19.720

GBOSS Schedule	2008	2009	2010				
Milestone A		2Q					
Milestone B			1Q				
Milestone C							
PDR			4Q				
CDR							
DRR							
FRP							
Requirements		1Q					
Contracts							
Sustainment	1Q-4Q	1Q-4Q	1Q-4Q				
DT	1Q-4Q		1Q				
OA/OT			2Q				
FOT			1Q				

Exhibit 4/4a Schedule Profile/Detail	DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA 7 Operational Sys	PROGRAM ELEMENT NUMBER AND NAME 0206313M MARINE CORPS COMMUNICATIONS SYSTEMS	PROJECT NUMBER AND NAME: C2274 Command & Control Warfare Systems

CESAS

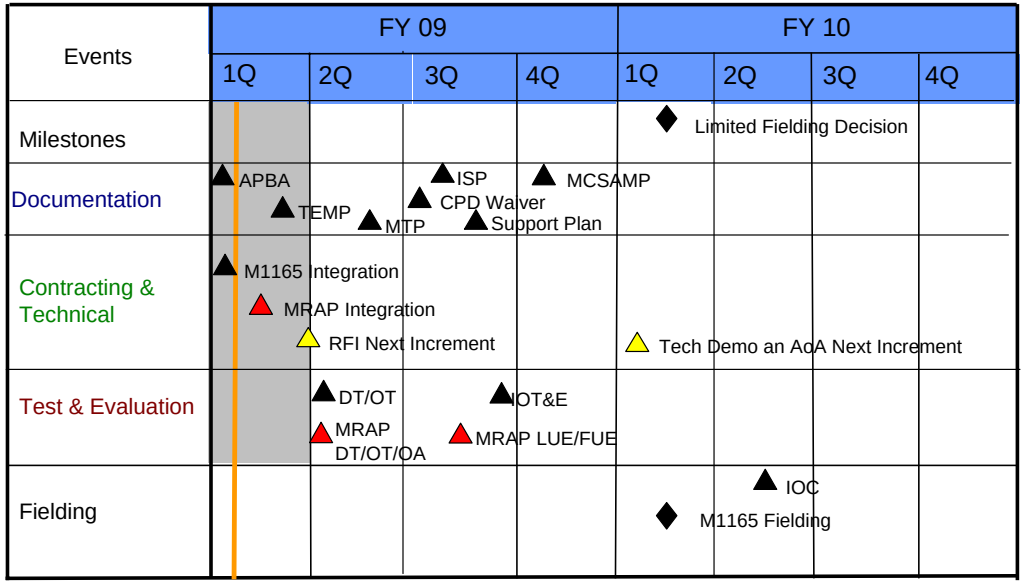


Exhibit 4/4a Schedule Profile/Detail			DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA 7 Operational Sys D**	PROGRAM ELEMENT NUMBER AND NAME **0206313M MARINE CORPS COMMUNICATIONS SYSTEMS**		PROJECT NUMBER AND NAME: **C2274 Command & Control Warfare Systems**

CESAS MILESTONES	2009				2010			
Limited Fielding Decision					1Q			
DOCUMENTATION								
APBA	1Q							
TEMP	1Q							
MTP		2Q						
ISP			3Q					
CPD Waiver			3Q					
Support Plan			3Q					
MCSAMP				4Q				
CONTRACTING & TECHNICAL								
M1165 Integration	1Q							
MRAP Integration	1Q							
RFI Next Increment		2Q						
Tech Demo and AoA next Increment					1Q			
TEST & EVALUATION								
DT/OT		2Q						
MRAP DT/OT/OA		2Q						
IOT&E			3Q					
MRAP LUE/FUE			3Q					
FIELDING								
M1165 Fielding					1Q			
IOC						2Q		

EXHIBIT R-2a, RDT&E Project Justification		DATE: MAY 2009							
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**				PROJECT NUMBER AND NAME **C2275 Radio Systems**				
COST ($ in Millions)		FY2008	FY2009	FY2010	FY2010 OCO	FY2010 Total			
Project Cost		**5.944**	**11.822**	**8.790**	**0.000**	**8.790**			
RDT&E Articles Qty		**0**	**3**	**1**	**0**	**1**			

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) Tactical Satellite Comm Terminal (TSCT) - LIGHTWEIGHT MULTIBAND SATELLITE TERMINAL (LMST)/PHOENIX are quad-band Super High Frequency (SHF) satellite terminals mounted in transit cases and High Mobility Multipurpose Wheeled Vehicle (HMMWVs). The LMST and Phoenix terminals will be the primary provider of SHF connectivity to Marine Air-Ground Task Forces (MAGTF) operations. Existing Ground Mobile Force (GMF) satellite terminals will continue to augment SHF requirements.

(U) High Capacity Communications Capability (HC3): replaces Super High Frequency (SHF) wideband. HC3 will be the Marine Air Ground Task Force (MAGTF) commanders primary Sattlelitte Communication (SATCOM) method of transmitting and receiving wideband voice, video, and data. The HC3 will be used at all levels of the MAGTF to support the commanders critical communication requirements. At the Regiment and below the focus will be on Comm-on-the-Move (COTM) and Comm-on-the Pause (COTP) communications while at the Division/FSSG/Wing and above the transportable version will be incorporated as well. HC3 will be embedded in tactical vehicles such as the Expeditionary Fighting Vehicle (EFV) and the Light Armored Vehicle (LAV). As a result, it will play a vital role in command and control in all phases of an operation.

(U) Legacy Communications/Electronics Modifications and Sustainment (LEGACY): encompass post production sustainment of fielded tactical communication and networking systems and Service Life Extension Programs (SLEP) of aging communications equipment reaching the end of their life cycle. The post production sustainment provides necessary engineering and logistic support to maintain the existing operational capability above threshold operational readiness. The support provides equipment specialists, configuration management, supply support coordination and control, depot maintenance control and warranty administration.

(U) Networks: The following systems require SLEP/supportability upgrades: The Unit Level Circuit Switch (ULCS), which consists of the AN/TTC-42, SB-3865 and SB-3614 require sustainment until each is removed from the operating forces in FY08-09 upon Transition Switch Module (TSM) achieving Full Operational Capability (FOC). The AN/TSQ-227 Digital Technical Control (DTC) in udergoing a major refresh driven by Department of Defense (DoD) / Joint Interoperability Test Command (JITC) mandated interoperability and security requirements, which includes technology insertion and evolutionary equipment improvements as part of the SLEP effort.

(U) Command & Control On-the-move Network, Digital Over-the-horizon Relay (CONDOR): CONDOR Capabilities material solution will be a coordinated effort with the Army's WIN-T program. We are currently developing a Marine Corps Spiral called WIN-X. The CONDOR funding line is funding the capability to allow tactical forces extended Beyond Line-of-Sight (BLOS) to maintain situational awareness by extending data network connectivity regardless of distance while on-the-move (OTM). WIN-X will integrate commercially available routers, encryption devices, and an OTM satellite terminal to provide high-bandwidth line-of-sight and SATCOM connectivity across the battlefield. By interfacing with fielded tactical data radios, the CONDOR Gateway extends existing tactical data radio networks to maintain connectivity for United States Marine Corps (USMC) Command and Control (C2) and fires applications. Production variants will be integrated as a kit into existing armored tactical wheeled vehicles without degrading their inherent protection.

(U) Very Small Apperture Terminal (VSAT) - VSAT provides beyond line-of-sight (BLOS), low-cost satellite communications up to speeds of 4 Megabytes per second (Mbps) full duplex. VSAT fills a void of BLOS, high bandwidth capability throughout the Marine Air-Ground Task Force (MAGTF). The VSATs are currently Ku-band only which requires commercial satellite connectivity. Future upgrades will utilize the military's Wideband Global Satellites to save on long term O&M costs. R&D work will need to be done to ensure that VSAT can transition from Ku to Ka-band. Additional R&D dollars will be used to further develop the current Linkway modem to provide higher capacity throughout and TRANSEC (Transition Security).

EXHIBIT R-2a, RDT&E Project Justification		DATE: MAY 2009			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**		PROJECT NUMBER AND NAME **C2275 Radio Systems**		
(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**0.000**	**0.154**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty					**0**
TSCT (LMST): Test component upgrades for integration for Ka-Band Upgrades.					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**0.000**	**0.050**	**0.045**	**0.000**	**0.045**
RDT&E Articles Qty					**0**
TSCT (LMST): Contract Support Cost					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**0.199**	**0.000**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty					**0**
TSCT (LMST): DISA/IA Certification					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.252**	**0.000**	**0.252**
RDT&E Articles Qty					**0**
TSCT (LMST): CATQH research and test					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**0.077**	**0.300**	**0.500**	**0.000**	**0.500**
RDT&E Articles Qty					**0**
High Capacity Communications Capability (HC3): Navy/MC Crypto Development					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**0.500**	**0.500**	**0.951**	**0.000**	**0.951**
RDT&E Articles Qty					**0**
High Capacity Communications Capability (HC3): Support					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**0.467**	**1.259**	**1.185**	**0.000**	**1.185**
RDT&E Articles Qty					**0**
High Capacity Communications Capability (HC3): USMC Integration efforts.					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**1.233**	**1.211**	**0.474**	**0.000**	**0.474**
RDT&E Articles Qty					**0**
Legacy Comm/Elec (Networks): Engineering Support for DTC					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**0.254**	**0.250**	**0.298**	**0.000**	**0.298**
RDT&E Articles Qty					**0**
Legacy Comm/Elec (Networks): Operational Support Test/Support for DTC					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**0.000**	**0.140**	**0.740**	**0.000**	**0.740**
RDT&E Articles Qty					**0**
Legacy Comm/Elec (Wireless): Development					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**0.000**	**1.250**	**0.672**	**0.000**	**0.672**
RDT&E Articles Qty					**0**
CONDOR: Program Support, Logistics Support & Management, Technical Engineering Support					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**0.000**	**0.339**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty	0				**0**
CONDOR: Warfighter Information Network - Expeditionary (WIN-X) Development					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost	**2.928**	**0.250**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty					**0**
CONDOR: Technical, Engineering Support and Contract Advisory, Assistance Services (MITRE)					

EXHIBIT R-2a, RDT&E Project Justification		DATE: MAY 2009				
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**		PROJECT NUMBER AND NAME **C2275 Radio Systems**			
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost		**0.286**	**0.000**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty						**0**
CONDOR: Gateway and Common Army Marine Command and Control Vehicle - Light Tactical Vehicle (CAMC2-LTV) OT						
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost		**0.000**	**1.500**	**1.055**	**0.000**	**1.055**
RDT&E Articles Qty						**0**
CONDOR: WIN-X DT/02						
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost		**0.000**	**3.000**	**2.000**	**0.000**	**2.000**
RDT&E Articles Qty			3	1		**1**
CONDOR: Legacy Interoperability Development						
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost		**0.000**	**0.700**	**0.190**	**0.000**	**0.190**
RDT&E Articles Qty						**0**
Very Small Apperture Terminal (VSAT): Development and integration						
COST ($ in Millions)		FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
Accomplishment/Effort Subtotal Cost		**0.000**	**0.919**	**0.428**	**0.000**	**0.428**
RDT&E Articles Qty						**0**
Very Small Apperture Terminal (VSAT): Development and integration						
(U) Total $		**5.944**	**11.822**	**8.790**	**0.000**	**8.790**

EXHIBIT R-2a, RDT&E Project Justification		DATE: MAY 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C2275 Radio Systems**

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL
(U)PMC BLI 463300 Radio Systems					
Tactical Satellite LMST	12.316	24.084	1.236	0.114	1.350
Legacy Communications Electronics (LEGACY)	4.376	4.036	4.006	0.000	4.006
Command-Control On-the-move Network	0.400	8.348	0.000	0.000	0.000
Very Small Apperture Terminal (VSAT)	0.000	0.000	9.507	0.000	9.507

(U) Related RDT&E: Not Applicable

(U) D. ACQUISITION STRATEGY:

(U) Tactical Satellite Comm Terminal (TSCT) - LIGHTWEIGHT MULTIBAND SATELLITE TERMINAL (LMST)/PHOENIX: The acquisition strategy for the Lightweight Multiband Satellite Terminal (LMST) and Phoenix program is to procure the necessary amount of quad-band Super High Frequency (SHF) terminals for the Fleet Marine Force (FMF). These terminals will satisfy the requirement for a quad-band SHF satellite terminal. The LMST upgrade program leverages off the current efforts and integrates emerging technologies into existing terminals to allow continued SHF operations.

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

(U) Command & Control On-the-move Network, Digital Over-the-horizon Relay (CONDOR): Initiate CONDOR capabilities development with Army WIN-T program. Current acquisition strategy calls for Field User Evaluation (FUE) with current Army WIN-X system to determine applicability for CONDOR and integrate unique Marine Corps capabilities into the WIN-X system.

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

(U) E. MAJOR PERFORMERS:

FY09 TSCT (LMST) HARRIS COMM SYS, Melbourne, FL KA-BAND INTEGRATION & UPGRADE

FY08-FY10 SHF WIDEBAND REPLACEMENT (HC3) General Dynamics C4 Systems, Inc. Needham MA, Crypto Development

FY08 LEGACY: SPAWAR, Charleston, SC, Service Life Extension of the DTC

FY09-FY10 LEGACY: CECOM, Ft Monmouth MITRE Support

FY08 CONDOR: CECOM, Ft Monmouth MITRE Support

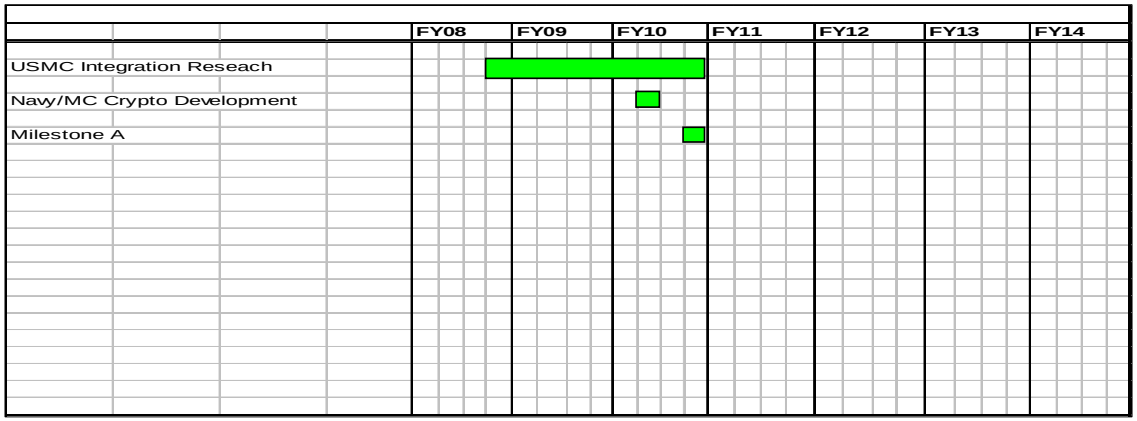
FY09-FY10 CONDOR: SPAWAR, Charleston, SC CAMC2V Development and Support

FY09 VSAT: CECOM, Ft. Monmouth, NJ

Exhibit R-3 Cost Analysis				DATE: MAY 2009											
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME									
RDT&E, N/BA-7 Operational Sys Development		**0206313M Marine Corps Communication Systems**				**C2275 Radio Systems**									
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY09 Cost	FY09 Award Date	FY10 Cost	FY10 Award Date	FY10 OCO Cost	FY10 OCO Award Date			
LMST Ka-Band Upgrade	FFP	Harris Corp, Florida	0.292	0.000		0.154	01/09	0.000						
LMST DISA/IA Certification	MIPR	CECOM Ft Monmouth	0.451	0.199	05/08	0.000		0.000						
HC3 USMC Integration Efforts	MIPR	CECOM Ft Monmouth	2.491	0.544	03/08	1.259	02/09	1.182	02/10					
HC3 Navy/MC Crypto Development	MIPR	CECOM Ft Monmouth	2.285	0.500	04/08	0.300	01/09	1.000	01/10					
LCE (Networks) Development	FFP	MITRE CECOM	4.309	1.233	02/08	1.211	01/09	0.500	01/10					
CONDOR Legacy Interoperability Development	FFP	SPAWAR Charleston	0.200	0.000		3.000	05/09	2.000						
CONDOR WIN-X-DT/02	FFP	SPAWAR Charleston	5.407	0.000	06/08	0.839	05/09	0.000	11/09					
CONDOR Gateway and (CAMC2-LTV) Spiral Developm	FFP	CECOM Ft Monmouth		0.286		0.000	05/09	0.558	11/09					
VSAT Development and Integration	MIPR	CECOM Ft Monmouth	3.000			0.919	03/09	0.428	03/10					
Subtotal Product Development			**18.435**	**2.762**		**7.682**		**5.668**						
Remarks:														
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY10 Cost	FY10 Award Date	FY10 OCO Cost	FY10 OCO Award Date			
LMST Contractor Support	FFP	NGIT, Stafford, VA	0.627	0.000		0.050	10/08	0.045	10/09					
HC3 Contractor Support	FFP	Titan, Stafford, VA	0.000	0.000		0.500	10/08	0.454	10/09					
LCE (Networks) Support	FFP	Titan, Stafford, VA	0.270	0.000		0.140	10/08	0.714	10/09					
VSAT Contract Support	FFP	MARCORSYSCOM	0.500	0.000		0.700	10/08	0.190	10/09					
Subtotal Support			**1.397**	**0.000**		**1.390**		**1.403**						
Remarks:														
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY10 Cost	FY10 Award Date	FY10 OCO Cost	FY10 OCO Award Date			
LMST CATQH Testing	RC	Harris Corp, Florida	0.000	0.000		0.000		0.252	11/09					
LCE (Networks) OA	WR	MCOTEA	0.000	0.200	01/08	0.200	01/09	0.238	01/10					
LCE Interoperbilty	MIPR	JTC, FT Hauchuca	0.000	0.054	01/08	0.050	01/09	0.060	11/09					
CONDOR IOT&E	WR	MCOTEA	0.240	0.000		0.500	03/09	0.000						
CONDOR DT	WR	MCOTEA	0.000	0.000		0.500	03/09	0.500	11/09					
Subtotal T&E			**0.240**	**0.254**		**1.250**		**1.050**						
Remarks:														
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY10 Cost	FY10 Award Date	FY10 OCO Cost	FY10 OCO Award Date			
CONDOR Program Support, Contract Adv & Asst	FFP	Titan, Stafford, VA	2.100	2.000	03/08	1.250	11/08	0.669	11/09					
CONDOR Support	MIPR	CECOM Ft Monmouth	0.000	0.928		0.250	02/09	0.000						
Subtotal Management			**2.100**	**2.928**		**1.500**		**0.669**						
Remarks:														
Total Cost			**22.172**	**5.944**		**11.822**		**8.790**						

Exhibit 4/4a, Schedule Profile/Detail		DATE: MAY 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N/BA 7 Operational Sys Development	**0206313M Marine Corps Communication Systems**	**C2275 Radio Systems**

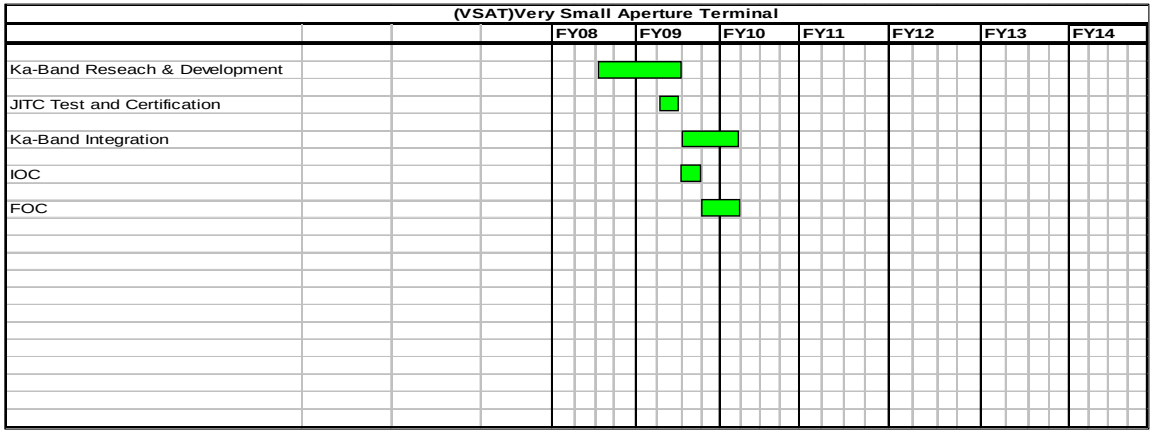
High Capacity Communications Capability (HC3)



Program Funding Summary	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL
RDT&E C2275 HIGH CAPACITY COMM CAPABILITY	1.044	2.059	2.636	0.000	2.636

HC3 SCHEDULE DETAIL				FY 2008	FY 2009	FY 2010
USMC Integration Research				4th Qtr ----------		----------4th Qtr
Navy/MC Crypto Development						2nd Qtr
Milestone A						4th Qtr

Exhibit 4/4a, Schedule Profile/Detail		DATE: MAY 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N/BA 7 Operational Sys Development	**0206313M Marine Corps Communication Systems**	**C2275 Radio Systems**

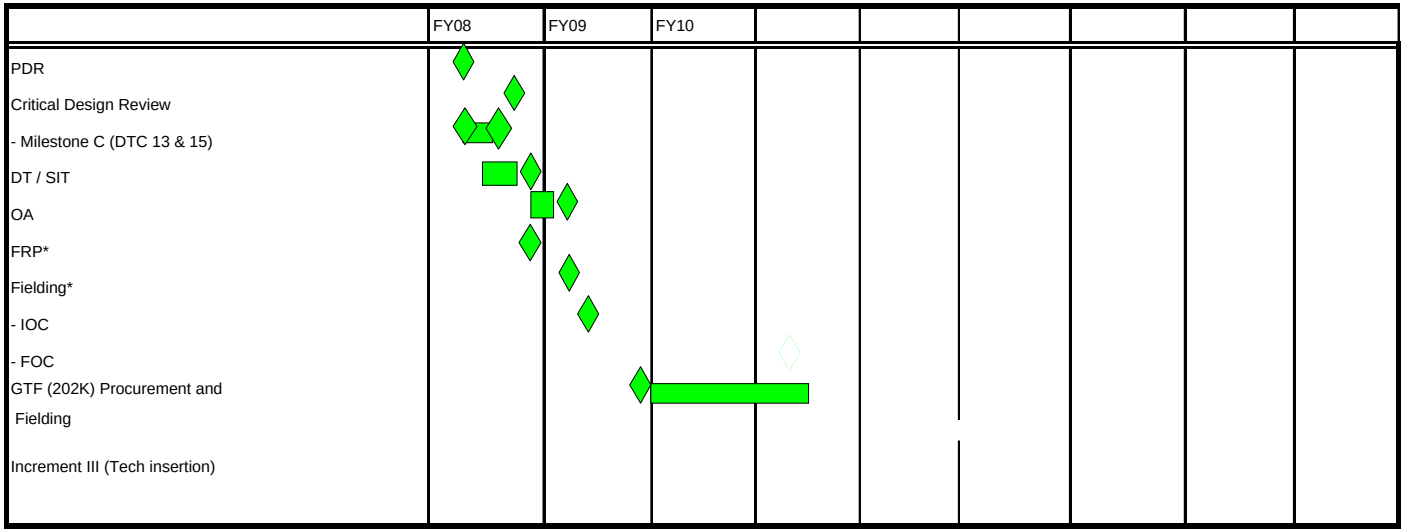


Program Funding Summary	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL
RDT&E C2275 VERY SMALL APERTURE TERMINAL	0.000	1.619	0.618	0.000	0.618
PMC 463300 VERY SMALL APERTURE TERMINAL	0.000	0.000	9.507	0.000	9.507

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY2014	FY2015
Ka-band Research & Develop	3rd Qtr ----------2nd Qtr							
JITC Test and Certification		2nd Qtr						
Ka-band Integration		3rd Qtr---1st Qtr						
IOC		3rd Qtr						
FOC		4th Qtr--1st Qtr						

Exhibit 4/4a, Schedule Profile/Detail		DATE: MAY 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N/BA 7 Operational Sys Development	0206313M Marine Corps Communication Systems	C2275 Radio Systems

Legacy Communication Electronics (LEGACY) / Digital Technical Control (DTC)

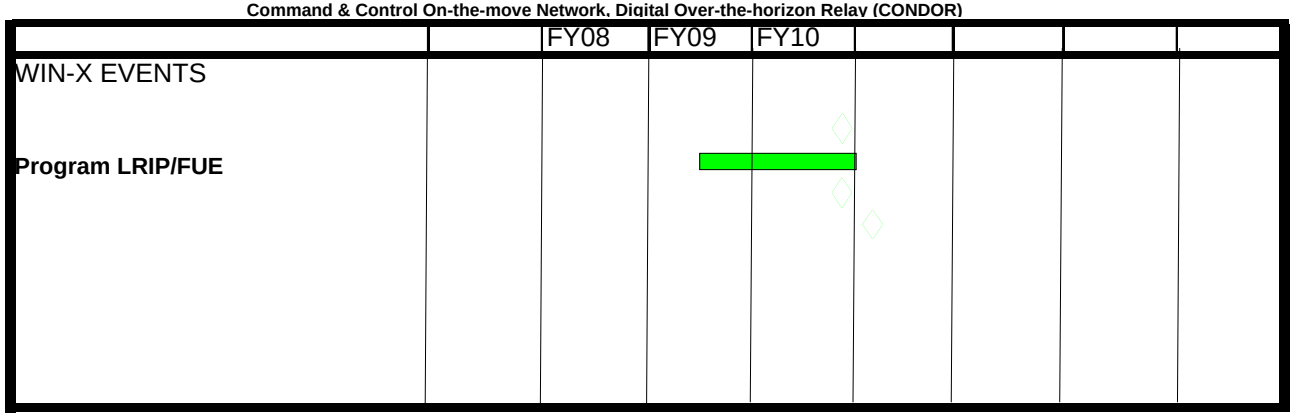


Program Funding Summary	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL
RDT&E C2275 LEGACY COMMUNICATIONS ELECTRONICS	1.487	1.601	1.512	0.000	1.512
PMC 463300 LEGACY COMMUNICATIONS ELECTRONICS	4.376	4.036	4.006	0.000	4.006

DTC Detailed Schedule	FY 2008	FY 2009	FY 2010
Milestones B and C	2Q		
Phase 0 (MCHS IT refresh ECP	Complete		
Phase I (PEP and CCA update ECP	…..1Q		
SOW /CDRL/ Cost est.	Complete		
POR Document Update	……3Q		
- Training update	1Q……..4Q		
- Aberdeen testing / Transport testing	3Q….4Q		
- Interoperability testing (MCTSSA SIT & JITC DICE)		1Q…2Q	
- I&KP		1Q	
- NET (Each MEF/MSC during rotation)		2Q……..4	1Q……..4Q
- PCA & ILA	……..4Q	……3Q	
- IIP refresh	……..4Q	……3Q	
Fielding CAMC2-V			
ETM update	1Q……..4Q		

Exhibit 4/4a, Schedule Profile/Detail		DATE: MAY 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N/BA 7 Operational Sys Development	0206313M Marine Corps Communication Systems	C2275 Radio Systems

Command & Control On-the-move Network, Digital Over-the-horizon Relay (CONDOR)



Program Funding Summary-	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL
RDT&E C2275 CONDOR	3.214	6.339	3.727	0.000	3.727
PMC 463300 CONDOR	0.400	8.348	0.000	0.000	0.000

CONDOR SCHEDULE DETAIL	FY 2008	FY 2009	FY 2010
Program LRIP/FUE		2Q----------	

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C2276 Communications Switching & Control Systems**

COST ($ in Millions)	FY2008	FY2009	FY2010	FY2010 OCO	FY2010 Total
Project Cost	**3.637**	**2.580**	**2.954**	**0.000**	**2.954**
RDT&E Articles Qty	**6**	**6**	**4**	**0**	**4**

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) Joint Network Management Systems (JNMS): is a portfolio of communications planning and Network Management applications for use throughout the Marine Air Ground Task Force (MAGTF). JNMS includes Systems Planning Engineering and Evaluation Device (SPEED). JNMS 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) propogation, Radio Coverage Analysis (RCA), Satellite planning, 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 bridges 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): is a small footprint data and voice satellite communications system capable of deploying on commercial or military air-based and land-based platforms providing a multi-mission, mobile reach-back connection into existing networks until larger command and control systems are operational. It is a transit case solution that provides SIPRNET email and web access, secure VTC, Command Control Personal Computer/Common Operational Picture (C2PC/COP) and collaborative planning Defense Collaborative Tool Sets (DCTS) Defense Information Systems Agency (DISA) Standard.

(U) Tactical Data Network (TDN): augments the existing Marine Air Ground Task Force (MAGTF) communications infrastructure to provide the commander an integrated data network, forming the communications backbone for Tactical Data Systems (TDS) and the Defense Messaging System (DMS). TDN consists of Gateways (AN/TSQ-222) and Data Distribution Systems (AN/TSQ-228), interconnected with one another and their subscribers via a combination of common user long-haul transmission systems, local area networks (LAN), and switched telephone systems. The TDN Data Distribution System - Modular (DDS-M) provides a smaller and more mobile variant DDS that increases the capabilities of legacy TDN systems through major refresh.

(U) Warfighter Network Tactical (WFN-T): Starting in FY10 WFN-T merges existing systems into a new portfolio of tactical network programs. WFN-T merges the capabilities of the Tactical Data Network (TDN), First In Command and Control (FICCS), Digital Technical Control and other communications - switch network infrastructure which provides voice, SIPR, NIPR, coalition, data, and video services. WFN-T will provide a standard data and voice architecture for the deployed warfighter that is interoperable with Joint and other Services communications systems.

EXHIBIT R-2a, RDT&E Project Justification				DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Development**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**			PROJECT NUMBER AND NAME **C2276 Communications Switching & Control Systems**		
(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:						
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL	
Accomplishment/Effort Subtotal Cost	**2.835**	**0.018**	**0.000**	**0.000**	**0.000**	
RDT&E Articles Qty	**6**	**0**	**0**	**0**	**0**	
JNMS: Developmental work for SPEED Communications Electronics Operation Instructions (CEOI) function & Commercial Joint Mapping Tool Kit (CJMTK) enhancements.						
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL	
Accomplishment/Effort Subtotal Cost	**0.127**	**0.200**	**0.095**	**0.000**	**0.095**	
RDT&E Articles Qty	**0**	**0**	**0**	**0**	**0**	
TSM: Engineering and Program Support						
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL	
Accomplishment/Effort Subtotal Cost	**0.000**	**0.741**	**0.000**	**0.000**	**0.000**	
RDT&E Articles Qty	**0**	**2**	**0**	**0**	**0**	
TSM: Development VoIP; P800 for TSM						
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL	
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.207**	**0.000**	**0.207**	
RDT&E Articles Qty	**0**	**0**	**2**		**2**	
TSM: Technology Insertion						
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL	
Accomplishment/Effort Subtotal Cost	**0.148**	**0.796**	**0.000**	**0.000**	**0.000**	
RDT&E Articles Qty	**0**	**4**	**0**	**0**	**0**	
ECCS: Prototype, Engineering Developmental Model (EDM), and Program Support						
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL	
Accomplishment/Effort Subtotal Cost	**0.409**	**0.200**	**0.495**	**0.000**	**0.495**	
RDT&E Articles Qty	**0**	**0**	**0**	**0**	**0**	
ECCS: Test and Evaluation and Program Support						
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL	
Accomplishment/Effort Subtotal Cost	**0.118**	**0.625**	**0.000**	**0.000**	**0.000**	
RDT&E Articles Qty	**0**	**0**	**0**	**0**	**0**	
TDN: Test and Evaluation and Program Support						
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL	
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**2.157**	**0.000**	**2.157**	
RDT&E Articles Qty	**0**	**0**	**2**	**0**	**2**	
WFN-T: Engineering Support and Prototype Development						
(U) Total $	**3.637**	**2.580**	**2.954**	**0.000**	**2.954**	

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Sys Development	**0206313M Marine Corps Communication Systems**	**C2276 Communications Switching & Control Systems**

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL
(U)PMC BLI 463400 Communications Switching and Control Systems					
Transition Switch Module (TSM)	38.417	29.010	33.676	0.000	33.676
Expeditionary Command and Control Suite (ECCS)	0.000	6.925	9.864	0.000	9.864
Tactical Data Network (TDN)	42.194	12.793	0.000	0.000	0.000
Warfighter Network Tactical (WFN-T)	0.000	0.000	53.463	2.044	55.507

(U) Related RDT&E: Not Applicable.

(U) D. ACQUISITION STRATEGY

(U) Transition Switch Module (TSM) : calls for the use and integration of proven commercial switching technologies of sufficient maturity for production. 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): will use the evolutionary acquisition strategy and pursue a competitive firm fixed price contract. Major concerns will be interoperability and compatibility with existing systems and components. R&D effort will focus on developing and integrating "miniaturized" versions of existing components. Emerging technologies such as VoIP and Secure Wireless will also be addressed in the out year R&D effort. R&D funding drops as system goes into production.

(U) Tactical Data Network (TDN): is an evolutionary acquisition strategy. As new products and industry standards are produced, they are to be tested and integrated into TDN equipment. RDTE funding in FY08 and FY09 is to be used to test and evaluate Commercial Off-The-Shelf (COTS) items which will be integrated into TDN Gateways and Data Distribution Systems (DDS) to fulfill ORD requirements.

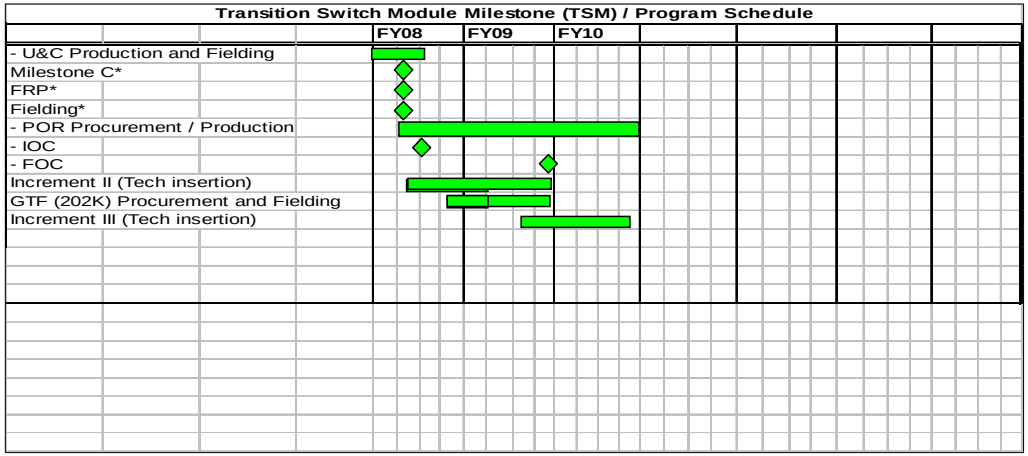
(U) Warfighter Network Tactical (WFN-T): is an evolutionary acquisition strategy that will modify existing and legacy programs to add emerging capabilities for interoperability. The tenets of the WFN-T acquisition strategy are Commercial Off-The-Shelf (COTS) and Government Off-The-Shelf (GOTS), firm fixed price competitive contracts for material solutions to meet emerging requirements. Capability related EDMs will be procured in FY10. WFN-T may reuse other services development and ride external contracts that satisfy requirements and analysis of alternatives.

(U) E. Major Performers:

FY08 (JNMS SPEED) - Northrop Grumman, Winter Park FL. New SPEED releases
FY 08/09 - (TSM) EDO/Darlington, Wando, SC. Develop training documentation and test package
FY08 (ECCS) - Dataline Inc. Tampa FL. FY 09 competitive contractor TBD. Develop and test miniaturized components that provide DISN services while On-The-Move/Enroute.

Exhibit R-3 Cost Analysis														
DATE: May 2009														
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA 7 Operational Sys Dev**		PROGRAM ELEMENT **0206313M Marine Corps Com**		PROJECT NUMBER AND NAME **C2276 Communications Switching & Control Systems**										
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	**FY 08 Cost**	FY 08 Award Date	**FY 09 Cost**	FY 09 Award Date	**FY 10 Cost**	FY10 Award Date	**FY10 OCO Cost**	**FY10 OCO Award Date**			
JNMS (SPEED)	FFP	CTQ, Northrop Grumman, FL	3.074	2.835	08/08	0.018	05/09	0.000						
TSM (Eng CLIN)	FFP	CTQ, EDO	0.000	0.000		0.741	06/09	0.207	01/10					
ECCS	FFP	CTQ, Dataline, FL	0.096	0.148	05/08	0.000		0.000						
ECCS EDM	FFP	CTQ, TBD	0.000	0.000		0.796	05/09	0.000						
WFN-T Prototype	FFP	CTQ, TBD	0.000	0.000		0.000		1.500	01/10					
Subtotal Product Dev			**3.170**	**2.983**		**1.555**		**1.707**						
Remarks:														
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	**FY 08 Cost**	FY 08 Award Date	**FY 09 Cost**	FY 09 Award Date	**FY 10 Cost**	FY 10 Award Date	**FY10 OCO Cost**	**FY10 OCO Award Date**			
JNMS (CEOSS)	FFP	CTQ, QinetiQ, VA		0.000		0.000		0.000						
TSM (CEOSS)	FP	CTQ, QinetiQ/L-3, VA		0.000		0.000		0.000						
TSM (CEOSS)	FP	CTQ, L3 Com, VA	0.035	0.000		0.000		0.000						
TSM (Eng. Support)	FFP	CECOM, MITRE, MA	0.117	0.064	02/08	0.150	03/09	0.095	01/10					
ECCS (CEOSS)	FFP	CTQ, QinetiQ/L-3, VA		0.200	05/08	0.000		0.495	01/10					
TDN (Eng Support)	FFP	CECOM, MITRE, MA		0.000		0.500	03/09	0.000						
WFN-T (Eng Support)	FFP	CECOM, MITRE, MA		0.000		0.000		0.657	01/10					
Subtotal Support			**0.152**	**0.264**		**0.650**		**1.247**						
Remarks:														
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	**FY 08 Cost**	FY 08 Award Date	**FY 09 Cost**	FY 09 Award Date	**FY 10 Cost**	FY 10 Award Date	**FY10 OCO Cost**	**FY10 OCO Award Date**			
TSM	FFP	MCTSSA		0.000		0.000		0.000						
TSM	MP	JITC	0.028	0.000		0.050	03/09	0.000						
ECCS	OPBUD	MCOTEA	0.100	0.134	06/08	0.200	05/09	0.000						
TDN	FFP	MCOTEA/JITC	0.000	0.108	06/08	0.000		0.000						
Subtotal T&E			**0.128**	**0.242**		**0.250**		**0.000**						
Remarks:														
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	**FY 08 Cost**	FY 08 Award Date	**FY 09 Cost**	FY 09 Award Date	**FY 10 Cost**	FY 10 Award Date	**FY10 OCO Cost**	**FY10 OCO Award Date**			
JNMS (Prgm Supt)	FFP	MCSC		0.000		0.000		0.000						
TSM (Prgm Supt)	FFP	MCSC		0.063	12/07	0.000		0.000						
ECCS (Prgm Supt)	FFP	MCSC		0.075	12/07	0.000		0.000						
TDN (Prgm Supt)	FFP	MCSC		0.010	12/07	0.125	03/09	0.000						
Subtotal T&E			**0.000**	**0.148**		**0.125**		**0.000**						
Remarks:														
Total Cost			**3.450**	**3.637**		**2.580**		**2.954**						

Exhibit 4/4a, Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N/BA 7 Operational Sys Development**	PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C2276 Communications Switching & Control Systems**

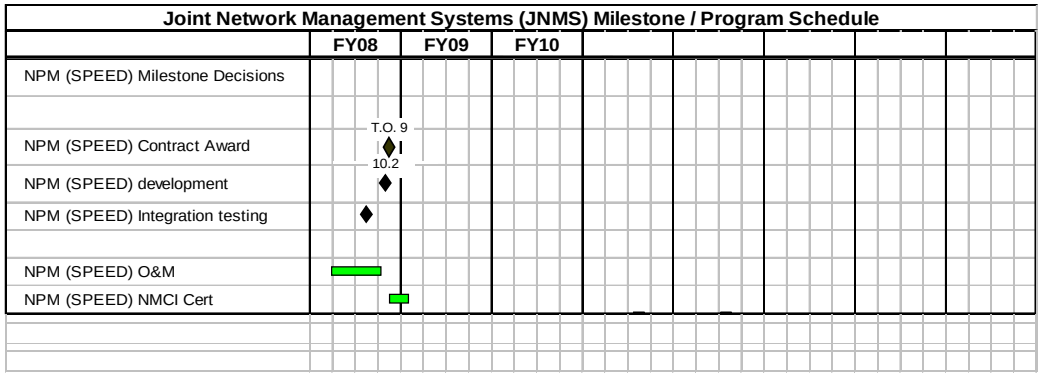


Program Funding Summary	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL
RDT&E C2276 TRANSITION SWITCH MODULE	0.127	0.941	0.302	0.000	0.302
(U) PMC BLI# 463400 Comm Switch & Control Sys, TSM	38.417	29.010	33.676	0.000	33.676

TSM SCHEDULE DETAIL	FY 2008	FY 2009	FY 2010					
U&C Production and Fielding	1Q---3Q							
Milestone C	2Q							
FRP	2Q							
Fielding	2Q							
POR Procurement/Production	2Q----------4Q							
Urgent & Compelling Fielding	-----2Q							
Initial Operational Capability	3Q							
Fielding End/Full Operational Capability		4Q						
Technology Insertion (Inc. II)	2Q----------4Q							
GTF (202K) Procurement and Fielding	3Q----------4Q							
Technology Insertion (Inc. III)		2Q---------2Q						

Exhibit 4/4a, Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N/BA 7 Operational Sys Development**	PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C2276 Communications Switching & Control Systems**

Joint Network Management Systems (JNMS) Milestone / Program Schedule

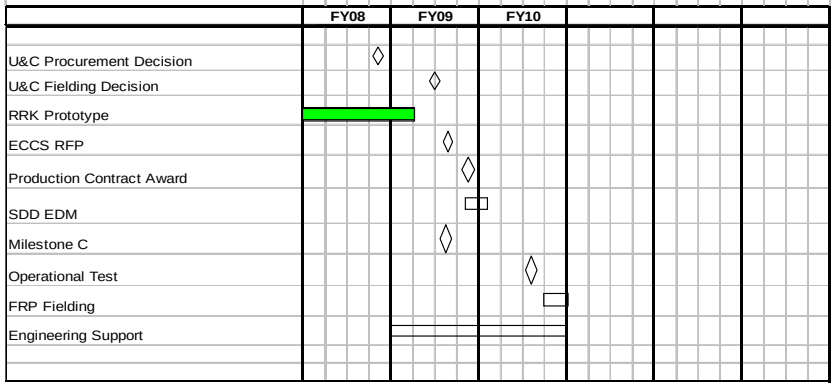


Program Funding Summary	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL
C2276 JOINT NETWORK MANAGEMENT SYSTEMS	2.835	0.018	0.000	0.000	0.000

JNMS (SPEED) SCHEDULE DETAIL	FY 2008	FY 2009	FY 2010					
SPEED 10.2 Release / Fielding	4Q							
SPEED NMCI Certification	4Q							
SPEED T.O. 9 (RCA & EPLRS revision)	4Q							
SPEED Development	4Q							
SPEED NMCI Certification	4Q	1Q						

Exhibit 4/4a, Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N/BA 7 Operational Sys Development**	PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C2276 Communications Switching & Control Systems**

Expeditionary Command Control Suite (ECCS) Milestone Schedule / Program Schedule

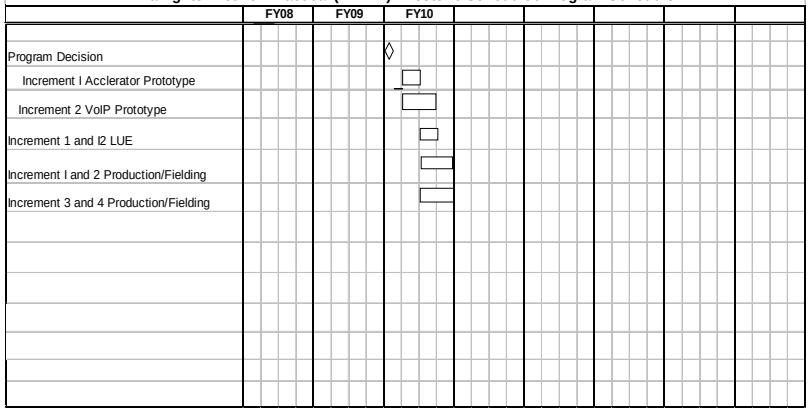


Program Funding Summary	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL
C2276 EXPEDITIONARY COMMAND CONTROL SUITE	0.557	0.996	0.495	0.000	0.495
463400 EXPEDITIONARY COMMAND CONTROL SUITE	0.000	6.925	9.864	0.000	9.864

ECCS SCHEDULE DETAIL	FY 2008	FY 2009	FY 2010				
U&C Procurement Decision		4Q					
U&C Fielding Decision		2Q					
RRK Prototype	1Q----------1Q						
ECCS RFP		3Q					
Production Contract Award		4Q					
SDD EDM		4Q--1Q					
Milestone C		3Q					
Operational Test			3Q				
FRP Fielding			4Q				
Engineering Support		1Q----------4Q					

Exhibit 4/4a, Schedule Profile/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N/BA 7 Operational Sys Development**	PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C2276 Communications Switching & Control Systems**

Warfighter Network Tactical (WFN-T) Milestone Schedule / Program Schedule



Program Funding Summary	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL
C2276 WARFIGHTER NETWORK TACTICAL	0.000	0.000	2.157	0.000	2.157
463400 WARFIGHTER NETWORK TACTICAL	0.000	0.000	53.463	2.044	55.507

WFN-T SCHEDULE DETAIL	FY 2010
Program Decision	1Q
Increment I Accelerator Prototype	2Q
Increment 2 VoIP Prototype	2Q--3Q
Increment 1 and I2 LUE	3Q
Increment I and 2 Production/Fielding	3Q--4Q
Increment 3 and 4 Production/Fielding	3Q--4Q

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009							
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications Systems**			PROJECT NUMBER AND NAME **C2277 Systems Engineering & Integration**					
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 TOTAL				
Project Cost	**9.321**	**6.922**	**6.988**	**0.000**	**6.988**				
RDT&E Articles Qty									

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) This project provides funds for engineering, test, and evaluation activity, which ensures that the systems being developed within the Program Element (PE) employ consistent standards for interoperability and, to the maximum extent feasible, use hardware and software which is uniform and standard across programs.

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

Joint Interoperability of Tactical Command and Control Systems (JINTACCS) is a Joint Chiefs-of-Staff (JCS)/DoD-mandated program for joint development, implementation, and testing of tactical 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).

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

Marine Air-Ground Task Force Command, Control, Communications, Computers, and Intelligence Systems Engineering and Integration, 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 (Part of Deploying Group Systems Integration Testing (DGSIT)) and workups supporting MEF deployments. It is also used to support Marine Corps systems coordination and involvement in DoD initiatives to include ForceNet, Global Information Grid Enterprise Services (GIGES), and other Deployable Information Systems Architecture DISA/NETWARCOM efforts.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications Systems**	PROJECT NUMBER AND NAME **C2277 Systems Engineering & Integration**

(U) B. ACCOMPLISHMENTS/ PLANNED PROGRAM:

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO
Accomplishment/Effort Subtotal Cost	**0.265**	**0.490**	**1.627**	**0.000**
RDT&E Articles Qty				

JDEP: Conduct development of the MAGTF C4I Capability Certification process which involved the creation of capability based test threads. Additionally create Joint Test Threads and participated in a JFCOM sponsored joint distributed test event. Plans are to conduct the first formal MAGTF C4I Capability certification event in FY 08.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO
Accomplishment/Effort Subtotal Cost	**2.939**	**1.433**	**1.571**	**0.000**
RDT&E Articles Qty				

JINTACCS: Joint development, implementation, and testing of data links under the direction of the JCS and OASD/NII.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO
Accomplishment/Effort Subtotal Cost	**1.667**	**0.853**	**1.360**	**0.000**
RDT&E Articles Qty				

JWID: Deter, prevent, and defeat threats and aggressions aimed at the US.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO
Accomplishment/Effort Subtotal Cost	**4.450**	**4.146**	**2.430**	**0.000**
RDT&E Articles Qty				

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 continued support of activities to support the interoperability and jointness of the USMC Enterprise IT/NSS systems.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty				

MAGTF SE&I MCTSSA: Engineering and technical support for configuration management of MAGTF C4I systems at the Marine Corps Tactical Software Support Activity (MCTSSA)

(U) Total $	**9.321**	**6.922**	**6.988**	**0.000**

(U) C. OTHER PROGRAM FUNDING SUMMARY: N/A

(U) Related RDT&E:

(U) PE 0206623M, Marine Corps Ground Combat/Supporting Arms Systems

(U) D. ACQUISITION STRATEGY:

JDEP, JINTACCS, CWID, & MAGTF SE&IC: N/A as these are non-acquisition programs.

(U) E. Major Performers: FY09 Qinetiq-NA, Stafford VA. - Level of effort contracted for MAGTF C2 and GWOT related Urgent Unfunded Needs Statements (UUNS) for Systems Engineering, Capability Certification, Architecture Development, Logistics Support, Acquisition and Program Management support for all 700+ USMC MAGTF C2 programs.

Exhibit R-3 Cost Analysis			DATE: May 2009										
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT					PROJECT NUMBER AND NAME						
RDT&E, N /BA 7 Operational Sys Dev		**0206313M Marine Corps Communication Systems**					**C2277 Systems Engineering & Integration**						
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date	FY 11 Cost	FY 11 Award Date	Cost to Complete	Total Cost
CWID	C/FFP	NSWC Dahlgren	4.478	1.237	12/07	0.716	12/08	0.830	12/09				
CWID	WR	NSWC Dahlgren				0.100	11/08						
CWID	WR	MCSC, Quantico, VA	0.299	0.105	12/07		12/08	0.130	12/09				
CWID	C/FFP	JTIC Indian Head	0.189	0.000	12/07	0.038	12/08	0.038	12/09				
JINTACCS	C/FFP	NSWC Indian Head				0.070	03/09						
Subtotal Product Dev			**4.966**	**1.342**		**0.924**		**0.998**					
Remarks:													
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date	FY 11 Cost	FY 11 Award Date	Cost to Complete	Total Cost
CWID	C/FFP	OSEC, Stafford VA	2.686	0.325	04/08	0.000	04/09	0.362	04/10				
MAGTF SEI&C	C/FFP	OSEC, Stafford VA	12.232	2.100	04/08	2.186	04/09	2.210	04/10				
MAGTF SEI&C	WR	MCSC, Quantico, VA	1.105	1.400	10/07	0.000	10/08	0.145	10/09				
MAGTF SEI&C	WR	NSWC Dahlgren	2.675	0.355	10/07	0.350	01/09	0.000	10/09				
MAGTF SEI&C	C/FFP	SPAWAR Charleston	1.015	0.322	10/07	0.000	10/08	0.000	10/09				
JDEP	C/FFP	NSWC, Dahlgren, VA		0.050	01/08	0.000		0.560	12/09				
JDEP	C/FFP	OSEC, Carlsbad CA	0.170	0.100	11/07	0.440	11/08	0.472	11/09				
JINTACCS	C/FFP	OSEC, Stafford VA	2.268	0.985	04/08	0.625	04/09	0.581	04/10				
JINTACCS	C/FFP	MCTSSA, Cp Pndltn, CA		0.954	06/08	0.727	01/09						
JINTACCS	WR	MCTSSA, Cp Pndltn, CA	2.948	1.000	01/08	0.011	12/08	1.000	10/09				
Subtotal Support			**25.099**	**7.591**		**4.339**		**5.330**					
Remarks:													
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date	FY 11 Cost	FY 11 Award Date	Cost to Complete	Total Cost
JDEP	WR	SSCC, Charleston SC		0.030	11/07	0.050	03/09	0.575	11/09				
JDEP	WR	MCSC, Quantico, VA	0.000	0.085	10/07	0.000	10/08	0.000	10/09				
MAGTF SEI&C	MIPR	MITRE	4.979	0.273	10/07	1.609	10/08	0.085	10/09				
JINTACCS	C/FFP	EMA, Lexington Park MD	0.190	0.000		0.000		0.000					
Subtotal T&E			**5.169**	**0.388**		**1.659**		**0.660**					
Remarks:													
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date	FY 11 Cost	FY 11 Award Date	Cost to Complete	Total Cost
Subtotal Management			**0.000**	**0.000**		**0.000**		**0.000**					
Remarks:													
Total Cost			**35.234**	**9.321**		**6.922**		**6.988**					

EXHIBIT R-2a, RDT&E Project Justification					DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications System**				PROJECT NUMBER AND NAME **C2278 Air Defense Weapons Systems**			
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL			
Project Cost	**2.386**	**4.601**	**7.754**	**0.000**	**7.754**			
RDT&E Articles Qty								

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project encompasses two sub-element programs which are part of the Integrated Air Defense System for the Marine Corps.
Ground Based Air Defense Transformation (GBAD-T) - Based upon the deployment of the Low Altitude Air Defense (LAAD) Battalions and their employment of the Stinger Missile, GBAD-T transforms Air Defense equipment through technology insertion and equipment repackaging to address capability gaps as the result of equipment obsolescence and the emergent and evolving threats to the Marine Air Ground Task Force (MAGTF). GBAD-T consist of three efforts: 1) sustainment of currently fielded LAAD equipment/assets; 2) fielding and support of the Advanced Man-Portable Air Defense System (A-MANPADS) that replaces the Avenger Weapon System and existing MANPADS vehicles; 3) replacing the Remote Terminal Unit (RTU), an effort that replaces an 18 pound laptop computer that provides Situational Awareness and Command and Control to the Stinger and A-MANPAD teams. The RTU replacement will interface with and be capable of receiving a Common Aviation Command and Control Systems (CAC2S) broadcasted link. It will also be capable of interfacing with legacy MACCS.

The **Joint Fires Integration and Interoperability Team (JFIIT), formerly known as Joint Combat Identification Evaluation Team (JCIET) -** is an opportunity to conduct quality assurance testing of services' systems operating in a joint environment. It conducts assessments in a number of venues including: Military Operations in Urban Terrain (MOUT) exercises, Advanced Concept Technology Demos (ACTD), Joint Training exercises, Combined Armed Training Exercises (CAXs), and Weapons Tactics Instruction (WTI) events. Its mission is to improve Tactics, Techniques and Procedures (TTP) across all Combat Identification mission areas. (It is not an acquisition program; therefore, it does not have specific milestone dates.)

Battlefield Target Identification Device (BTID) , formerly known as Battlefield Target Identification System (BTIS) - will be a cooperative battlefield target identification device that employs encrypted, Ka band, millimeter wave, question and answer technology. It will consist of interrogator and transponder antennae, transceiver, and communications/electrical interface unit. It will be fielded as two variants: interrogator/transponder system for Expeditionary Fighting Vehicles (EFVs), Light Amphibious Vehicles (LAVs), and M1A1s; and transponder-only system for combat support and combat service support vehicles. When fielded, mounted weapon systems will have the capability to identify targets as friendly or unknown, at ranges to 6 km, before engaging them. They and all other designated vehicles will also possess the capability to rapidly identify themselves as friendly to weapon systems equipped with comparable systems prior to being engaged. As a result, incidents of fratricide and collateral damage will decline, while the range at which targets may be engaged without fear of misidentification will increase dramatically. The system will be interoperable with Joint, Allied, and Coalition forces' cooperative target identification systems. Funding in the amount of $30K erroneously in Project C2278.

Current CORE funding resides in Project C2273, P.E. 0206313M.

(U) B. ACCOMPLISHMENTS/ PLANNED PROGRAM:

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.055**	**0.198**	**0.000**	**0.000**
RDT&E Articles Qty				
JFIIT: Program Management.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.350**	**0.821**	**0.000**	**0.000**
RDT&E Articles Qty				
JFIIT: Data and analysis for exercise.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.055**	**0.131**	**0.000**	**0.000**
RDT&E Articles Qty				
JFIIT: Logistical Support for exercises.				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.030**	**0.000**	**0.000**
RDT&E Articles Qty				
BTID: Proram Management Support				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.733**	**0.975**	**0.357**	**0.000**
RDT&E Articles Qty				

EXHIBIT R-2a, RDT&E Project Justification			DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communications System**		PROJECT NUMBER AND NAME **C2278 Air Defense Weapons Systems**	
GBAD TRANSFORMATION: Test and Evaluation (Remote Terminal Unit Replacement)				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.075**	**0.120**	**0.122**	**0.000**
RDT&E Articles Qty				
GBAD TRANSFORMATION: Program Management Services				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.962**	**1.523**	**0.321**	**0.000**
RDT&E Articles Qty				
GBAD TRANSFORMATION: Product Development (CAC2S Integration)				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.156**	**0.242**	**0.352**	**0.000**
RDT&E Articles Qty				
GBAD TRANSFORMATION: Product Development (Remote Terminal Unit Replacement)				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**6.070**	**0.000**
RDT&E Articles Qty				
GBAD TRANSFORMATION: Integration development (Missile Integration)				
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.561**	**0.532**	**0.000**
RDT&E Articles Qty				
GBAD TRANSFORMATION: Support Costs (MCTSSA/MCCDC/Crane support)				
COST ($ in Millions)				FY 2010 OCO
(U) Total $	**2.386**	**4.601**	**7.754**	**0.000**

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY08	FY09	FY10	FY10 OCO	FY10 TOT
(U) PMC LINE BLI 300600 GBAD-T	1.590	5.477	11.387	0.000	11.387

D. ACQUISITION STRATEGY:

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

E. MAJOR PERFORMERS:

GBAD Transformation:

Perfomer	Location	Description	FY2008 Award Date	FY2009 Award Date	FY2010 Award Date
L3	San Diego, CA	CAC2S Integration and RTU Replacement	2Q		
NSWC	Crane, IN	Technical Engineering Services	1Q	1Q	1Q
Raytheon	Andover, MA	Product Development (Missile Integration)	3Q	2Q	2Q

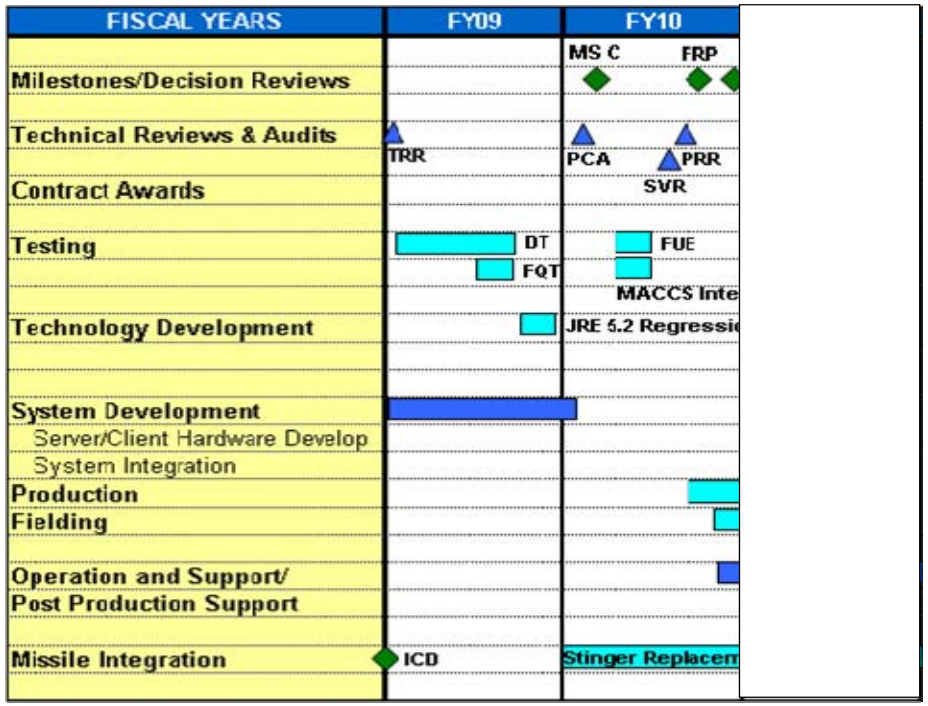
Exhibit R-3 Cost Analysis														Date: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA 7 Operational Sys Dev**			PROGRAM ELEMENT **0206313M Marine Corps Communication System**											PROJECT NUMBER AND NAME **C2278 Air Defense Weapons Systems**
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
GBAD TRANSFORMATION	WR	NSWC, Crane, IN	0.473	0.584	1Q 08	1.526	1Q 09	0.321	1Q 10					
GBAD TRANSFORMATION	MIPR	Army (MMM)	0.000	0.378	3Q 08			1.500	2Q 10					
GBAD TRANSFORMATION	WR	NSWC, Crane, IN (PAS-13 HW)	1.469											
GBAD TRANSFORMATION	C/FP	EG&G, Stafdford, VA	0.489											
GBAD TRANSFORMATION	RCP	DRS Tech, Palm Bay FL (PAS-13 SW)	0.120											
GBAD TRANSFORMATION	RCP	Raytheon, San Diego, CA (CAC2S)	3.700											
GBAD TRANSFORMATION	RCP	MCSC, Quantico, VA	0.464											
GBAD TRANSFORMATION	C/FP	L3 San Diego, CA	0.723	0.156	2Q 08	0.242	1Q 09	0.352	2Q 10					
GBAD TRANSFORMATION	MIPR	PMA-259/China Lake						1.500	2Q 10					
GBAD TRANSFORMATION	RCP	TBD						3.070	3Q 10					
Subtotal Product Dev			**7.438**	**1.118**		**1.768**		**6.743**						
Remarks:														

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
GBAD TRANSFORMATION	WR	NSWC, Crane, IN	0.526											
GBAD TRANSFORMATION	C/FP	MCCDC, Quantico, VA	0.935			0.500	1Q 09	0.225	1Q 10					
GBAD TRANSFORMATION	WR	MCTSSA Camp Pendleton, CA	0.120					0.050	2Q 10					
GBAD TRANSFORMATION	WR	MCSC, Quantico, VA				0.061	2Q 09							
GBAD TRANSFORMATION	C/FP	MCOTEA, Quantico, Va						0.257	2Q 10					
JFIIT	S/FP	RNB, Stafford, VA	0.087	0.438	1Q 08	0.900	1Q 09							
JFIIT	WR	MCSC, Quantico, VA	0.130											
BTID	WR	MCSC, Quantico, VA	0.130			0.030	1Q 09							
Subtotal Support			**1.928**	**0.438**		**1.491**		**0.532**						
Remarks:														

Exhibit R-3 Cost Analysis													
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA 7 Operational Sys Dev**		PROGRAM ELEMENT **0206313M Marine Corps Communication System**						PROJECT NUMBER AND NAME **C2278 Air Defense Weapons Systems**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date				
GBAD TRANSFORMATION	MIPR	WSMR, NM	0.138	0.398	3Q 08	0.336	2Q 09						
GBAD TRANSFORMATION	MIPR	Aberdeen, MD	0.047										
GBAD TRANSFORMATION	C/FP	MCOTEA, Quantico, VA	0.000			0.261	2Q 09	0.357	2Q 10				
GBAD TRANSFORMATION	MIPR	NATC, NM		0.335	3Q 08	0.375	2Q 09						
JFIIT	RCP	MCSC, Quantico, VA	0.318										
JFIIT	WR	4th MAW	0.077	0.008	2Q 08								
JFIIT	WR	MCTSSA, CA	0.124	0.003	2Q 08								
JFIIT	WR	MCSC, Quantico, VA	0.036	0.011	1Q 08								
Subtotal T&E			**0.740**	**0.755**		**0.972**		**0.357**					
Remarks:													
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date				
GBAD TRANSFORMATION	C/FP	MCSC Quantico, VA	0.100	0.075	1Q 09	0.120	3Q 09	0.122	2Q 10				
JFIT	RCP	MCSC, Quantico, VA				0.250	2Q 09						
Subtotal Management			**0.100**	**0.075**		**0.370**		**0.122**					
Remarks:													
Total Costs			**10.206**	**2.386**		**4.601**		**7.754**					

Exhibit R-4/4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Systems Development	0206313M Marine Corps Communications Systems	C2278 Air Defense Weapons Systems

GBAD-Transformation



Program Funding Summary (APPN, BLI #, NOMEN)	FY08	FY09	FY10
(U) PMC LINE BLI 300600 GBAD-T	1.590	5.477	11.387

Exhibit R-4/4a Project Schedule/Detail			DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	PROGRAM ELEMENT **0206313M Marine Corps Communications Systems**	PROJECT NUMBER AND NAME **C2278 Air Defense Weapons Systems**	

GBAD Transformation	FY 2008	FY 2009	FY 2010					
Advanced MANPADS Increment 1								
Milestone C			2nd Qtr					
Full Rate Production			4th Qtr					
Fielding Decision			4th Qtr					
IOC			4th Qtr					
Multi Mission Missile								
Technology Development	4th Qtr							

EXHIBIT R-2a, RDT&E Project Justification						DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Comms Systems**					PROJECT NUMBER AND NAME **C2510 MAGTF CSSE & SE**			
COST ($ in Millions)		FY 2008	FY 2009	FY2010	FY 2010 OCO	FY 2010 Total			
Project Cost		**62.717**	**15.191**	**62.063**	**0.000**	**62.063**			
RDT&E Articles Qty									

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) The 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 contribute to the Combatant Commander's Common Operating Picture (COP) to support rapid accurate decision making.

MARINE CORPS COMMON HARDWARE SUITE (MCHS) provides Commercial Off-The-Shelf (COTS) high performance and general purpose client workstations (desktop/laptop), file application servers and other computer platforms to support the Operating Forces. MCHS provides support to two principal groups: 1) Approximately 50 Marine Corps Tactical and Functional Program of Record (POR) that are not covered by Navy-Marine Corps Intranet (NMCI). 2) Non-tactical, non-NMCI supported entities such as Marine Forces, Europe/ Marine 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 the Marine Corps-wide procurement of workstations and file application servers; reducing the number of different configurations of computers; and providing worldwide integrated logistics support for all fielded MCHS hardware. Rapid Technology Insertion (RTI) provides ability to develop, test, and evaluate COTS hardware and software configurations for rapid fielding purposes. RTI encompasses small, short duration integration support for the USMC operating forces and supporting establishment. Development efforts are focused on improving alignment
of COTS software and developing resources for MCHS-based solutions including enterprise desktop standardization and leverage virtualization initiatives.

GLOBAL COMBAT SUPPORT SYSTEM-MARINE CORPS (GCSS-MC) is the physical implementation of the enterprise IT architecture designed to support both improved and enhanced Marine Air Ground Task Force (MAGTF) Combat Service Support functions and MAGTF Commander and Combatant Commander/Joint Task Force (CC/JTF) combat support information requirements. The IT capabilities of GCSS-MC tie to discrete performance measures that support required combat service support mission objectives. This IT solution for logistics transformation was developed by the Integrated Logistics Center (ILC). The ILC Analysis was completed during an 18 week engagement beginning in late October 1998 to early February 1999. This analysis conducted with a high level Business Case Analysis (BCA). The BCA concluded conservatively that accomplishing the ILC actions (including reengineered IT among others) would reduce Marine Corps inventories and reduce support requirements allowing the shifting of 2000 Marines from logistics to the other MOS fields. GCSS-MC will provide access to more reliable, accurate and actionable information that clarifies the logistics situational awareness; near real time visibility of requests for products and services allowing higher confidence and trust in logistics; and the ability to operate with greater certainty. ILC action will also result in: lighter, more flexible and easier to move MAGTF; higher Combat Service Support (CSS) responsiveness; reduced stocks and CSS footprint inside the MAGTF; less equipment for Warfighter to manage; and rapidly scalable and deployable CSS units that have worldwide inventory visibility.

The Integrated Logistics Concept (ILC) Analysis provided the foundation for logistics transformation within the Marine Corps and established a compliance response to Defense Reform Initiative Directive (DRID) 54, directing that logistics transformation be accomplished throughout the service components. Immediately following the guidance of DRID 54, the GCSS-Capstone Requirements Document (CRD) was approved by the Joint Requirements Operational Capability (JROC). GCSS-MC is the IT solution to accomplish the transformation and GCSS objectives by fielding an integrated set of capabilities implemented within a bottoms-up Program of Record (POR) approach.

TRANSPORTATION SYSTEMS PORTFOLIO (TSP) RDT&E funding supports the various ongoing and continuing efforts to modernize legacy USMC logistics systems including joint interoperability testing and certification, information assurance testing and certification and updating old hardware in need of replacement. 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 DOD 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) segmented 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. The JFRG II software application is based on the Marine Corps' MAGTF II software application. MAGTF II has been in existence since 1991 and is used for task planning, Time Phased Force Deployment Data (TPFDD) editing, and Joint Operational Planning and Execution System (JOPES) interfacing. JFRG II assists in the notional planning process, permits the assignment of actual units to fill notional slots, and generates TPFDD for use in executing Joint Operation Plans. JFRG II provides rapid force list creation and interfaces with the Transportation Coordinators' Automated Information for Movement System (TC-AIMS II) and JOPES. It includes a Joint Deployment Data Library (JDDL) containing reference data required to produce a JOPES-compatible TPFDD extract file. JFRG II also contains modules that include the Unit Line Number (ULN) Summary for rapid from TC-AIMS II, MDSS II and JOPES. JFRG II operates and functions in either a classified or unclassified environment.

PUBLIC KEY INFRASTRUCTURE (PKI) provides security objects and mechanisms used by PK-enabled systems and applications. The primary products of PKI are public key certificates and other certified objects used in conjunction with public key certificates (e.g. public key certificates and subscriber public key certificates). In addition to public key certificates, PKI provides on-line services (e.g.; on-line certificate status checking), and supplies authenticated attributes in public key certificates and / or attribute certificates. PKI is one of a number of security solutions used to protect information and provide attributes to enable to critical resources in the Global Information Grid (GIG), and is used concurrently with other solutions (e.g.; in-line network encryptores [INEs]) 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 of new technologies and assists in technology insertion into applications. Thus enhances the Marine Corps' capability to quickly assimilate emerging technologies and leverage them to support more efficient, accurate business processes and data capture. AIT supports Active Radio Frequency Identification (RFID), Passive RFID, Unique Identification (UID) and the Operating Forces in the implementation of AIT solutions. AIT evaluates emerging technologies, new equipment, and performs integration analysis and testing.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Comms Systems**	PROJECT NUMBER AND NAME **C2510 MAGTF CSSE & SE**

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**1.053**	**1.579**	**1.570**	**0.000**
RDT&E Articles Qty				

MARINE CORPS COMMON HARDWARE SUITE (MCHS) funding in FY08 was used to track vendor performance in providing COTS hardware to Marine Corps users. This included verifying vendor compliance with Marine Corps specifications and conducting root cause analysis on failures reported from the Operating Forces in order to prevent future failures. In FY09, in addition to root cause analysis of failures of fielded gear, MCHS is using RDT&E funding to verify vendor specs for new products and to evaluate the applicability of both current and new products for procurement under the revised MCHS IDIQ contract with selected vendors. This includes rigorous environmental testing IAW applicable MILSPECs to evaluate performance of COTS hardware under field conditions. Software loading is also performed by MCHS to verify compatibility with various hardware configurations. In FY10, RDT&E will again be used to conduct trend analysis on reported failures of fielded COTS hardware and to evaluate the ability of new products to meet Marine Corps needs. Funding will also be used to perform testing to ensure various components ordered by customers are compatible within larger systems.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**58.350**	**6.336**	**55.440**	**0.000**
RDT&E Articles Qty				

GCSS-MC LOGISTICS CHAIN MANAGEMENT (GCSS-MC): FY08 funds provided for the completion of an extended 10 month solution design period with the Oracle programmers and the transition to system build activities. FY09 activities included systems integration testing, the preparation for government testing, and the actual conducting of GDT&E. FY10 will include Field User Evaluations, Operational Testing and initial fielding of Block 1, Release 1.1 and the initial design, build and test activities for Release 1.2.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.073**	**0.600**	**0.617**	**0.000**
RDT&E Articles Qty				

TRANSPORTATION SYSTEMS PORTFOLIO (TSP) FY08 funds were provided for the upgrade of the MAGTF Deployment Support System II (MDSSII); FY09 - FY10 TSP will conduct Active RFID upgrades and Joint Interoperability Testing & Certification (JITC) for all application upgrades and releases for all the programs within the portfolio.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**1.267**	**1.713**	**0.567**	**0.000**
RDT&E Articles Qty				

JOINT FORCES REQUIREMENT GENERATION II (JFRG II) funding for FY08 and FY09 was utilized to develop the enhanced version of JFRG II , and funding for FY10 will decrease as focus shifts from program development to program maintenance.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**1.964**	**1.873**	**1.757**	**0.000**
RDT&E Articles Qty				

PUBLIC KEY INFRASTRUCTURE (PKI) the FY08 accomplishments of PKI includes program, integration, planning and coordination efforts. FY09 efforts include DOD mandated Increment II implementation which encompasses Secure Internet Protocol Routing Network (SIPRNET) PKI enablement, testing and continued program planning and coordination. FY10 funding supports continued testing, correction of deficiencies and implementation of PKI requirements for tactical applications and SIPRNET capabilities.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Dev**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Comms Systems**	PROJECT NUMBER AND NAME **C2510 MAGTF CSSE & SE**

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.010**	**3.090**	**2.112**	**0.000**
RDT&E Articles Qty				
AUTOMATED IDENTIFICATION TECHNOLOGY (AIT) in FY08 conducted technology evaluations and, in FY09 - FY10, AIT will upgrade the pRFID infrastructure and continue to modify and develop pRFID capabilities as well as bring the active and pRFID together.				
(U) Total $	**62.717**	**15.191**	**62.063**	**0.000**

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total
PMC BLI 463000 COMMON COMPUTER RESC: MCHS Svrs/Wkstn	145.284	142.463	17.862	15.205	33.067
PMC BLI 461700 COMBAT SPT SYS: GCSS-MC	7.738	19.020	4.605	0.000	4.605
PMC BLI 463500 COMM & ELEC INFRA SPT: PKI	0.684	0.799	0.930	0.000	0.930
PMC BLI 461700 COMBAT SPT SYS: AIT	13.020	12.432	5.496	0.000	5.496

(U) Related RDT&E: Not Applicable.

(U) D. ACQUISITION STRATEGY:

MARINE CORPS HARDWARE SUITE (MCHS) ensures computer hardware in the operating forces keeps pace with industry computer hardware technical improvements. Analysis 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): GCSS-MC will pursue 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 fielded systems' strengths and weaknesses. In addition to quicker fielding, an EA approach is particularly well suited to software intensive programs and offers these benefits: rapidly delivers an initial capability with the explicit intent of delivering continuously improved capability in the future and reduces "cycle time" from identification of emergent user requirements, priorities and fielding. The GCSS-MC acquisition strategy will be to deliver capabilities in increments.

Each increment is a "Block" of a capability and will follow a complete acquisition process in accordance with the DOD 5000 publications and OSD's Enterprise Integration (EI) roadmap. Block 1 will be divided into two major independent releases (Enterprise Release 1.1 and Deployed Access Release 1.2). Each release will have their own IOC and FOC and is divided into two main phases: Planning/Blueprinting and Realization/Transition. More substantial software improvement/system upgrades will be fielded with each Block, as required and prioritized by the user community. This approach differs from the original plan of delivering one release due to the technical complexities related to the overall scope of the solution. In June 2008, Headquarters Marine Corps (HQMC) Command, Control, Communications and Computers (C4) was briefed on this Block 1 architectural approach and validated that the approach was technically sound and essential to support deployed forces.

Blocks will include emergent user priorities, advanced technology improvements and expanded functionality. Each Block will repeat the complete acquisition program cycle starting with Milestone (MS) A for the first Block for GCSS-MC and MS B thereafter going through a MS C Full Rate Production Decision Review (FRPDR) for each Block. GCSS-MC was designated an Acquisition Category (ACAT) IAM program in March 2004 and successfully completed a MS B review on June 8, 2007. MS C review is slated for the 1st Quarter FY10. FOC is validated when all Marine Corps ground components are using capabilities provided by GCSS-MC to include formal schools, and selected Marine Reserve Components and the following systems are no longer used operationally: Supported Activities Supply System (SASSY), Marine Corps Integrated Maintenance Management System (MIMMS), PC MIMMS, and Asset Tracking Logistics Automated Support System I (ATLASS I).

TRANSPORTATION SYSTEMS PORTFOLIO (TSP) conduct 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 5-year contract. This contract support the testing of software for functionality with service users then passed on to DISA for security & interoperability testing and released as a GCCS mission application. This is conducted based on a six-month release schedule of Global Command and Control Systems (GCCS), with a six-month lead time for each JFRG II version release.

PUBLIC KEY INFRASTRUCTURE (PKI) is a DOD ACAT IAM Program. At the service level, the USMC PKI program has been run as an Abbreviated Acquisition Program (AAP). Based on an Assistant Secretary of Defense (ASD) Acquisition Decision Memorandum (ADM), 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 13 functional and five (5) assurance enhancements. Additionally, PKI functionally will be expanded to the SIPRNET.

AUTOMATED IDENTIFICATION TECHNOLOGY (AIT) to ensure AIT hardware in the operating forces keeps pace with industry computer hardware technical improvements. AIT will support all aspects of Active Radio Frequency Identification (RFID), Passive RFID, Unique Identification (UID). AIT evaluates emerging technologies, new equipment, and performs integration analysis and testing. AIT uses various contracts.

Exhibit R-3 Cost Analysis													DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Sys Dev**		PROGRAM ELEMENT **0206313M Marine Corps Communications Systems**						PROJECT NUMBER AND NAME **C2510 MAGTF CSSE SE**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date	FY 10 OCO Cost	FY 10 OCO Award Date		
Transportation System Portfolio	C/FP	Stanley	1.153	0.030	12/07								
GCSS Logistics Chain Man-Block 1	C/T&M	Oracle USA, Reston VA	55.144	42.084	10/07	2.936	11/08	34.813	11/09				
GCSS LCM Block 1 Release 1.1	C/TBD	TBD						4.000	11/09				
GCSS LCM Block 1 Release 1.2	C/TBD	TBD						2.488	05/10				
GCSS Log C2 Systems	C/FFP	EDO Corp	4.066										
JFRG II	C/FFP	Stanley	1.643	1.267	06/08	1.213	10/08	0.362	12/09				
PKI	C/FFP	Various	0.000	1.964	05/08	1.873	05/09	1.757	TBD				
AIT	C/FFP	Stanley, Dumfries VA	0.000			3.090	06/09	2.112	06/10				
VAR	VAR	Various	6.862	0.030		0.000		0.362					
Subtotal Product Dev			**62.006**	**45.345**		**9.112**		**45.532**		**0.000**			
Remarks:													

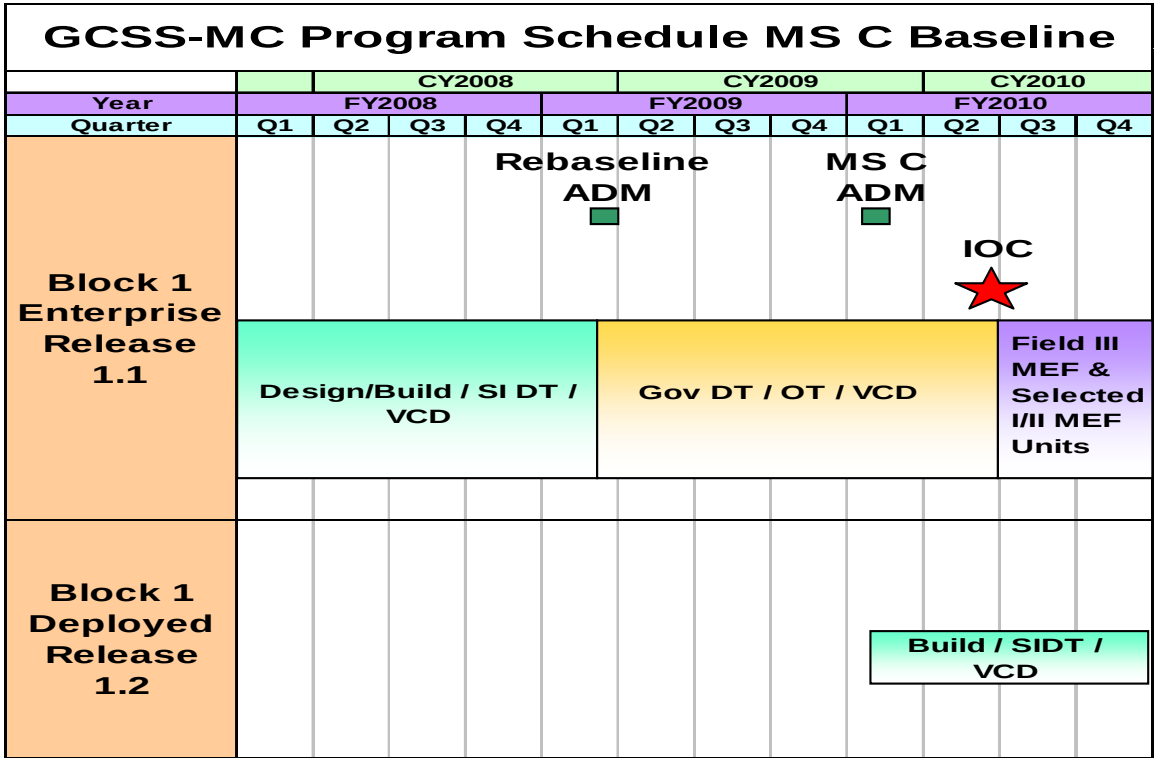
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date	FY 10 OCO Cost	FY 10 OCO Award Date		
GCSS Logistics Chain Man	C/FFP	IMPACT RES, Bethesda, MD	0.143	0.111	01/08								
GCSS Logistics Chain Man	C/FFP	SMARTRONIX, California, MD	0.200										
AIT	C/FFP	Stanley Associates, Dumfries, VA	0.019	0.010	01/08								
VAR	VAR	Various	0.362	0.121		0.000		0.000					
Subtotal Support			**0.362**	**0.121**		**0.000**		**0.000**		**0.000**			
Remarks:													

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date	FY 10 OCO Cost	FY 10 OCO Award Date		
MCHS	WR	SPAWAR, Charleston SC	5.569	1.053	01/08	1.579	01/09	1.570	TBD				
Transportation System Portfolio	VAR	Global Services	1.734	0.013	12/07	0.600	12/08	0.617	12/09				
Transportation System Portfolio	MIPR	ARMY	0.350	0.030	12/07								
Transportation System Portfolio	C/FFP	General Dynamics	0.419										
GCSS Logistics Chain Man	WR	MCOTEA, Quantico,VA	6.681	0.500	10/07	0.400	11/08	0.600	11/09				
GCSS Logistics Chain Man	WR	Instructor Training (Various)	0.000	2.549	10/08			4.682	TBD				
GCSS Log C2 Systems	WR	MCOTEA, Quantico,VA	1.436	0.400									
JFRG II	C/FFP	Stanley Associates	0.144			0.500	01/09	0.205	12/09				
VAR	VAR	Various	10.764	0.943		1.500		1.422					
Subtotal T&E			**16.333**	**4.545**		**3.079**		**7.674**		**0.000**			
Remarks:													

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date	FY 10 OCO Cost	FY 10 OCO Award Date		
GCSS Logistics Chain Man	C/FFP	LOGIS-TECH, Manassas VA	3.580										
GCSS Logistics Chain Man	C/FFP	Booz Allen Hamilton		0.400	01/08								
GCSS Log C2 Systems	C/FFP	Northrop, Stafford VA	0.478	4.522	06/08	3.000	06/09	6.257	06/10				
GCSS Log C2 Systems	C/FFP	Various		7.784			12/08	2.600	12/09				
VAR	VAR	Various	3.580	0.400		0.000		0.000					
Subtotal Management			**4.058**	**12.706**		**3.000**		**8.857**		**0.000**			
Remarks:													
Total Cost			**82.759**	**62.717**		**15.191**		**62.063**		**0.000**			

Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 OPERATIONAL SYS DEV	0206313M Marine Corps Communications Systems	C2510 MAGTF CSSE & SE

GLOBAL COMBAT SUPPORT SYSTEM-MARINE CORPS (GCSS-MC)



Program Funding Summary (APPN, BLI #, NOMEN)	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 Total
(U) RDT&E,N	58.350	6.336	55.440	0.000	55.440
(U) PMC BLI 461700 COMBAT SPT SYS:	7.738	19.020	4.605	0.000	4.605

Exhibit R-4-4a Project Schedule/Detail			DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYS DEV**	PROGRAM ELEMENT **0206313M Marine Corps Communications Systems**	PROJECT NUMBER AND NAME **C2510 MAGTF CSSE & SE**	

GCSS-MC Logistics Chain Management (LCM)		FY2008	FY2009	FY2010					
LCM Block 1 Release 1.1 Milestone C				1st Qtr					
LCM Block 1 Release 1.1 IOT&E				2nd Qtr					
LCM Block 1 Release 1.1 IOC				3rd Qtr					
LCM Block 1 Release 1.2 Acquisition Decision 1				1st Qtr					

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYS DEV**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C3099 RADAR SYSTEMS**

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY 2010 TOTAL			
Project Cost	**103.731**	**103.118**	**17.729**	**0.000**	**17.729**			
RDT&E Articles Qty								

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Aviation Radar (AN/TPS-59(V)3) is a three dimensional ground-based sensor that can detect and track long range Air Breathing Targets (ABT) at ranges of 300 nautical miles and Tactical Ballistic Missiles (TBM) at ranges of 400 nautical miles. The system is beset with increasing obsolescence and Diminishing Manufacturing Sources (DMS) issues. The program will use a Post Production Support (PPS) contract to develop engineering changes to resolve DMS. A Product Improvement Program (PIP) will upgrade the system to enhance system capabilities and ensure continued viability against emerging threats.

Ground Weapons Locating Radar (GWLR)/Family of Target Acquistion Systems (FOTAS) is an up-grade to the current AN/TPQ-46A radar. The system will acquire threat indirect fire weapons including mortars, artillery, rocket and missile systems at greater ranges than the current radar. The principle function of the system will be to detect, track, classify and accurately determine the origin of enemy weapon platforms and forward the location data to the counterfire element. The upgrades will focus on achievement of greater detection ranges as well as increased communication, security, and system availability.

Ground/Air Task Oriented Radar (G/ATOR) (formerly known as the Multi-Role Radar System (MRRS)) is an expeditionary, 3-dimensional, high-mobility multi-purpose wheeled vehicle, short/medium range multi-role radar designed to detect cruise missiles, air breathing targets, rockets, mortars, and artillery. Programmatically, MRRS and GLWR (Ground Weapons Locating Radar) merged into a single requirement/capability (G/ATOR) and will replace an aging fleet of single mission legacy radar systems. G/ATOR will support air defense, air surveillance, counter-battery/target acquisition, aviation radar tactical enhancements and the final evolution will support the Air Traffic Control mission. G/ATOR was funded under project C3099 through FY2009; as of FY2010 it is funded in project C9C89.

The Short/Medium Range Air Defense Radar AN/TPS-63B is a two-dimensional, medium-range, medium altitude, transportable radar system which is doctrinally employed as a tactical gap-filler or as an early warning system for early deployment into the operational area. It has a 360-degree air surveillance capability at a range of 160 miles and complements the co-employed AN/TPS-59(V)3 three-dimensional, long-range, air surveillance radar system. The Short/Medium Range Air Defense Radar will develop engineering change proposals related to improved system performance with the specific purpose of meeting increased fleet operational requirements. AN/TPS-63 modifications and system improvements will be researched and analyzed to determine which complement existing components to preclude an expensive USMC investment in solid-state radar technology.

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**12.935**	**14.367**	**13.939**	**0.000**
RDT&E Articles Qty				

AN/TPS-59 : Develop Engineering Change Proposals for software improvements, Diminishing Manufacturing Sources issues and Product Improvement Program.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.713**	**1.250**	**1.750**	**0.000**
RDT&E Articles Qty				

AN/TPS-59 : Contractor service support.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.050**	**0.050**	**0.000**	**0.000**
RDT&E Articles Qty				

GWLR/FTAS: Program office management/travel.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.000**	**0.582**	**0.637**	**0.000**
RDT&E Articles Qty				

GWLR/FTAS: Contractor Technical, Programmatic, Engineering and Logistics Support

EXHIBIT R-2a, RDT&E Project Justification			DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYS DEV**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**		PROJECT NUMBER AND NAME **C3099 RADAR SYSTEMS**

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2010 OCO
Accomplishment/Effort Subtotal Cost	**0.502**	**0.165**	**0.175**	**0.000**
RDT&E Articles Qty				
GWLR/FTAS: Software/Hardware ECP's				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2010 OCO**
Accomplishment/Effort Subtotal Cost	**0.605**	**0.980**	**1.007**	**0.000**
RDT&E Articles Qty				
GWLR/FTAS: System Diminishing Manufacturing Sources (DMS)				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2010 OCO**
Accomplishment/Effort Subtotal Cost	**80.983**	**70.148**	**0.000**	**0.000**
RDT&E Articles Qty				
G/ATOR: Contractor Technical, Development Engineering/EDM				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2010 OCO**
Accomplishment/Effort Subtotal Cost	**0.200**	**0.150**	**0.004**	**0.000**
RDT&E Articles Qty				
G/ATOR: Program Office Management & Travel Costs				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2010 OCO**
Accomplishment/Effort Subtotal Cost	**2.592**	**2.405**	**0.000**	**0.000**
RDT&E Articles Qty				
G/ATOR: Gov't Tech Support				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2010 OCO**
Accomplishment/Effort Subtotal Cost	**0.225**	**0.500**	**0.000**	**0.000**
RDT&E Articles Qty				
G/ATOR: Government Furnished Equipment (GFE)				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2010 OCO**
Accomplishment/Effort Subtotal Cost	**4.696**	**12.266**	**0.000**	**0.000**
RDT&E Articles Qty				
G/ATOR: Engineering, Management, & Logistics Support				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2010 OCO**
Accomplishment/Effort Subtotal Cost	**0.000**	**0.120**	**0.089**	**0.000**
RDT&E Articles Qty				
SHORT/MEDIUM RANGE AIR DEFENSE RADAR: Engineering and technical support				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2010 OCO**
Accomplishment/Effort Subtotal Cost	**0.139**	**0.135**	**0.128**	**0.000**
RDT&E Articles Qty				
SHORT/MEDIUM RANGE AIR DEFENSE RADAR: Life Extension Study				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2010 OCO**
Accomplishment/Effort Subtotal Cost	**0.091**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty				
SHORT/MEDIUM RANGE AIR DEFENSE RADAR: Feasibility study for the Frequency Generator				
(U) Total $ (C3099 Radar Systems)	**103.731**	**103.118**	**17.729**	**0.000**

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 OPERATIONAL SYS DEV	**0206313M Marine Corps Communication Systems**	**C3099 RADAR SYSTEMS**

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY2010 TOTAL
(U) PMC, BLI#465000, Grnd/ Air Tasks Order Radar	0.000	17.389	0.000	0.000	0.000
(U) PMC, BLI#465000, AN/TPS-59 Sustainment	20.087	12.469	4.216	0.092	4.308
(U) PMC, BLI#465000, Grnd Weapons Locating Radar	112.464	10.143	2.512	3.325	5.837
(U) PMC, BLI#465000, Short/Medium Range Radar	1.732	0.419	0.700	0.000	0.700
(U) Related RDT&E:					
(U) PE 0206313M PROJECT C9C89 G/ATOR	0.000	0.000	63.925	0.000	63.925

(U) D. ACQUISITION STRATEGY:

(U) AN/TPS-59 Radar: The program will address Diminishing Manufacturing Sources (DMS) issues by continuing use of a Post Production Support (PPS) contract. The AN/TPS-59 Product Improvement Program (PIP) is a two-phased acquisition approach to upgrade the AN/TPS-59(V)3 Radar System, and is the materiel solution to the recently signed Three Dimensional Expeditionary Long Range Radar (3DELRR) Capabilities Development Document (CDD) which requires a more expeditionary system that is capable of detecting future threats.

(U) **Ground Weapons Locating Radar (GWLR)/Family of Target Acquisition Systems (FTAS):** GWLR is a sustainment and upgrade program for the current AN/TPQ-46A radar. The upgrade will be accomplished through a series of engineering change proposals (antenna transceiver group re-cap, Radar Processor re-host, and the lightweight computer unit replacement). Engineering Change Proposals (ECPs) will be conducted by the equipment Primary Inventory Control Agent (PICA) (Army PM Firefinder) with USMC participation. Joint procurement of hardware will realize economy of scale savings and ensure common configuration. Army and Marine Corps Depot facilities will be utilized to perform hardware installation. Purpose of the upgrade is to enhance performance and availability.

(U) The **Ground/Air Task Oriented Radar (G/ATOR)**, formerly known as Multi-Role Radar System (MRRS), formerly known as Multi-Role Radar System (MRRS) will fill the MRRS and GWLR requirements. Five legacy systems (AN/TPS-63, AN/UPS-3, AN/MPQ-62, AN/TPS-73 and AN/TPQ-46A) will be replaced by a single material design that offers an opportunity to reduce development cost and combine training & logistics assets. MRRS Aviation Authorized Acquisition Objective (AAO) is 43 systems replacing the AN/TPS-63, AN/MPQ-62 and AN/TPS-73 systems as well as additional systems in support of the SHORAD mission (CLAWS weapon cue); MRRS Ground AAO is 38 systems, a one for one replacement of the AN/TPQ-46A. The System Development & Demonstration (SDD) phase designed to allow for technology insertion due to obsolescence and technology growth issues. Initial builds will be back fitted to current then year technology as required. As they become available Tactical Enhancements will parallel field to then year initial builds and back fitted to earlier builds. Two Engineering Development Models (EDM) -- one Contractor, one Government -- will be developed during the SDD phase and flowed down to support builds.

(U) SHORT/MEDIUM RANGE AIR DEFENSE RADAR This effort requires R&D funds to develop modifications to keep the Short/Medium Range Air Defense Radar System's electronics and hardware viable and safe, providing sustainment for the fielded system. Engineering Services and procurement contract was awarded to the AN/TPS-63's Original Equipment Manufacturer, Northrop Grumman. The main focus of the contract will be the development and procurement of replacement sub-assemblies currently identified as containing obsolete components, as well as those assemblies experiencing reliability, maintainability and safety related issues.

(U) E. MAJOR PERFORMERS:

(U) Lockheed Martin Corp, Syracuse, NY. Contract awarded in 2005 for AN/TPS-59 to develop ECPs for software improvements and DMS issues. FY05 through FY10 project contract with LMC in Jan of each year to develop ECPs for software improvements.

(U) Sensis Corp was awarded the contract in 2006 to support risk mitigation efforts for the 3DELRR requirement (AN/TPS-59 system development risk mitigation).
(U) G/ATOR contract was awarded in March 2007. Northrop Grumman Corporation is the Prime Contractor and Sensis is the major subcontractor.

Exhibit R-3 Cost Analysis									DATE: May 2009					
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYS DEV**		PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**							PROJECT NUMBER AND NAME **C3099 RADAR SYSTEMS**					
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
AN/TPS-59	C/CPFF	Lockheed, Syracuse NY	15.581	5.803	01/08	12.591	01/09	13.014	01/10					
AN/TPS-59	C/CPFF	Sensis, Syracuse NY	0.000	7.132	07/08	1.210	07/09	0.300	N/A					
AN/TPS-59 PIP	C/CPFF	TBD	0.000	0.000	NA	0.000	NA	0.000	01/10					
SHORT/MEDIUM RANGE	RCP	Northrop Grumman	1.362	0.230	01/08	0.255	08/09	0.217	01/10					
G/ATOR	CPIF	Northrop Grumman	54.333	75.001	11/07	70.505	11/08	0.000	N/A					
G/ATOR (GFE)	MIPR	FT MONMOUTH NJ	0.800	0.982	N/A	0.000	N/A	0.000	N/A					
Subtotal Product Dev			**72.076**	**89.148**		**84.561**		**13.531**						
Remarks:														
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
GWLR/FTAS	WR	NSWC, Dahlgren, VA	3.970	0.510	11/07	0.440	11/08	0.493	11/09					
GWLR/FTAS	MIPR	US Army CECOM	1.932	0.000	N/A	0.000	N/A	0.000	N/A					
GWLR/FTAS	WR	MCLB Barstow	1.200	0.000	N/A	0.000	N/A	0.000	N/A					
GWLR/FTAS	WR	NSWC, Crane, IN	0.565	0.597	11/07	0.687	11/08	0.686	11/09					
GWLR/FTAS	C/FFP	MCSC, Quantico, VA	0.200	0.000	N/A	0.600	TBD	0.640	TBD					
SHORT/MEDIUM RANGE	WR	NSWC, Crane, IN	0.591	0.000	N/A	0.000	N/A	0.000	N/A					
G/ATOR (PBL)	C/FFP	EG&G Tech, Dumfries, VA	1.500	0.259	11/07	0.000	N/A	0.000	N/A					
G/ATOR (RADAR ENGINEER)	WR	NRL, Washington, DC	0.824	0.200	11/07	0.000	N/A	0.000	N/A					
G/ATOR	MIPR	MITRE, Boston, MA	1.050	0.736	11/07	1.100	12/08	0.000	N/A					
G/ATOR (RADAR ENGINEER)	WR	MCOTEA-John Lee	0.505	0.256	11/07	0.265	11/08	0.000	N/A					
G/ATOR	RCP	MCR Federal, MCSC	0.307	0.225	11/07	0.244	11/08	0.000	N/A					
G/ATOR	WR	NSWC-DAHLGREN	0.000	4.747	11/07	6.420	11/08	0.000	N/A					
G/ATOR	WR	NSWC-CRANE	0.920	0.290	11/07	0.413	11/08	0.000	N/A					
G/ATOR	C/FFP	MCSC, Quantico, VA	4.030	0.450	11/07	0.475	11/08	0.000	N/A					
G/ATOR	C/FFP	MCSC, Quantico, VA	4.206	0.200	11/07	0.880	01/09	0.000	N/A					
Subtotal Support			**21.800**	**8.470**		**11.524**		**1.819**						
Remarks:														

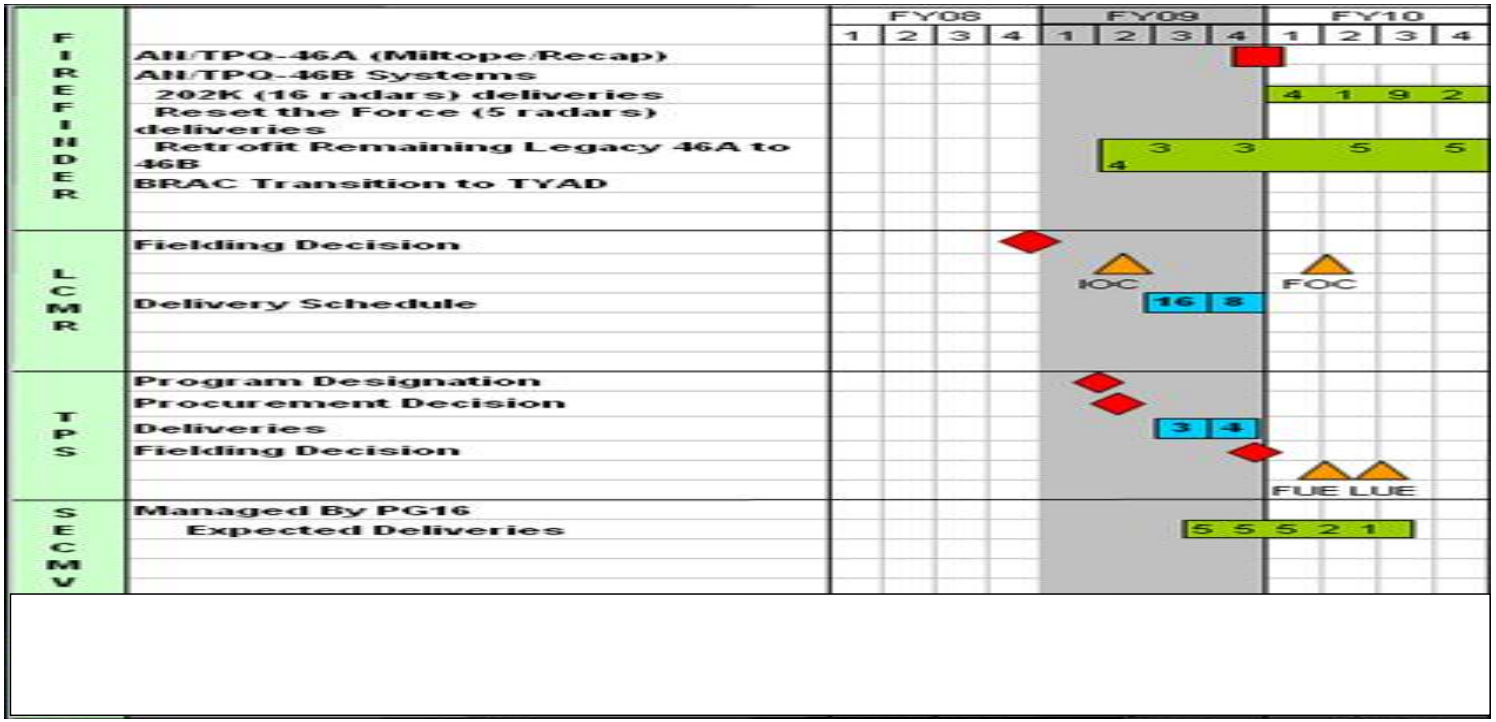
Exhibit R-3 Cost Analysis									DATE: May 2009					
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYS DEV**		PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**							PROJECT NUMBER AND NAME **C3099 RADAR SYSTEMS**					
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
Subtotal T&E			**0.000**	**0.000**		**0.000**		**0.000**						
Remarks:														

Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date
AN/TPS-59	C/CPFF	General Dynamics Information	5.441	0.713	01/08	1.216	12/08	1.750	NA
AN/TPS-59	C/CPFF	MITRE	0.000	0.000	10/07	0.600	10/08	0.625	10/09
SHORT/MEDIUM RANGE	C/CPFF	General Dynamics Information	0.372	0.000	N/A	0.000	N/A	0.000	N/A
SHORT/MEDIUM RANGE	WR	MCSC, Quantico, VA	0.179	0.000	N/A	0.000	N/A	0.000	N/A
GWLR/FTAS	WR	MCSC, Quantico, VA	0.374	0.050	10/07	0.050	10/08	0.000	N/A
G/ATOR	RCP	General Dynamics, Stafford, V	8.462	4.200	10/07	4.667	12/08	0.000	N/A
G/ATOR	RCP	MCCDC, Quantico, VA	0.530	0.000	N/A	0.000	N/A	0.000	N/A
G/ATOR (SALARIES)	MIPR	MCSC, Quantico, VA	1.395	0.650	10/07	0.000	N/A	0.000	N/A
G/ATOR (TAD)	RCP	MCSC, Quantico, VA	0.441	0.200	10/07	0.200	10/08	0.004	N/A
G/ATOR	C/CPFF	MCSC, Quantico, VA	0.500	0.300	10/07	0.300	11/08	0.000	N/A
Subtotal Management			**17.694**	**6.113**		**7.033**		**2.379**	
Remarks:									

Total Cost				**111.570**	**103.731**		**103.118**		**17.729**

Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYSTEM DEVELOPMENT**	PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C3099 RADAR SYSTEMS**

FAMILY OF TARGET ACQUISITION SYSTEMS SCHEDULE PROFILE (FTAS/GWLR)



Program Funding Summary
(APPN, BLI #, NOMEN)

	FY 2008	FY 2009	FY 2010
(U) RDT&E,N, C3099, FTAS	**1.157**	**1.777**	**1.819**
(U) PMC, BLI#465000, FTAS	**112.464**	**10.143**	**5.837**

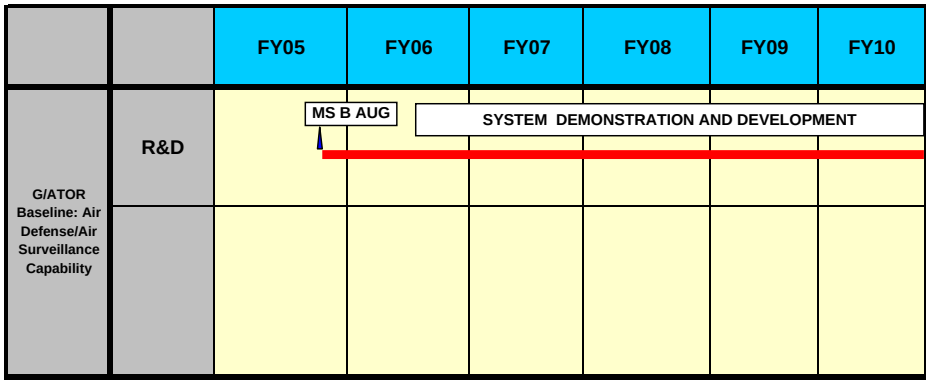
Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYSTEM DEVELOPMENT**	PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C3099 RADAR SYSTEMS**

FTAS/GWLR SCHEDULE DETAIL

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Re-Cap		3rd Q----------3rd Q					
LCU Replacement		3rd Q----------3rd Q				2nd Q----------	
MILTOPE 750M Refresh						1st Q	
Radar Processor ECP	2nd Q----------1st Q						
Radar Processor Refresh						2nd Q	
Software PDSS		4th Q----------					
MARCENT EDL AAO Increase (6 Systems)			4th Q----------4th Q				
202K AAO Increase (16 Systems)					1st Q----------4th Q		
LCMR Procurement (46 Systems)			4th Q----------4th Q				
LCMR IOC						2nd Q	
LCMR FOC							2nd Q
Radar Processor Procurement					1st Q--------1st Q		

Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYSTEM DEVELOPMENT**	PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C3099 RADAR SYSTEMS**

G/ATOR Overall Program Schedule



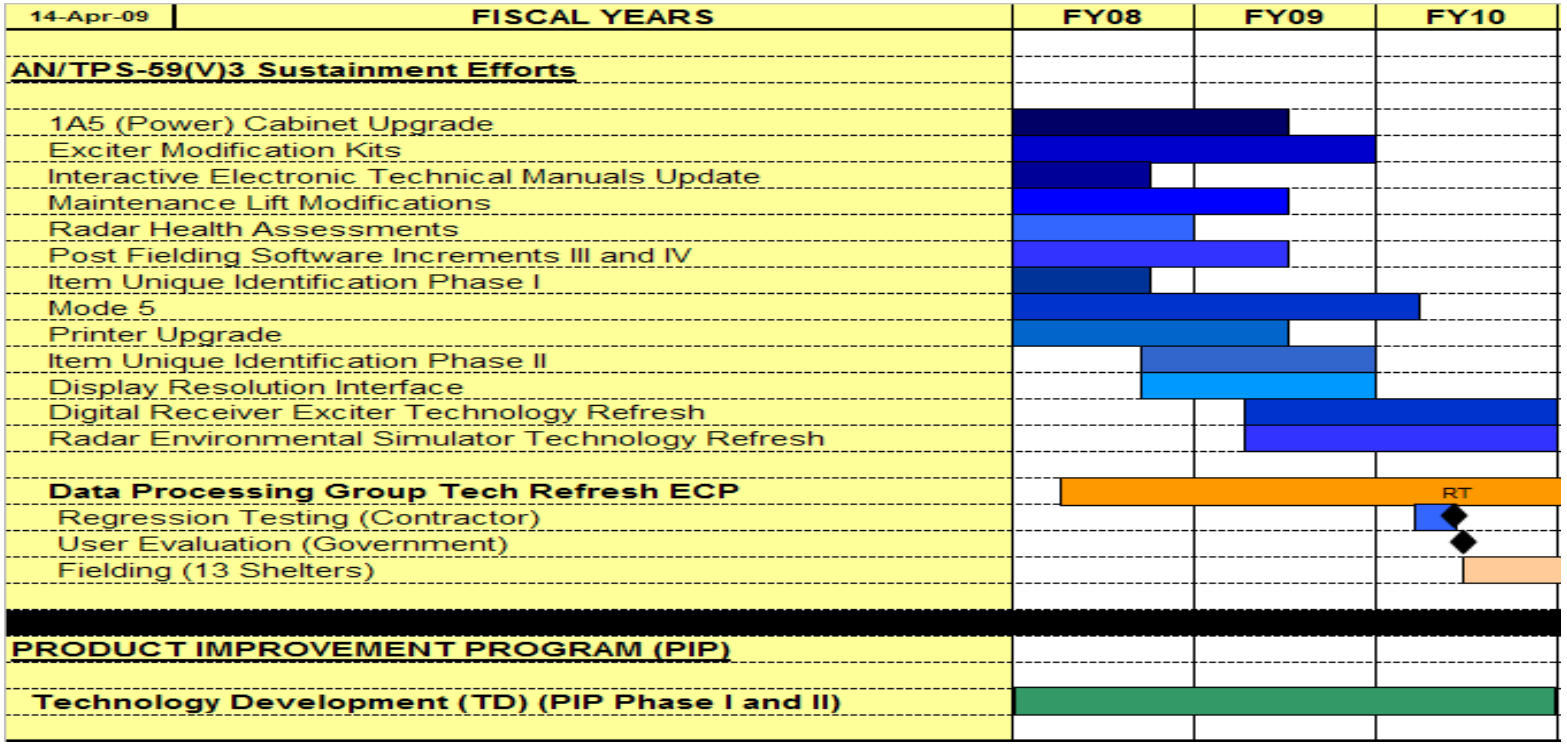
Program Funding Summary (APPN, BLI #, NOMEN)	**FY 2008**	**FY 2009**	**FY 2010**
(U) PMC, 465000, G/ATOR	**0.000**	**17.389**	**0.000**
(U) RDT&E,N, C9C89, G/ATOR	**0.000**	**0.000**	**63.925**
(U) RDT&E,N, C3099, G/ATOR	**88.696**	**85.469**	**0.004**

Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYSTEM DEVELOPMENT**	PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C3099 RADAR SYSTEMS**

G/ATOR SCHEDULE DETAIL	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Surveillance Capability						
Milestone B	4thQ					
System Development and Demonstration Phase	4thQ----------					
System Integration (EDM)						3rdQ

Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYSTEM DEVELOPMENT**	PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C3099 RADAR SYSTEMS**

AN/TPS-59 Product Improvement Program (PIP) Schedule



Program Funding Summary

(APPN, BLI #, NOMEN)	**FY 2008**	**FY 2009**	**FY 2010**
(U) RDT&E,N, C3099, AN/TPS-59 MODS	**13.648**	**15.617**	**15.689**
(U) PMC, BLI#465000, AN/TPS-59 MODS	**20.087**	**12.469**	**4.308**

Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYSTEM DEVELOPMENT**	PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**	PROJECT NUMBER AND NAME **C3099 RADAR SYSTEMS**

AN/TPS-59 SCHEDULE DETAIL	FY 2007	FY 2008	FY 2009	FY 2010
Sustainment of TPS-59				
IFF Mode 5 Upgrade		1st Q----------4th Q		
Post Fielding Software Updates		1st Q----------4th Q		
AN/TPS-59 PIP Concept & Technology Developmental Phase				
System Development and Demonstration Phase				
System Design				2ndQ------
System Integration (EDM)				

EXHIBIT R-2a, RDT&E Project Justification					DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYSTEM DEVELOPMENT**	PROGRAM ELEMENT NUMBER AND NAME **0206313M Marine Corps Communication Systems**				PROJECT NUMBER AND NAME **C9C89 G/ATOR SYSTEM**			
COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 Total			
Project Cost	**0.000**	**0.000**	**63.925**	**0.000**	**63.925**			
RDT&E Articles Qty								

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Ground/Air Task Oriented Radar (G/ATOR) (formerly known as the Multi-Role Radar System (MRRS))is an expeditionary, 3-dimensional, high-mobility, multi-purpose wheeled vehicle, short/medium range multi-role radar designed to detect cruise missiles, air breathing targets, rockets, mortars, and artillery. MRRS and GWLR (Ground Weapons Locating Radar) merged into a single requirement/capability (G/ATOR) and will replace an aging fleet of single mission legacy radar systems. G/ATOR will support air defense, air surveillance, counter-battery/target acquisition, aviation radar tactical enhancements and the final evolution will also support the Air Traffic Control mission. (This project was funded under project C3099 prior to FY2010)

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:

COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY2010 OCO**
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**46.965**	**0.000**
RDT&E Articles Qty				
G/ATOR: Contractor Technical, Development Engineering/EDM				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY2010 OCO**
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**2.015**	**0.000**
RDT&E Articles Qty				
G/ATOR: Test and Evaluation				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY2010 OCO**
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.150**	**0.000**
RDT&E Articles Qty				
G/ATOR: Program Office Management & Travel Costs				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY2010 OCO**
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**2.500**	**0.000**
RDT&E Articles Qty				
G/ATOR: Government Technical Support				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY2010 OCO**
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**0.500**	**0.000**
RDT&E Articles Qty				
G/ATOR: Government Furnished Equipment (GFE)				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**	**FY2010 OCO**
Accomplishment/Effort Subtotal Cost	**0.000**	**0.000**	**11.795**	**0.000**
RDT&E Articles Qty				
G/ATOR: Engineering, Management, & Logistics Support				
(U) Total $ (C9C89 G/ATOR System)	**0.000**	**0.000**	**63.925**	**0.000**

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 OPERATIONAL SYSTEM DEVELOPMENT	**0206313M Marine Corps Communication Systems**	**C9C89 G/ATOR SYSTEM**

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2008	FY 2009	FY 2010	FY 2010 OCO	FY2010 TOTAL
(U) PMC BLI 465000, Grnd/Air Task Oriented Radar	**0.000**	**17.389**	**0.000**	**0.000**	**0.000**
(U) RDT&E,N, C3099, Grnd/Air Task Oriented Radar	**88.696**	**85.469**	**0.004**	**0.000**	**0.004**

(U) Related RDT&E:

(U) PE 0206313M (Marine Corps Communication Systems) PROJECT C3099

(U) The Ground/Air Task Oriented Radar (G/ATOR), formerly known as Multi-Role Radar System (MRRS) will fill the MRRS and GWLR requirements. Five legacy systems (AN/TPS-63, AN/UPS-3, AN/MPQ-62, AN/TPS-73 and AN/TPQ-46A) will be replaced by a single material design that offers an opportunity to reduce development cost and combine training & logistics assets. MRRS Aviation systems replace the AN/TPS-63, AN/MPQ-62 and AN/TPS-73 systems as well as additional systems in support of the SHORAD mission (CLAWS weapon cue); MRRS Ground system is a one for one replacement of the AN/TPQ-46A. The System Development & Demonstration (SDD) phase designed to allow for technology insertion due to obsolescence and technology growth issues. Initial builds will be back fitted to current then year technology as required. As they become available, Tactical Enhancements will parallel field to then year initial builds and back fitted to earlier builds. Two Engineering Development Models (EDM) -- one Contractor, one Government -- will be developed during the SDD phase and flowed down to support builds.

(U) E. MAJOR PERFORMERS:

(U) G/ATOR contract was awarded in March 2007. Northrop Grumman Corporation is the Prime Contractor and Sensis is the major subcontractor.

Exhibit R-3 Cost Analysis									DATE: May 2009					
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 OPERATIONAL SYS DEV**		PROGRAM ELEMENT **0206313M Marine Corps Communication Systems**							PROJECT NUMBER AND NAME **C9C89 G/ATOR SYSTEM**					
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
G/ATOR	CPIF	Northrop Grumman	0.000	0.000	11/07	0.000	11/08	47.634	11/09					
G/ATOR (GFE)	MIPR	FT MONMOUTH NJ	0.000	0.000	N/A	0.000	N/A	0.500	11/09					
Subtotal Product Dev			**0.000**	**0.000**		**0.000**		**47.469**						
Remarks:														
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
G/ATOR (RADAR ENGINEER)	WR	NRL, Washington, DC	0.000	0.000	N/A	0.000	N/A	0.370	11/09					
G/ATOR	MIPR	MITRE, Boston, MA	0.000	0.000	N/A	0.000	N/A	1.700	11/09					
G/ATOR (RADAR ENGINEER)	WR	MCOTEA	0.000	0.000	N/A	0.000	N/A	0.320	11/09					
G/ATOR	RCP	MCR Federal, MCSC	0.000	0.000	N/A	0.000	N/A	0.250	11/09					
G/ATOR	WR	NSWC-DAHLGREN	0.000	0.000	N/A	0.000	N/A	6.010	11/09					
G/ATOR	WR	NSWC-CRANE	0.000	0.000	N/A	0.000	N/A	0.530	11/09					
G/ATOR	C/FFP	MCSC, Quantico, VA	0.000	0.000	N/A	0.000	N/A	0.340	11/09					
G/ATOR	C/FFP	MCSC, Quantico, VA	0.000	0.000	N/A	0.000	N/A	0.171	11/09					
Subtotal Support			**0.000**	**0.000**		**0.000**		**9.691**						
Remarks:														
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
G/ATOR	WR	MCOTEA, Quantico, VA	0.000	0.000	N/A	0.000	N/A	0.965	11/09					
G/ATOR	WR	MCTSSA CA.	0.000	0.000	N/A	0.000	N/A	0.300	11/09					
G/ATOR	MIPR	YUMA AZ	0.000	0.000	N/A	0.000	N/A	0.000	11/09					
G/ATOR	MIPR	Aberdeen Md.	0.000	0.000	N/A	0.000	N/A	0.750	11/09					
Subtotal T&E			**0.000**	**0.000**		**0.000**		**2.015**						
Remarks:														
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
G/ATOR	RCP	General Dynamics, Stafford, VA	0.000	0.000	N/A	0.000	N/A	4.400	11/09					
G/ATOR (TAD)	RCP	MCSC, Quantico, VA	0.000	0.000	N/A	0.000	N/A	0.150	11/09					
G/ATOR	C/CPFF	MCSC, Quantico, VA	0.000	0.000	N/A	0.000	N/A	0.200	11/09					
Subtotal Management			**0.000**	**0.000**		**0.000**		**4.750**						
Remarks:														
Total Cost			**0.000**	**0.000**		**0.000**		**63.925**						

Exhibit R-4-4a Project Schedule/Detail		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 OPERATIONAL SYS DEV	**0206313M Marine Corps Communication Systems**	**C9C89 G/ATOR SYSTEM**

G/ATOR Overall Program Schedule

		FY05	FY06	FY07	FY08	FY09	FY10
G/ATOR Baseline: Air Defense/Air Surveillance Capability	R&D	MS B AUG 05 ▲		SYSTEM DEMONSTRATION AND DEVELOPMENT			

Program Funding Summary	FY 2008	FY 2009	FY 2010
(APPN, BLI #, NOMEN)			
(U) PMC, 465000, G/ATOR	0.000	17.389	0.000
(U) RDT&E,N, C9C89, G/ATOR	0.000	0.000	63.925
(U) RDT&E,N, C3099, G/ATOR	88.696	85.469	0.004

G/ATOR SCHEDULE DETAIL	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
G/ATOR Baseline: AIR Defense/Air Surveillance Capability						
Milestone B	4thQ					
System Development and Demonstration Phase	4thQ----------					
System Integration (EDM)						3rdQ

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	**PROGRAM ELEMENT NUMBER AND NAME** **0206313M Marine Corps Communications Sys**	**PROJECT NUMBER AND NAME** **C9999 CONGRESSIONAL ADDS**

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
	10.122	**3.789**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty								

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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

Performance Enhancements for Info Assurance and Info Systems: Supports the development and testing of Wide Area Network (WAN) Connection Assurance and Acceleration (WCAA) software.

Counterintelligence and Human Intelligence Equipment Program (CIHEP): Provides the Marine Corps CI/HUMINT companies with the capability to rapidly collect, process and disseminate intelligence information in support of military operations. CIHEP is comprised of modular groupings of Commercial Off the Shelf (COTS)/Government Off the Shelf (GOTS)/Non-Developmental Item (NDI) components that will enhance the Operating Force CI/HUMINT collection capabilities and improve interoperability within the Joint CI/HUMINT communities. The modularity allows personnel to perform myriad collection missions to support Commanders while only carrying the items needed to accomplish the specific tasking. This budget item responds to the certain forensic document/media exploitation and intelligence collection capabilities that have been added to the CIHEP Baseline as a result of Humint Exploitation Team employments in Counter Insurgency and Irregular Warfare against non-traditional enemies. The improvement, integration, design and evaluation of these technologies will improve Document and Media Exploitation (DOMEX) capabilities in the CIHEP Suite of equipment and result in a greater synergy between HUMINT and SIGINT in ir

Intelligence Analysis System Family of Systems (IAS FoS)C9E20A: uses a three-tiered approach for receiving, parsing, analyzing, and disseminating fused all-source Intelligence data. The first tier, the Marine Expeditionary Force IAS (MEF IAS), is a mobile system that supports the MEF Command Element. The second tier, the Intelligence Operations Server (IOSv2a/IOSv3), is a team portable system designed to support the Intelligence Operations of the Major Subordinate Commands (MSC) Div, Wing, MLG, Regt, and MEU. The third tier, the Intelligence Operations Workstation (IOWv2), serves as the Intelligence link for the battalion and squadron commands to higher headquarters or as a stand-alone system.

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2011
Accomplishment/Effort Subtotal Cost	**2.314**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty				

Battlefield Management System (BMS)/Battlefield Sensor Netting C9C68A - Funds the development of increasing timeliness and accuracy to better engage enemy aircraft and missiles earlier.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-7 Operational Systems Development**	**PROGRAM ELEMENT NUMBER AND NAME** **0206313M Marine Corps Communications Sys**	**PROJECT NUMBER AND NAME** **C9999 CONGRESSIONAL ADDS**

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2011
Accomplishment/Effort Subtotal Cost	5.880	0.000	0.000	0.000
RDT&E Articles Qty				

Performance Enhancements for Info Assurance and Info Systems: C9C69A Development and testing of Wide Area Network (WAN) Connection Assurance and Acceleration (WCAA) software. Provides capability to support advanced software configurations of WCAA that improve network performance within existing connectivity as well as harden, test, certify, and improve tactical configurations of the existing underlying technology. Perform testing to identify selected information systems including NCES compatible collaboration services and measure anticipated performance improvements across wide-area networks with high latency and noise characteristics.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2011
Accomplishment/Effort Subtotal Cost	1.928	0.000	0.000	0.000
RDT&E Articles Qty				

Counterintelligence and Human Intelligence Equipment Program (CIHEP): C9C70A This funding will support development, engineering and integration of key capabilities for document and media exploitation already resident in the System For Triaging Key Evidence with other software and hardware items already used to accomplish this mission in the Counter Intelligence Human Intelligence Equipment Program (CIHEP) and the Radio Battalion Modernization Project. These upgrades and enhancements will be accomplished primarily through software enhancements and design of minor hardware configuration items to allow interoperability and integration with HUMINT and SIGINT systems.

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY 2011
Accomplishment/Effort Subtotal Cost		1.516	0.000	0.000
RDT&E Articles Qty				

IAS: C9E20A FY09 USMC funds to employ cross-disciplinary approach to help military & Intel officials build more powerful investigative and analytic tools. Provides semi-automatic means to predict insurgent's point of origin/bases.

(U) Total $	**10.122**	**1.516**	**0.000**	**0.000**

(U) C. OTHER PROGRAM FUNDING SUMMARY:

(U) Related RDT&E:

(U) D. ACQUISITION STRATEGY:

(U) E. MAJOR PERFORMERS:

EXHIBIT R-2a, RDT&E Project Justification		DATE: MAY 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Systems Development	0206313M Marine Corps Communications Sys	C9999 CONGRESSIONAL ADDS

	FY 2008	FY 2009	FY 2010	FY2010 OCO	FY2010 TOTAL			
	2.314	6.183	0.000	0.000	0.000			
RDT&E Articles Qty								

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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

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

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO
Accomplishment/Effort Subtotal Cost	2.314	2.394	0.000	0.000
RDT&E Articles Qty				

Battlefield Sensor Netting (BSN) C9C68A - Funds the development of increasing timeliness and accuracy to better engage enemy aircraft and missiles earlier

COST ($ in Millions)	FY 2008	FY 2009	FY 2010	FY2010 OCO
Accomplishment/Effort Subtotal Cost	0.000	3.789	0.000	0.000
RDT&E Articles Qty				

Mobible Modular Command and Control (M2C2) C9E21A - The ONR M2C2 technology development effort has reached an adequate level of maturity to begin engineering development efforts for the transition t an acquisition program. FY09 funds are required to begin the development of acquisition documentation and initiate the competitive source selection process.

(U) Total $	2.314	6.183	0.000	0.000

(U) C. OTHER PROGRAM FUNDING SUMMARY:

(U) RELATED RDT&E:

(U) D. ACQUISITION STRATEGY:

(U) E. MAJOR PERFORMERS: